

This book by a mastermind of integrating theology and ecology surveys the pressing global and local environmental issues and seeks to provide biblical and theological insights for Christians concerned with the ecological and environmental challenges being confronted today. Breaking away from academic or spiritual perspectives, the author seeks integrated solutions for sustainability of God's creation. Stewardship is considered as the wisest option to engage in conserving creation for future generations.

The book has been a global success in the late 1990ies at times, when its topic still was outside the scope of most scholars, and has been updated by the author to the present day situation.



Ken Gnanakan from India is a widely recognized educationist and environmentalist engaged in varied projects for socio-economic and environmental development in India and through a global network of experts. His recent book "Integrated Learning" (Oxford) spells out his foundational integrated philosophy. Gnanakan is the Founder President of ACTS Group of Institutions, which integrates theology, practical skills and environment thinking in education from primary school to university level, Chairman of the International Council for Higher Education, and Chairman and Managing Director of Theological Book Trust. He is a Senior Advisor to the

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ISBN 978-3-86269-061-9

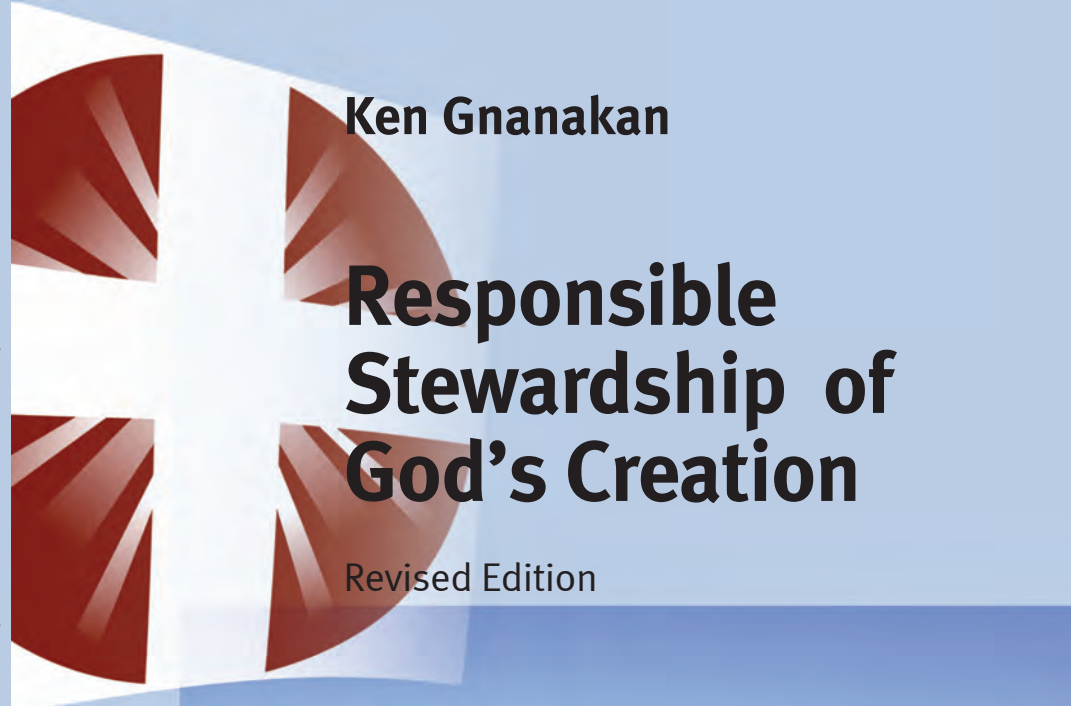
ISSN 1867-7320

Verlag für Kultur und Wissenschaft  
(Culture and Science Publ.)  
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Ken Gnanakan Responsible Stewardship of God's Creation



Ken Gnanakan

# Responsible Stewardship of God's Creation

Revised Edition



**Ken Gnanakan**

**Responsible Stewardship of God's Creation**



# **The WEA Global Issues Series**

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of God's Creation**

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Edited by Thomas K. Johnson

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Dr. Thomas Schirmacher  
Bonn 2014

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Verlag für Kultur und Wissenschaft  
(Culture and Science Publ.)  
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Friedrichstraße 38, 53111 Bonn, Germany  
Fax +49 / 228 / 9650389  
[www.vkwonline.de](http://www.vkwonline.de) / [info@vkwonline.de](mailto:info@vkwonline.de)

ISBN 978-3-86269-061-9 / ISSN 1867-7320

Printed in Germany  
Cover design and production:  
BoD Verlagsservice Beese, Friedensallee 44, 22765 Hamburg, Germany  
[www.rvbeese.de](http://www.rvbeese.de) / [info@rvbeese.de](mailto:info@rvbeese.de)  
Publisher's Distribution:  
Hänssler Verlag / IC-Medienhaus  
71087 Holzgerlingen, Germany, Tel. +49 / 7031/7414-177 Fax -119  
[www.haenssler.de](http://www.haenssler.de) / [www.icmedienhaus.de](http://www.icmedienhaus.de)

Individual sales:  
[www.vkwonline.com](http://www.vkwonline.com)

*The WEA Global Issues Series is sponsored by:*  
Gebende Hände gGmbH / Giving Hands International  
Adenauerallee 11 • 53111 Bonn, Germany • [www.giving-hands.de](http://www.giving-hands.de)  
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## Foreword

On several accounts Dr. Ken Gnanakan has written an impressive and very helpful book on creation care for evangelicals. Setting aside for the moment the book's content, one of the most striking features about his study is the tone of the work, a tone that I pray is revived to replace the overwrought and shrill tone that is regrettably quite common nowadays amongst evangelicals in the United States, and perhaps elsewhere, who disagree on issues like creation care.

Perhaps it's Gnanakan's skill and outlook as a master educator that seeps onto the pages of his book, because the posture of his writing is one of confidence in the truth of his exegesis, theology, and practical implications without being brash or condescending toward the reader should they have quibbles with his arguments and assertions. On the contrary, Gnanakan writes with poised confidence in God's word, and in the respective capacity of both author and reader to discern biblical truths if answers to tough questions are pursued in good faith. In other words, in old-school evangelical fashion Gnanakan lays out his learning as best he can with confidence, but without ego, and invites and encourages the reader to think, study, and pray over scripture and enter into respectful dialogue with his ideas in the pursuit of truth and insight. Thus, the reader is given their dignity. God is trusted to reveal his truth. And the process for learning the truths of creation care isn't for Gnanakan to force through, or badger the reader into submission; rather he encourages and invites his readers to decide for themselves what God's heart and mind is regarding creation care.

As I said at the very beginning, given the bickering that can occur between evangelicals on this issue, and the nastiness of that debate at times, I am grateful for the healthy and refreshing tone Gnanakan sets forth in his book. This tone, I believe, embodies the best of evangelical intellectual and spiritual culture, but it cannot be taken for granted. In fact, I believe in some quarters it fights for survival. Thus, I am taking pains to applaud it in this book, and I encourage the reader to emulate it in when they talk to their family, friends, and acquaintances about what they learn from these pages.

Turning to the book's content, the world has moved on for better and for worse since the first edition was published. This update, therefore, grapples with the current ecological, economic, cultural, and spiritual conditions of trends that were discussed in the first edition. Where we now stand several years later is a very mixed bag. There have been some unexpected positive



surprises, some calamities, and everything in between, but overall the ecological integrity of creation continues to be degraded. Today's Christians, therefore, face an acute challenge of environmental stewardship. How are we as individuals, and as a community, to respond? What do we need to know biblically? What do we need to know about our ecology, our economic systems, and our culture? What Christian virtues do we need to cultivate and practice? What reforms or trajectories should we pursue in culture and economics that will have a positive bearing on caring for God's creation, and thus the health and welfare of human communities, our neighbors whom we love, and all other creatures that draw their physical life from the creation? These are questions we need to wrestle with, but we need a good foundation to start from. That is this book! It is an invaluable resource for the evangelical community, and I am grateful that the WEA can publish it for the global evangelical church. Read it. Digest it, and go forth better fortified to follow Jesus and to care for God's good creation.

Chris Elisara, Ph.D.

*Director, World Evangelical Alliance Creation Care Task Force*

## **Preface**

This book, a revision of my earlier effort for the WEA Theological Commission, has been in the making for more than thirty years. It started with a fascination for the concepts introduced in Francis Schaeffer's "Pollution and the Death of Man." That was during the late sixties, when not many of us even knew what the term "ecology" was all about, nor did we realize that the threat of pollution was building so fast that it would lead to the dying of humanity!

The sixties and the seventies were extremely influential in bringing about a greater awareness of ecological issues. People like Rachel Carson and her book "Silent Spring," Arne Ness and his "Deep Ecology," the Chipko movement in India and others made incisive contributions to make politicians as well as grass root level practitioners take a good look at what was happening to our world. Not many were ready to seriously consider the implications of all that was being said.

But I am grateful to Schaeffer (whom I never met) for his little book, which I eagerly read over and over again to get to grips with the thinking that had begun influencing men and women in the West. Schaeffer's book included a reprint of the oft quoted lecture by Lynn White Jr., "The Historical Roots of our Ecological Crisis." These roots, in brief, were traced to the misinterpretation of the doctrine of creation by Western Christianity, which White accused of being "the most anthropocentric religion."

Rule and dominion, is what we were supposedly commanded to do, and that led to exploitation that caused the devastation of the environment, according to critics. If true, we have the burden of guilt, and if false, then we need to offer correctives. There are many criticisms, and we must face them with biblical answers. As Bible believing Christians we have the task of showing that God's word speaks of care, concern and nurture of the resources entrusted to us.

But even more than merely handling these criticisms academically, I am concerned for God's people to get practically involved in some positive action. We will need to forthrightly display our commitment to a Creator God who made everything "good" and then commanded us to be caretakers or stewards. And what does this mean? This book is an attempt to answer this question.

I have tried to adequately cover the pressing issues with biblical teaching, theological insights as well as suggestions for some practical action. The reader will also appreciate introductions to varying perspectives or

positions on environmental action. It is impossible to cover the length and breadth and the height and width of all that is our environment, but that is not my intention.

I am hoping that “Responsible Stewardship of the Environment” will play a small part in getting Christians to think environmentally. The church must play its part in making its congregations wrestle with these issues and come up with sound practical responses. And this is the kind of thinking that must then get translated into action, and this is the action that will change the world.

Above all, I must thank God, my Creator and Redeemer!

Ken Gnanakan. Ph D.

*August 2012, Bangalore, India*

# 1. Introduction

“In the beginning God created the heavens and the earth (Genesis 1:1).”

“Any error about creation also leads to an error about God.”

– *St. Thomas Aquinas* –

“He, therefore, who is not illumined by such great splendor of created things, is blind; he who is not awakened by such great clamor is deaf; he who does not praise God because of all these effects is dumb; he who does not note the first principle from such great things is foolish. Open your eyes, therefore, prick up your spiritual ears, open your lips and apply your heart, that you may see our God in All creatures.”

– *St. Bonaventure* –

## KEY WORDS:

*Environment, Ecology, Exploitation, Sustainability, Stewardship*

The environmental crisis has touched every single area of life and is of increasing concern for our survival today. Ecological disruptions being integrated and interrelated realities are not isolated occurrences that only impact local contexts; they have global ramifications. Centuries of uncontrolled exploitation have played havoc on planet Earth, and both humans and the natural environment as a whole are being threatened. The continuing advance of science and technology and the alarming increase of population, particularly in poorer nations, have placed enormous pressure on the world. Depletion of resources, desertification and deforestation, climatic changes, droughts and freak floods, and other such natural problems endanger all forms of life.

As the crisis deepens day by day there are dire consequences adversely affecting everyone. Those living in developing nations are not only fighting for their own survival, but also battling with the growing disparity between the richer North and their own poorer South. The wealthier countries face new pressures as they depend on the resources of the poorer, while the developing nations seek to have a say in the management of their own resources. The divide increases, conflicts escalate and the crisis intensifies.

With such grave concerns, we are challenged by the urgent task of coming to grips with fundamental issues. Dealing with superficial symptoms

will not do. Neither can we look only at local situations, as we mentioned, for ecological issues have global implications, penetrating all of human life. We need global solutions and local actions. This means that we will need to handle the mounting problems collectively, with determination and dedication.

Over forty years ago, Earth Day Founder Gaylord Nelson, then a U.S. Senator, proposed the first nationwide environmental protest. On 22 April 1970, the first Earth Day, 20 million Americans went onto the streets and into the parks and auditoriums to demonstrate for a healthy, sustainable environment. Massive coast-to-coast rallies were organized. Thousands of colleges and universities organized protests against the deterioration of the environment. Groups that had been fighting against oil spills, polluting factories and power plants, raw sewage, toxic dumps, pesticides, freeways, the loss of wilderness, and the extinction of wildlife, suddenly realized they shared common concerns. This was the start of modern *environmentalism* – a movement that attacked Western material ideologies, even the Christian religion. Needless to mention, we must not confuse this with the biblical environmental concern or creation care we all need to cultivate today.

That first Earth Day claims to have achieved a rare political alignment, enlisting the support of all political parties in the US, rich and poor, urban dwellers and farmers. This led to the creation of the United States Environmental Protection Agency and the passage of the Clean Air, Clean Water, and Endangered Species acts. As 1990 approached, a group of environmental leaders organized another big campaign. This time, Earth Day went global, mobilizing 200 million people in 141 countries, thereby lifting the status of environmental issues onto the world stage. The Earth Day of 1990 gave a huge boost to recycling efforts worldwide and helped to pave the way for the 1992 United Nations Earth Summit.

The Earth Day movement has grown and more than one billion people in 192 countries took part in its 42nd Anniversary of Earth Day in 2012. “From Cairo to Beijing, Melbourne to Rome, Rio to St. Louis, communities everywhere stood united in their effort to Mobilize the Earth” the organizers claim. The reports state – “Together we reached A Billion Acts of Green and demonstrated the breadth of support for strong, coordinated action to deal with our most pressing environmental challenges.” Building on the momentum from Earth Day, there was a loud call – “we must call upon world leaders at the conference to act now to embrace a sustainable future. The world can’t wait any longer.”<sup>1</sup>

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<sup>1</sup> [www.earthday.org](http://www.earthday.org)

That was Earth day. But the United Nations got into action too. In June 1992, leaders of almost every nation came together in Rio de Janeiro for what was called the Earth Summit. It was the first time that the entire global community had gathered to discuss environmental issues. This United Nations Conference on Environment and Development (UNCED) brought an increased awareness of global issues and paved the way for policy making. Many delegates went away convinced of the need for a common concern and committed to the protection and improved stewardship of the earth and its resources: “Understanding that the world does not belong to any one nation or generation, and sharing the common spirit of outmost urgency, we dedicate ourselves to undertake bold action to cherish and protect the environment of our planetary home.”<sup>2</sup>

The then UN General Secretary, Boutros Ghali, summing up the impact of the Rio Summit, stated that it was no longer enough for man to love his neighbor; he must now love the world. “Beyond man’s covenant with God and his social contract with his fellowmen, we now need an ethical contract with nature and the earth.... The earth has a soul. To restore it is the essence of Rio.”<sup>3</sup>

Twenty years later, the heads of State and Government, met at Rio de Janeiro, Brazil, in June 2012, and reaffirmed the Earth Summit goals, resolving “to work together for a prosperous, secure and sustainable future for our people and our planet.” Part of their outcomes document read:

We reaffirm our determination to free humanity from hunger and want through the eradication of all forms of poverty and strive for societies which are just, equitable and inclusive, for economic stability and growth that benefits all.

We are committed to making every effort to accelerate progress in achieving the internationally agreed development goals, including the Millennium Development Goals by 2015, thus improving the lives of the poorest people.

We are also committed to enhancing cooperation and addressing the ongoing and emerging issues in ways which will enhance opportunities for all, be centered on human development while preserving and protecting the life support system of our common home, our shared planet.

We urge bold and decisive action on the objective and themes for the conference. We renew our commitment to sustainable development and express our determination to pursue the green economy in the context of sus-

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<sup>2</sup> United Nations Conference on Environment and Development; UNCED, June 1992.

<sup>3</sup> Ibid.

tainable development and poverty eradication. We further affirm our resolve to strengthen the institutional framework for sustainable development. Taken together our actions should fill the implementation gaps and achieve greater integration among the three pillars of sustainable development – the economic, the social and the environmental.<sup>4</sup>

Whether or not Rio +20 succeeded is for time to tell and for subsequent actions to demonstrate. Some were quite optimistic, but quite a few went away disappointed. The Scientific American wrote “The tropical air was charged with hope and despair as the world’s leaders descended on Rio de Janeiro for the United Nations’ Earth summit in May 1992. Countries were buoyed by a string of successful environmental treaties in the 1970s and 1980s, capped by a landmark deal to save the ozone layer in 1987. Yet the Earth summit in Rio, which drew 178 nations and around 100 heads of state, was also rife with frustration and distrust.”<sup>5</sup>

Promises made at the Rio Summit were not fulfilled, it was agreed. But Scientific American itself wrote: “In the end, the leaders decided that they could not go home empty handed. They signed off on both the Convention on Biological Diversity and the Framework Convention on Climate Change, making broad pledges to solve some of the most complex problems facing humanity. Countries also agreed to a laundry list of goals spelled out in a document known as Agenda 21, which eventually spawned the Convention to Combat Desertification.” Although the agreements lacked teeth, the journal commented “they created formal international processes that engaged almost the entire world and eventually led to more targeted accords.”<sup>6</sup>

## SOME DEFINITIONS

Before we go any further, let us define the terms we will be using. We use terms such as environment, ecology, environmental or ecological crisis, and sustainability quite often, and these may need to be defined. The prefix *eco* has become part of everyday jargon as well as specialized technical reference. We speak about something being “eco-friendly,” or someone being “eco-conscious,” and the academic will speak of “eco-justice” or “eco-theology” or “eco-feminism.” Look at the terms we define below:

*Environment* – Generally speaking the environment is everything around us, both biotic and abiotic. *Biotic* refers to the living and *abiotic* to the non-

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<sup>4</sup> [www.uncsd2012.org/futurewewant.html](http://www.uncsd2012.org/futurewewant.html)

<sup>5</sup> [www.nature.com/news/earth-summit-rio-report-card-1.10764](http://www.nature.com/news/earth-summit-rio-report-card-1.10764)

<sup>6</sup> [www.scientificamerican.com/article.cfm?id=report-card-preview-rio-20-mega-conference](http://www.scientificamerican.com/article.cfm?id=report-card-preview-rio-20-mega-conference)

living components of an ecosystem. For our study, the term refers to the complete range of physical and biological conditions that surround us. We are all part of a particular environment or surrounding. Human beings and all other living organisms, be they trees, plants, animals or birds, are unable to exist outside of a given environment. Sometimes one may see specific mention of a “natural environment,” and this describes a condition in which the environment has not been modified in any way by people.

*Ecology* – The word “ecology” is more scientific and has an interesting evolution. In its earliest form, ecology concerned itself with the study of the animal and vegetable world, their interrelationship and their environment. It soon became an interdisciplinary branch of biology, the scientific study of the processes relating to the distribution and the interactions between organisms, and the cycles or chains of energy and matter. Ecology is, therefore, a specialized word and refers to the scientific interactions between *biotic* and *abiotic* organisms and their environment.

*Ecosystem* – An ecosystem is an independent self-sustaining system formed by the interaction of individual organisms with each other as well with other components of the environment. Each ecosystem is self-contained and self-regulating. While the whole of our living environment is one ecosystem, smaller units, whether a tropical forest, a lake or a field, even a small pond, are also ecosystems.

*Chains/Cycles* – Ecology being an interconnected science, each ecosystem has its own interlinking chains or cycles. There are energy chains, food chains, etc., which all keep the ecosystem going. The interactions between the members of an ecological community involve in the exchange of energy and resources in continual cycles. The cycles in an ecosystem intersect with larger cycles in the region and in the planet. Some times the word “web” is used instead of “chain,” as the links are not as rigid as we may think.

*Sustainability* – Sustainability is basically what it means – the ability to sustain. It has to do with the careful handling of our natural environment for the survival both of humans and nonhumans, as well as needed resources. Humans and the rest of nature must exist in harmony. The often quoted Brundtland Commission of the United Nations that met in 1987 defined, “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>7</sup> However, this definition, based on just human needs, was later broadened to include environmental, social equity and economic

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<sup>7</sup> [www.un-documents.net/ocf-02.htm](http://www.un-documents.net/ocf-02.htm)



concerns – the “three pillars” of sustainability. The three pillars – referred to by business houses as the “triple bottom line” – have forced us to look at sustainability in far more interconnected terms to see the people, planet and profits as one whole, and not just our needs.

## SHOULD CHRISTIANS BE CONCERNED?

As we read and recognize the intensity of the environmental crisis, a valid question that continues to confront us is – Should we be concerned? Perhaps it could be asked – why should we be concerned? Let us make one clarification before we attempt to answer this question. We are not talking here about the environmentalism, as proposed by the Earth Day followers. The kind of environmentalism that originated in the late 60s and early 70s basically represented an attack on development and the very ideals of Western civilization. It was even an indictment on the Biblical doctrine of creation. The various philosophies opposed science, technology and economic development, and thereby challenged our industrial/ technological society. It regarded all human productivity and progress as an intrusion on the sanctity of nature and on the “rights” of animals.

While this form of environmentalism may have been justified in its assault on Western consumerist culture, it was not right in the way it attacked every aspect of development and human progress. Therefore, when we speak here of “environmental concern and action,” it has to do with a more holistic response to the devastation we see today and a realistic approach to modern-day issues. Human carelessness, irresponsibility, greed, and waste are fundamental issues and have to be addressed.

So, to the question – Should Christians be concerned? The answer is “Definitely!” There is room for a committed and concerted Christian response to remedy the disease that threatens our environment. Indeed, the aim of this study is to help in bringing about an eco-conscious Christian community. One of the main reasons for engaging in environmental action is that we as Christians are committed to the Creator God. This means that our environmental action should not merely demonstrate our human concern and care for the world, but should also be an essential response for our belief in this Creator. There are two major reasons for involving ourselves in the study of the environment and taking positive action towards its protection.

Firstly, we need to correct the negative impression that some have of the Christian doctrine of creation. The doctrine of creation has been attacked for being the root cause for the environmental devastation that threatens us. Lynn White Jr., in his often-quoted article written in 1967, accused Chris-

tianity of being the most anthropocentric, i.e. human-centered, religion.<sup>8</sup> The problem that White points to is largely derived from a particular interpretation of Genesis 1:28. God commands man to “rule” and have “dominion” and this is said to have led to an arrogant exploitation of nature. These texts have received increasing attention recently, and renewed attempts have been made to understand their meaning within the right context. But the onus rests heavily on us to correct any such false impressions.

Secondly, and positively, there is the biblical mandate for us to be stewards of God’s creation. The crisis we face has to do with the overuse, or even misuse of our resources. We believe in a God who created heaven and earth and accept that this same God has entrusted us with the management and care of His creation. Hence, we will need to demonstrate a greater sense of responsibility. It is important that we assume the role of *stewards* seriously. We are not only accountable to God, as stewards of His creation, but must also demonstrate a responsibility towards our fellow human beings. Unfortunately, rather than using and managing the resources of our environment wisely, we have carelessly squandered them, taking it for granted that they will be endlessly available for our selfish consumption. God will provide, we assure ourselves, or very naively we proclaim that God will eventually give us plenty in heaven. We need to recognize the dire consequences here and now if we do not act immediately.

A careful look at the Bible will reveal that ecological and environmental concerns are very much central to its message. The Word of God starts with the glorious account of God’s creation. God promised the best of created things to the people he made to be his own. The prophets looked forward to a renewed creation, the new heavens and the new earth. Jesus displayed a very positive attitude to all that was around him. Paul spoke about creation groaning for redemption, just as much as human beings groan for theirs. The final book, Revelation, concludes with a glowing description of the new heavens and the new earth, a glorious continuity of what God has already done for the world. And all this calls for an active engagement in protecting the environment, as responsible stewards of God’s creation.

## **READ AND REFLECT**

### *The Story of Silent Spring*

Rachel Carson’s *Silent Spring*, published in 1962, eloquently exposed the hazards of the pesticide DDT (dichlor-diphenyl-trichlorethylene), force-

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<sup>8</sup> Lynn White Jr.’s lecture 1966 entitled, “*The Historical Roots of our Ecological Crisis.*”

fully questioning humanity's faith in blind technological progress. She helped to set the stage for the environmental movement. Carson, a renowned nature author and a former marine biologist with the U.S. Fish and Wildlife Service, wrote other books that were hymns to the inter-connectedness of nature and all living things. Carson held an ecological view of nature, describing in poetic language the complex web of life that links mollusks to sea birds to the fish swimming in the oceans' deepest reaches.

DDT, the most powerful pesticide the world has ever known, exposed nature's vulnerability and was capable of killing hundreds of different kinds of insects at once. Developed in 1939, it first distinguished itself during World War II, clearing South Pacific islands of malaria-causing insects for U.S. troops, while in Europe it was used as an effective delousing powder. Rachel Carson wrote to the *Reader's Digest* proposing an article about a series of tests being conducted on DDT. The magazine rejected the idea.

Thirteen years later, in 1958, Carson's interest in writing about the dangers of DDT was revived. Having already collected a large quantity of material on the subject, she decided to go ahead and tackle the DDT issue in a book. *Silent Spring* took Carson four years to complete. It carefully described how DDT entered the food chain and accumulated in the fatty tissues of animals, including human beings, and caused cancer and genetic damage. A single application in a crop killed insects for weeks and months, and not only the targeted insects but also countless others, some beneficial, and remained toxic in the environment even after it was diluted by rainwater. Carson stressed that DDT and other pesticides had permanently harmed birds and animals and had contaminated the entire world food supply. The book's most well known chapter, "A Fable for Tomorrow," depicts a nameless American town where all life – from fish to birds to apple blossoms to human children – had been "silenced" by the harmful effects of DDT.

The book alarmed readers across America and, not surprisingly, provoked indignation from the chemical industry. Some of the attacks were more personal, questioning Carson's integrity and even her sanity. Her careful preparation, however, was unquestionable. Anticipating the reaction of the chemical industry, she had compiled *Silent Spring* meticulously, with no fewer than 55 pages of notes and a list of experts who had read and approved the manuscript. Many eminent scientists rose to her defense, and when President John F. Kennedy ordered the President's Science Advisory Committee to examine the issues the book raised, its report thoroughly vindicated both *Silent Spring* and its author.

As a result, DDT came under much closer government supervision and was eventually banned in United States. But still it is in use especially in developing and underdeveloped countries, causing many health disorders and cancer. The public debate quickly moved from *whether* pesticides were dangerous to *which* pesticides were dangerous, and the burden of proof shifted

from the opponents of unrestrained pesticide use to the chemicals' manufacturers.

The most important contribution of *Silent Spring* was a new public awareness that nature was vulnerable to human intervention. Conservation had never raised much broad public interest, for few people really worried about the disappearance of wilderness. But the issues Carson had outlined – the contamination of the food chain, cancer, genetic damage, and the deaths of entire species – were too frightening to ignore. For the first time, the need to control the activities of industry in order to protect the environment became widely accepted, and environmentalism was born.

### *The Chipko Movement of India*

One of the most renowned environmental movements to shake authorities into becoming sensitive to the beliefs and the needs of the common people is popularly referred to as “the Chipko movement.” *Chipko*, from the Hindi word, means to “hug or stick to,” and this is exactly what hundreds of people did in their ardent zeal to bring about action that has today become almost legendary. It was action against exploiters who were plundering the rich resources of trees for commercial purposes.

In order to understand the significance of this movement one will need to go right back to the background of the whole Himalayan ecology. The role of the Himalayas, both environmentally and economically, is unique. This mountain range provides special climatic conditions, water resources and vegetation. The rivers rising from them have long been a major source of the country's prosperity.

However, in the last 50-60 years, the forests of the Himalayas have been cut heavily, and most hills, mountains and valleys are now almost barren. The consequences have been devastating. Recent times have witnessed floods, soil erosion and landslides, along with the depletion of water sources and severe draughts. Hundreds of thousands have been affected by these conditions.

The success achieved by the Chipko protest led to similar protests in other parts of the country and gradually had worldwide following. From their origins as a spontaneous protest against logging abuses in Uttar Pradesh in the Himalayas, supporters of the Chipko movement, mainly village women, have successfully banned the felling of trees in a number of regions and influenced natural resource policy in India. The protestors coined the slogan: “What do the forests bear? Soil, water and pure air.”

One of the leading activists in the movement, Sunderlal Bahuguna, a Gandhian activist and philosopher, whose appeal to the then Prime Minister of India, Mrs. Indira Gandhi, resulted in the Government green-felling ban. Bahuguna coined the Chipko slogan: “ecology is permanent economy.” One of leaders, known as the Chipko poet, whose songs echoed throughout the

Himalayas of Uttar Pradesh, wrote a poem summarizing the Chipko philosophy:

Embrace the trees and  
Save them from being felled;  
The property of our hills,  
Save them from being looted.

## QUESTIONS FOR DISCUSSION

1. What were the highlights of the early environmental movement? Evaluate them from the perspective of our Christian commitment and action.
2. Discuss how the later events, particularly those planned by the United Nations Organization, succeeded or failed?
3. Are there environmental lessons from those like Rachel Carson or movements like Chipko for us today?

## PLAN TO ACT

### *Understand your Environment*

Take time to try and understand your environment in a more intimate way. Here is an activity that can be done either individually or as a group. Go outdoors and look around to consider your own surroundings. We all live in a variety of environments, and here is a study you can conduct to help yourself in understanding the environment *you* live in.

If you live in a rural area, your environment is one of villages and small towns, where people work mainly in the surrounding fields, forests, factories or mines. Take some time to observe the kinds of fields (flat, sloping, large, and small), field boundaries (ditches, fences), crops and animals that occur in your area.

- What kind of farming do you see? Are the products used locally, or are they sold in the nearest market town or even sold to markets in other countries?
- Is there any farming done naturally around you without harmful inorganic chemical fertilizers?
- What changes have you and your family seen over the last 20 years?
- Have you seen changes in land quality, water availability, weather, and local plants and animals?
- Have you seen change in your own life style?
- How do the monsoons or rains affect your area?
- Is your area affected by floods, soil loss, and forest removal?

- Where do you dispose of domestic and other wastes?
- Have you seen health improve or deteriorate?

If you live in an urban area, as increasing numbers in the developing world do, your surroundings and daily concerns will be different. Buildings for human dwelling as well as workplaces dominate the area. Trees and gardens are decreasing. People are forced to work in shops, offices, and factories, industries and as domestic helps in houses. They travel to work by foot, bicycle, increasingly by motorcycle, car and by bus or by train.

There are other questions you can add as you see what our industrialized, consumerist waste culture has brought upon us: our lifestyles, our eating habits, our attitude to energy consuming gadgets, even our relationships in our locality. Make notes and get back to ponder over these. If possible, get a small group together. Compare your notes with others in the group and write down a summary of your discussions, using the following questions to guide you:

1. What was your environment like about 20 to 30 years ago?
2. What is the state of the environment today?
3. What factors have contributed to this deterioration?
4. Why are many people affected by lifestyle diseases?
5. What do you think the government or concerned bodies should be doing to help improve conditions?
6. What can *you or your group* do to act?

#### *MEDITATION AND PRAYER*

*Worthy of praise from every mouth, of confession from every tongue, of worship from every creature, is thy glorious name, O Father, Son, and Holy Ghost; who didst create the world in thy grace and by thy compassion didst save the world. To thy majesty, O God, ten thousand times ten thousand bow down and adore, singing and praising without ceasing and saying, Holy, holy, holy, Lord God of hosts; Heaven and earth are full of thy praises; Hosanna in the highest.*

*From the Nestorian Liturgy (fifth century)*



## 2. Beginning with Creation

“In all things of nature there is something of the marvelous.”

– *Aristotle* –

“Forget not that the earth delights to feel your bare feet and the winds long to play with your hair.”

– *Khalil Gibran* –

“Our God is the God of Heaven and Earth, of sea and river, of sun and moon and stars, of the lofty mountain and lowly valley.”

– *St. Patrick* –

### KEY WORDS:

*Transcendence, Immanence, Dualism, Pantheism*

Evangelical Christians have been accused of ignoring the relevance of the Creation accounts for our life and witness today. “We must be more concerned about our personal salvation or redemption,” some will say, dismissing the command to be good stewards of all that God has given us in the world. There is hardly any reason to doubt the need for an emphasis on redemption, but this does not exempt us from our responsibility in God’s world. God is both creator and redeemer.

The Bible begins with awesome words: “In the beginning God created the heavens and the earth.” The Apostle’s Creed, similarly, begins with the affirmation, “I believe in God ... creator of heaven and earth.” There is an urgent need for us to recover the significance of these declarations. Creation is not a casual or accidental happening in God’s plans, but a beautifully orchestrated cosmic masterpiece, with Jesus Christ as the master conductor. The Apostle Paul theologizes in his letter to the Colossians, “By *him* all things are held together” (Colossians 1:17). Writing to the Ephesians, he reiterates this claim with a powerful description of Christ’s sovereignty over creation: “...God placed all things under his feet and appointed him to be head over everything for the church, which is his body, the fullness of him who fills everything in every way” (Ephesians 1:22f).

### BEGINNING WITH CREATION

When we start with Creation, we affirm that God is Lord of all. God is the initiator. God is the sustainer and therefore continues to relate graciously to creation. God is Lord of creation and therefore continues in an ongo-



ing relationship with creation. If this is so, we ought to respond to God with an equally clear commitment, and this expressed through our caring for God's creation.

Recent years have witnessed major debates on the scope of the Christian mission, particularly on the relationship between evangelism and social action. Some stress the priority of evangelism and others social action. Their arguments are based on restricted definitions of either evangelism or social action, without any reference to the whole of God's mission. The problem has been compounded by a glaring absence of a theology of creation alongside our theology of redemption. We have started our theology from redemption and therefore have started from the fall as recorded in Genesis 3. Everything is therefore looked at from the perspective of sin and sinfulness. Further, we have limited ourselves to God's redemptive work only in reference to humans.

We speak of holistic mission but do not seem to have a whole. Even the artificial relationship we have forged between evangelism and social action is far from sufficient. In recent years, the concept of holism has become more and more acceptable in many aspects of life – ecology, medicine, management, education etc. The whole is greater than the sum of the parts, we are reminded. God's creation is a whole – interrelated, interconnected and integrated. We cannot break these up into fragments and expect to piece some of them together while leaving out others. Therefore, whether social, environmental, cultural, or spiritual, we have to approach God and his world as one integrated whole.

Therefore, when we genuinely start our theology from creation, God's mission becomes an all-embracing mission with a concern for all of humanity as well as all of God's creation. God's mission is to people living within a whole context. Creation is where we must begin in order to capture the scope of this interrelated complete whole. For there, evangelism and social action do not become two poles, or even two partners, but rather two essential aspects of mission within this wider frame work where there are other components as well. And even more, when we start from creation in relation to this study, it is not just social action but also environmental action that becomes an integral part of God's total mission.

## THE RELATIONSHIP BETWEEN GOD AND CREATION

Some Christians fear that too great an emphasis on God's working through creation will take away from his attribute of transcendence. God is transcendent – distant from, far above all, they remind us. However, in continuing to be our Lord and Creator, God does not lose his distance from

creation and created beings. He is also immanent. Being God, he is both transcendent and immanent. The immanence of God literally implies that God is “within” or “near” creation. Immanence teaches us that God is always present within the universe, in a caring relationship, although remaining distinct from it. Therefore, God’s transcendence underlines his sovereignty as Creator over and above all that is created, while immanence implies a close relationship between creator and creation.

A dominant biblical note in God’s creative work is *creatio ex nihilo*: creation out of nothing (Genesis 1). The concept points to the fact that God alone is the source of everything and is therefore responsible for all that is created. This biblical doctrine refutes any form of pantheism that confuses the creator with creation, or a dualism that claims not just a distance, but also a confrontation between the good God and an evil creation. God created and now continues in an ongoing concerned relationship. This closeness and distance gives to both God and creation their inter-relatedness as well as their own individual identities.

## CREATION IS QUALIFIED AS GOOD

The Genesis account declares six times that what God created is “good.” This goodness of creation must be urgently underlined in order for us to restore a positive attitude to the material world. Many of us affirm that creation is good but will only show what this goodness means to us personally. We say God is good and has provided everything in creation *for us!* The way we have exploited creation for our own good and continue to show little or no concern for creation itself displays our disregard for the goodness of creation.

God qualified creation as good, so let us look at some implications:

First, it must imply the ultimate goodness of God. It is only a God who is good that can create something that is good. But when we speak of God’s goodness, it is not always the same as human goodness. It is much more than we can imagine or even comprehend and is therefore unexplainable. God’s goodness is seen in the fact that although something may not appear good or right to us at present, it turns out to be good or right in God’s time and in his ultimate plans. It is the kind of goodness that transcends the immediate; we have the assurance that God is good and therefore knows what is best ultimately.

Secondly, goodness implies that evil is not an inherent part of creation. Dualism makes creation to be evil and God to be good and hence shows the two to be in opposition. Pantheism will gloss over the goodness and reality of creation as well as the reality of evil as *maya* – an illusion. But

the Bible depicts evil as a reality. Sin and evil have darkened parts of creation itself, as is evident in various ways. Not the entire natural world today is good. There are some gory and ugly aspects that bring fear and cause destruction to innocent victims, although this was not what God intended originally. Human sinfulness has brought some of these on themselves. All creation is good, but evil has intruded to mar this goodness. While we believe in a creator God who is good and loving, some consequences of human sin must be accepted, as particularly affirmed in passages such as Genesis 3:17-18; 9:2.

Thirdly, goodness implies that there is an inherent worth in creation and not just value for the sake of human wellbeing. Creation seen in its relationship to God has worth in itself. Some ecologists and environmentalists have been calling for recognition of his intrinsic value through biocentric or eco-centric attitudes, rather than the anthropocentric human-centered theology we have been accused to have followed. There is some truth in this attack. Ecological devastation, we must confess, has arisen because humans have measured value only in terms of what creation offers for their benefit. We value the good of creation, and consequently we exploit this for ourselves. Christians have been prone to see creation only from this perspective, particularly when over-emphasizing the centrality of human creation within the created order. This attitude must be corrected both for the sake of human survival and the sustainability of all creation. Humans must accept responsibility to ensure a sustainable future of all creation.

Fourthly, goodness describes the grace and beauty of God's creation. The Hebrew word could be rendered "good" as well as "beautiful." God, with the creativity of an accomplished artist, paints a priceless picture and gifts this in grace to human beings. There is a collection of colors – gorgeous in some places, and gaudy in others. But looking at the canvas as a whole there is harmony. The ugly hands of human beings have mutilated and disfigured God's beautiful world for greedy selfish ends. A renewed sense of this gracious gift must be regained to restore God's grandeur and glory in creation. God expects responsible stewardship from human beings.

## RELATIONSHIPS WITHIN CREATION

We have affirmed that God is creator and that there is a strong bond between God and creation. If this is accepted, then there should be an integral relationship *within* creation itself. A true interrelationship between humans and the rest of the created order is not widely accepted, and even among humans it is hard to maintain.

Ecology, we have seen, implies interconnected interrelationships within the natural order, and when these relationships are upset, the result is chaos. Sin has disrupted harmony in creation. This is the root cause for the environmental disaster today. God brought creation out of chaos; but we have driven creation back into chaos. The problem we face today is basically the disruption of the intricate balance within God's creation. Tropical forests have been ravaged, natural habitats have been populated by humans and this has destroyed organisms essential to the ecological balance. This has not only affected the local environment but also neighboring environments as well. Rivers have been dammed, and a chain of consequences has dislocated people from their environment. We have dumped our garbage, even burned it, and have polluted the environment causing global and not merely local problems. Rash and reckless human interruptions have severely disrupted the natural order.

Human interrelatedness with nature is to be noted even when God said, "Dust you are and to dust you will return" (Genesis 3:19). We have seen this often only in terms of the transience of human existence or the brevity of life, but we have not grasped its fullest significance. Seen in terms of the inextricable link between nature and humans, we perceive an implied interdependence, both for our well-being and for the well-being of creation. Importantly, therefore, we must approach solutions for the ecological crisis through a closer look at these intricate interrelationships within God's creation. This will take us to the root issues for sustainable solutions.

There is more to creation than mere commercial value. If we have a common God who created everything, and a commonality even in terms of the constituent elements within us, then our relationship with creation needs to be seen in terms of a common identity. Exploitations and imbalances in the world prevail wherever identities are confused and relationships distorted. While we cannot relate humans and nature on wholly equal terms, we must not negate a God-intended relationship of respect, care and love in stewardship.

God, the sovereign creator, created everything out of nothing, and this implies another kind of interrelatedness between created things. There is a commonness shared between humans and all non-human creation, both because we have a common Creator and because we have undergone the same creative process. In the context of the ecological crisis, we are reminded that nature and humans belong to one another in an integral relationship within God's intricate designs. If humans have an edge over creation, it is primarily in the sense of a responsibility to respect this integrity. Here is a sobering thought: creation can survive without humans, but *we* cannot last long without drawing from creation's bounties!

Environmental degradation is on the increase. Unbridled exploitation of energy and resources has caused growing concerns. God has gifted humanity with a good creation, along with knowledge and wisdom to be good stewards, but human activity has exploited God's goodness. Christians must now rise and act as responsible stewards and arrest any further uncontrollable damage to nature.

## READ AND REFLECT

### *Creation Care Matters*

*(The following text, up to the footnote, is quoted from the Evangelical Environmental Network – EEN)*

Biblically understood, “the environment” is actually part of God’s creation, of which human beings are also a part. So why should we care for all of God’s creation?

1. Christ died to reconcile all of creation to God (Col. 1:20).
2. All of creation belongs to Jesus (Col. 1:16; Ps. 24:1).
3. It fulfills the Great Commandments to love God and love what God loves. (It’s hard to love a child with asthma when you’re filling her lungs with pollution.)
4. Pollution hurts the poor the most, and Christians are called to care for the poor and the less powerful (Mt. 25:37-40).

Thus, caring for all of creation provides a Christian with the deepest sense of joy and contentment since it is part of loving God. We call this “creation-care.”

### ***What is “creation-care”?***

Creation-care means caring for all of God’s creation by stopping and preventing activities that are harmful (e.g. air and water pollution, species extinction), and participating in activities that further Christ’s reconciliation of all of creation to God. Doing creation-care fills us with the joy that only comes from doing the will of God.

### ***What about nature worship?***

As a biblically orthodox Christian organization EEN totally rejects nature worship and pantheism. Nothing is clearer in Scripture: we are to worship only the Creator – never His creation. There is only one God in three Persons – Father, Son, and Holy Spirit – to whom all praise, glory, and honor are to be given. EEN’s Evangelical Declaration puts it well: “Our creating God is prior to and other than creation, yet intimately involved with it, upholding each thing in its freedom, and all things in relationships of intricate

complexity. God is transcendent, while lovingly sustaining each creature; and immanent, while wholly other than creation and not to be confused with it.”

At the same time that we condemn nature worship, we must not let our zeal to avoid idolatry prevent us from our biblical call to care for all of creation. Indeed, one cannot fully worship the Creator and at the same time destroy His creation, which was brought into being to glorify him. Worshiping the Creator and caring for creation is all part of loving God. They are mutually reinforcing activities. It is actually unbiblical to set one against the other.

### ***How are we to treat non-human creation? Are not people more important?***

Our relationship to the rest of creation is to be based on God’s relationship to it and how God wants us to behave towards it. The Bible proclaims that in the beginning God blessed the rest of creation and called it good (Gen. 1:20-25; 31). It exists to praise and glorify Him (e.g. Ps. 19:1-6). Christ sustains all of creation and died to reconcile all of creation to God (Heb. 1:3; Col. 1:16, 20). In Christ’s future Kingdom the rest of creation will be transformed into a new earth (Rev. 21:1). Thus, the Bible clearly teaches that God values the rest of creation tremendously.

At the same time the Bible also proclaims that human beings have a special role and a special responsibility in God’s creation since they are created in God’s image and have free will. Human beings are called to care for the rest of God’s creation, not abuse or destroy it.

Good economic stewardship has a significant overlap with good environmental stewardship. God created us to depend on the rest of his creation for our material existence, for the air we breathe, the water we drink, the food we eat and the raw materials we use for everything else. Creation includes the natural environment, the built environment (including our houses and cities and economies), and all the creatures that depend on those environments. We’re charged with safeguarding the fruitfulness and productivity of creation for all its inhabitants, including people.

It is clear from Scripture that God plan and providence allow resources for people and for the rest of God’s creation. We are hard pressed to think of an irresolvable conflict between human needs and care for the rest of creation. The power of God’s grace, combined with human creativity and intelligence and our responsibility to fulfill the task of creation-care, provides us with the capability to find peaceful resolutions to what appear to be serious unavoidable conflicts with the rest of creation. (There are clearly conflicts between unlimited human wants and careful stewardship of God’s creation.) Furthermore, environmental problems that harm the rest of creation usually harm human beings as well (e.g. air pollution). Thus, the task of creation-

care is part of loving one's neighbor, loving what God loves, and therefore loving God.<sup>9</sup>

### ***Traditional Belief of the American Native Indians<sup>10</sup>***

We are part of his earth. Each part of this earth is holy to my people. We are part of his earth and it is a part of us. The scented flowers are our sister. The deer, the horse, the great eagle, they are our brother. The meadows, the warmth of the pony's body, of people's bodies, they all belong to the same family. The rivers are our brothers. Everything is linked one to another like the blood that unites a family. Man did not create the tapestry of life; he is only a thread in it. The Creator of all life is a mysterious power that comprises everything. All life is the embodiment of this mysterious power, and to wound the earth is the same as to despise it.

### ***Chinese understanding of Yin-yang forces***

(The following text quotes extensively from the website of Shen Nong, as noted in the footnote.)

Ancient Chinese people were greatly interested in the relationships and patterns that occurred in nature. Instead of studying isolated things, they viewed the world as a harmonious and holistic entity. In their eyes, no single being or form could exist unless it was seen in relation to its surrounding environment. By simplifying these relationships, they tried to explain complicated phenomena in the universe.

### ***What is the Yin Yang Theory?***

Yin yang theory is a kind of logic, which views things in relation to its whole. The theory is based on two basic components: yin and yang, which are neither materials nor energy. They combine in a complementary manner and form a method for explaining relationships between objects. Gradually, this logic was developed into a system of thought that was applied to other areas. Traditional Chinese Medicine (TCM) is an example of one area where the yin yang theory is used to understand complicated relationships in the body.

### ***The Origin of the Yin Yang Theory***

The original concept of yin and yang came from the observation of nature and the environment. "Yin" originally referred to the shady side of a slope while "yang" referred to the sunny side. Later, this thinking was used

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<sup>9</sup> <http://creationcare.org/blank.php?id=41>

<sup>10</sup> This is a general summary of one type of Native American thought which is thought to have been represented by Chief Seattle in the nineteenth century.

in understanding other occurrences, which occurred in pairs and had complementary and opposing characteristics in nature. Some examples include: sky and earth, day and night, water and fire, active and passive, male and female and so on. Working with these ideas, ancient people recognized nearly all things could have yin and yang properties. Yin and yang can describe two relative aspects of the same phenomena such as the example of the slope, or they can describe two different objects like sky and earth.

Usually, yang is associated with energetic qualities. For example, movement, outward and upward direction, heat, brightness, stimulation, activity and excitement are all yang qualities. Yin, on the other hand, is associated with the physical form of an object and has less energetic qualities such as rest, inward and downward direction, cold, darkness, condensation, inhibition, and nourishment.<sup>11</sup>

### *A Hindu prayer*

The Hindu prayer called *Shanti path*, recited to conclude every Hindu ceremony, reflects the Hindu holistic connectedness with nature:

There is peace in heavenly region; there is peace in the environment;  
the water is cooling; herbs are healing; the plants are peace-giving;  
there is harmony in the celestial objects and perfection in knowledge;  
everything in the universe is peaceful; peace pervades everywhere.  
May that peace come to me!

## **QUESTIONS FOR DISCUSSION**

1. Does our understanding of the doctrine of Creation need correction? How?
2. Discuss some of the ways in which ecological movements or individuals have exposed our wrong emphases.
3. Discuss whether or not the other religious views summarized above conflict with the biblical doctrine of creation.

## **PLAN TO ACT**

### *A Garden inside your home*

Not everyone will have large places to grow plants and trees, but everyone can begin to enjoy growing. Here is a tried and tested method which has been used all over the world. You can use any room with some sunlight, a back verandah or front yard, or best in an open terrace. In fact, this is called roof top gardening.

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<sup>11</sup> [www.shen-nong.com/eng/principles/whatyinyang.html](http://www.shen-nong.com/eng/principles/whatyinyang.html)



Find some containers of various sizes. These could be wood or plastic. They should be at least about 25 cms or 10 inches deep and preferably about 50 cms or 2 fit wide. Make sure the container has a small outlet for excess water to flow out. It is possible to row in containers without any outlets, but you must ensure that water is not in excess at all times.

### **Step 1**

Fill half the container with any bio-mass (leaf or straw) tightly pressed down.

### **Step 2**

Fill the other half (the top) with equally mixed compost and good soil (a little sand is helpful).

### **Step 3**

Find any plant that grows well in your climatic conditions. This could be an ornamental plant, an herb or vegetable, or even a fruit or flowering tree. Tomatoes, peppers and seasoning herbs grow well.

### **Step 4**

You are now ready to start your planting. Hold the plant just above the roots. Scoop out some soil so that roots fits in easily. Cover the roots completely with the soil-compost mixture. Make sure the plant is in the right position and upright and then firmly press down the soil.

### **Step 5**

Water the plant and allow. Make sure there is not too much water and that sunlight is available. Evenings are the best time for watering.

You will see the leaves looking healthy once the roots have taken place.

These plants are ideal for indoors provided they get occasional sunlight. But if you have an open terrace you can have a full-fledged garden.

## **MEDITATION AND PRAYER**

Lord God, we praise you for those riches of your creation which we shall never see: for the stars whose light will never reach the earth; for species of living things that were born, that flourished and perished before mankind appeared in the world; for patterns and colors in the flowers; which only insect eyes are able to see; for strange, high music that human ears can never hear:

Lord God, you see everything that you have made, and behold it is very good.

Source: *Further Everyday Prayers*

### 3. Covenant

“Some people, in order to discover God, read books. But there is a great book: the very appearance of created things. Look above you! Look below you! Read it. God, whom you want to discover, never wrote that book with ink. Instead He set before your eyes the things that He had made. Can you ask for a louder voice than that?”

– *St. Augustine* –

“Two things fill the mind with ever new and increasing admiration and awe – the starry heavens above and the moral law within.”

– *Immanuel Kant* –

“If the Holy Spirit is ‘poured out’ on the whole creation, then he creates the community of all created things with God and with each other, making it that fellowship of creation in which all created things communicate with one another and with God, each in its own way.”

– *Juergen Moltmann* –

#### KEY WORDS

*Stewardship, Covenant, Natural Law*

Alongside creation is the important theme of the covenant, which runs right through the Bible. Covenants were an integral part of the life of the people living in biblical times. If creation is to be taken seriously and is to underlie the Christian’s commitment to environmental conservation, so too is the covenant. It clearly spells out God’s faithfulness in fulfilling his plans for the planet. Our commitment to environmental stewardship could merely be our task being fulfilled in our own way. But God makes a commitment to enable us be truly responsible.

#### WHAT IS A COVENANT?

##### *The Meaning of the Word*

But what is a covenant? Basically, a covenant is any promise that has been made between two parties bound by a solemn oath. We make covenants or contracts in business, take oaths in marriage, or in any agreement for which we want to make sure that certain terms and conditions are fulfilled by all parties involved. The word generally used in the Old Testament is *berit* and was a common term familiarly known to the peoples of that time. But the Biblical usage gave a much deeper meaning to it. God’s

covenant with Israel is powerfully portrayed in the promise, 'I will be your God and you will be my people' (e.g. Gen. 17:7, Ex. 6:7, 2 Cor. 6:16-18, Rev. 21: 2, 3). God is greatly concerned that his people keep the covenant in love and with an obedience that is based on this intimate relationship.

### ***God's Covenant with Noah***

In Genesis chapter 6, God addresses the severity of sinfulness and speaks to Noah before the announcement of the flood: "The wickedness of humankind was so great in the earth, and inclination of the thoughts of their hearts was only evil continually. Everything on earth will perish. But I will establish my covenant with you" (Gen. 6:5ff). God has taken the initiative to deal with sin sternly. Human sin has not only affected human beings but has impacted all life, and in fact all the earth. The story of Noah is not an account to be restricted to Sunday schools, as is often the case. No other covenant has such an emphasis on God's concern for creation, and that is why this covenant is sometimes called an Eco-Covenant.

After the flood, Noah is commanded to "Come out of the ark" (Gen. 8:16), so that all creatures, as also humans, can "multiply on the earth and be fruitful and increase in number upon it" (8:17). Noah obeys, and then God promises, "As long as the earth endures, seedtime and harvest, cold and heat, summer and winter, day and night will never cease" (8:22). The command to be fruitful and increase in number and fill the earth is repeated, but not the command to subdue and have dominion (9:1). This is a significant omission. Could it imply that God intended Adam and Eve to subdue and have dominion (even as harsh as it may sound), but it was only for them at that particular time and not as an ongoing command? Noah is commissioned to restore what God had already planned but had been spoiled because of sin. The Lordship of God over creation is clearly underlined.

There are similarities between Genesis 9:1ff and Genesis 1:28. What God has created, human beings now continue on behalf of God. Noah, like Adam, represents humanity, to whom God entrusts responsibility to carry out the new command. Just as in the Creation account, God also reminds humans of their being made in the "image of God." The new beginning is not entirely new, as there is a link between Adam's relationship to the original creation and what Noah will now have to demonstrate. There is a responsibility that is entrusted to us, which demands our obedience, because God continues to be Lord of creation.

Our relationship to creation is depicted in very interrelated terms. Humans, together with the rest of God's creation, have enjoyed blessings, but they have also incurred wrath. There is interconnectedness. The sin of hu-

man beings affects the environment and, conversely, a bad environment affects our wellbeing. Therefore, humans must not deal with creation indiscriminately. There are restrictions expressed, for instance, in the command not “to eat meat that has its lifeblood still in it” (9:4). Blood is life, and all life is precious. God has concern even for the nonhuman elements of creation. Our attitudes towards material creation must change as we carefully consider these intricate implications of God’s covenant.

There is, however, a difference between Adam’s world and the one that Noah inherits. While God intended for humans to protect and conserve, disharmony had already intruded into the world because of sin. Created beings even showed “fear and dread” towards their human counterparts.<sup>12</sup> The peace that prevailed in the Garden of Eden had been lost, and in its place was the chaos that was characteristic of the world prior to paradise. But a gracious God intended to institute a covenant despite such a sinful state of affairs, so that humans could be assured that this same God would not initiate any further destruction: “Never again will all life be cut off by the waters of a flood; never again will there be a flood to destroy the earth” (9:11). But we should not draw too much comfort from this, as whatever happens to destroy the earth today will be because of human folly rather than God’s actions.

### *Human beings and Creation*

The covenant with Noah makes strong reference to human attitudes towards creation. There is to be reverence. We are to respect God-given life within all creatures. The reverence or respect comes from the interrelatedness among us, nonhumans and all other created things. The returning of the blood back to its source, the earth, underlines an integral relationship that we must recognize between humans and the rest of creation. This holistic interrelatedness is essential for us to grasp, as it is from here that we see how essential it is to care more responsibly for all of God’s creation.

God’s faithfulness continues. Although God’s new creative plans are totally entrusted to humans, the reminder of God’s faithfulness to the covenant is constantly before us. God has instituted the rainbow as a sign of this covenant between God “and the earth” (9:13). Importantly, God uses nature to remind humans of a divine covenant that has been initiated. Nature itself will bear witness to God’s faithfulness. God said: “This is the sign of the covenant I have established between me and all life on earth” (9:17).

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<sup>12</sup> W. J. Drummond, *Covenant and Creation: A Theology of the Old Testament Covenants*, Paternoster Press, Cumbria, UK, 1984.

Humans are not the only recipients of God's covenantal grace, as there is an important place for nonhuman creation within these plans. Adam, Noah and we today have a delegated responsibility that not only assures humans of their preservation but also demonstrates care for all that God has created. It is not merely something spiritual that God intends to relate to, as blessings are extended to all the material dimensions of creation. God is concerned for sustainability.

There are groups today that seek to promote legal rights for animals similar to those enjoyed by humans. They claim that nonhumans are currently regarded as the *property* of their human owners, just as human slaves were in the nineteenth century. Although there are many laws that supposedly protect animals (like the many laws that supposedly protected human slaves), these laws are, for the most part, interpreted in favor of humans, allowing them to do almost anything with their animal property. One of the goals of some animal rights movements is to try to eradicate the status of nonhumans as mere *property*, and to recognize that animals should be considered as *persons* under the law. We would certainly not want to go as far as these movements, but Christians will do well to recognize the need for respect towards the nonhuman world.

God's covenant is not restricted to the church, the community of chosen ones. God has entered into a covenant relationship with the world, and this cannot be ignored. In fact, God's initial act was the creation of the world. God's covenant is all-encompassing. If human sin has affected all creation, the impact of God's redemption must similarly extend to all. Our interdependence extends to all the people of this world, people who are part of God's creation community.

### ***God's Covenant with Moses at Sinai***

We Christians have particularly focused on those commandments that relate to human relationships. Moreover we have made these purely personal with an inward looking spirituality. But we will note that Moses also had much to say to God's people concerning their outward relationship to the nonhuman world.

In the Old Testament we read that God's people were to play a kingly, priestly and a holy role in dealing with creation. The stewardship role spelled out is one of high calling. This is the God whose name is "I am what I am" and so will continue to be what he promised so be. God brings the world and Israel into being and remains the faithful covenant-keeping God, who will continue to keep the promises made to humans and to the rest of creation. Israel has to "remember" God by this new name.

In reminding Israel that “I am the Lord your God who brought you out of Egypt, out of the land of slavery” (Ex. 20:2), God reveals to these people their obligations within this covenant. The Decalogue, or the Ten Commandments, is one of the most succinct documents concerned with the everyday affairs of life. Moses received this revelation and was instrumental in making religion move from cultic rituals to practical applications, thus enabling people to conduct themselves as a responsible community. It is not that cultic and religious traditions receded into the background but that Israel’s religion had now grown to include moral, ethical and real-life dimensions.

There is a twofold directive to these instructions: one is towards God and the other is towards people. Although these need to be understood for what they clearly state, we must discern that behind the commands are principles that address larger issues. Concealed behind them are the reverence, respect, love and care that need to be demonstrated from God’s people, already described as kings and priests. As kings, there is a responsibility towards people, and as priests there is a responsibility towards God. This is a powerful picture that could help develop a deeper and wider sense of environmental stewardship.

We must take a fresh look at the commandments in relation to our neighbors, as we have emphasized all the negatives and neglected the positives. For instance, in the command not to lust after or steal our neighbor’s possessions (human or material), there is the reminder to be concerned for the well-being of others in our community and not to focus only on our own personal gains. Individualism could easily restrict these commands to being relevant only to individual spirituality, whereas, seen in the context of the community, the commandments take on a holistic dimension.

There are vital roots for an eco-spirituality in this teaching. God wants us to live in such a way that our lives would benefit the community around us. Environmental problems can be solved when we begin to look at others, whether negatively – not to crave after, destroy or rape the earth’s resources, or positively, where we care for other people and their needs as we should for creation. The commandments, when placed within the context of a community, show individual identity and well-being within the more complete scope of a God-intended interrelated framework.

Undoubtedly, for a law to be effective, it has to be commonly accepted by a community. It is within this context that individuals are judged, as the welfare of the whole community is threatened. In fact, a law is defined as the coercive power by a society, exercised in order to prevent individuals from exploiting others on the basis of power or position. The law, in prin-

principle, holds the community together under common obligations. In other words, a community is one within which people accept obligations. Any violations are dealt with accordingly, mainly because certain obligations are not kept and consequently relationships are ruptured.

Every society needs such checks and balances. Today the world community is framing international obligations in order to maintain its common welfare. Globalization has brought a renewed understanding of our integrated interrelationships. When the rights of each member are protected, the well-being of the whole community is assured. A proper exposition of the Decalogue today must include holistic references to the well-being of the whole of God's world, rather than continuing to merely underline individual actions and responsibilities.

### *Covenant in the New Testament*

The New Testament continues the theme of the covenant as it builds on the teaching of the Old Testament. Although it deals more explicitly with human salvation, it does not imply that societal and environmental concerns have been ignored. The important references to the covenant are in the accounts of the Last Supper and demonstrate the integral link that Jesus Christ sealed between the Old and New. The implications of the covenant, particularly the Messianic Psalms 2 and 110, are explicitly and implicitly woven in to the New Testament passages. The Greek word *diatheke*, the equivalent of the Hebrew *berit*, used mainly in the accounts of the Lord's Supper, is central to the meaning of the cross and its redemptive significance. All the elements in the reference to Jesus Christ are a reflection of the Old Testament covenant. Jesus as the "paschal lamb" in the covenant sacrifice, the reference to blood, and other such elements, are direct indications of the integral link between the two covenants.

If Jesus Christ embodies the Old Testament covenants, then all that is promised in the history of God's dealings with his people must be fulfilled in Jesus. The Church, the body of Christ, is integrally linked today with God's people in the past and is not a new phenomenon in history. There is continuity and a connection that gives completeness to God's covenant. Whereas the covenant was originally seen only as being available to Israel, it now extends to the whole world. The emphasis is no longer on an elite group, even on Christians, but on all of God's creation. Seen in this light, the cry of creation awaiting its own redemption takes on new significance. God's plans are to be understood in wider and wider dimensions, starting from their restriction to a group of people, and building up to their universal implications and relevance to all humanity and creation.

### ***The Significance of the Law and the Covenant Today***

The wide range of social, political and ethical issues that the law deals with, for instance in the book of Deuteronomy, are relevant to our study. Whether they deal with community responsibility (3:13-22), family commitments (4:9-10), or a multitude of individual instructions, these laws contribute concretely to contemporary discussions. Environmental issues may not be referenced directly in Deuteronomy, but there are many proper inferences to draw. There were measures suggested for prevention of pollution. For instance, in Deut. 23:9-14 there is advice relating to personal and public health. There are commands to “keep away from everything impure,” including “nocturnal emissions.” There was the need for the designating of “a place outside the camp,” and then “when you relieve yourself dig a hole and cover up your excrement.” There were some very down to earth practical instructions for healthy living within a wholesome unpolluted environment.

Some of this teaching may not apply literally to our lives today, but it is the principle behind such commands that is important. Preventive measures for pollution on a small scale would certainly have controlled the global pollution of the magnitude we face today. As the impacts of pollution grow to threatening proportions, poorer countries in Asia and Africa are realizing that a large number of diseases are transmitted through the environment around us. A polluted environment aggravates common ailments with fatal consequences. People are rediscovering more holistic attitudes to health and wellbeing.

In reading the Old Testament we need to get to the heart of these issues and draw out principles that could be applied to our situation. Laws are not merely legal bindings that stifle human happiness and strain relationships. They relate to all of life and are concerned with the well being of God’s created order. While the old codes may not literally apply to our situation, there are principles that can be drawn out which relate to our life and everyday practices to bring about wholeness and wellbeing in our community and in our world.

## **READ AND REFLECT**

### *Cape Town Commitment, Lausanne*

The Third Lausanne Congress on World Evangelization (Cape Town, October 2010) brought together 4,200 evangelical leaders from 198 countries, aiming to bring a fresh challenge to the global Church to bear witness



to Jesus Christ and all his teaching . The Cape Town Commitment stands in an historic line, building on both The Lausanne Covenant and The Manila Manifesto. Reproduced below is the relevant section that addresses the mainline Evangelical view on creation and mission.<sup>13</sup>

### ***We love God's world***

We share God's passion for his world, loving all that God has made, rejoicing in God's providence and justice throughout his creation, proclaiming the good news to all creation and all nations, and longing for the day when the earth will be filled with the knowledge of the glory of God as the waters cover the sea.

A) We love the world of God's creation. This love is not mere sentimental affection for nature (which the Bible nowhere commands), still less is it pantheistic worship of nature (which the Bible expressly forbids). Rather it is the logical outworking of our love for God by caring for what belongs to him. "The earth is the Lord's and everything in it." The earth is the property of the God we claim to love and obey. We care for the earth, most simply, because it belongs to the one whom we call Lord.

The earth is created, sustained and redeemed by Christ. We cannot claim to love God while abusing what belongs to Christ by right of creation, redemption and inheritance. We care for the earth and responsibly use its abundant resources, not according to the rationale of the secular world, but for the Lord's sake. If Jesus is Lord of all the earth, we cannot separate our relationship to Christ from how we act in relation to the earth. For to proclaim the gospel that says "Jesus is Lord" is to proclaim the gospel that includes the earth, since Christ's Lordship is over all creation. Creation care is thus a gospel issue within the Lordship of Christ.

Such love for God's creation demands that we repent of our part in the destruction, waste and pollution of the earth's resources and our collusion in the toxic idolatry of consumerism. Instead, we commit ourselves to urgent and prophetic ecological responsibility. We support Christians whose particular missional calling is to environmental advocacy and action, as well as those committed to godly fulfillment of the mandate to provide for human welfare and needs by exercising responsible dominion and stewardship. The Bible declares God's redemptive purpose for creation itself. Integral mission means discerning, proclaiming, and living out, the biblical truth that the gospel is God's good news, through the cross and resurrection of Jesus Christ, for individual persons, and for society, and for creation. All three are broken and suffering because of sin; all three are included in the redeeming love and

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<sup>13</sup> The entire text, including additional biblical references, is available online at [www.lausanne.org/en/documents/ctcommitment.html](http://www.lausanne.org/en/documents/ctcommitment.html)

mission of God; all three must be part of the comprehensive mission of God's people.

B) We love the world of nations and cultures. "From one man, God made all nations of humanity, to live on the whole face of the earth." Ethnic diversity is the gift of God in creation and will be preserved in the new creation, when it will be liberated from our fallen divisions and rivalry. Our love for all peoples reflects God's promise to bless all nations on earth and God's mission to create for himself a people drawn from every tribe, language, nation and people. We must love all that God has chosen to bless, which includes all cultures. Historically, Christian mission, though flawed by destructive failures, has been instrumental in protecting and preserving indigenous cultures and their languages. Godly love, however, also includes critical discernment, for all cultures show not only positive evidence of the image of God in human lives, but also the negative fingerprints of Satan and sin. We long to see the gospel embodied and embedded in all cultures, redeeming them from within so that they may display the glory of God and the radiant fullness of Christ. We look forward to the wealth, glory and splendor of all cultures being brought into the city of God – redeemed and purged of all sin, enriching the new creation.

Such love for all peoples demands that we reject the evils of racism and ethnocentrism, and treat every ethnic and cultural group with dignity and respect, on the grounds of their value to God in creation and redemption.

Such love also demands that we seek to make the gospel known among every people and culture everywhere. No nation, Jew or Gentile, is exempt from the scope of the great commission. Evangelism is the outflow of hearts that are filled with the love of God for those who do not yet know him. We confess with shame that there are still very many peoples in the world who have never yet heard the message of God's love in Jesus Christ. We renew the commitment that has inspired The Lausanne Movement from its beginning, to use every means possible to reach all peoples with the gospel.

C) We love the world's poor and suffering. The Bible tells us that the Lord is loving toward all he has made, upholds the cause of the oppressed, loves the foreigner, feeds the hungry, sustains the fatherless and widow. The Bible also shows that God wills to do these things through human beings committed to such action. God holds responsible especially those who are appointed to political or judicial leadership in society, but all God's people are commanded – by the law and prophets, Psalms and Wisdom, Jesus and Paul, James and John – to reflect the love and justice of God in practical love and justice for the needy.

Such love for the poor demands that we not only love mercy and deeds of compassion, but also that we do justice through exposing and opposing all that oppresses and exploits the poor. "We must not be afraid to denounce evil and injustice wherever they exist." We confess with shame that on this

matter we fail to share God's passion, fail to embody God's love, fail to reflect God's character and fail to do God's will. We give ourselves afresh to the promotion of justice, including solidarity and advocacy on behalf of the marginalized and oppressed. We recognize such struggle against evil as a dimension of spiritual warfare that can only be waged through the victory of the cross and resurrection, in the power of the Holy Spirit, and with constant prayer.

D) We love our neighbors as ourselves. Jesus called his disciples to obey this commandment as the second greatest in the law, but then he radically deepened the demand (from the same chapter), "love the foreigner as yourself" into "love your enemies."

Such love for our neighbors demands that we respond to all people out of the heart of the gospel, in obedience to Christ's command and following Christ's example. This love for our neighbors embraces people of other faiths, and extends to those who hate us, slander and persecute us, and even kill us. Jesus taught us to respond to lies with truth, to those doing evil with acts of kindness, mercy and forgiveness, to violence and murder against his disciples with self-sacrifice, in order to draw people to him and to break the chain of evil. We emphatically reject the way of violence in the spread of the gospel, and renounce the temptation to retaliate with revenge against those who do us wrong. Such disobedience is incompatible with the example and teaching of Christ and the New Testament. At the same time, our loving duty towards our suffering neighbors requires us to seek justice on their behalf through proper appeal to legal and state authorities who function as God's servants in punishing wrongdoers.

E) The world we do not love. The world of God's good creation has become the world of human and satanic rebellion against God. We are commanded not to love that world of sinful desire, greed, and human pride. We confess with sorrow that exactly those marks of worldliness so often disfigure our Christian presence and deny our gospel witness.

We commit ourselves afresh not to flirt with the fallen world and its transient passions, but to love the whole world as God loves it. So we love the world in holy longing for the redemption and renewal of all creation and all cultures in Christ, the ingathering of God's people from all nations to the ends of the earth, and the ending of all destruction, poverty, and enmity.

### ***The Philippine Council for Peace and Global Education***

The Philippine Council for Peace and Global Education, an affiliate of Global Education Associates (GEA), a consortium of more than a hundred universities, colleges and secondary schools throughout the Philippines, promotes global education and policies that address local, national and global systemic causes of poverty, violence, conflict and environmental destruction. Here below are the Principles and Commitments from "The Earth Cov-

enant: A Citizens' Treaty for Common Ecological Security." Although framed some decades ago, there is a model and some application for us even today:

*Relationship with the Earth:* All life is sacred. Each human being is a unique and integral part of the Earth's community of life and has a special responsibility to care for life in all its diverse forms. Therefore, we will act and live in a way that preserves the natural life processes of the Earth and respects all species and their habitats. We will work to prevent ecological degradation.

*Relationship with Each Other:* Each human being has the right to a healthful environment and to access to the fruits of the Earth. Each also has a continual duty to work for the realization of these rights for present and future generations. Therefore-concerned that every person has food, shelter, pure air, potable water, education, employment, and all that is necessary to enjoy the full measure of human rights we will work for more equitable access to the Earth's resources.

*Relationship between Economic and Ecological Security:* Since human life is rooted in the natural processes of the Earth, economic development, to be sustainable, must preserve the life-support systems of the Earth. Therefore, we will use environmentally protective technologies and promote their availability to people in all parts of the Earth. When doubtful about the consequences of economic goals and technologies on the environment, we will allow an extra margin of protection for nature.

*Governance and Ecological Security:* The protection and enhancement of life on Earth demand adequate legislative, administrative and judicial systems at appropriate local, national, regional, and international levels. In order to be effective, these systems must be empowering, participatory, and based on openness of information.

## QUESTIONS FOR DISCUSSION

1. What implications does the teaching on covenants have for the church today? How do we understand this in a multi-faith context?
2. Can we continue to make some form of eco-covenants in our churches today? Develop an example for your church.
3. Accepting there is commonality, what common action can we pursue with people of other faiths in our community today?

## FURTHER READING

### *Natural Law*

God revealed the covenant to a particular people, but this does not mean that a covenant is unique and limited only to God's people. Interestingly, what we see in the codes and covenants is reflected in other religious, moral and ethical principles. Obviously, these principles are universal in their relevance. Several points were common to Israel as well as its neighbors – for instance, the teaching on interpersonal relationships as well as teachings connected to one's relationship to creation, the protection of land, fields etc. Some of this teaching had to do with violation of a right relationship to God's recreation and applied to every human being, not just to Israel who claimed to believe in the biblical God.

All this points to a natural moral law that is applicable universally and this is perhaps what Paul refers to in Romans 1:19, "what may be known about God is plain." The Rabbis strongly believed that what God had revealed to Adam and Noah were laws that were applicable to all human beings. Thus there is a common basic human law that governs all of life and this is embedded into all the elements of the universe. It is this law that makes even animals aware of their responsibilities: "The ox knows its owner and an ass its master's crib but Israel does not know its creator" (Isaiah 1:3). Further, Jeremiah knows that "even the stork in the sky knows her appointed seasons, and the dove, the swift and the thrush observe the time of their migration" (Jer. 8:7). The existence of such a law is a mark of God's commitment through a covenantal relationship towards all creation. And this must go back to Genesis where God enters into a covenant with "every living creature of all flesh that is upon earth" (Gen. 8:16). Even a nonliving element of God's creation, the rainbow, bears witness to God's everlasting grace towards the world.

## PLAN TO ACT

Here are some "Quick Tips" from Eco-Justice Ministries (based in Denver, Co. USA) – "an independent, ecumenical agency that helps churches answer the call to care for all of God's creation, and develop ministries that are faithful, relevant and effective in working toward social justice and environmental sustainability." (<http://www.eco-justice.org/tips-w.asp>)

### *Draw on the strengths of your tradition and your setting*

Christian worship takes a multitude of different forms. We worship differently in cathedrals than we do in chapels. Episcopal and Baptist services are different in structure and style. A charismatic congregation expects something different from a more academic church.

Know your people, your tradition and your setting, and use the best of what it has to offer as you open your people to an eco-justice perspective. A liturgical church might make creative use of a ritual for confession and healing, whereas a congregation from a free church tradition would do better with a sermon series.

### ***Frequently affirm God's love for all creation***

Stretch your language, and stretch people's theology. The words that are used in the everyday leading of worship shape how we understand ourselves, our relationship with God, and with the world. (See our Eco-Justice Lexicon for shadings of meaning between terms such as nature, the environment and the creation.)

Try to include an explicit reference to God's love for all of creation in every service of worship – in a prayer, the sermon, a responsive reading.

### ***Preach on many levels***

Sometimes, it is important to preach prophetically on an issue where decisive moral matters are at stake. But there are other ways of bringing an eco-justice perspective into sermons.

Let an eco-justice perspective bubble up frequently in your preaching. An article on this site, *Three Layers of Environmental Preaching*, explores several ways of preaching to the issues, ranging from prophetic proclamation on political issues to depth pastoral preaching on emotional needs.

### ***Pray***

Too often, the prayers of the church are focused exclusively on matters of personal need. In worship, the church can extend its prayers to encompass a larger sphere.

Thanksgiving – God's creation is filled with goodness and joy. We are privileged to share in its bounty and to be engaged in relationships throughout the web of creation.

Confession – we participate in a system which is exploitative and violent and which separates humanity from the rest of creation. By acts of omission and commission we cause harm to others. At times we are guilty of complicity, passivity and denial, at other times of abuses of power.

Petition – there are countless issues and settings where we might pray for wisdom of God's will, and for a breaking in of God's love and justice.

If members of your congregation are invited to voice prayer concerns, encourage them to name not only people, but also issues and the needs of the world.

***Read scripture with fresh eyes***

A long history of reading the Bible as a story concerned exclusively with humans has blinded us to much of the biblical message. Throughout the Bible, the love of God for all of the creation is proclaimed; the need to deal justly with humans and the rest of creation are intertwined responsibilities.

As you work with texts from scripture:

- ask how the call to deal lovingly and justly with all of creation is spoken in the text.
- try break out of a modern, urban, western mindset, and remember that the biblical texts come from a world far more in touch with the cycles and patterns of nature and agriculture.
- be aware that eco-justice is not an organizing theme in the lectionary. The pairing of texts, and the order in which passages are read, may hide meanings that would be clear in a different pattern of reading.

***Recognize the power of music***

Music touches us in a different way than the spoken or written word. A tune stirs emotions and opens our creative, intuitive side. The words to an anthem, a hymn or a sung response enter our consciousness with a special sort of power and effect.

Draw the musical elements of your service into play as you work with an eco-justice perspective. Both contemporary compositions and those that have been used for generations can help to strengthen and inform our spirit.

Look carefully at the words to hymns and anthems. Some which celebrate God's hand in nature also say that humans have "dominion" to use and exploit creation. Feel free to drop verses that have problems.

If the choir is doing a wonderful anthem, consider printing the words for the congregation (if copyright allows!). The folk in the pew will get more out of it when they can follow along with the words.

Use the topical index to the hymnal creatively. Don't look only for Justice and God in Creation – look under headings like Prayer, Humility, Stewardship, Confession, Healing or Thanksgiving.

***Use special occasions***

Many occasions through the year provide appropriate opportunities to develop a worship theme that takes eco-justice seriously.

Environmental dates – the Sunday near Earth Day, UN Environmental Sabbath, Feast of St. Francis

Justice dates – Martin Luther King Jr. Birthday, Holocaust Remembrance Day, Labor Day

Global awareness dates – World Communion Sunday, World Day of Prayer, United Nations Day

Ties to natural cycles – Harvest season and Thanksgiving, changing seasons, occasions of birth and death

Special occasions – A church retreat or outdoor service, a “blessing of the animals” ceremony

Stewardship campaign – look at stewardship as more than money!

Advent/Christmas and Lent/Easter – use these seasons of reflection and celebration to explore some part of the eco-justice perspective in depth and to tie it to the two great holidays of the church year. Proclaim that God’s saving work in Christ is for the redemption of all creation.

### ***Draw on the visual arts***

Along with words and music, the visual arts can expand and deepen the worship experience. Look for ways to bring new images into your congregation’s worship.

Add to your banner collection. Include hangings that connect humanity with the rest of creation, that call for responsible stewardship, and that affirm God’s call to do justice.

Point out images and themes that already exist in your church’s architecture (such as stained glass, or wood carvings).

Use artwork appropriately in the worship bulletin.

If you subscribe to a bulletin service, watch for images (and text) that contradicts an eco-justice perspective. Either substitute a different cover, or use the provided materials as an illustration of the problems.

Purchase full-color bulletin covers with powerful images for special occasions.

Include black and white drawings or images that reinforce a worship theme.

If your congregation uses projection equipment (computer or video, slides or overheads), be creative in using those tools to display visual arts as well as text.

Posters – of fine art, from denominational sources, and from issue campaigns – can be used in the worship space with care. A poster on an easel in the front of the church, or on the doors leading into the sanctuary, can emphasize a theme and set a tone for the service.



**MEDITATION AND PRAYER**

*All you big things bless the Lord  
Mount Kilimanjaro and Lake Victoria  
The Rift Valley and the Serengeti Plain  
Fat baobabs and shady mango trees  
All eucalyptus and tamarind trees  
Bless the Lord  
Praise and extol him forever and ever.  
All you tiny things bless the Lord  
Busy black ants and hopping fleas  
Wriggling tadpoles and mosquito larvae  
Flying locusts and water drops  
Pollen dust and tsetse flies  
Millet seeds and dried dagga  
Bless the Lord  
Praise and extol him forever and ever.  
African Canticle*

## 4. Israel and God's Land

“Through my experiences and observations, I have come to believe that the physical destruction of the earth extends to us, too. If we live in an environment that’s wounded – where the water is polluted, the air is filled with soot and fumes, the food is contaminated with heavy metals and plastic residues, or the soil is practically dust – it hurts us, chipping away at our health and creating injuries at a physical, psychological, and spiritual level. In degrading the environment, therefore, we degrade ourselves.”

– *Wangari Maathai* –

“Remember ‘the Earth is not dying, it is being murdered and the people murdering it have names and addresses.’”

– *British EarthFirst!* –

“Earth is crammed with heaven  
And every bush aflame with God  
But only those who see take off their shoes.”

– *Elizabeth Barrett Browning* –

### KEY WORDS:

*Resources, Sustainability, Sabbath, Jubilee*

Chief Seattle, Chief of the Suquamish and some other Indian tribes around Washington’s Puget Sound is said to have written to the American government in the 1800s protesting against white settlers and the trading of their land. A movie version had him say, “How can you buy or sell the sky, the warmth of the land?” He asked the question: who owns all the land and its resources? Seattle made his point that it belonged to no one, and – on the contrary – we belong to the land! With indigenous people making claims to their rights and many people today facing problems of ownership, it is time we gave some serious thought to these related issues.

The major concern for our world today is its rapidly increasing population and therefore the pressure being put on the limited resources we have available for our use. Land is crucial for human habitation as well as for the production of food and other essentials. We cannot take it for granted. Over-use, with a lack of responsibility towards the land, continues to cause concern. The alarming depletion of material resources will bring about disastrous consequences, if population growth on the one hand, and prac-

tices such as indiscriminate farming, deforestation and urbanization, on the other, are not checked.

God gifted Israel with the Promised Land and gave clear and practical commands on how they should be good stewards. God cares deeply for creation. “[God] has measured the waters in the hollow of His hand, and meted out heaven with the span, and comprehended the dust of the earth in a measure, and weighed the mountains in scales, and the hills in a balance” (Isa. 40:12). Any exploitation is discouraged.

## ISRAEL AND GOD'S LAND

The Old Testament clearly emphasizes the blessing of the land entrusted to the people of God. The call of Abraham begins with a blessing to all peoples of the earth through him. “I will make you into a great nation. ...all the peoples of the earth will be blessed through you” (Gen. 12:2-3). From the time of the promise to Abraham through to the time of David and Solomon, there is the dominant theme of land in the affairs of the people of Israel. Whether it was during their wilderness journey on the way to possess this land, or later during their time in exile when they were deprived of their inheritance, God was to remind them continually of this possession and of their relationship to Him through it.

Let us summarize the teaching of the Old Testament in relation to the land:

God is the owner of the land (Lev. 25) and entrusts humans the stewardship of keeping and tending it for present and future generations. Even the land, not just its produce, being God's creation, has the need to be regenerated, so that it may continue to sustain life. Land cannot be bought or sold for a long period but can be owned temporarily till the year of Jubilee. Then automatically land returns to the original owner of the tribe (Lev. 25:13-17).

Central to God's command was careful and just stewardship of the land. The land itself was to receive a rest every seven years (Lev. 25:4). In fact, Israel's failure to follow the laws relating to the land was considered a cause of their exile to Babylon (2 Chr. 36:21).

The care of the land, and the rights of the poor and those in need were at the centre of God's command. Adequate food was regarded as a God-given right for everyone. The poor were allowed to feed on grapes in a neighbor's vineyard, or to pluck grain when passing by a field (Deut. 23:24-25). Owners were urged to allow those in need to glean the leftovers from their harvest (Lev. 19:9-10). The rich were encouraged to take care of the needs of the economically marginalized that have rights to survive.

The concept of sharing community resources according to need was an integral part of the covenant. Caring for one's neighbor, especially one in need, became a covenant obligation. This was reiterated even at the time of scarcity of food. While they were traveling through the wilderness, manna was given by God according to their needs. Any one collecting more than required out of personal greed would find it was spoiled the next day (Exodus 16:11-20). Jesus directly addresses this tradition when he places the commandment to love one's neighbor as oneself, as second only to the commandment to love God (Mt. 22:38-40).

### ***God owns the Land***

Israel accepted God's ownership of all that He had created. But they understood even more clearly that God had gifted a particular portion of this creation to them for their own use. The Patriarchs who received the promise were reminded of God's blessings, and this was seen in the fertility of land, livestock and people, wherever they went. The Lord had blessed the crops planted by Isaac (Gen. 26:12). The Lord's blessing was upon everything, both in the house and in the field (Gen. 39:56).

God is the owner of the land. The Lord says, "the land is mine and you are but aliens and my tenants" (Lev. 25:23); and He refers to it clearly as "my land" (Jer. 2:7; 16:18). In 2 Samuel, the Hebrew word *nahalal* is used (2 Sam. 20:19, 21:3) meaning "landed property apportioned to an individual," but it is clear that no one has given this land to God. Only God owns, and he gives. The word *nahalal* is also translated as "inheritance." This will imply an intimate relationship between God, the owner, and the people to whom he gives the land.

Even though God gave the land to Israel, it was still his land (Deut. 25:23). Therefore, no one was free to do as he liked. Careful instructions were given. Even the king was only a tenant in God's land, as for instance Ahab and Neboth. Responsibility to one's family or to one's neighbor was clearly seen. The land was not to be sold, but to be preserved within the framework of kinship. Israel was thus accountable to God for the use of the land. Human "ownership" only entailed responsibility for administration and proper distribution, but not for disposal. Any rights and responsibilities were both individual and national.

### ***God Promised the Land to Israel***

God's promise to Abraham is a prominent theme in the Old and New Testaments. In Gen. 12:2-3 God affirms, "I will make you into a great nation ... and all the peoples of this earth will be blessed through you." This promise is elaborated in Gen. 17:7-8: "I will establish my covenant as an

everlasting covenant between me and you and your descendants after you. . . . The whole land of Canaan, where you are now an alien, I will give to you as an everlasting possession to you and to your descendants after you. I will be their God.” It is important to note that God’s promise to Abraham that he will have numerous descendants is complementary to the promise of the possession of land.

The book of Deuteronomy has intricately brought together the promise of the land made to early patriarchs and the tradition of the commandments given at Mount Sinai. Everything that was promised to Abraham was fulfilled by God (Deut. 6:10f). God brought the people of Israel into the land, as had been promised to the patriarchs. Even the essential gifts of nature, wine, oil and water were attributed to Yahweh, as the Lord of history.

### ***God Gifted the Land to the Israelites***

Canaan, as promised to Abraham, was the inheritance of the people of Israel, a gift they had received through God’s grace. The Israelites were constantly reminded that the land they would possess was a gift from God, and this in turn was a reminder of the intimate relationship between them and God. It was because of this relationship that the land was a blessing (Deut. 8:7-9; 11:8-12). Israel enjoyed God’s blessings through gifts of rain, sun and a fertile soil. Such blessings were considered to be from *Yahweh*. A good harvest of wheat, olives, wine, or vegetables was also seen as a blessing from God. As they depended on God for their livelihood, they continued to enjoy blessings in the land that they had received as a gift. Conversely, when their land did not yield anything, the Israelites knew it was because of a curse from God.

There are a few important facts that must be underlined, which will help set Gods’ promise to the Israelites in perspective;

*a. The gift was God’s initiative:* In Ex. 6:8, God said, “I will give it to you.” It was a free act of grace by God. Hence, any idea of the Israelites’ having deserved the land (see Deut. 8:17) is clearly negated. Also, “Understand then, that it is not because of your righteousness that the Lord your God is giving you this good land to possess, for you are a stiff-necked people” (Deut. 9:6).

*b. The blessing of the land was a continuing reminder of God’s hand on Israel.* Despite Israel’s apostasy, God continues to be gracious, although reminding them that they were the ones who had defiled the land. God had blessed them with a fertile land, rich in fruit and produce (Jer. 2:7-8). The people of Israel had forsaken God’s provision – “the spring of living water” (vs. 13).

*c. God continues to be the owner even though this land has been gifted to Israel.* God is the title-deed holder. Although there is reference to selling in the Jubilee-year regulations (Lev. 25:14ff), even this was to be done without taking advantage of each other. Later, there are clear reminders that the land could not be sold, for God reminds Israel, “the land is mine” (Lev. 25:23).

*d. Because this land was given as an inheritance to Israel there was no selling or buying.* There is no provision in the Old Testament for the sale of land. Land is only transferred to heirs. It could, however, be lost through disobedience (Deut. 4:25-31).

*e. The Israelites could not take for granted that they would possess the land perpetually.* Ongoing occupancy depended on their moral behavior and their observance of the law (Deut. 8:1). “Justice and only justice you shall follow, that you may live and inherit the land which the Lord your God gives you” (Deut. 28:1-14).

*f. While obedience brought blessing, disobedience would bring curses.* It would “please” God to ruin and destroy just as much as to bless! Note that even the land itself would not tolerate disobedience (Deut. 28:63-64).

## ISRAEL'S RESPONSIBILITIES IN THE LAND

Israel received the land as its possession to be used responsibly. This was made clear in the instructions, which demanded a responsible lifestyle (Deut. 12:1). Israel had to keep the land pure, in order to continue to inherit the land (Deut. 4:26). After the conquest, the people were to obey the law in the land (Deut. 6:1, 10f).

These responsibilities were directed to God, to the family and to one's neighbors. For instance, to God, one had to offer the first fruits of harvest, and one had an even larger responsibility to observe the sabbatical year. As far as the family was concerned, no single person was to make a commercial transaction of the land, for it was the responsibility of the entire family.

The laws towards neighbors were even wider-reaching: no one should cause any damage to animals or to property; one was to respect the integrity of boundaries, leave the gleanings, and ensure that resources were shared by all. Land rules in Israel called for one to care for one's neighbor, especially for the poor (Ex. 23:6), the stranger (Ex. 21:21-24; 23:9), and the Levite (Deut. 14:27). These were the people who did not have any standing in society. God's generous heart allowed the land to be shared by all, both by God's people and by those who were outside of God's community.

## THE SABBATH AND THE JUBILEE FOR THE LAND

Amid the ecological crisis, the Sabbath principle is ideally suited to be restored today. The OT teaching – there was to be a Sabbath, a seventh-year law for the land: “When you enter the land I am going to give you, the land itself must observe a Sabbath to the Lord” (Lev. 25:2). The Israelites were to ensure this would be practiced and, in doing so, would continue to acknowledge God’s ownership and ongoing relationship to the land. The practice was a boon to the poor and to the animal world. Observing the Sabbath of the land and canceling the debts of the poor was done unto God and before the presence of God (Deut. 15:2). Failure to respect this law would be punished, as the Israelites were forced to recognize during their exile (2 Chr. 36:21).

The Jubilee, which came after every 49 years, made sure all land was restored to the original Israelite owner. Slaves were released in this year, symbolizing the release that God was to give to Israel. In both cases, whether ownership of land or slaves, God showed Israel that there was to be no exploitation. Only God was sovereign. The principle of the Jubilee put a restraint on the rich and prevented them from accumulating property and taking advantage of the helplessness of the poor. It maintained the equitable distribution of land amongst all families of Israel. The rights of each family were safeguarded. Land was returned to the family, because the Lord had given it to them originally.

Sabbath and Jubilee teachings expressed a wider concern for justice, through their call to care for all people. Everyone was to have a part in God’s gift. Some of the rich coveted beyond their limits (Amos 8:4-6), and sabbatical laws therefore protected the poor against any exploitation. Observing the Sabbath resulted in giving rest to the land (Lev. 25); and this, rather than decreasing output, resulted in a higher yield. It reminded the Israelite that the land was a gift of God and not private property.

These principles served as a check on human greed and on the craving for accumulation by continuous harvesting. Land, just like humans, needed rest. This is an urgent message for our world today. Over-fishing and intensive farming are devastating both sea and land. People must not exhaust the resources of the land for immediate gains, but must learn to maintain its fertility for present use as well as for the use of generations to come. Sustainability is underlined.

The concept of the Sabbath rest for the whole of creation is directly based on the model initiated by God, who created for six days and rested on the seventh day. Refreshment through rest is beneficial for humans, but there are wider implications. The Sabbatical and Jubilee recall this sev-

enth-day rest of the Creator, now made available for the whole of creation. The Sabbath to the Lord for the land reminds us that land enjoys a vital relationship to God; and so, like God and humans, it is equally entitled to enjoy a Sabbatical year.

The Jubilee, according to Leviticus 25: 23-28, is God's provision, given in order that the divine ownership of the land is respected and maintained. The principle is in fact an elaboration of the tenth commandment, not to covet one's neighbor's movable or immovable property. It was a constant reminder of the divine ownership of land and of the divine gift, as illustrated in the story of King Ahab and Naboth's vineyard (I Kings 21).

### WHAT DOES THIS MEANS FOR US TODAY?

Although we do not possess or await any 'promised' land as Israel did, the lessons for today are the same as in the past. If God owns the land, then we must play our part in conserving resources, even if on paper it belongs to governments or land-lords. Wherever we are, we have access to resources from the land. It is as wise stewards that we must act, and we must call everyone in the world (whether Christian or not) to act similarly. Where possible, we must also stand up together with other communities to expose the exploitation of God's resources. It is selfishness and greed that lie at the root of the ecological crisis that we face today; and the solution will come only when we recognize God's call for us to care for creation.

### READ AND REFLECT

#### *Squamish Amer-Indian tribes and Chief See-at-la*

Squamish Amer-Indian tribes have inhabited the Puget Sound basin in the northwest corner of the United States for thousands of years. Chief *See-at-la*, was a hereditary leader of the tribe, and native mystic, (1786 – 1866). The real name was changed by English speaking settlers, so when the city was named See-at-la became "Seattle."

Seattle became a Christian, and was given the name Noah. Faced with the incursion of White settlers, Noah Seattle chose peace rather than war, and offered the settlers assistance. In 1855 (when he was about 65 years old), he signed a treaty ceding most of his tribe's ancestral lands to the settlers and moving his people north. The speech given at the treaty negotiations in 1854 is regarded as one of the greatest statements ever made concerning the relationship between a people and the earth. The speech, supposedly translated by pioneer Dr. Henry A. Smith, was published in the Seattle Sunday Star, Seattle, Washington Territory, October 29, 1887.



Portions of the speech are often quoted by environmentalists, though the translations vary and some of them may have been modified. There are two well known versions. One is the movie version which had Seattle speak in very poetic language, and another claimed to be the original. Here below are extracts from what Chief Seattle is claimed to have really said:

“The great, and I presume also good, white chief sends us word that he wants to buy our lands but is willing to allow us to reserve enough to live on comfortably. This indeed appears generous, for the red man no longer has rights that he need respect, and the offer may be wise, also, for we are no longer in need of a great country. There was a time when our people covered the whole land as the waves of a wind-ruffled sea cover its shell-paved floor. But that time has long since passed away with the greatness of tribes now almost forgotten. I will not mourn over our untimely decay, nor reproach my pale-face brothers for hastening it, for we, too, may have been somewhat to blame.

“Your God loves your people and hates mine; he folds his strong arms lovingly around the white man and leads him as a father leads his infant son, but he has forsaken his red children; he makes your people wax strong every day, and soon they will fill the land; while our people are ebbing away like a fast-receding tide, that will never flow again. The white man’s God cannot love his red children or he would protect them. They seem to be orphans and can look nowhere for help. How then can we become brothers? How can your father become our father and bring us prosperity and awaken in us dreams of returning greatness?

“Your God seems to us to be partial.

“However, your proposition seems a just one, and I think my folks will accept it and will retire to the reservation you offer them, and we will dwell apart and in peace, for the words of the great white chief seem to be the voice of nature speaking to my people out of the thick darkness that is fast gathering around them like a dense fog floating inward from a midnight sea.

“It matters but little where we pass the remainder of our days. They are not many. The Indian’s night promises to be dark. No bright star hovers about the horizon. Sad-voiced winds moan in the distance. Some grim Nemesis of our race is on the red man’s trail, and wherever he goes he will still hear he sure approaching footsteps of the fell destroyer and prepare to meet his doom, as does the wounded doe that hears the approaching footsteps of the hunter. A few more moons, a few more winters, and not one of all the mighty hosts that once tilled this broad land or that now roam in fragmentary bands through these vast solitudes will remain to weep over the tombs of a people once as powerful and as hopeful as your own.

“But why should we repine? Why should I murmur at the fate of my people? Tribes are made up of individuals and are no better than they. Men come and go like the waves of the sea. A tear, a tamanamus [a religious ritu-

al], a dirge, and they are gone from our longing eyes forever. Even the white man, whose God walked and talked with him, as friend to friend, is not exempt from the common destiny. We may be brothers after all. We shall see.

“We will ponder your proposition, and when we have decided we will tell you. But should we accept it, I here and now make this the first condition: that we will not be denied the privilege, without molestation, of visiting at will the graves of our ancestors and friends. Every part of this country is sacred to my people. Every hill-side, every valley, every plain and grove has been hallowed by some fond memory or some sad experience of my tribe. Even the rocks that seem to lie dumb as they swelter in the sun along the silent seashore in solemn grandeur thrill with memories of past events connected with the fate of my people, and the very dust under your feet responds more lovingly to our footsteps than to yours, because it is the ashes of our ancestors, and our bare feet are conscious of the sympathetic touch, for the soil is rich with the life of our kindred.

“The sable braves, and fond mothers, and glad-hearted maidens, and the little children who lived and rejoiced here, and whose very names are now forgotten, still love these solitudes, and their deep fastnesses at eventide grow shadowy with the presence of dusky spirits. And when the last red man shall have perished from the earth and his memory among white men shall have become a myth, these shores shall swarm with the invisible dead of my tribe, and when your children’s children shall think themselves alone in the field, the shop, upon the highway or in the silence of the woods they will not be alone. In all the earth there is no place dedicated to solitude. At night when the streets of your cities and villages shall be silent, and you think them deserted, they will throng with the returning hosts that once filled and still love this beautiful land. The white man will never be alone. Let him be just and deal kindly with my people, for the dead are not altogether powerless.”

### *Aldo Leopold and Conservation*

Aldo Leopold (1887-1948) an American scientist, ecologist and environmentalist is best known for his book *A Sand County Almanac*. He has been influential in the development of modern environmental ethics and in the movement for wilderness conservation. His ethics of nature and wildlife preservation had a profound impact on the environmental movement, with his eco-centric ethics regarding land which emphasized biodiversity and ecological principles. Here below is an excerpt on conservation:

“Conservation is a state of harmony between men and land. By land is meant all of the things on, over, or in the earth. Harmony with land is like harmony with a friend; you cannot cherish his right hand and chop off his left. That is to say, you cannot love game and hate predators; you cannot conserve the waters and waste the ranges; you can-

not build the forest and mine the farm. The land is one organism. Its parts, like our own parts, compete with each other and co-operate with each other. The competitions are as much a part of the inner workings as the co-operations. You can regulate them – cautiously – but not abolish them.

“The outstanding scientific discovery of the twentieth century is not television, or radio, but rather the complexity of the land organism. Only those who know the most about it can appreciate how little we know about it. The last word in ignorance is the man who says of an animal or plant: “What good is it?” If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.”<sup>14</sup>

## QUESTIONS FOR DISCUSSION

1. How do you relate the biblical teaching on land to your local situation?
2. Are Chief Seattle’s thoughts applicable today? Why?
3. What forms of exploitation continue in our world today? How can we address such problems as Christians?
4. What responsibilities do we have towards the poor and landless?

## PLAN TO ACT

**Land Ownership:** The topic of land ownership (and with it the exploitation of the landless) will make an ideal topic for research by a committed group of Christians. Land ownership and distribution patterns, migrations, lease patterns, land alienation, landless people, land and caste, land and gender are very important themes for study.

Select a slum or village. Try to obtain as much information about the place and people as possible. Some of this information is available from government or even non-government offices. Visit the location yourselves and make your initial observations.

Meet people one on one and get to know their plight. Some may own small pieces of land, but others nothing. Ask questions like, “Who owns this land on which you live?” “Do you have basic needs such as electricity and water?” “Why?” You will discover some strong links between poverty and injustice.

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<sup>14</sup> Aldo Leopold, *Round River*, Oxford University Press, New York, 1993, pp. 145-146.

Try to get down to these deeper issues of injustice and exploitation. You will discover some very crucial issues of concern which will need to be addressed. Can you or your church do something about this?

Write up your findings. See what action you can take as a Christian community.

## **MEDITATION AND PRAYER**

*Forgive us, Lord, for the damage we have done to the earth.*

*Forgive us that the rivers and seas have been polluted by the waste of our civilization.*

*Forgive us that the air has been turned foul by burning fuel and radioactive emissions.*

*Forgive us that flowers, fauna and wild creatures have become extinct through our relentless invasion of their natural habitat.*

*Forgive us that we have often valued profit more than the quality of the environment in which people have to live.*

From *Further Everyday Prayers*



## 5. What does the New Testament Say?

“We know that the whole creation itself has been groaning as in the pains of childbirth right up to the present time.”

– *Romans 8:22* –

“Creator of the universe, watch over us and keep us in the light of your presence. May our praise continually blend with that of all creation, until we come together to the eternal joys which you promise in your love, through Jesus Christ our Lord. Amen!”

– *Celtic prayer* –

“Heaven is important, but it’s not the end of the world.”

– *N.T. Wright* –

### KEY WORDS:

*Paradigm Shift, God’s image, New Creation*

Does the New Testament endorse environmental action? Christians who prefer to opt out of any environmental responsibility would say “No.” They will either say that evangelism is their priority, as endorsed by the so-called Great Commission or that there is very little to show that we must be involved in any such action. It is for the governments to act, they say. Many of these misconceptions grow out of limited biblical or New Testament perspectives, based on a few isolated verses. This chapter aims to open our eyes to a better eco-reading of the New Testament.

But we first grapple with the question – “Why is it that there is not much reference to environmental responsibilities in the New Testament?” One reason for this could be that the Jewish disciples of Jesus, committed to all the teaching of the Old Testament, were preoccupied with proclaiming the Gospel and the coming of the Messiah that they had anticipated within the span of their life time. That was their priority. Whatever was to be said about God and creation, about the world and the new creation to come was not their immediate concern. Enough and more had already been underlined in the Old Testament. The scriptures were available to testify to all of these claims, and Jesus Christ rejected none of this teaching.

If this question were to be put to Jesus, he certainly would have replied – “Look at the fields... look at the grass... look at the fig tree... look at this sea... look at the birds... Did they come just by themselves? Is it not God our Father who created these? Must we not care for them, even as your

Father cares for you?” It would be very hard to conceive of a Jesus Christ who had no concern for God’s creation.

But let us look deeper into the New Testament. Despite this lack of direct references, a careful look will show that there is sufficient teaching for us to build upon. These references take us back to the corresponding Old Testament themes, and we carefully draw out implications.

## CREATION

Our Old Testament study has brought before us some clear teaching on creation, and this is foundational to developing an ecologically sound theology. Creation is equally important to the New Testament as it is foundational for Jesus Christ’s authority over the church: “For by him all things were created, things in heaven and on earth, visible and invisible . . . all things were created by him and for him. He is before all things and in him all things hold together” (Col. 1:16, 17). This is a significant affirmation of the centrality of Christ in relationship to God’s creation.

There is a gradual shift in focus (if not a change) in the disciples’ teaching in the New Testament. It is a very clear paradigm shift that becomes apparent. To start with, the Jews who first responded to Jesus saw Him as their own national Messiah, and it took time for them to take the first step of shifting from their initial sense of exclusiveness. They had to enlarge their vision of Jesus as *Savior exclusively for themselves* to a more inclusive attitude, recognizing Him as Savior of the *whole* world and acknowledging God’s plans for *all* the people of the world, whether Jew, Gentile or barbarian. We note this change in the book of Acts, which records the disciples’ struggle during their shift from a Jewish mission to a wider Gentile mission.

Having taken this first step, there was then an even larger one – the recognition that God’s sovereignty was not only *over all people*, but also *over all of creation*. This is an important shift for us to note if we are to accept God’s overall plan for His world. Paul proclaims with excitement that God “made known the mystery of his good pleasure, which he purposed in Christ, to put into effect when the times will have reached their fulfillment – to bring *all things* in heaven and on earth together under one head, even Christ” (Eph. 1:9-10). Reconciliation is not restricted only to people: it is for *all things*. If sin has universal ramifications, redemption cannot be any less.

In Hebrews 1:3 we read of Christ “upholding the universe.” The same Christ, who was in the beginning, bringing about creation, is the one sustaining (Col. 1:17) and upholding it. But there is also the final stage when

Christ's Lordship will be made known completely: "that in everything he might be preeminent" (Col. 1:18). In his birth, baptism and temptation, Jesus showed himself as one who was related to the human community. Christ became part of creation so that he could share in God's overall plans for the future perfection of all of God's creation. If sinful humanity brought about creation's fallenness, Jesus' complete humanity has become the means to bring total redemption for everyone and everything.

## THE IMAGE RESTORED IN AND THROUGH JESUS CHRIST

Man and woman, according to the Genesis narratives, were made in the image of God, as we have seen in our study of the Old Testament. However, something happened in the fall, and – although not completely destroyed – this image has been marred by sin. For Jesus Christ's redemptive work to be complete, this image must be restored. But, interestingly, the overwhelming stress in the New Testament is on God's image becoming perfect in Jesus Christ. Jesus is pictured as the perfect representation or image of God.

This concept comes through powerfully in the Colossian letter: "[Jesus Christ] is the image of the invisible God" (Col. 1:15). There is definitely the implication of a distinction between Adam and Jesus: that which was only partially demonstrated in Adam is now represented totally in Jesus Christ. What was fallen in Adam is now raised in Jesus. Whatever was hindered through Adam is now perfected in Jesus Christ.

We must see the broader implications, however, as the image once tarnished is now restored – first in Jesus Christ, and then in the Church as it matures towards "attaining to the whole measure of the fullness of Christ" (Eph. 4:13). Paul is not primarily concerned about the restoration of the image in its human dimensions, but first looks to Jesus Christ who has shown us what it means to be "created like God in true righteousness and holiness" (4:24). What happened in Jesus can now happen to his followers.

So, where in the New Testament do we read about this image of Christ being imparted to us human beings? In Romans 8:29, there is a direct reference to his effect: "For those God foreknew he also predestined to be conformed to the likeness of his Son, that he might be the first-born among many brothers." We must also look to the predominant Pauline stress on identity in Christ. It helps us to answer the question. It is in Christ that we have our identity and a claim to all that Christ is, including the restored image of God. Through the restoration of the image in Jesus Christ, we are restored to new humanity. In fact, this is full humanity. This new humanity in Christ is clearly outlined in Paul's treatment of the resurrection (1 Cor.



15:18-22 and 45-49). Jesus Christ is the first fruit, and through him the whole human race is potentially renewed in anticipation of that full and final restoration. Creation suffered through Adam, but is now restored through Jesus Christ.

But this restoration is not just for human beings. Even Peter, in one of his earliest messages, spoke of Jesus remaining in heaven “until the time comes for God to restore everything” (Acts 3:21). All fullness dwells in Jesus Christ, and through Jesus Christ God reconciles all things to himself. The restoration in Jesus Christ results in the reconciliation of all things. Any stress on individual restoration alone is strongly negated, for now, in Jesus, God is pleased that everything should be reconciled.

## CREATION AND REDEMPTION

If God is both creator and redeemer, how then are creation and redemption related? To answer this question, we must start with the Epistle to the Romans, where Paul treats the concept of redemption exhaustively. Sin and sinfulness have to be dealt with, and we read that the wrath of God is “revealed from heaven against all the godlessness and wickedness” of humanity (Rom. 1:18). Creation itself has made plain “God’s invisible qualities” (vs. 19). But, rather than worshipping the Creator, human beings have begun to worship creation. Although they deserve death, men and women “are justified freely by his grace through the redemption that came from Jesus Christ” (3:24).

The link is very obvious. What was marred in the fall soon after creation has now been restored by the redemption that Jesus offers to men and women. But the question relevant to our study is this: is it just humans that God has redeemed? Not at all: the broader implications appear within the book of Romans.

We read in Romans 8:18-22 that creation cries out for God’s redemption. Paul, who describes personal salvation, also believes confidently that “creation itself will be liberated from its bondage to decay and brought into the glorious freedom of the children of God” (vs. 21). Creation has been groaning in sin and cries out with confidence in anticipation of this redemption. Paul’s burden is clear. All of God’s creation must enjoy the benefits of Jesus Christ’s redemptive work.

God’s plan encompasses the total scope of his created order. Appropriately, the Bible opens with the account of God’s creative activity and, similarly, it concludes with God’s hand on this creation. In Revelation, John visualizes the “new heaven and the new earth” – creation completely redeemed. The New Testament must complement the Old. We have seen the

rich background available in the Old Testament for our ecological foundation for theology. There is a holism, an interconnectedness, which however has not yet been explored fully. And this can be done, as we place these Old Testament foundations alongside the teachings of the New Testament.

## ADAM AND JESUS CHRIST

The link between creation and new creation, as we have seen earlier, is clearly underlined in the relationship between Adam and Jesus Christ. Adam's fall brought sin and condemnation, and now Jesus' resurrection reaffirms redemption and grace. Paul's treatment of the *first* Adam's disobedience, and of the obedience of Jesus Christ as the *last* Adam, is instructive for our study. The implications of the obedience of Christ are shown as undoing the effects of the disobedience of Adam: "For if by the trespass of one man, death reigned through that one man, how much more will those who receive God's abundant provision of grace and the gift of righteousness reign in life through the one man, Jesus Christ" (Rom. 5:17). All that the first Adam destroyed the last Adam restored.

Paul strengthens his argument even more in 1 Corinthians 15:21-22: "For since death came through a man, the resurrection of the dead comes also through a man. For as in Adam all die, so in Christ all will be made alive." The effects of sin and death through human folly have ravaged human life as well as creation. And now, with the incarnation and resurrection of the man Jesus, there is a restoration of God's purposes for us all. If sin brought death, now "death has been swallowed up in victory" (1 Cor. 15:54). If sin brought failure, the resurrection brings victory.

When we bring all this teaching together, we see that the contrast between Adam and Jesus must refer to far more than human redemption. Our stress on the interrelatedness of all that God has created frequently draws attention to one fact: in Adam's sin, all creation suffered; in Jesus' obedience, all creation will be restored. The living Christ, as first fruit, has already shown what all humanity and all creation will ultimately become.

## NEW CREATION

But, what is this new creation? Is it something totally new? Or will God transform this same present world and restore it into something as magnificent as in his original plans? We may not have all the answers, but a good way to start is to consider Jesus after the resurrection. It was the same God-Man that the disciples knew, who appeared before them. Even the scars were the same. Does this point to the fact that, whatever newness – human as well as non-human creation will experience – will be a transformation of whatever we know right now?

Take even the fact of new birth. We have received a new start and have even now become new creations in Jesus Christ. If that be the case, then new birth begins with a restoration here and now, although only to be consummated in the future. But what is it that begins now? Certainly, this must be new attitudes; new perspectives; new relationships; new life styles. If our relationship to God has received newness, our renewed relationship to the Creator must now show in a new relationship to all people and to all of God's creation.

Sin and selfishness, which are part of the old creation, had destroyed this relationship. Now, restored or being restored into God's likeness, we are called to demonstrate a newness, showing new attitudes to all that surrounds us. Our frame of reference broadens, and rather than wanting to experience redemption only for ourselves, or only within the human community, we desire to become part of God's total redemptive process.

Paul's Second Letter to the Corinthians (chapters 3-5) develops a clear relationship between the old and the new, bringing together the old creation and the new. The glory that was demonstrated on Moses' face, fading though it was, is now visible in far more clarity on the face of Jesus Christ. Paul uses the concept of "glory," elaborated in the fact that God's light "shines in our hearts to give us the light of his knowledge of the glory of God in the face of Christ" (4:6). This glory, glimpsed by Israel on Moses' face, now shines fully on the face of the risen Lord Jesus, and is to be seen and reflected in those who are in Christ.

It is the resurrection that makes it possible for the believer to be part of this new creation (2 Cor. 5:17). In 1 Corinthians 15 Paul goes on to emphasize the implications of the resurrection of Jesus Christ. The resurrection of Christ inaugurates the presence of the Kingdom of God here and now, although only in an anticipatory way. The re-creation of the universe is awaited. We now await the return of Christ for the coming of the new heaven and the new earth with confidence. The resurrection marks the beginning of this new creation.

Based on the fact that the light of the resurrected Jesus Christ now shines in and through us, we are to develop Christ-like attitudes towards the world. The stress is not just on the fact that we have been redeemed, but that this redemption now shines out through us to the rest of creation, with the ultimate goal that God may reconcile the world to himself. There is a corporate, cosmic and universal dimension for all people and for all creation.

## READ AND REFLECT

### *The Impacts of Climate Change*<sup>15</sup>

- The main impacts of climate change will be due to sea level rise, increases in temperature and heat waves and a more intense hydrological cycle leading on average to more frequent and intense floods, droughts and storms.
- There are many ways in which the environment is being degraded due to human activities, for instance, through over-withdrawal of ground-water, loss of soil or deforestation. Global warming will exacerbate these degradations.
- To respond to climate change impacts, it will be necessary to adapt. In many cases this will involve changes in infrastructure, for instance new sea defenses or water supplies. Many of the impacts of climate change will be adverse, but even when the impacts in the long term turn out to be beneficial, in the short term the process of adaptation will mostly have a negative impact and involve cost.
- Through adaptation to different crops and practices, first indications are that the total of world food production may not be seriously affected by climate change – although studies have not yet taken into account the likely occurrence of climate extremes. However, the combination of population growth and climate change will mean that the disparity in per capita food supplies between the developed and the developing world will become much larger.
- Because of the likely rate of climate change, there will also be a serious impact on natural ecosystems, especially at mid to high latitudes. Forests especially will be affected by increased climate stress causing substantial dieback and loss of production, associated with which there is the positive feedback of additional carbon dioxide emissions. In a warmer world longer periods of heat stress will have an effect on human health; warmer temperatures will also encourage the spread of certain tropical diseases, such as malaria, to new areas.
- Economists have attempted to estimate the average annual cost in monetary terms of the impacts that would arise under the climate change due to a doubling of pre-industrial atmospheric carbon dioxide concentration. If allowance is added for the impact of extreme events, the estimates are typically around 1% to 4% of GDP for developed countries and 5-10% or more for many developing countries. Later chapters will compare them with the cost of taking action to slow the onset of global warming or re-

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<sup>15</sup> This assessment of climate change is borrowed from Sir John Houghton, *Global Warming – The Complete Briefing*, Cambridge University Press, 2009, pp. 232f.

duce its overall magnitude. However, these attempts at monetary costing only represent a part of the overall impact story that must include the cost in human terms, for instance, the large social and political disruption some of the impacts will bring. In particular, it is estimated that there could be up to 3 million new environmental refugees each year or over 150 million by the middle of the twenty-first century. Refinements of all these estimates and the assumptions on which they are based are urgently required.

- Estimates of overall impact need to take the longer term into account. The cost of continuing with business-as-usual (BAU) has been estimated by the Stern Review as the equivalent of 5-20% reduction in per capita consumption now and forever with a strong likelihood that it will be in the upper part of that range and with disproportionate losses falling on poorer countries.
- However, many will ask why we should be concerned about the state of the Earth so far ahead in the future. Can we not leave it to be looked after by future generations?

#### *A New Heaven and a New Earth*

Revelation 21: 1- 5: “Then I saw a new heaven and a new earth, for the first heaven and the first earth had passed away, and there was no longer any sea. I saw the Holy City, the new Jerusalem, coming down out of heaven from God, prepared as a bride beautifully dressed for her husband. And I heard a loud voice from the throne saying, ‘Look! God’s dwelling place is now among the people, and he will dwell with them. They will be his people, and God himself will be with them and be their God. ‘He will wipe every tear from their eyes. There will be no more death or mourning or crying or pain, for the old order of things has passed away.’ He who was seated on the throne said, ‘I am making everything new!’ Then he said, ‘Write this down, for these words are trustworthy and true.’”

#### *The Supremacy of Jesus Christ over all Creation*

Colossians 1:15 – 20: “The Son is the image of the invisible God, the firstborn over all creation. For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross.”

*Resurrection and the Future*

“The point of the resurrection...is that the present bodily life is not valueless just because it will die...What you do with your body in the present matters because God has a great future in store for it...What you do in the present – by painting, preaching, singing, sewing, praying, teaching, building hospitals, digging wells, campaigning for justice, writing poems, caring for the needy, loving your neighbor as yourself – will last into God’s future. These activities are not simply ways of making the present life a little less beastly, a little more bearable, until the day when we leave it behind altogether (as the hymn so mistakenly puts it...). They are part of what we may call building for God’s kingdom.”<sup>16</sup>

**QUESTIONS FOR DISCUSSION**

1. Do you see the New Testament continuing God’s emphasis on Creation as in the Old Testament? Summarize some salient points.
2. How are Creation and New Creation related?
3. Discuss how the resurrection of Jesus Christ anticipates this new creation.
4. How are we co-creators of God to conserve creation?

**PLAN TO ACT***Composting*

We live in an increasingly overpopulated world with mountains of garbage as signs of our throw-away culture. Garbage, also known as refuse, was known only to be dumped. But more and more we are seeing that garbage has useful nutrients that can be utilized for the benefit of the soil as well as for human beings. We have been reading about “God making everything new” and garbage is now being turned into something new and useful for humanity.

Recycling waste by the method of composting is one of the oldest forms of environment friendly agricultural activities. The natural process of decomposition of organic waste yields manure or compost, which is very rich in nutrients. Composting is a biological process in which micro-organisms convert degradable organic waste into a carbon and nitrogen rich product which is an excellent medium for growing plants and greening our habitations.

This can be done on a large scale in cities and towns, or on a small scale for domestic use. The process of composting ensures the waste that is pro-

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<sup>16</sup> N. T. Wright, *Surprised by Hope: Rethinking Heaven, the Resurrection, and the Mission of the Church*, Harper One. 2008.

duced in the kitchens is not carelessly thrown away. It recycles the nutrients and returns them to the soil as nutrients. This organic fertilizer instead of chemical fertilizers produces much healthier fruit and vegetables for human consumption. It also increases the soil's ability to hold water and makes the soil easier to cultivate.

***Here is a Kitchen Compost method you can try.***

Place layers of dry leaves, green grass clippings or chopped weeds, kitchen waste, and – if available – some pre-prepared compost. Add a one-inch (2.5cm) layer of soil, and water evenly.

You may use a drum or a bucket, but you need to puncture it with holes all the way round, to enable aeration. However, in this case, you must put some natural earthworms into the mixture.

Any nitrogen-rich material such as chicken or cow manure can be mixed in with the green material. Small amounts of human urine may also be used, if it is not offensive. (Urine is one of the purest effluents from the human body and has been shown to have several medicinal properties.) The top of the pile or container should be covered, as this will improve the process of decay.

Water the pile by sprinkling; keeping it moist, but not too wet. You can keep adding your kitchen waste to make other layers. Stir the material at least once a week.

You will have nutrient-rich manure or compost within three months, depending on the weather. The warmer it is, the faster the process is. You can use this compost for your garden. Indoor growing will be boosted by this compost.

## **MEDITATION AND PRAYER**

*There is no plant in the ground  
But tells of your beauty, O Christ,  
There is no creature on the earth  
There is no life in the sea  
But proclaims your goodness.  
There is no bird on the wing  
There is no star in the sky  
There is nothing beneath the sun  
But is full of your blessing.  
Lighten my understanding  
Of your presence all around, O Christ  
Kindle my will to be caring for Creation.  
J. Philip Newell, *Each Day and Each Night**

## 6. Relationships Matter

“An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity.”

– *Martin Luther King Jr.* –

“Most people are on the world, not in it-have no conscious sympathy or relationship to anything about them – undiffused, separate, and rigidly alone like marbles of polished stone, touching, but separate.”

– *John Muir* –

“Not to hurt our humble brethren [the animals] is our first duty to them, but to stop there is not enough. We have a higher mission: to be of service to them whenever they require it.”

– *St. Francis of Assisi* –

“When you find peace within yourself, you become the kind of person who can live at peace with others.”

– *Peace Pilgrim* –

### KEY WORDS:

*Anthropocentrism, Biocentrism, Ecocentrism, Theocentrism*

Ecology, we have seen, is all about interconnections and interrelationships – chains, cycles, flows. The core concepts in ecology describe the integrated patterns and processes by which nature sustains life. They point to the fact that all members of an ecological community are interconnected in an enormous and intricate network of relationships. To be part of our environment, therefore, right relationships are important, as individual members derive their essential identity and, in fact, their existence from within these relationships.

If relationships matter, then we must ask, how must we relate to people and to the created world around us, if we are to make a difference in our environment? Anthropocentrism, the view that humans are at the centre of everything, has caused enough damage and is seen to be the root of the ecological crisis. We must urgently take corrective measures and seek to rebuild the right relationship with all that is around us. This attack is not just on anthropocentrism; it is on the biblical doctrine of creation, and Christianity is criticized for encouraging such human-centered attitudes. So we must give a little more thought to this and other attitudes.



Anthropocentrism places humans at the centre. Everything in the universe is seen in terms of human utility and human interests. This view, which is identified with Western culture, developed strongly in the post-Enlightenment period and expressed a confidence that humans could totally conquer nature for their survival and for the betterment of their own kind. Today, Westerners themselves are questioning this deep rooted anthropocentric perspective. But, anthropocentrism, we will have to admit, has become very much part of the modern way of life all over the world, not just in the West. The developing world, in desperate search of progress, is adopting similar attitudes, and hence even environmental problems are approached from purely an anthropocentric perspective: "How can we protect our environment so we can survive?" we all ask. Sustainability has largely been seen in terms of how we can have enough to satisfy our needs.

If anthropocentrism is wrong, then we must look at other kinds of relationships. Biocentrism is offered as an alternative. With the rising ecological awareness in the world, the increasing influence of Eastern philosophies, quantum physics, and a resurgence of traditional insights, ecologists recommend that we consider biocentrism. While anthropocentrism argues in favor of a worldview centering solely on humans and emphasizes value only in human beings, biocentrism argues that everything in nature has value. No one can claim supremacy over any other aspect of nature, for all are needed to support the ecosystem. There is interdependence. Therefore, humans are simply part of the complex whole, no higher or lower than any other part of nature. There are various kinds of biocentric positions. Traditional societies tend to be biocentric people, who relate in very practical everyday terms to the environment around them. They will even worship the elements of nature. The earth's ecosystem is to be valued for its own sake, they claim, and not for the way it primarily benefits humans, particularly from a commercial point of view.

## ECO-CENTRICISM

Environmentalism and ecological philosophies are making governments, corporates, communities as well as individuals assume more responsible attitudes to the environment. Biocentric views have a small though influential following, but perhaps the greater impact comes from what is termed as ecocentricism – an ecological attitude that makes people pay a little more attention to holistic, interrelated solutions that benefit both humans and the environment.

Normally, ecocentric ethics emphasizes an ecology that emphasizes the stability and integrity of ecosystems. The balance and stability of the ecosystem is the key to such philosophies. Aldo Leopold's often quoted max-

im – “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community; it is wrong when it tends otherwise” – relies on these ideas.<sup>17</sup>

The differences between ecocentric and biocentric philosophies will need to be noted. Biocentricity, we have seen, places humans on the same level as animals. Everything has equal value to the well-being of the planet. But the ecocentric argument takes the whole ecosphere into consideration – more inclusive, more complex, and more integrated. Ecocentrism goes beyond biocentrism, with a bit more emphasis on the role of humans in bringing change. It focuses on changing modern society to accommodate the needs of the planet and everything on it.

There is fine line dividing biocentrism from ecocentrism. The distinction is yet to be clearly defined. Ecocentrism recognizes the biotic community as a whole – the totality of the earth’s interactive living and non-living systems rather than the biocentric emphasis on organisms. It is not an argument that all organisms have equal value, but stresses the interconnections within the whole for more responsible living. There are therefore various non-religious groups that will advocate such attitudes.

The biblical position would be a *theocentric* one, i.e. one that places God in the centre. But before we go into that, we must explore some other responses and reactionary movements. In recent times we have been exposed to some philosophies such as deep ecology, eco-feminism and social ecology, which pose serious challenges to the biblical position. Let us now seek to understand the concerns of some of these positions.

## DEEP ECOLOGY

Deep ecology is an environmental movement that challenges us to develop a closer and deeper identification with nature. The movement was started by a Norwegian philosopher, Arne Naess, in 1972. Naess was not the first one to propose the position, but he coined the term ‘deep ecology’ and helped to give it a philosophical foundation. But what is *deep* about it? Deep ecology portrays itself as “deep” because it asks deeper questions about the place of human life – who we are, what we need to be in relation to nature around us, and therefore how we need to address the environmental crisis.

Arne Naess makes some basic distinctions that will help us understand his concerns. He criticizes shallow ecology movements, the popular ones which fight against pollution and resource depletion, and are mainly con-

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<sup>17</sup> Aldo Leopold, *A Sand County Almanac*, Ballantine Books, 1986, p. 240.

cerned about the health and affluence of people in the developed countries. Deep ecology calls for an “ecological egalitarianism,” implying an equal concern for everything in the environment.

Reacting directly to anthropocentrism, deep ecologists accept the understanding that all systems of life on Earth are interrelated. Instead of regarding humans as something completely unique or chosen by God, they see us as integral threads in the fabric of the totality of life. They believe we need to develop a less dominating and aggressive relationship towards the Earth, if the planet and we are to survive.

In 1984, Naess proposed the eight-point platform, which supporters of Deep Ecology hold in common:

1. The well-being and flourishing of human and nonhuman life on earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
2. The richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
3. Humans have no right to reduce this richness and diversity, except to satisfy vital needs.
4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
5. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
7. The ideological change is mainly that of a appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher (materialistic) standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.<sup>18</sup>

Deep Ecology questions philosophical or religious assumptions, belief systems and values. This process of deep questioning enables ecologists to go beyond anthropocentrism or even other superficial solutions to more

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<sup>18</sup> Arne Naess, *Ecology. Community and Lifestyle: Outline of an Ecosophy*, Cambridge University Press, 1989.

fundamental issues. Their questions provoke us to reconsider some of our pet assumptions, which we have perhaps accepted to be biblical, and move towards seeing value and dignity for all, and develop right relationships between humans and nature.

But to speak of an ecological egalitarianism and advocate equality for all in nature is far too idealistic. Someone has to take responsibility for the stewardship of creation, and whoever this is will need to be endowed with bit more discernment and accountability than the rest. In this sense, all are not equal; but this does not sanction exploitation. We will need to pursue this idea of a relationship that will show respect to all and seek for the good of all.

Deep ecology gave rise to the animal rights movement. If all life is one, then humans cannot exploit animals. The teachings of Buddhism helped in giving some foundation to this thought, and from it came movements for such things as the protection of animal rights. Evangelicals should not be critically dismissive of such movements, as they serve to evoke better responses from us towards the flora and fauna around us. Some have even questioned attitudes of love and respect (not worship) for birds, animals, trees and other living organisms. Why should we respect, they ask? Interestingly, the Evangelical Revival of Eighteenth century England generated a reawakening of care and love for all of God's creation: human and animal. The Royal Society for the Prevention of Cruelty to Animals (RSPCA) was founded by an Evangelical Anglican clergyman with money from William Wilberforce. The RSPCA was the first known organization in world history to be founded with the specific intention of alleviating the suffering of animals and continues even today to be active all over the world.

Deep ecologists certainly attempt to go deep, but the "deep" issues they claim to touch require deeper foundations, either in religious belief systems or in fundamental human value systems. On the other hand, the questions they have raised have caused many to think through issues in ecologically sensitive ways.

## ECO-FEMINISM

The term *ecofeminism* was coined by the French feminist Françoise d'Eaubonne in 1974 and refers to a movement which basically affirms that women have a unique relationship to nature and therefore an intuitive ethic of caring and preserving. According to eco-feminists, women and nature have both been devalued in Western culture and must now be elevated and liberated. The movement proposes that women have the potential to bring about an ecological revolution, to save the planet and to redefine gender

relations. Ecofeminists call women to reclaim a spiritual relationship with the earth and thereby make a difference in the world of exploited relationships.

Ecofeminists avoid the term anthropocentrism but prefer *androcentrism*, or even *man-centredness*. This underlines their criticism more clearly. They point to the 10,000 years of patriarchy, which has ultimately been responsible for the destruction of the biosphere and for the development of authoritarian practices, causing havoc both socially and environmentally. As the movement grows, women are asserting that they are being dominated by a complex capitalist patriarchy in which men labor in the marketplace and women labor in the home.

Ecofeminists are people who share both feminist and ecological worldviews. Rosemary Ruether, a writer and active campaigner for women's spirituality, was the author of the first ecofeminist book, *New Woman/New Earth: Sexist Ideologies and Human Liberation* in 1975.<sup>19</sup> She later claimed:

Patriarchal ideology perceives the earth of nature as a female or as a feminine reality. As such, nature is considered to be inferior to men. As a material being having no spirit, no life in and of itself, nature is only a tool to be exploited by men. The cultural roots of ecological crisis can be found in this common perception of both women and nature as realities without spirit and tools to be exploited by the dominant males.<sup>20</sup>

Ecofeminists are unanimous about one fact: biblical culture does not favor women. Ruether is convinced that in the story of Eve's creation and in the laws of Israel, male headship was over women, slaves, animals and land, the domination of men is endorsed. Ecofeminists agree that the exploitation of nature and that of women have this common root. They are convinced that the patriarchal framework leads to hierarchical thinking, and that it was this that gave rise to male dominance. The belief in the dominion of nature originated in a society that taught male domination and must therefore be resolved from within this same society.

Generally, the ecofeminist position is that Western Christianity and its Hebrew and Greek intellectual antecedents have degraded, dominated, and devalued both women and nature. They claim that this system of beliefs,

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<sup>19</sup> Rosemary Ruether, *New Woman/New Earth: Sexist Ideologies and Human Liberation*, Seabury Press, 1975.

<sup>20</sup> Rosemary Ruether, "Ecofeminism," in *Ecotheology*, David G. Hallman, ed., WCC Publications; Orbis, 1994, p. 202.

assumptions, ideals and symbols has been responsible for violence, war, ecological damage and social violence (particularly toward women). They would also argue that traditional Western belief and culture portray all of nature, apart from humanity, as being soulless, inert, created matter, with which man may do as he wishes. And this in turn has created a hierarchy of domination; humanity dominates nature, men dominate women, and Western man dominates the non-white world. Ecofeminists also challenge the dominant models of environmental protection characteristic of the West.

Ecofeminists make a strong connection between women and nature, drawing attention to their role in biological reproduction. Women are said to be closer to nature because of their capacity for bearing children. But, on the other hand, this role is viewed as restricting them to the home, decreasing their mobility and inhibiting their ability to remain in the workforce. Feminists argue that reducing women to their “biological destiny” as mothers degrades them, just as nature is devalued in Western culture. And yet, the connection between women and biological reproduction lies very much at the heart of women’s ecological activism. They are calling for an environment that ensures a healthy home and family life.

Ecofeminists protest against radioactivity from nuclear waste, power plants and bombs as a potential cause of birth defects and cancers. They argue that hazardous waste on sites near schools and homes permeate soil and drinking water, producing statistically higher cases of leukemia, miscarriages and birth defects among local families. They also object to the use of pesticides and herbicides on crops and forests as potentially affecting childbearing women who live in the vicinity.

Ecofeminists could be criticized for their Western agenda and for some of the uncomfortable positions they take, but they have a universal message that must be heard. There is widespread violence and exploitation of women all over, and this must be addressed and compared with questions of ecological exploitation. The attention given by ecofeminists to a healthy home, family environment and resource rich nature must be stressed as these values are being eroded. There is need to relook carefully at what they are saying and then seek truly biblical solutions to bring correctives for today.

## SOCIAL ECOLOGY

Another eco-centric position that has challenged Western anthropocentrism is “social ecology,” so called because of its recognition of the fact that nearly all our present ecological problems arise from deep-seated social problems. Murray Bookchin is the major figure behind this philosophy

of nature. He asserts that current ecological problems cannot be clearly understood or resolved without directly dealing with the exploitation and disrupted relationships with society. Social ecology, like the other movements, claims that the environmental crisis is a result of the hierarchical organization of power and the authoritarian structures rooted in Western society. The Western ideology of dominating the natural world arises from these distorted social relationships.

The alternative that Bookchin proposes is a society based on ecological principles; an organic unity in diversity, free of hierarchy and based on mutual respect for the interrelationship of all aspects of life. Our relationship with the rest of nature will be transformed only when we change human society. Bookchin believes that social hierarchy and class perpetuate our domination of the environment and underpin the consumer system. The root causes of environmental problems are such issues as trade for profit, industrial expansion, a rigorous consumer attitude and the identification of “progress” with corporate self-interest.

Social ecology emphasizes that the destiny of human life goes hand in hand with the destiny of the nonhuman world. Social ecologists believe that things like racism, sexism, and third world exploitation are a product of the same mechanisms that cause rainforest devastation. Social ecology aims to replace our mentality of domination with an ethics of *complementarity*. Such a set of ethic reflects our true role, which is to create a fuller, richer environment for all beings.

Bookchin rejects the “either/or” thinking behind the commonly held opposites – anthropocentricity and biocentricity. Anthropocentrism places humans at the top of a species hierarchy, with the premise that the world was made for us. The opposing principle, biocentricity, claims that all beings have equal intrinsic value and is bound up with the notion of a “biocentric democracy,” which Bookchin describes as “almost meaningless.” In place of the existing hierarchical and class system, social ecology proposes an egalitarian society based on mutual aid, caring and communitarian values. People in this new society would appreciate that the interests of the collective are inseparable from those of each individual.

Social ecology was among the earliest of contemporary ecologies to call for a sweeping change in existing spiritual values. Such a change would mean a far-reaching transformation of our prevailing mentality of domination into one of harmony and complementarity. We would then see our role in the natural world as creative, supportive, and deeply appreciative of the needs of nonhuman beings with their own capacities to produce a richer,

more creative and developmental whole – not as a “dominant” species, but as a supportive one.

As expected, social ecology has given rise to a truly natural spirituality, which seeks an engagement in ecological restoration and fosters an aesthetic appreciation of nature and its diversity. This spirituality stems from the biological sciences, rather than from supernatural or pantheistic traditions. Social ecology is an appeal not only for moral regeneration but also for social reconstruction, for the attainment of an ecological society. It could have a strong appeal for those educated middle-class societies, who have been addressing some of these issues, but who do not want to take up reactionary or deeply religious positions.

## THEOCENTRISM

Having considered these varying positions and their proposed solutions, we need to have a new look at biblical theocentrism. What do we mean by theocentrism? Paul summed up theocentricity as a total identification with the creator God: “in him we live and move and have our being” (Acts 17:28). Transposing this to the entirety of God’s creation, we affirm that everything finds existence, meaning and purpose in its relationship to our creator and redeemer God. Our being stands or falls in relationship to this God. But we need to clarify the focus of our theocentricity within the context of the ecological crisis and the reminders that have come to us.

There could be two varying positions on theocentrism. One form would teach that everything exists only for the sake of God and to serve God’s purposes. God will take on the ultimate responsibility for re-creation and therefore we need to have no concerns at present! There are some Christians who will attack any environmental action from the Christian community on these grounds. God has promised to renew creation, they tell us, and we should not take the place of God. The Bible partly justifies this attitude, but it leaves room for even more.

There is another position on theocentrism that fits more appropriately into our eco-conscious world today. While accepting that God is at the centre of all that we are and do, we also recognize that God wants us to actively do our part. God created everything, but intended each element of creation to fulfill distinct purposes. These purposes are for the common good of the community as well as the individual, within the total environment in which we are placed. Whatever we do, we do as representatives of God, with responsible and caring attitudes.

Such a position should lead amicably to environmental action as well as social harmony within multi-cultural, multi-racial and multi-religious soci-



eties. If we go back to our position on creation and the understanding that everyone is made in the image of God, then we must arrive at a common theocentric position. This should not be misunderstood as compromising our claim to salvation in Jesus Christ. The objective is to bring about corrective action to resolve our ecological crisis, and we should therefore meet on some common platform in order to make headway.

Theocentrism, in any form, must emphasize that our relationships within creation revolve around a transcendent God. Pure biocentrism deifies nature, while pure anthropocentrism divinizes humans. A relationship with nature by itself will either idealize or romanticize our dealings and not fulfill the ultimate purposes that are intended. Ecofeminists have reminded us that a top-down hierarchy has led to exploitation. Such criticisms arose from Christian voices that were unreasonably narrow and fundamentalist. When we respond properly to a Creator God, everything else will take its rightful place within proper relationships on earth. A balanced theocentric perspective will place everything in its right perspective and respond appropriately to ecofeminist, biocentric, deep or social ecological positions.

God is at the centre of all our relationships. Any relationship based on humans only will tend to be subjective, even subversive. It is impossible to speak about rectifying our attitude to the earth and its resources without an objective reality outside of the human framework. And God, the Creator, must be this objective reality. Because of our theocentric position, we are called to relate like God to humans and nature.

Further, when we speak of a relationship, we are speaking in terms of both mutual rights and responsibilities. We will have to admit that this relationship, even for Christians seeking biblical answers, has been seen to be purely one-sided. All rights have been weighted on the human side. We will need to discover from the Bible that there are certain privileges that even the nonhuman elements of creation should be allowed to enjoy. And this will apply to peoples of all faiths, not just to Christians.

## CONCLUSION

There is no doubt, then, that establishing right relationships is the key to resolving our environmental crisis. We have discussed various facets of such relationships and affirm the urgency to set them right. Let us sum up some of the implications of our relationship to God's creation.

One of the first facts to note is that the creation of human beings is set very much within the context of the totality of God's creative process. God created us, just as he has created all the rest of his creation. Therefore, hu-

man beings – along with all the rest of creation – are dependent upon God for their existence. Yet we all stand equal in our relationship to God.

Secondly, however, this must not imply that there is no difference in status and role between the various constituent members of God's creation. To say human and nonhuman created beings are equal in every respect is to question the creative handiwork of God. God accorded individual distinctiveness and roles to each of his created beings. To bring everything to an equal status, without any differences, would rid human beings of their accountability towards God as well as the responsibility they have towards the rest of God's creation.

But, thirdly, relationships must be seen in terms of responsibilities as well as privileges. Very often, we have considered only our privileges, particularly with the claim that we have been made in the image of God. This privilege carries with it a responsibility. Once responsible relationships are fulfilled, a major part of our environmental crisis will be corrected effectively. The problems have arisen today because of the irresponsible exploitation of our privileges.

Finally, individualities must *only* be seen in the context of the community under God's Lordship. The ecological community is bigger than the community of the church. We come into interrelatedness with the whole community of creation, human as well as nonhuman. In this way, it is possible for us to discover social and environmental harmony in the world, even amid all our religious, cultural and social diversity. When our relationships to the world and to nature are seen within the context of our relationship to God, there is renewed hope amid the increasingly fragmenting world we are witnessing. A theocentric perspective will provide the way forward, and the church must take a stand and make a difference in our world today.

## READ AND REFLECT

### *Canticle of the Sun – St Francis of Assisi (1182 – 1226)*

St Francis of Assisi, an Italian Catholic friar, preacher and founder the Franciscan Order, has been venerated by some ecologists as their patron saint. Poverty was central to his life and service, and the members of his order were called to absolute personal and corporate poverty. He believed that nature itself was the mirror of God. In his "Canticle of the Creatures" he called all creatures his "brothers" and "sisters," and even is said to have preached to the birds and supposedly persuaded a wolf to stop attacking some locals if they agreed to feed the wolf.

*Here below is his famous canticle:*

Most high, all powerful, all good Lord!  
 All praise is yours, all glory, all honor, and all blessing.  
 To you, alone, Most High, do they belong.  
 No mortal lips are worthy to pronounce your name.  
 Be praised, my Lord, through all your creatures,  
 especially through my lord Brother Sun,  
 who brings the day; and you give light through him.  
 And he is beautiful and radiant in all his splendor!  
 Of you, Most High, he bears the likeness.  
 Be praised, my Lord, through Sister Moon and the stars;  
 in the heavens you have made them bright, precious and beautiful.  
 Be praised, my Lord, through Brothers Wind and Air,  
 and clouds and storms, and all the weather,  
 through which you give your creatures sustenance.  
 Be praised, My Lord, through Sister Water;  
 she is very useful, and humble, and precious, and pure.  
 Be praised, my Lord, through Brother Fire,  
 through whom you brighten the night.  
 He is beautiful and cheerful, and powerful and strong.  
 Be praised, my Lord, through our sister Mother Earth,  
 who feeds us and rules us,  
 and produces various fruits with colored flowers and herbs.  
 Be praised, my Lord, through those who forgive for love of you;  
 through those who endure sickness and trial.  
 Happy those who endure in peace,  
 For by you, Most High, they will be crowned.  
 Be praised, my Lord, through our Sister Bodily Death,  
 from whose embrace no living person can escape.  
 Woe to those who die in mortal sin!  
 Happy those she finds doing your most holy will.  
 The second death can do no harm to them.  
 Praise and bless my Lord, and give thanks,  
 and serve him with great humility.

*Albert Schweitzer – Reverence for Life*

Albert Schweitzer (1875 – 1965) was a German theologian and philosopher who served as a medical missionary in Africa. He was controversial as a theologian, claiming in his book *The Quest for the Historical Jesus* that Jesus believed himself to be a savior of the type described in Jewish eschatology. Schweitzer was known for his dedicated service as a medical doctor and the philosophy of “Reverence for Life,” for which he received the 1952 Nobel Peace Prize.

Schweitzer's personal philosophy – the idea of Reverence for Life – is considered to be his greatest contribution to mankind, has often been quoted by those following biocentric and ecocentric viewpoints of ecology. The phrase was the basic tenet of his ethical philosophy and was developed in numerous books and publications during his life. He thought that Western civilization was decaying because it had abandoned affirmation of life as its ethical foundation. Rachael Carson, dedicated her book *Silent Spring* to Albert Schweitzer.

Schweitzer stated:

“The great fault of all ethics hitherto has been that they believed themselves to have to deal only with the relations of man to man. In reality, however, the question is what is his attitude to the world and all life that comes within his reach. A man is ethical only when life, as such, is sacred to him, and that of plants and animals as that of his fellow men, and when he devotes himself helpfully to all life that is in need of help. Only the universal ethic of the feeling of responsibility in an ever-widening sphere for all that lives, only that ethic can be founded in thought. The ethic of Reverence for Life, therefore, comprehends within itself everything that can be described as love, devotion, and sympathy whether in suffering, joy, or effort.”

Here below are some of his well known quotes on Reverence for Life:

“Ethics is nothing other than Reverence for Life. Reverence for Life affords me my fundamental principle of morality, namely, that good consists in maintaining, assisting and enhancing life, and to destroy, to harm or to hinder life is evil.”

“A man is ethical only when life, as such, is sacred to him, that of plants and animals as that of his fellow men, and when he devotes himself helpfully to all life that is in need of help.”

*The Historical Roots of Our Ecologic Crisis – Lynn White Jr.*

***An excerpt from an article published in Science, 10 March 1967***

What did Christianity tell people about their relations with the environment?

While many of the world's mythologies provide stories of creation, Greco-Roman mythology was singularly incoherent in this respect. Like Aristotle, the intellectuals of the ancient West denied that the visible world had a beginning. Indeed, the idea of a beginning was impossible in the framework of their cyclical notion of time. In sharp contrast, Christianity inherited from Judaism not only a concept of time as nonrepetitive and linear but also a striking story of creation. By gradual stages a loving and all-powerful God had created light and darkness, the heavenly bodies, the earth and all its

plants, animals, birds, and fishes. Finally, God had created Adam and, as an afterthought, Eve to keep man from being lonely. Man named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man's benefit and rule: no item in the physical creation had any purpose save to serve man's purposes. And,

although man's body is made of clay, he is not simply part of nature: he is made in God's image.

Especially in its Western form, Christianity is the most anthropocentric religion the world has seen. As early as the 2nd century both Tertullian and Saint Irenaeus of Lyons were insisting that when God shaped Adam he was foreshadowing the image of the incarnate Christ, the Second Adam. Man shares, in great measure, God's transcendence of nature. Christianity, in absolute contrast to ancient paganism and Asia's religions (except, perhaps, Zoroastrianism), not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends.

## QUESTIONS FOR DISCUSSION

1. Evaluate the various ecological viewpoints discussed above alongside the view of nature that you discern in the Bible. What position do you hold? Why?
2. Discuss any environmental movements that you know about and evaluate what view of nature they underline.
3. Does the Bible endorse the philosophy of reverence for life?

## PLAN TO ACT

### *Learn with the family*

Since relationships matter, the family is an ideal place to encourage various kinds of positive engagement in community activities. This should not be a problem, as many young families are always looking for ideas to keep their children occupied. Just as one would conduct a devotional time with Bible reading and prayer, why not have an environmental session with your children? They need to develop love for nature, reverence for life and a concern for the environmental crisis early in their life.

What can you do? For instance, gather around a table and share any readings that relate to the environment. There are always plenty to be found in magazines and newspapers. You may also be able to purchase some good books: look for ones that are well illustrated and appealing to children. Combine this with a practical activity, some form of handicraft using waste materials, potting a plant etc. It is fun to use waste material for making some useful items. Such activities make deep impressions upon children.

And then, try some outdoor activity. If you are near a natural setting, go out together, ask your children to observe everything (or as much as possible) carefully during your walk through the woods or along the river. Introduce them to the names of trees, plants, birds and so on. Ask them to explore new species, see something new in the surroundings. Sit down together and share your experiences to one another. Make sure this is not a technical session! All you are doing is building an awareness of the environment and introducing them to any related issues. Make it a fun time. The learning session could be another indoor session when you come back and sit down. Raise some ecological issues in simple language, or speak about the scientific aspects of certain trees or birds that were noticed.

Not everyone will be fortunate enough to be near a refreshing, natural setting. City dwelling citizens may walk to nearby parks, or go out of town for a picnic. If you are adequately motivated, there is no dearth of ideas for family activities. Make your children eco-conscious from as young an age as you can. I taught my one-year old granddaughter to kiss leaves and smell the flowers having noticed that she was plucking them. It stayed with her, and now she continues to remind me of his little act.

## **MEDITATION AND PRAYER**

*May God bless you with discomfort at easy answers, half-truths, superficial relationships, so that you will live deep within your heart.*

*May God bless you with anger at injustice, oppression and exploitation of people so that you will work for justice, equality and peace.*

*May God bless you with tears to shed for those who suffer from pain, rejection, starvation and war; so that you will reach out your hand to comfort them and change their pain into joy.*

*And may God bless you with the foolishness to think that you can make a difference in the world, so that you will do the things, which others tell you cannot be done.*

– Author unknown



## 7. Equity and Justice

“There’s enough on this planet for everyone’s needs but not for everyone’s greed.”

– *Mahatma Gandhi* –

“Not until the creation and maintenance of decent conditions of life for all people are recognized and accepted as a common obligation of all people and all countries – not until then shall we, with a certain degree of justification, be able to speak of humankind as civilized.”

– *Albert Einstein* –

### KEY WORDS:

*Eco-justice, Solidarity, Equity, Exploitation, Sabbath, Jubilee*

### WHAT IS ECO-JUSTICE?

“Eco-justice” is a relatively recent intruder into our dictionary. It is a word that weaves together concepts of ecology and justice, calling us to responsible and just living, to help correct the ecological as well as economic imbalances. There is a convergence of social justice and environmental agendas. Issues of poverty, social injustice, and environmental degradation, all of which are rampant throughout the entire created order, are included in the uses covered by the term eco-justice.

Eco-justice affirms the need for respect and fairness toward both human and nonhuman creation. The right of all people to a safe, healthy, productive, and sustainable environment is a cry from many different parts of the world. The environment is considered in its totality and is seen to include the ecological, physical, social, political and economic spheres; and all humans are seen to have an equal right to enjoy these, so that there is fairness to all concerned. Environmental justice refers to the conditions in which such rights are being fairly and freely exercised. Just like the concerns of socio-economic justice, eco-justice calls for corrective human responses that will bring about fairness and right relationships in a community.

Ecological impacts are so powerful that even the most remote villages of Africa, Asia, and Latin America feel the effect of decisions made by the World Bank (WB), the International Monetary Fund (IMF), the World Trade Organization (WTO), multi-national corporations (MNCs), and the governments of stronger nations. With globalization, there is so much interaction between the rich and the poor nations, but not all of this takes



place in a manner that is fair and just or that benefits all the parties involved. The whole global community must commit itself to action, if social and economic justice is to be achieved.

### WHAT IS THE BASIS OF ECO-JUSTICE?

One of the basic principles that will evoke a commitment to eco-justice is the recognition of our solidarity with all people and creatures. It is the kind of oneness we share with everyone around us. This principle will lead to equity in managing and sustaining community resources for the benefit of all. Although some may attack the Bible for giving room for environmental exploitation, we will find ample biblical support for teaching that evokes concern and caring for others. We must develop an ecologically oriented biblical theology, reinterpreting basic doctrinal themes in ways that integrate ecological insights. It is then that we will discover that God always intended just and equitable relationships between humans and other beings in the created world. There is no room for the top-down kind of domination, such hierarchy that is attacked by proponents of eco-justice.

But what is equity? Equity is all about fairness. All human beings, the United Nations spelled out in 1973, share a social contract that gives them equal access to human rights, with equal rights to security and a habitable environment. This ensures the right to clean air, water and basic facilities that each country can afford. Therefore, before a country begins to allow its resources to be exported for profit, its own people must be ensured minimal facilities such as food, shelter, clothing and health care. Such rights must be respected not only within nations but between nations as well. A nation must not only ensure basic rights for its own people, but must also take care that its neighbors are not deprived because of its activities.

A major judicial problem is the violation of such rights between nations, particularly between rich and poor. That is why international environmental movements such as Green Peace are exposing large-scale violations in relation to the dumping of hazardous wastes like radioactive materials into countries where environmental protection acts have not yet been enforced. The illegal "exports" and "imports" of used plastics and other waste material is causing harm to many of the poor in India, Indonesia, the Philippines and other developing nations. Equity would demand that we dispose of our harmful wastes responsibly, not only ensuring that our own nation does not suffer, but also that other nations are not affected. The ethical problems, however, come from both sides. The developed country finds an easy dumping ground, while the easy money tempts the various parties involved in such transactions in the developing country.

## ARE POVERTY AND INJUSTICE INTERRELATED?

It has been common to blame the poor for the indiscriminate use and consequent degradation of natural resources, and thus emphasize the negative impact of poverty on the environment. Recent studies, however, not only refute this view but also argue that under some conditions poor communities become environmental protectors and activists. On the other hand, the rich in both North and South, both directly, through commercial activities, and indirectly, through unjust practices, have contributed to perpetuating poverty.

Poverty comes under added scrutiny with the environmental crisis. Wherever there is poverty, it is directly or indirectly linked to the perversion of justice. There is injustice against the poor masses through the exploitation of the environment by the rich. Whether it is inhumane living conditions, with disease and malnutrition, or a plundering of environmental resources, one can trace the roots down to unjust practices that have deprived people and the environment of basic rights and privileges. The basic issue could be that one party demands its rights, without consideration of the rights for the other party.

The rich and powerful unjustly exploit the situation of poverty, but in doing so have contributed to the further exploitation of the environment. The poor, when exploited, are forced to become exploiters themselves. They look to their environment and its resources to alleviate their poverty. Many poor farmers sell their lands to rich industrialists or urban estate developers for large-scale structures and complexes. Environmental imbalances have resulted in such cases, with quick money for a few, but many made poorer in the process. Any economic benefit is temporary. In other cases, there are people who, in their poverty, are compelled to strip their surroundings of all natural resources, in order to help themselves survive in their desperate condition.

Leonardo Boff, a Latin American theologian, draws our attention to an “ecological culture,” an awareness of the responsibilities we have as human beings for the survival of the planet and of animal and plant life. We must face the fact that *we* are responsible for the misery and poverty in the world, as the social system we live in is anti-ecological. The inequalities of a capitalistic economy, and the accompanying deterioration in the quality of life, are the result of the private ownership of sources of wealth – the land and its resources.<sup>21</sup>

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<sup>21</sup> Leonardo Boff, ‘Social Ecology: Poverty and Misery,’ p.235ff in *Ecotheology: Voices from South and North*, ed. by David G. Hallman, WCC Publications; Orbis Books, 1994.

## WHAT DOES THE BIBLE SAY ABOUT ECO-JUSTICE?

The concept of eco-justice has powerful biblical roots, particularly in the Old Testament. We have already seen the seeds of an ecological covenant that God makes with “all flesh that is on the earth” (Gen.9:12-13). Further, in Job 38-41 and in a number of Psalms, there is a call to a right relationship with every aspect of creation. Sabbath principles and covenant law in the Pentateuch called for deep respect for the integrity of creation. Exodus 23, Leviticus 19 and 25, and Deuteronomy 15 all refer to the covenant obligation to respond to the poor, to give animals rest, to let the land lie fallow, and to cancel debts periodically, if not to redistribute the land.

1. *God himself will establish justice:* The Old Testament prophets provided an appropriate platform on which to build a theology of eco-justice. The prophets addressed injustices and spoke in terms of God making justice “the measuring line” (Isa. 28:17) because the Lord himself is a “God of Justice and Peace” (Isa. 30:18). Isaiah anticipated the Messiah, stating “Here is my servant whom I uphold, my chosen one in whom I delight, I will put my Spirit upon him and he will bring justice to the nations” (Isa. 42:1); and then, “In faithfulness he will bring forth justice, he will not falter . . . till he establishes justice on earth” (Isa. 42:4).

2. *The prophets attacked injustice:* Later, when Israel had begun to experience rampant corruption, the prophet Amos vehemently attacked society, calling people to “maintain justice in the courts” (Am. 5:15) and wanting to “let justice roll on like a river” (5:24). He pointed to the wide disparity that had resulted from the failures of the people of God. Amos had seen the degradation of Israel from a simple agricultural community into a people consumed by commercial and questionable practices. There were all forms of trading. With the increase in private ownership for a corrupt few, there was a growing division between rich and the poor (6:4-6; 8:4-6).

Amos was convinced about the supreme importance of justice, based on the requirements of God’s nature and activity. God is one, universal and active, and this was the main driving force behind his convictions. God is creator (4:13; 5:8; 9:5-6), and also the agent of all history (3:6; 4:6-11; 9:7). Famine, drought, disease and eclipse are instruments he uses for his purposes (8:9). God created the mountains, winds and rain, stars and earth (4:13; 5:8; 9:5-6). As moral governor of all nations (1:3-2:16), God is universal and impartial, not even favoring Israel above other nations (2:6). In fact, the prophet warned that God would be more severe on Israel (3:2). Amos had an unshakeable conviction that the ruler of heaven and earth was steadfast and incorruptible, and reflected on the idea that all nations, all

history and all creation have one Lord and are subject to one law and one rule. This God is the judge of all nations.

3. *The prophets saw a direct connection between sin and injustice:* The human problem is not ignorance, but rebellion. The obvious consequences of this rebellion against God are destruction, death and decay. Amos, accordingly, highlighted the judgment of God in nature and in social history. He condemned all perversions of justice. The cry for justice is to order all life by God's standard. Equal justice must prevail in all areas of economics and politics. People exploited the law for their own ends, for their own class, for their own nation. The strong took advantage of the weak and made life luxurious for a few, in the face of the misery of many. Amos condemned those who pretended to be religious and participated in rituals to cover up their corruption. God confronts all people in every place, in all nature and in all history.

4. *The Sabbath Principle:* The Sabbath tradition in Genesis, which is referred to in Exodus and expounded in Leviticus into the Jubilee tradition, has some fundamental issues relating to justice. The Sabbath links social justice with creation, in that all people – free and slave, Israelite and alien, as well as all animals are to enjoy the Sabbath rest. In Leviticus 25, this notion of Sabbath rest is expanded further to a Sabbath year and into the proclamation of a Jubilee, which brings into its purview the care and rest of the land. We need to reflect on the interconnection between human wellbeing and the wellbeing of the earth as expressed in Leviticus. During the Sabbath year, all are to cease striving for their living, supporting themselves instead from the land's spontaneous growth. Debts are to be cancelled and slaves are to be freed. In the Jubilee year, land reverts to its original owner; thus no one can exploit the earth or another person.

5. *The 'Jubilee' principle:* The 'Jubilee' principle of Leviticus 25 and Deuteronomy 15, as we have seen, is a powerful exposition of social and ecological justice. The principle aimed at protecting the rights of victims of injustice – both human and nonhuman. The Jubilee became the foundational feature of protecting the rights of victims of injustice – both human and nonhuman. The Jubilee became the foundational feature of the ministry of Jesus. The interconnected implications between the terms "justice" and "righteousness" is demonstrated in the ministry of Jesus Christ and will need to be explored fully. The thrust of the prophetic challenge is that the people of God wanted the privileges of the covenant without accepting the accompanying responsibilities. The covenant people must reflect God's covenantal concern in actions that reflect this relationship. God expects his people to demonstrate just and equitable relationships that will bring about God's Shalom in our world today.

While it was social justice that the prophets addressed, the framework has today been appropriately widened to ecological justice or eco-justice. This does not require any misinterpretation of the biblical texts. Humans do not live in a vacuum but in the context of other people as well as the wider natural world and all its resources. Eco-justice puts pressure on humans to demonstrate justice not only towards people but also towards everything on the earth – the land itself and all its resources.

## WHO OWNS THE EARTH'S RESOURCES?

An important question as we address issues of injustice is: Who owns the earth's resources? The Bible states quite clearly, "The earth is the Lord's and everything in it" (Psalm 24.1); and traditional thinking of indigenous people was no different. But we have not grown up to think this way. Consumed by capitalistic views of ownership, we have become accustomed to thinking that land and its resources are something that can be owned individually and that these resources can be exploited limitlessly. We think that land can be divided up into small plots or parcels, with distinct lines drawn in between for individual ownership.

Once we own a piece of land do we live on it and exploit it the way we want? For instance, a plot of land may be purchased and a well then drilled to access the water underneath. But who owns the water that flows beneath this purchased ground? How much can be drawn? There appear to be no principles to follow here, as each "owner" draws as much as (or even more than) he requires, with little or no regard for his neighbor's needs. Water is becoming a contentious issue, and we already know of small-scale conflicts over the use and overuse of limited supplies of water. These could potentially escalate into major wars like oil.

Those who want to return to traditional roots are questioning such glaring issues in this capitalistic and individualistic culture of ours. The land and its resources cannot belong to any human, they tell us. The question that Chief Seattle raised in 1854 about land ownership, in response to the offer he received in exchange for a large area of Indian land, has haunted our consumerist society ever since. Stan McKay, the first native to be elected as Moderator of the United Church in Canada, states:

"Reference to the earth in our culture is not individualistic so as to indicate ownership. Our words indicate sharing and belonging to the earth. The coming of Europeans to the land which we used in North America meant a conflict of understanding which centers on the ownership of land. The initial misunderstanding is not surprising, since the first immigrants thought of themselves as coming to take

‘possession’ of a ‘vacant, pagan land’. The incredible fact is that this perception continues after five centuries. Equally surprising has been the historical role of the Christian church in this process of colonization, which basically was a dividing up for the earth so it could be a possession.”<sup>22</sup>

The disproportionate amounts of resources consumed by a relatively small number of people raise numerous questions related to equity. On a larger scale, it is such attitudes that widen the equity gap between nation and nation, between the rich and the poor and between the developed and the developing world. The developed world faces an attack for excesses that have brought ecological consequences of global dimensions and that threaten life today. Economic issues and environmental issues go hand in hand. Ecological equity must be concerned for reversing past injustices and exploitation through appropriate legislation for the future. This will ensure sustainable economic development for all.

#### HOW MUST THE DEVELOPED WORLD ACT?

Money speaks! With the wealth that the developed nations have amassed and the increasing dependence of the poorer countries on them, there are some major issues of justice that emerge. The growing Third World debt has been the focus of attention for concerned economists; the implications go back to colonial exploitation and to the way that resources were plundered with little regard for any real development of the colonies. Injustice is being highlighted as the root problem. The rich nations became richer and possess the wealth to continue to exploit the poorer colonies.

Justice will demand that the West is held responsible for the indiscriminate plundering of these resources; it recognizes the need for the developing world to act and assist accordingly. Monetary aid is not the answer. Grants and loans create a new kind of exploitation. Common equitable strategies must be encouraged, if long-term development is to take place. Newer eco-friendly technologies must be shared. The poorer countries must be encouraged to create their own technologies with the help of their own natural resources. These countries must stop perpetuating the mistakes of the past, particularly the West. Appropriate educational programs and relevant know-how must be made accessible in mutually beneficial partnerships. Even the poor must not be allowed to exploit the rich. Getting down to the root issues and offering long-term sustainable solutions can reduce the disparity.

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<sup>22</sup> Stan Mackay, in *Ecotheology*, ed. by David Hallman, WCC Publications; Orbits Books, 1994, p. 215.

## CONCLUSION

For too long in the past, we have functioned in a fragmented manner, concentrating on individual interests and practices. We have been complacent in our aspiration *to be*, rather than *to become*. Continents, cultures and religions need to come together in mutual co-existence, *learning from each other* to experience their interrelatedness and become truly holistic. It can no longer be an “either/or” policy, but rather an inclusive policy of “both/and.” It is only this latter position that can hopefully bring together all groups at national and international levels to save our planet from further destruction.

A global culture of interdependence is fundamental if we want eco-justice to become a way of life. If we are all connected, it follows that we are dependent on one another, not only for survival but also for wholeness and integrity. Every nationality and culture, every race and tribe, every ethnic and linguistic group – everything that has life – has its place in God’s creation. Our growth into the fullness of Christ depends on our capacity to be interconnected and interdependent.

## READ AND REFLECT

*Statement on eco-justice and ecological debt (2009)*

***“Forgive us our debts, as we also have forgiven our debtors” (Matthew 6:12).***

1. The era of “unlimited consumption” has reached its limits. The era of unlimited profit and compensation for the few must also come to an end. Based on a series of ecumenical consultations and incorporating the perspectives of many churches, this statement proposes the recognition and application of a concept that expresses a deep moral obligation to promote ecological justice by addressing our debts to peoples most affected by ecological destruction and to the earth itself. It begins with expressing gratitude to God, whose providential care is manifested in all God’s creation and the renewal of the earth for all species. Ecological debt includes hard economic calculations as well as incalculable biblical, spiritual, cultural and social dimensions of indebtedness.

2. The earth and all of its inhabitants are currently facing an unprecedented ecological crisis, bringing us to the brink of mass suffering and destruction for many. The crisis is human-induced, caused especially by the agro-industrial-economic complex and culture of the global North, which is characterized by the consumerist lifestyles of the elites of the developed and developing worlds and the view that development is commensurate with exploitation of the earth’s “natural resources.” What is being labeled and commodified, as “natural resources” is all of creation – a sacred reality that

ought not to be co-modified. Yet the Northern agro-industrial-economic complex, especially in the current era of market globalization, has used human labor and resourcefulness, as well as the properties of other life forms, to produce wealth and comfort for a few at the expense of the survival of others and their dignity.

3. Churches have been complicit in this history through their own consumption patterns and through perpetuating a theology of human rule over the earth. The Christian perspective that has valued humanity over the rest of creation has served to justify the exploitation of parts of the earth community. Yet, human existence is utterly dependant on a healthy functioning earth system. Humanity cannot manage creation. Humanity can only manage their own behavior to keep it within the bounds of earth's sustenance. Both the human population and the human economy cannot grow much more without irreversibly endangering the survival of other life forms. Such a radical view calls for a theology of humility and a commitment on the part of the churches to learn from environmental ethics and faith traditions that have a deeper sense of an inclusive community.

4. The churches' strength lies in its prophetic witness to proclaim God's love for the whole world and to denounce the philosophy of domination that threatens the manifestation of God's love. The biblical prophets had long ago deduced the intrinsic connection between ecological crises and socio-economic injustice, railing against the elites of their day for the exploitation of peoples and the destruction of ecosystems (Jeremiah 14: 2-7, Isaiah 23: 1-24 and Revelations 22). Based on Jesus' commandment of love, as expressed in his life and parables, the World Council of Churches (WCC) must broaden its understanding of justice and the boundaries of who our neighbors are. For many years, the WCC has called for the cancellation of illegitimate external financial debts claimed from countries of the South based on the biblical notion of jubilee (Leviticus 23). It has taken a step further in addressing the ecological dimension of economic relationships.

5. Beginning with the articulation of the ideas of "limits to growth" in a Church and Society consultation held in Bucharest in 1974 and "sustainable societies" at the 1975 Nairobi assembly, the WCC has been working deeply on ecological justice for over three decades. At the 1998 Harare assembly, the harmful impacts of globalization on people and the environment came to the fore through the Alternative Globalization Addressing People and Earth (AGAPE) process, leading to the ongoing study process on Poverty, Wealth and Ecology. As an offshoot of these important ecumenical reflections and actions, the WCC, in partnership with churches and civil society organizations in Southern Africa, India, Ecuador, Canada and Sweden, initiated work on ecological debt in 2002.

6. Ecological debt refers to damage caused over time to ecosystems, places and peoples through production and consumption patterns; and the



exploitation of ecosystems at the expense of the equitable rights of other countries, communities or individuals. It is primarily the debt owed by industrialized countries in the North to countries of the South on account of historical and current resource plundering, environmental degradation and the disproportionate appropriation of ecological space to dump greenhouse gases (GHGs) and toxic wastes. It is also the debt owed by economically and politically powerful national elites to marginalized citizens; the debt owed by current generations of humanity to future generations; and, on a more cosmic scale, the debt owed by humankind to other life forms and the planet. It includes social damages such as the disintegration of indigenous and other communities.

7. Grounded on an overriding priority for the impoverished and a deep moral responsibility to rectify injustices, ecological debt lenses reveal that it is the global South who is the principal ecological creditor while the global North is the principal ecological debtor. The ecological debt of the global North arises from various causal mechanisms whose impact has been intensified in the current economic crisis.

8. Under the current international financial architecture, countries of the South are pressured through conditions for loans as well as multilateral and bilateral trade and investment agreements to pursue export-oriented and resource-intensive growth strategies. Ultimately it fails to account for the costs of erosion of ecosystems and increasing pollution. Many mega-development projects (e.g. dams) in countries of the South are financed through foreign lending by international financial institutions in collaboration with undemocratic and corrupt local leaders and elites, without the informed consent of local inhabitants and with little consideration of the projects' ecological and social consequences. Moreover, industrialized Northern countries make disproportionate use of ecological space without adequate compensation, reparation or restitution. Northern countries' ecological footprint (an approximate measurement of human impacts on the environment) presently averages 6.4 ha/person. This is more than six times heavier than the footprint of Southern countries at an average of 0.8 ha/person.

9. Human-induced climate change heightens the relationship of North-South inequity even further. Industrialized countries are mainly responsible for GHG emissions causing climate change (though emerging economies in the South are becoming major contributors to global GHG emissions in absolute terms). Yet, research indicates that the South will bear a bigger burden of the adverse effects of climate change including the displacement of people living in low-lying coastal areas and small island states; the loss of sources of livelihood, food insecurity, reduced access to water and forced migration.

10. In the light of biblical teaching (cf. Matthew 6:12), we pray for repentance and forgiveness, but we also call for the recognition, repayment

and restitution of ecological debt in various ways, including non-market ways of compensation and reparation, that go beyond the market's limited ability to measure and distribute.

11. The central committee of the WCC recognizes the need for a drastic transformation at all levels in life and society in order to end the ecological indebtedness and restoring right relationships between peoples and between people and the earth. This warrants a re-ordering of economic paradigms from consumerist, exploitive models to models that are respectful of localized economies, indigenous cultures and spiritualities, the earth's reproductive limits, as well as the right of other life forms to blossom. And this begins with the recognition of ecological debt.

While affirming the role of churches to play a critical role in lifting up alternative practices, as well as building the necessary political will and moral courage to effect urgent transformations, the central committee of the WCC meeting in Geneva, Switzerland, 26 August – 2 September 2009:

A. Calls upon WCC member churches to urge Northern governments, institutions and corporations to take initiatives to drastically reduce their greenhouse gas (GHG) emissions within and beyond the United Nations Framework Convention on Climate Change (UNFCCC), which stipulates the principles of historical responsibility and “common, but differentiated responsibilities” (CDR), according to the fixed timelines set out by the UNFCCC report of 2007.

B. Urges WCC member churches to call their governments to adopt a fair and binding deal, in order to bring the CO<sub>2</sub> levels down to less than 350 parts per million (ppm), at the Conference of Parties (COP 15) of the UNFCCC in Copenhagen in December 2009, based on climate justice principles, which include effective support to vulnerable communities to adapt to the consequences of climate change through adaptation funds and technology transfer.

C. Calls upon the international community to ensure the transfer of financial resources to countries of the South to keep petroleum in the ground in fragile environments and preserve other natural resources as well as to pay for the costs of climate change mitigation and adaptation based on tools such as the Greenhouse Development Rights (GDR) Framework.

D. Demands the cancellation of the illegitimate financial debts of Southern countries, most urgently for the poorest nations, as part of social and ecological compensations, not as official development assistance.

E. Recommends that WCC member churches learn from the leadership of Indigenous Peoples, women, peasant and forest communities who point to alternative ways of thinking and living within creation, especially as these societies often emphasize the value of relationships, of caring and sharing, as

well as practice traditional, ecologically respectful forms of production and consumption.

F. Encourages and supports WCC member churches in their advocacy campaigns around ecological debt and climate change, mindful of the unity of God's creation and of the need for collaborative working between Southern and Northern nations. Specifically supports the activities of churches in countries that are suffering from climate change.

G. Calls for continued awareness-building and theological reflection among congregations and seminary students on a new cosmological vision of life, eco-justice and ecological debt through study and action, deeper ecumenical and inter-faith formation, and through the production and dissemination of relevant theological and biblical study materials.

H. Urges WCC member churches and church institutions to conduct ecological debt audits in partnership with civil society, including self-assessment of their own consumption patterns. Specifically, the WCC should establish a mechanism to provide for recompense of ecological debt incurred by its gatherings, and to collect positive examples of ecological debt recognition, prevention, mitigation, compensation, reparation and restitution in partnership with civil society groups and movements.

I. Calls for deepening dialogue on ecological debt and the building of alliances with ecumenical, religious, economic and political actors and between the churches in Southern and Northern countries.

J. Stresses the importance of accompanying ongoing struggles and strategically linking and supporting the efforts of peasant, women's, youth and indigenous peoples' movements through the World Social Forum and other avenues to design alternative compensation proposals, as well as to avoid amassing more ecological debt.

K. Calls upon WCC member churches through their advocacy work to encourage their governments to work for the recognition of the claims of ecological debt, including the cancellation of illegitimate financial debts.

L. Calls upon WCC member churches to deepen their campaigns on climate change by including climate debt and advocating for its repayment by applying the ecological debt framework.

M. Calls upon WCC member churches to advocate for corporate social accountability within international and national legal frameworks and to challenge corporations and international financial institutions to include environmental liabilities in their accounts and to take responsibility for the policies that have caused ecological destruction.

N. Calls upon WCC member churches to support community-based sustainable economic initiatives, such as producer cooperatives, community land trusts and bio-regional food distributions.

O. Encourages churches all over the world to continue praying for the whole of creation as we commemorate on 1 September this year the 20th anniversary of the encyclical of His All Holiness the Ecumenical Patriarch Dimitrios I, establishing the day of the protection of the environment, God's creation.

### *Prayer*

The following prayer is offered as a resource to enable the churches' engagement with the issue articulated above:

Creator and creating God,  
in the wonder of your world we experience your providential care for the planet and its people.  
We offer you our thanks and praise.  
Creator and creating God,  
in the exploitation of your world we recognize our human-centeredness and greed.  
We confess our sin before you.  
We acknowledge our need for each other as part of your global family from North and South  
And so we pray, "Forgive us our debts, as we forgive our debtors."  
Accept our confession O God and offer us your forgiveness  
empowering us to transform our lives as individuals, churches and nations,  
proclaiming your love for the earth and its people,  
enacting the principle of 'Jubilee' in our relationships with one another and the earth,  
repaying our ecological debts in ways in ways which affirm your justice and shalom.

## **QUESTIONS FOR DISCUSSION**

1. Define the terms "eco-justice" and "equity" in reference to some examples from your own country.
2. How does the Old Testament cry for justice apply to your context? Identify some New Testament passages where this cry is echoed.
3. Identify some of the justice issues underlined in the WCC document reproduced above.

## **PLAN TO ACT**

Water has become one major source for causing conflicts within communities as well as between communities, within nations and between nations. In fact, it is predicted that it could be the cause of major wars in the future. Water is also a source of major injustice with the rich having access to

plenty while the poor struggle to obtain even a bucket full. Some times, women have to walk miles to get this. The available water is slowly turned into saline and contaminated by the industrial as well as chemicalised agriculture. Therefore water becomes a commodity to be purchased in the market and the poor are the ones who suffer most in the commodification of water process. Moreover the scarcity of water increases day by day due to drought and scanty rain by the climate change and global warming.

As populations grow and the amount of water available per head diminishes, many countries all over the world will soon be facing an acute shortage; it will become ever harder to meet the demands on this precious resource. Rather than wait for this crisis, irrespective of where we are in the world, it is time that we all take steps to make the most of the water when it is available. The most obvious and practical action that can be taken is to set up rainwater harvesting projects, either at home or within the larger community.

This may be a very beneficial project for a group to undertake as a service for the poor. It is cost effective and will yield quality water, as rain water is still the purest form of natural water.

Why harvest rainwater?

- It makes ecological and financial sense not to waste a pure and drinkable natural resource available in large quantities.
- Ground water sources are increasingly getting depleted or are getting polluted. Bore wells are either silting up, getting short of water or are drawing polluted water.
- It encourages water conservation and self-dependence.

Rainwater harvesting does not need to involve major expenditure or elaborate re-structuring. It can be as simple as a water barrel, installed underneath a down-pipe leading from the guttering on your roof. Or it may be making provision for water to flow into the ground in order to recharge groundwater level. Why not visit one of the many excellent websites and find a design that best suits your needs. Here are just a few of the websites available, but you may wish to explore further:

[www.rainwaterharvesting.org](http://www.rainwaterharvesting.org)

[www.aboutrainwaterharvesting.com](http://www.aboutrainwaterharvesting.com)

[www.rainwaterclub.org](http://www.rainwaterclub.org)

## **MEDITATION AND PRAYER**

*Lord God,*

*Grant that as we live life we will seek for fullness of life for victims of injustice,*

*We will strive to bring light where there is darkness of sin and greed.*

*Grant that we will sow love where there is hatred, oppression and injustice.*

*Grant that we may work for regeneration where there is destruction of the planet,*

*Lord, grant that we may bring awareness where there is ignorance even for the educated, that we may sow truth amid falsehood.*

*Lord, let your Spirit so rule that together we can promote truth and justice in our world.*

*Amen.*



## 8. Stewardship of the Environment

“When you plant a tree, never plant only one. Plant three – one for shade, one for fruit, one for beauty.”

– *African proverb* –

“We aspire to a world in which human beings care wisely and humbly for all creatures, first and foremost for their fellow human beings, recognizing their proper place in the created order.”

– *The Cornwall Declaration* –

“When people can see a vision and simultaneously recognize what can be done step by step in a concrete way to achieve it, they will begin to feel encouragement and enthusiasm instead of fright.”

– *Erich Fromm* –

### BEING STEWARDS

We have been sufficiently convinced that it is not only necessary for Christians to get involved in environmental action, but also it is time to act immediately. What then does the Bible say about the role we play? Are there images that portray our role so that we could play a responsible part in conservation of the environment?

Stewardship is an acceptable way to describe our position or place in relation to our role and responsibilities towards creation. John Hall, in an excellent book entitled *The Steward*<sup>23</sup> stresses the stewardship metaphor “because it encapsulates the two sides of human relatedness, the relation to God on the one hand and to nonhuman creatures of God on the other.” If this is accepted, the steward metaphor would provide the corrective for the flawed relationships that have caused devastation. “The human being is, as God’s steward, accountable to God and responsible for his fellow creatures.”<sup>24</sup>

In the Old Testament a steward is a person who is “over a house” (Gen. 43:19; 44:4; Is. 22:15, etc.) In the New Testament there are two words translated steward : *epitropos* (Mt. 20:8; Gal. 4:2), i.e. one to whose care or honor one has been entrusted, a curator or a guardian, and this could appropriately describe our role in the world. Another word is *oikonomos* (Lk. 16:2-3; 1 Cor. 4:1-2; Tit. 1:7; 1 Pet. 4:10), i.e. a manager, a superintendent.

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<sup>23</sup> Douglas John Hall, *The Steward – a Biblical Symbol come of Age*. Rev. ed. Grand Rapids: Eerdmans; New York: Friendship Press, 1990.

<sup>24</sup> Ibid p. 26.



Taken from the word *oikos* ('house') and *nemo* to "dispense" or "to manage," there is reference to the relationship within the home, an ownership with which this responsibility must be performed.

However, the words are used to describe the function of delegated responsibility, as in the powerful parables of the laborers, and the unjust steward. "More profoundly, it is used of the Christian's responsibility, delegated to him under 'Christ's kingly government of his own house.' All things are Christ's and Christians are his executors or stewards" (1 Cor. 9:17; Eph. 3:2; Col. 1:25).<sup>25</sup>

## RESPONSIBLE STEWARDSHIP FOR TODAY

Responsible stewardship performed in God's love will result in practical outworking that will help develop right attitudes for living today. First, we Christians who are called to care for creation will see the need for recognition of the harmony, unity, purity, and integrity in creation. A respect for creation will elicit a respect for the rights of creation. Our care for creation will show in our love to protect, conserve and bring healing to a wounded world. Ecology, we have seen, implies interrelatedness, and this relatedness will show in our own feeling of hurt for a creation that has been hurt.

Second, we are called to conserve creation's resources. It is not preserving. Preserving could imply abstaining from use, whereas conserving calls for responsible use. Conserving calls for protecting in the present for future use. We may need to develop the responsibility to preserve some endangered species by protecting them, and conserve a forest by not only using it carefully for our present needs but protecting it for responsible use for generations in the future.

Third, responsible stewardship calls for demonstration in responsible lifestyles. Greed and self-centeredness have caused havoc to the environment and disparity amongst humans. This continues unabated. We are called to a life of sharing in the world's community rather than accumulating for ourselves. While this may start interpersonally, it must be realized internationally. When nations start promoting responsible use of its resources, its people automatically develop more responsible attitudes. National and inter-national relationships must change. Some of the major ethical violations are those that have emerged through large scale international illegal operations.

Fourth, responsible stewardship calls for an acceptance of the rights and privileges of all of God's community and creation. We must see the im-

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<sup>25</sup> Ibid.

portance of according rights to nature as well as to other humans. One other aspect that has emerged in recent times is the need for us to demonstrate a responsible concern for future generations. The ecological crisis has brought people to recognize the need to protect the rights of future generations. The rate at which resources are depleting in our world at present is alarming. The question is asked – How much longer will these resources last? We may not be able to know. But whatever we do must therefore ensure the fundamental rights of those in the future to have sufficient resources.

Finally, we have a responsibility towards God to honor him for the way in which he has honored us with responsibility over all of creation. All that we have said above will fall into its right perspective when we see God as the one who invests integrity, dignity, and responsibility within humans. And above all, our relationship to God will show in a responsible relationship to the world.

## GETTING STARTED

Knowing the Bible and its teaching on stewardship, we should not only feel motivated but *compelled* to get involved in efforts to protect the environment. But, where do we start? Some people may have a problem when it comes to saying that the church needs to be involved. This perhaps needs clarification: if we say that the church must be involved, this does not need to mean that the church as an institution needs to take on major environmental projects. Nor does it mean that the pastor should leave his pulpit and be engaged in some environmental mission, not unless he feels clearly called to act in this way. But there is something that we as individuals can do! So let's get started: wherever we are – in our family, in our church, in the community – it is time to exert an influence as widely as possible.

## WHAT CAN THE CHURCH DO?

Let us start with the church, its leaders and its members. The church and the pastors have a responsibility to preach, teach and bring about the right environmental attitudes within the Christian community. The church is the community of God's people and is made up of men and women with varied gifts. Some of these gifts are pastoral in nature, others evangelistic; some have a gift for teaching, some for healing. But, the diversity of gifts must call for the empowering of people for service in diverse ways. The diversity of the church must therefore include people who are gifted in serving their communities – teaching better environmental attitudes, organizing groups to clean up their neighborhood, or perhaps serving as watchdogs, who prick the conscience of those people who violate basic environ-

mental standards. So, while the church is not an environmental organization, it has a particular responsibility, in that it must serve to express God's concern for the world in its many dimensions, the environment being one of the most important today.

The pastor, or whoever the leader of the church is, must motivate the congregation to demonstrate the right attitudes – ones that will result in positive action by the church and its members. The pastor's preaching can address such matters directly. Environmental themes appear in a variety of biblical passages and can be applied appropriately. So, just as the pastor will preach about fostering right relationships in the family, managing our time and money, or developing an effective prayer life, he/she also can teach about environmental issues and biblically-based Christian responses. A pastor so often speaks of sin – the sins of greed and carelessness, for example. How apt it would be to illustrate these sins in relation to the greed that has led to the exploitation of our resources, or the carelessness that has allowed resources to deplete or pollution to adversely impact living today. Carelessness can be linked even to the everyday overuse of water and electricity.

Various activities within the church could help in showing the congregation the importance of environmental action. The church could start a small eco-club, just as it has men's fellowship or youth fellowship. This club could be responsible for a variety of small environmental efforts in the community, like planting trees and helping them to grow wherever possible, making the village roads clean with the help of local community, cleaning up a slum street, teaching slum or village children on a regular basis, or even raising money for these small projects. The club could include some socially minded people, a geography or biology teacher, a high school or college student. A club like this could help the pastor to conduct an Environmental Sunday service and suggest some accompanying activities for active participation by the congregations.

Here is a suggestion for an order of service that your church might want to observe.

Opening Hymn: *How Great Thou Art*

A skit by Sunday school children – Give them some ideas and allow them to express themselves. One theme could be pollution and its effects on the environment. Another could be the issue of our dwindling resources. Encourage children to prepare as many visuals as possible with as few resources, even using waste material, as are available.

Talk by a Sunday school teacher, continuing the same theme as the skit and suggesting some applications.

Sing a few worship choruses – any from your own culture and context. Ask your more musically minded members to adapt some familiar hymn tune to fit words appropriate to the theme.

A few appropriate prayers and readings

Scripture Readings: *Genesis 1, Romans 8.*

Hymn: *Morning has broken / Fairest Lord Jesus.*

Offering: suggest an environmental project that you would like to send the money to. Some Christian organization may be involved in such a project, or your church may want to start something in a nearby slum.

Sermon: Suggested topics like, Creation of God; Jesus' parables on nature; Noah and God's Covenant, God of the whole world; God's good world and our great responsibility. Or, what is our environmental responsibility? Use some innovative and catchy titles such as – Where on Earth is the World Going? Can we make the difference?

Closing Hymn: *Take my life and let it be.*

The church's mission must include environmental action, and therefore everything must be done to foster better attitudes towards environmental protection. Small activities that are organized within the church can trigger larger efforts by people who feel challenged. Children can be brought together for small workshops, for example on water conservation. Rainwater harvesting, as suggested in the previous chapter, can be an exciting project for children, whether it involves collecting water from their rooftops or making a small pond in the church compound. Children's initiatives will have great impacts in the family and church. Families can be taught simple ways of recharging ground water by harvesting rain.

## MISSION AGENCIES

There is very little support in the Bible for those who continue to claim that mission is purely evangelism. Mission is wide enough to include the church's response to everyone and all of creation. That is why we will see many mission agencies include health and educational activities in their range of activities.

Mission agencies could easily add an environmental wing to their activities. This will be essential, particularly for agencies that are geared for social action, health services, educational institutions and such. Take health for instance. Most, if not all health problems in the developing world are directly or indirectly linked to environmental factors – and education, particularly for those involved in teaching children, is a powerful tool that can be used to bring about such awareness. Purely evangelistic or church-

planting missions must widen their concern to show people an interest in their *total* life, rather than only appeal to a spiritual dimension.

## INDIVIDUAL ACTION

Unless and until individuals feel challenged, churches or agencies will not see any fruit in their efforts. Just as we will stress the importance of individual commitment for salvation or Christian ministry, so also we need to challenge people to individual commitment to make a change wherever they are. These need not be mega-events or large-scale actions, but just small acts that demonstrate one's concern. Actions like turning off taps or repairing leaking pipes or minimizing the use of electricity or switching off lights when not needed, can send strong messages at home or in the office, at school or at college. Using public transport as much as possible is another eco-friendly act. In fact, such acts speak volumes when done in public places, where the majority of people show such poor community concern or value for community property.

Individuals – young and old – can take to writing. Start by writing to newspapers, to the Letters to the Editor column. Choose any environmental problem in your locality and write a clear comment on the issue and your proposed solutions. Gradually build up to writing on larger issues. You may soon become known for your environmental concerns, and your writings will be published readily.

Making the authorities to act on local complaints like public water leakage, daytime street lights burning and dumping unhygienic garbage in public is possible when we are determined and sincere.

Individuals have a wide range of choices for action. Individuals need to get into environmental professions. There is still not too much scope, but with some entrepreneurial thinking one could make a decent living and get involved in a cause. Some large corporations and factories are serious about their environmental commitment. They are hiring men and women to manage their waste and other environmental issues. Environmental management could be an important profession for the future. Legal professionals with an environmental background are becoming necessary. NGOs can take up waste management as a service as well as a means of securing an income. Collecting waste from offices and either doing some recycling operations or just selling the waste to those conducting such operations can be a good way of making money.

## READ AND REFLECT

### *The United Nations Environmental Sabbath Program*

We who have lost our sense and our senses, our touch, our smell, our vision of who we are; we who frantically force and press all things; without rest for the body or spirit, hurting our earth and injuring ourselves; we call a halt. We want to rest. We need to rest and allow the earth to rest. We need to reflect and to rediscover the mystery that lives in us, that is the ground of every unique expression of life, the source of the fascination that calls all things to communion. We declare a Sabbath, a space of quiet; for simply being and letting be; for recovering the great, forgotten truths; for learning how to live again.<sup>26</sup>

#### *A few questions for Personal Reflection:*

1. To what extent I am a part of the present unhealthy “throwaway” society? Am I discontent with what I have, longing for more, and ignorant of the needs of the poor?
2. Am I willing to consume less? Am I prepared to give up products, service, convenience, in order to help preserve life on earth – the lives of people and of nature?
3. Am I wasting God’s resources? Am I reducing... reusing... recycling? What is my attitude to resources, energy and pollution? Do I think of those who are less privileged than me, when I tend to waste or throw away?
4. Am I a part of the problem of environmental degradation? Do I have the right attitudes? Am I doing my part to help bring about change? Can I change?
5. Do I think only of myself? Am I concerned for the poor? Am I guilty of some injustices towards them? What remedial steps can I take to help them?
6. Do I think of my responsibility towards the future generations? What can I do to help the young improve their attitudes to the earth and its resources?
7. Am I content with my personal individual spirituality or do I see spirituality as something that makes me part of the lives of others?
8. Where does God want me to start? With whom? When? How?

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<sup>26</sup> [www.environment.gov.ab.ca/edu/eweek/2012/pubs/UN-Environmental-Sabbath-Service.pdf](http://www.environment.gov.ab.ca/edu/eweek/2012/pubs/UN-Environmental-Sabbath-Service.pdf)

## QUESTIONS FOR DISCUSSION

- In what ways can you promote awareness in your congregations about the present state of the planet? What action can you take?
- Develop a Bible study selecting various passages and adapt them for a sermon, for Sunday school or for a Sunday morning message.
- Are there some changes we can promote in our lifestyle to be true stewards? If so what?

## PLAN TO ACT

### *PEAS – The Programme for Environmental Awareness in Schools*

Sustainability, we often say, emphasizes our concern for future generations. Children are important, and the church must prepare young people both within and in the outside community. The Programme for Environmental Awareness in Schools (PEAS) started in India with this objective. “When children speak, adults listen” is what PEAS believes. The movement started as a small venture in 1990 and today networks hundreds of schools all over India. Through PEAS, children come together in their schools or along with other schools for a variety of events.

PEAS organizes entertaining and educational events for children: Eco-exhibitions, displaying exhibits made from waste; eco-writing workshops; poster or painting competitions; quizzes and even an eco-fashion show; all these initiatives have got children eagerly involved. Quiz programs are always exciting. Eco-fashion shows have been conducted with children making outfits from waste as well as any eco-friendly material.

PEAS has also organized a number of national conferences, bringing hundreds of children from all over the country together for a time of interaction and learning. Children have gone back with many dreams for their own schools, homes or localities and *have* been able to make a difference.

PEAS aims to work with and within schools, in order to build up an *eco-culture*, within which teachers, administrators and children all join together to make a difference. Children become eco-conscious – build in them an awareness that will lead them to want to protect the environment and also to make *schools* aware of the great potential of a group of eco-conscious children: Children need to make their voices heard and PEAS facilitates this. The future is theirs, and so they need to get involved even now.

### *Conduct a PEAS Club*

A PEAS Club is a group of children in a school or a community, meeting on a regular basis. A teacher in charge must plan out a schedule in advance for hour long or even longer programs. A year long calendar can be planned

and given to the children in advance. A varied program will ensure that the interest of children is maintained. Also make sure children themselves prepare and participate in each program. There are special days of environmental interest like World Water Day, Wild Life Week, etc. Build your program around these special days whenever possible.

Some ideas for the program could be:

1. A talk followed by discussion. Get a child to prepare a talk and get everyone involved in the discussion.
2. A crafts session when children will use items collected from the garbage or waste and produce something useful like a pencil or penholder, flowers in a vase, etc.
3. Compost or paper making sessions
4. Quiz and general knowledge sessions
5. Song or skit writing. Give children time (say 20 minutes) to prepare their item, preferable in groups. Give each 5 minutes for their presentation.
6. Painting/Photography competitions

Children must be encouraged to maintain their own record book to make notes, paste news items or anything of interest. Children themselves can suggest several ideas for the club. A small PEAS Club badge is always welcomed.

## **MEDITATION AND PRAYER**

*O God, I thank you for this day of life for eyes to see the sky for ears to hear the birds for feet to walk amidst the trees for hands to pick the flowers from the earth for a sense of smell to breathe in the sweet perfumes of nature for a mind to think about and appreciate the magic of everyday miracles for a spirit to swell in joy at Your mighty presence everywhere.*

Marian Wright Edelman





# Appendix I

The following poem is written in tribute to the women who made the 'Chipko' movement.

## TO THE WOMEN OF CHIPKO

– Ken Gnanakan –

*I've heard them my mother  
The little boy cried  
Our trees will soon be destroyed  
They have arrived  
From a big company  
And all they talk about is money.  
We've known this my son  
And so we're planning  
A forceful demonstration  
And this soon will happen  
The world will then know that we women  
Can frustrate any such desecration.  
Don't! Don't! My mother  
They've got people and they have power  
They've come with a big contract  
To accomplish their task  
So even with all our might  
If we stand together and fight  
We don't have a chance dear mother.  
Son, this one thing you can be certain  
It has been our well-known tradition  
To conserve, to protect  
Our God given forests  
And now since our wealth has been threatened  
Our very lives we'll give to strengthen  
The supplications of many who're concerned  
To bring to an end this carnage.  
Mother, please don't do it alone  
Please promise you'll take me along  
We'll show them together  
That they are not greater  
Than our desire to protect the future.  
Mother, please allow me  
To go around and enlist  
Others with us in this mission.  
Son, there are already others*

*I still can remember my grandmother  
Tell me about a martyr  
Who stood bravely before the exploiter  
She intercepted the blow  
Was killed but has shown  
An example that tomorrow  
We're setting out to follow  
Yes my son, you need not fear  
Listen carefully, can't you hear  
They're shouting "chipko"  
These are cries from those  
Who have taken a stand  
For the future of our land  
As what could happen here  
Is just a forerunner  
Of selfishness and greed  
That will consume our needs  
And so we'll soon be freed  
From these mercenaries.  
Come Mother, let's go  
Yes, I hear them shout "chipko"  
I'll stick beside you so we  
Together can make this appeal  
When their axes are raised  
It's only our lives that will be slayed  
But many thousands will see tomorrow.*

# Appendix II

## *ECOLOGICAL ENGINEERING*

Ken Gnanakan

Ecological Engineering is a relatively new science, but has made a timely entry as we confront increasing environmental degradation all over the world. With the ecosystems suffering from centuries of unrestrained exploitation we need eco-sensitive and multi-supportive solutions, and this field of studies has provided some very effective answers.

The term “ecological engineering” was first coined by Howard Odum in 1962, and the study emerged in the 60s. Odum, with one of the most creative minds, advocated several integrated scientific studies including ecological economics. He described ecological engineering as the utilizing of natural energy sources in order to control environmental systems. Ecological engineering has evolved over the past decades bringing ecology and engineering together. A definition that comes from the Center for Wetlands, University of Florida, a centre that Odum founded, elaborates ecological engineering as follows:

“Ecological engineering is the design of sustainable ecosystems that integrate human society with its natural environment for the benefit of both. It involves the design, construction and management of ecosystems that have value to both humans and the environment. Ecological engineering combines basic and applied science from engineering, ecology, economics, and natural sciences for the restoration and construction of aquatic and terrestrial ecosystems. The field is increasing in breadth and depth as more opportunities to design and use ecosystems as interfaces between technology and environment are explored.”

Two other pioneers and leading voices in the field, William Mitsch and Sven Erik Jorgensen, laid out some foundational thinking to take this science forward in their book *Ecological Engineering and Ecosystem Restoration* (1989). They looked at ecological engineering as designing societal services such that they benefit society and nature, and that they should be systems based, self-organized, sustainable, and integrate society with its natural environment.

A leap forward in development was taken in 1991 at the Stensund Wastewater Aquaculture Project in Trosa, Sweden, where the 1st International Ecological Engineering Conference was held and a “critical mass” of experts met (Etnier & Guterstam 1991). At Stensund preparations started for network that was formally established in 1993 under the name of IEES in Utrecht, The Netherlands.

One important foundation on which ecological engineering works is that it fits into the basic foundations of ecology, being sensitive to the chains and cycles of our ecosystems. It is human activities that disturb these natural processes that have caused complications. Rachel Carson, writing in the sixties when the environmental movement got started, exposed the problems posed by use of DDT and its harmful effects on nature as well as human beings. The title of her controversial book *Silent Spring* implied that there would be a spring season in which no bird songs could be heard, because they had all died from pesticide. Anything we do in our environment has wider repercussions.

### ***Some Basic Principles:***

Ecological engineering calls for a paradigm shift – philosophically, scientifically, technically, design-wise, economically and ecologically. Therefore it requests a systems thinking by switching from a human-centered towards a partnership or co-beings-oriented approach in engineering and design practices. In a way it is common sense solutions that require a sound understanding of how our environment works. In targeting at keeping our environment healthy and sustainable and to integrate human use within the capacity of natural patterns and processes of ecosystems we develop some principles of Ecological Engineering that will be guiding lights for us as we move ahead.

*First, Ecological Engineering is ecologically based.*

Ecology is the scientific study of interactions of organisms with one another and with the natural environment. It is the study of how living things and their environment interact with one another. There is an intricate interrelationship among organisms and between organisms, and all living and non-living beings in the environment. If there are indeed such interrelationships any tampering of these interconnections can cause grave disturbances. Therefore the solutions must be based on restoring and continuous regeneration of these interconnections.

*Second, Ecological Engineering incorporates and adapts engineering and technology based solutions.*

Ecological engineering should not be confused with some ecological solutions that want to bypass newer technologies. Modern technologies can be adapted carefully to ensure that the environment is not affected adversely. Ecological engineering is a healthy blend between ecology and technology.

*Third, Ecological Engineering is based on principles of sustainable development.*

Sustainable development is a much used term today. “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” as the UN

Brundtland Commission defined. The definition contains within it two key concepts. First, the concept of “needs,” in particular the basic needs of the world’s poor. And secondly, there is reference to limitations imposed by technology and social organization on the environment. We need to address these issues as we explore sustainability at every level.

*Fourth, Ecological Engineering is mutually beneficial to humans and the environment.*

Critics of modern environmental development based on economic advancement attack our “human-centered” approaches that have not taken nature and its intricacies into account. Ecological engineering calls for actions that strive for mutual benefits for both the environment and humans. As threats of climate change and severe environmental degradation loom large before us, we must consider not only how we survive but how other living beings and ecosystems can be mutually sustained.

*Fifth, Ecological Engineering is based on integrated systems.*

Integration is a word used today for bringing together otherwise fragmented parts. It is based on the theory of holism where the whole is seen to be greater than the sum of the parts. Rather than considering piece-meal solutions, ecological engineering looks at the whole. The key solution for present and future ecological problems is in such integration systems approach that looks at our ecosystems as whole units.

*Sixth, Ecological Engineering focuses on reuse and recovery of waste.*

In our increasingly consumerist society with plenty to consume, waste has become a growing problem. In many countries mounds of garbage still lie unattended, and where attention is being given, environmentally destructive technologies are often still employed. Such actions are compounding our ecological crisis. Ecological engineering considers waste to be a resource. In other words, if waste is treated adequately, products and infrastructure designed accordingly, biological and technical nutrients could be recovered and used beneficially for various purposes.

*Seventh, Ecological Engineering is concerned for stakeholder advice and participation in the design process.*

In the planning, designing, construction and maintaining technology objects, all those directly concerned (designers, builders, customers) as well as indirect actors (future users, managers, demolition contractors) and people who will (probably) become affected (now and in the future) should participate or should be fully taken into account.

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ACTS partners with an International network of environmental scientists who have been engaged in research and development of Organic Agriculture, Water and Sanitation Projects for the poor. Water waste recovery for

small scale organic agricultural projects for fruit, vegetable and medical plant production, ecological sanitation systems, composting, bio-gas, and solar energy options, and other projects are being implemented all over the world.

ACTS has worked with European scientists from SEECON in Switzerland and implemented a model eco-toilet system in a slum in Bangalore. Associated with the International Society for Ecological Engineering, ACTS is engaged in Bio-energy projects, appropriate agriculture and water treatment projects. These projects are being conducted along with university students, who not only assist but gain valuable experience.

## Appendix III

### *FEW – AN INTEGRATED APPROACH TOWARDS FOOD, ENERGY AND WATER*

Ken Gnanakan

Our ecosystems are suffering from centuries of unrestrained exploitation. Resources are depleting and with this food and water shortages are hitting the poor hard. While the rich get richer in their consumer culture, the poor are the ones who are worst hit. To aggravate the problems, population growth is threatening to affect the overall balance of the earth and its environment.

The energy crisis aggravates these problems. Our over dependence on fossil fuels has been the root of many issues and urgent sustainable solutions are required. What we need are eco-sensitive, integrated and multi-supportive solutions. Holistic and proactive measures will ensure a sustainable future particularly for the poorer nations.

The big lesson we are learning is that economics and the environment are closely interrelated. Economists are more and more open to interactions with ecologists as they recognize the relationship on the one hand and the synergy, on the other hand, that can result in bringing about truly holistic solutions. Many of the issues that economists are battling with must be considered from an ecological perspective.

Therefore, the environmental crisis and the economic crisis are the two major critical situations challenging our world currently. Although separate, they are interconnected. This interrelatedness needs to be considered as we address the many pressing needs related to the survival of the poor. Three areas are critical: Food, Energy and Water. Abbreviated as FEW, and referred to as the FEW factor I see the urgent need for a dedicated plan of action.

1. Food is getting scarce and causing grave concern to governments and local communities. More than 40 percent of Africans do not have sufficient food for each day. 184 million people – 33% of the African population – suffer from malnutrition. Every year six million children die from malnutrition before their fifth birthday. Famine takes its toll. So food needs to be provided. An integrated approach will demand the following:
  - Environmentally sound food production methods
  - Use of all types of land, even arid and unusable, in scientifically appropriate ways



- Reuse and recycle of organic waste for nutritious natural food production
  - A “scientific” approach from the community for active engagement in solutions
2. Energy is required to “brighten” up the lives of the poor who live in otherwise depressed conditions. Energy is required for many different purposes, not just for lighting up homes. Less than one person out of five has electricity on the continent. Currently energy is drawn heavily from non-renewable sources for the affluent, but efforts need to be made to make low cost energy from renewable sources available for all. Some actions to be looked at are:
- Cheap wind and solar energy
  - Bioenergy
  - Waste to energy
3. And finally water... It was said in the year 2000 that 300 million Africans did not have access to safe water. Unsafe water is a major problem. More than 50 percent of Africans suffer from water-related diseases such as cholera and diarrhoea. Some eco-friendly approaches are to be adopted:
- Water Harvesting and recharging of water bodies
  - Waste water reuse
  - Simple safe water efficient toilet systems

I advocate eco-sensitive solutions that deal with life as a whole and have found Ecological Engineering offering some very effective steps. The field has evolved over the past decades bringing ecology, economics and engineering together. Life in all its diversity will be addressed with health and wellness becoming central to this integrated science.

Ecological Engineering is based on integrated systems. Integration is a word used today for bringing together otherwise fragmented parts. It is based on the theory of holism where the whole is seen to be greater than the sum of the parts. Rather than considering piece-meal solutions ecological engineering looks at the whole. It discourages the addressing of the immediate issue and gets to the root problem and the whole context is considered.

The ACTS Group and its member William Carey University is employing an integrated approach that will benefit economic, social and environmental approaches such as Appropriate Education, Ecological Engineering, Sustainable Development and Social Transformational approaches through

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community mobilization as well as practical implementation for the benefit of both peoples and their environment.<sup>27</sup>

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<sup>27</sup> In this context, ACTS refers to the ACTS Group of Institutions, formerly known as ACTS Ministries, started in Bangalore, India. ([www.actsgroup.org/index.php](http://www.actsgroup.org/index.php)) William Carey University serves north-east India. ([www.wcu.co.in/](http://www.wcu.co.in/))



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