

THE JUST STEWARDSHIP OF LAND AND CREATION

*Reformed Ecumenical Council
Study Committee Report
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JUST STEWARDSHIP OF LAND AND CREATION

PROLOGUE

Across the globe, human kind is violating its God-given mandate to care for Creation. Driven by motives other than seeking the Kingdom of God, driven by systems people create to fuel desire and get ever more from the earth, human beings are degrading Creation. Human-wrought degradations impact the environs in which each of the R.E.C. member churches seek their life and sustenance—in which they bring the witness of their faith and life. In their bond of unity and trust, member churches are accountable to each other to explain and address the resultant crisis in Creation. Integrity requires that the churches in this Council listen to those among its members who experience and are troubled by these degradations and move to develop a common redeeming response. Reformed churches can and must bear witness—witness that seeks first the Kingdom of God, thereby differing radically from those secular prophets who promise economic wealth at Creation's expense.

In a modest way this report is developed in the context of the United Nations Conference on Environment and Development (June, 1992 in Rio de Janeiro) and the decennial U.N. conference on Population and Development held in Cairo, September, 1994. In it, we speak out on the impact of unjust structural adjustments put upon the most vulnerable among peoples whose governments find themselves in debt bondage to their creditors. We also provide a basis for constructive contributions toward human rights and the care of Creation in our resident nations in which we are called to be salt and light.

The worldwide fellowship of the Reformed Ecumenical Council stands in clear solidarity with the aboriginal peoples, the resource-poor, the millions of displaced and dispossessed peoples, those pushed to the margins, those denied the opportunity to exercise their God-assigned task of just stewardship of some part of Creation, and people suffering degraded environments and injustice due to abuse of Creation.

While much of what we report here has already been addressed in a broadly ecumenical context, it is important that Reformed Ecumenical Council fellows also do so, and beyond this, help stir a holy passion for justice and stewardship in anticipation of Christ's Kingdom coming, to God's glory. This report is also a contribution to others for whatever service it may provide—to the World Evangelical Fellowship, the World Alliance of Reformed Churches, the World Council of Churches, national fellowships of churches, and beyond.

Our venture carries risks, but no greater than what can be overcome by our shared commitment to understanding Scripture. It is to the Bible we turn for our common givens, for reflection, and for action. From our commitment to the Scriptures, we acknowledge that the Earth is the Lord's and everything in it (Psalm 24:1), taking seriously our task of imaging God's love for the world and all Creation (cf. Genesis 1:26). We acknowledge and honor our Creator as we serve and keep His Creation (cf. Genesis 2:15), ever seeking to act justly, love mercy, and walk humbly with our God (cf. Micah 6:8). We are stewards of God's gifts, stewards of God's world. The foundation for our stewardship is the Bible, through which we come to know God's will for our lives (cf. 2 Timothy 3:16-17) and for Creation (cf. Romans 8:18-25). It also is by Scripture that we come to know the revelation provided us by Creation, eloquent proclaimer of God's glory (Psalm 19:1) and ultimate teacher of ecological knowledge—a revelation so convicting that not a single human being has a valid excuse for not knowing God's everlasting power and divinity (Romans 1:20).

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*Introductory Doxology***GOD'S LOVE AND CARE FOR HIS WORLD¹**

*For God so loved the world, that He gave it His Only-begotten Son.' ...God loves **the world...** because God has thought it out... has created it... has maintained it and **maintains** it to this day. And **His** divine world we have spoiled and corrupted. And in this is rooted the love of God—He will repair and renew this world, His own Creation, His own work of wisdom, His own work of art, which we have upset and broken... That world will stand before God in full glory, in a new earth and a new heaven... But God can declare them who will not cease from corrupting His world no longer worthy of having part in that world, and as once He banished them **from Paradise**, so at the last judgement He will banish them from this earth... And therefore whoever would be saved with that world, as God loves it, let him accept the Son, Whom God has given...
—Netherlands statesman and theologian Abraham Kuyper, 1903²*

All Creation praises God. We know this from God's world and God's Word:

"The heavens declare the glory of God; the skies proclaim the work of his hands. Day after day they pour forth speech; night after night they display knowledge... Their voice goes out into all the earth, their words to the ends of the world" (Psalm 19:1-2, 4).³

"Sing to the Lord a new song; sing to the Lord, all the earth... Let the heavens rejoice, let the earth be glad; let the sea resound, and all that is in it; let the fields be jubilant, and everything in them. Then all the trees of the forest will sing for joy; they will sing before the Lord, for he comes, he comes to judge the earth. He will judge the world in righteousness and the peoples in his truth" (Psalm 96:1, 11-13).

Beyond God-glorifying praise, all Creation pours out its marvelous testimony. It is a testimony so powerful that it leaves everyone without excuse but to know God's everlasting power and divinity. Thus, Article II of the Belgic Confession affirms the great importance of paying attention to God's Creation as well as to Scripture:

By What Means God is Made Known to Us

¹ This section is adapted from *Earthwise: A Biblical Response to Environmental Problems*, Grand Rapids, CRC Publications, Chapter 1.

² Abraham Kuyper, 1903, reprinted in translation, *Keep Thy Solemn Feasts: Meditations by Abraham Kuyper*, Grand Rapids, Michigan: Eerdmans, 1928, pp. 70-71.

³

All biblical quotations, unless otherwise specified, are from the Holy Bible: New International Version. Copyright 1978 by the New York International Bible Society, used by permission of Zondervan Bible Publishers, Grand Rapids, Michigan.

We know him by two means:

First, by the Creation, preservation, and government of the universe; which is before our eyes as a most elegant book, wherein all creatures, great and small, are as so many characters leading us to see clearly the invisible things of God, even his everlasting power and divinity, as the apostle Paul says (Romans 1:20).

All which things are sufficient to convince men and leave them without excuse.

Second, He makes Himself more clearly and fully known to us by his Holy and divine Word, that is to say, as far as is necessary for us to know in this life, to His glory and our salvation.

Today the heavens continue to tell the glory of God, and the creatures continue to testify to God's eternal power and divine majesty. Creation praises God for His manifest love for the world. We are assured by Psalm 104 that God is the Great Provider, as well as the Masterful Creator. God's provisions for life and breath are everywhere evident; they are so numerous and so interwoven with each other that we cannot give them their proper due. As we put God's provisions and their all-pervasive immensity and intricacy into our mind's eye, we see more clearly God's everlasting power and divinity, "as the apostle Paul says (Romans 1:20)." And through it we sing with depth of meaning, "Praise God all creatures here below!"

Most of us have had awesome experiences in God's Creation. Perhaps we stood at the edge of a great canyon, or at the feet of giant trees in an ancient forest, or in the center of a great storm. Perhaps we ambled on a flowering meadow in the quietly lifting mists of the morning dew. God's provisions for His world are magnificent, deserving our attention, and calling forth our praise to our Creator—the Maker of heaven and earth.

A. Seven Provisions of the Creator⁴

⁴ A full treatment of the provisions of the biosphere, in addition to a description of environmental degradations and needed responses can be found in Nebel, Bernard J. and Richard T. Wright. 1993.

Environmental Science: The Way the World Works, Englewood-Cliffs, NJ 07632: Prentice-Hall.

Of God's magnificent provisions for Creation, we identify seven. These provisions—many of which are celebrated in Psalm 104—are indicative of the remarkable integrity and beauty that have engendered awe, wonder, and respect for the Creator and Creation through the ages.

1. Earth's energy exchange with the sun

Our star, the Sun, pours forth immense energy in all directions, and whatever is in the path of its rays, it heats. A very small part of the Sun's immense radiated energy is intercepted by our relatively tiny Planet Earth, 93 million miles distant, and energizes nearly everything on Earth—living creatures great and small, ocean currents, winds and storms. This energy input tends to heat the Earth, but is balanced by Earth itself radiating energy back into space. If more energy comes to Earth than leaves, Earth warms up; if more is radiated back into space than comes in, Earth cools down. And it is here that the "greenhouse gases" of the atmosphere have a very important function. These gases, including water vapor and carbon dioxide, let much of the sunlight through, but they slow up the re-radiation of energy from Earth itself, and Earth's temperature is stabilized at a higher level than it otherwise would be. This makes Earth warm, but not too warm. It is largely the provision of these greenhouse gases—in just the right amounts—that make Earth's temperatures warm enough to support the wondrous fabric of life we call the biosphere.

The energy that through God's providence pours forth from the Sun contains not only the beneficial rays that support life and global circulations of air and water; it also contains lethal radiation. Beyond what can be seen by our eyes—beyond the blue and violet end of the spectrum—is ultraviolet radiation. And ultraviolet radiation is deadly. When it is absorbed by living and non-living things, not only does it make them warm up, but conveys such high levels of energy that chemical bonds are broken, molecules break apart, and living tissues are disrupted and destroyed. Of special concern is the breaking of DNA—the genetic blueprint chemical of living things—with consequent death of microscopic creatures and the inducement of things like skin cancer in us and other living things.

But here there is another remarkable provision of the Creator, for in the gaseous envelope of Earth—high in the atmosphere—there is present a gas that absorbs ultra-violet light. That gas is ozone, and all of it together makes up the "ozone layer" or "ozone shield." Thus, an important provision by God is the protective ozone shield; it prevents damaging radiation from entering the household of life, making Earth habitable by all of God's creatures.

2. Soil and land building

Soils build and develop. All of us know this from the practice of gardening by us and our neighbors, in which our composting and turning in of plants into the soil, makes the soil better and richer. This process also takes place unaided by human cultivation. Responding to climate, rainfall, and the soil organisms, soils get richer and more supportive of life through time. Topsoil builds up, becoming more supportive, becoming richer, and life increasingly flourishes. And various remarkable cycles are involved in this development: the carbon cycle, the water cycle, the nitrogen cycle, and on it goes—a veritable symphony of processes that bring bare landscapes, and even bare rock, eventually, to support a rich and diverse fabric of living things.

This soil-building though, teaches patience. A half-inch of topsoil formed in a hundred years is a very high rate; sometimes it is more like an eighth-inch of soil in a century! "A day is as a thousand years" is what goes through one's mind as one thinks of this provision of God for Creation.

The dynamic fabric of roots, soil organisms, and soils that bind together the surface of this biosphere makes one stand in awe of God's patience as Provider. Yet, the soil builds, even from bare rock! And this soil development is an absolutely remarkable provision: it nurtures the fruitfulness of Creation, it is a God-given blessing! In it resides the richness of the land whose produce we reap and whose creatures are nourished.

Soil development occurs everywhere across the face of the land. In the cool of the temperate zones, this soil building brings prairie and woodland soils; farther toward the poles it brings the soils of boreal forests; and in the tropics it brings the reddish laterite soils. The land is nurtured, refreshed and renewed.

Thus, an important provision is the building of soil; this process helps support Creation's integrity; it helps renew the face of the Earth.

3. Cycling, recycling, and ecosystem functions

Recycling is not a recent invention. It is part and parcel of the way the world works. The whole Creation uses, re-uses, and uses again the various substances contained in the soil, water and air for maintaining its living and non-living fabric. Carbon dioxide breathed out by us—and by gazelles, and lizards, and gnats—enters the atmosphere later to be taken up as the basic carbon-based raw material from which to make the carbon-based stuff of life. And this carbon-stuff is transferred to the animals and microscopic life that depend upon it for food. And sooner or later these consuming creatures return the carbon back to the atmosphere through their breathing out of carbon dioxide, or by their own death and decay. This is the carbon cycle.

Water too is cycled and recycled. Taken up by animals, it again is released to through breathing, sweating, panting, and ridding of wastes—finding its way to the atmosphere, or through the route of sewage treatment plants back to rivers and streams. Taken up by the roots of plants, some is pumped right up through the bundles of tubing in the roots, stems, and leaves of plants and back to the atmosphere while some is used together with carbon dioxide to make the stuff of life that after use by plants and animals as building materials and fuels, once again is released to the atmosphere. The water that goes into the atmosphere joins water evaporated from lakes, streams, soil and other surfaces eventually forming rain, sleet, or snow that again waters the face of Earth, some running off to streams and other surface waters again to evaporate to reform the clouds from whence it came. Some percolates through the soil back to roots of plants, and some slips past these roots to enter the groundwater to be pumped by wells for human use, or to emerge as eventually to be returned to the clouds again. As water is evaporated, or transpired to the air, most everything it contained is left behind—a sweet distillation expressing a bountiful love of God for the world. And the clouds—great condensations of distilled watery vapors—rain it all down again to water the Earth. This is the hydrologic cycle.

Thy bountiful care what tongue can recite?
It breathes in the air, it shines in the light;
It streams from the hills, it descends to the plain,
And sweetly distills in the dew and the rain.

—from the hymn, "O Worship the King."

Cycles upon cycles... cycles within cycles... cycles of cycles... the Creation is permeated with cycles, and each of these is empowered by energy poured out from the Sun—and from God's grace poured out through His Son. The workings of ecosystems rely upon all of this cycling in Creation. The biosphere—that great envelope of inhabited world that covers the face of the Earth—is what we and all God's creatures inhabit. And it is comprised of prairies, oceans, forests, lakes, glades, woodlands, brooks and marshes; it is comprised of ecosystems. And each of these ecosystems has its plants, animals, soils, and climate. These creatures and their interactions, and much more, make up the ecosystems of Creation.

Although it might not first meet the eye, ecosystems are places of immense ecological harmony. Not every creature plays the same tune, so to speak, but they all in so many ways are in tune with each other—in harmony, in polyharmony. A great marsh, at first seemingly unstructured and disordered, is in time discovered to be a highly ordered system in which each creature interacts with the other creatures to form an integrated whole. And what is true in this regard of wetlands is true of forests, and prairies, and lakes, and deserts. Each is a kind of symphony, and the biosphere is a symphony of symphonies, where all creatures great and small are so related with each other that they continue to produce after their kinds generation after generation, continue to maintain and sustain the living fabric of the biosphere, continue to bring forth life from death, continue to cycle and recycle the basic stuff of Creation—all powered by our star, the Sun. Creation's ecosystems are provided with everything needed for their continuance through the years and generations, everything needed for their creatures to interactively sustain the whole system in which they have a part.

4. Water purification - Water purification systems of the biosphere

In the cycling of water on Earth some water percolates through the soil to the groundwater below and eventually supplies the flowing springs that feed the wetlands, lakes, and ravines; it is the process of **percolation**. Some water is returned to the air by evaporation from the surfaces of water, land, and organisms and from transpiration through the pores of leaves; it is the process of **evapotranspiration**, or simply, **ET**. As water is evaporated, or transpired to the air, most everything it contained is left behind—"a sweet distillation." Evapotranspiration is one important provision for purifying water in Creation.

Percolation is another important provision for purifying water in Creation. In many water treatment plants in our cities, water is treated by having it percolate through beds of sand; this results in removal of many impurities in the water. In similar fashion water that percolates through the soil is treated, but usually over much greater distances through soil and rock. The result is that by the time we pull up the groundwater to our homes by our wells, or the groundwater emerges as springs, it usually is fit to drink. Percolation, and the movement of groundwater through aquifers of soil and rock, is another important provision for purifying water in Creation.

Still another important provision are the brooks, streams, and rivers. At normal levels of waste input in natural ecosystems, these flowing waters and their living inhabitants remove the impurities so that by the time water moves a few miles downstream the impurities—especially the demand for oxygen—put in upstream are largely removed. And so, the processing of water by flowing streams is another important provision for purifying water in Creation.

Evapotranspiration, percolation, and flowing rivers... And there is yet one more: wetlands. Many wetlands of many types across the globe serve as water purifiers under natural conditions. When water that has picked up eroded soil as it flows across upland areas enters wetlands, the soil particles are filtered out. And, in many instances, dissolved chemicals also are taken up by wetland plants. The result is that water entering rivers and lakes by way of wetlands are cleaned before entering, keeping flowing waters and lakes habitable for other life.

There is wonder in all of this! All of us know what water is. And yet, it is so common in most of our lives that we take it for granted. And so we need to be reminded that water is what often is called "the universal solvent," meaning that it dissolves practically anything. This should cause us to think about how then water can ever be purified. Since it is the universal solvent, should it not always be contaminated with dissolved materials from everything through which it passes? Water also is the only major liquid substance in the world, and as such flows from place to place, bringing with it all sorts of particles held in suspension, and so should it not be contaminated with all sorts of suspended material. The answer, we have found, is "no," because of the natural "distillers," "filters," and "extractors" that operate to purify waters in Creation. There is remarkable provision in Creation for the production of pure water; once having been contaminated by sediments and dissolved substances, it is made pure again... and again... and again! And this provision makes a vitally important contribution to the fruitfulness and abounding life of Creation.

Your spirit O Lord, makes life to abound. The
earth is renewed, and fruitful the ground...

God causes the springs of water to flow
in streams from the hills to valleys
below.

The Lord gives the streams for all living things
there, while birds with their singing enrapture the
air.

Down mountains and hills your showers are
sent. With fruit of your work the earth is
content.

Gray Psalter Hymnal, No. 104

5. Fruitfulness and abundant life

The whole Creation is blessed with fruitfulness and abundant life! Of the known flowering plants we have 250,000 species—such as orchids, grasses, daisies, lilies, sedges, maples and palms, lilies—in amazingly colorful abundance and beauty. Each of these inter-relates with water, soil, air, and numerous other kinds of organism as each conducts its life, in its own distinctive way. It is a fabric of life that envelops Earth—a sphere of life that provides the interwoven threads of the household of life, the oikos we call the biosphere. Beyond these there is another quarter million species of still other kinds, and still another, and another! And these are not merely scattered but situated in intricate dynamic relationships with the rest of the species with whom they inter-relate. At mid-century we thought there were about 1 million different kinds of living creatures! In the 1960s we thought there were about 5 million species, and today we believe there is something between 5 million and 40 million species of living things on Earth! The biodiversity of Earth is so great that we are just now beginning to realize that we have just begun to name the creatures—we have named only about 1.5 million thus far.

It is difficult to convey our own utter amazement at the seemingly infinite variety of life on Earth, and even more so the fact that each of these several million kinds of creature perpetuates itself from generation to generation with rare exception. Despite the dangers nearly every species faces as it goes through its life cycle they largely persist generation after generation, reproducing after their kind. Even as the situation of these creatures changes, due to shifts in climate, landscape, forest cover, etc., each creature continues generation to generation because each also is endowed with the capacity to adapt to changing conditions. Hardly any two offspring are exactly alike with the result being that each generation itself has new variety, and it is this variety that provides the individuals who will be well adapted to new and unanticipated changes in the environment. Thus, not only is there provision in Creation for continuance of each species, but also for their adaptation to new situations—and through such provision, life not only persists, but flourishes.

How many are your works, O Lord!
In wisdom you made them all; the
earth is full of your creatures.

There is the sea, vast and spacious,
teeming with creatures beyond number—
living things both large and small.

Psalms 104

God said, "Let the waters bring forth swarms of living creatures, and birds that fly above the earth across the expanse of the sky." And the Lord blessed them and said, 'Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth...' God causes the waters to bring forth swarms of creatures. Creation is blessed! Creation is blessed with fruitfulness. And it is everywhere evident, awesome, wondrous!

6. Global circulations of water and air

Because of its 23 1/2 degree tilt, our Lord's Earth gets unequally heated from season to season, with the Northern hemisphere getting far more solar radiation in the northern summer than in winter; the opposite is true of the southern hemisphere. And of course, the daily rotation of Earth also unequally heats Earth. Both these seasonal and daily differences in heating by the Sun's energy cause differentials in Earth's temperatures from place to place, and this produces temperature gradients which drive the flows of water and air from place to place. But the unequally heated water and air, due to the presence of the land masses, and air, due to the presence of mountain ranges, cannot make simple one-directional moves, but must stay within the constraints of land masses and mountain ranges. It is this that is basic to Earth's atmospheric and oceanic circulations.

Atmospheric and oceanic circulations are extremely important provisions for maintaining the life of our planet. Carbon dioxide produced by animal and plant respiration, and oxygen produced by photosynthesis are released to air and water—the fluids whose circulations are driven by these temperature differences, and thus get moved around and mixed in such a way that they can again be picked up by the organisms that need them. Thus the carbon dioxide produced by animal and plant respiration is moved around such that it eventually comes into contact with plants that take up the carbon dioxide to re-incorporate it into the stuff of life. And oxygen, produced by photosynthesis of plants, is similarly circulated by air and water currents to supply the respiration of animals and plants.

Beyond moving these vital gases, global circulations are also vital to the movement of other materials. One of these movements, that of water vapor, of course is vital to the hydrologic cycle, for when evapotranspiration brings water into the air from plants and water evaporates from various surfaces, it is circulated by moving air thus moving water away from its immediate source to places that subsequent precipitation will occur in the form of rain, sleet, or snow. Global circulations are in a very real way the ventilation system of the biosphere. Global circulations provide the "breath" of life at the planetary scale, and they are vital to the watering of

the fabric of living things that encapsulate the Earth.

7. Human ability to learn from Creation

Human beings have been endowed with the ability to learn from Creation. And, while the natural sciences often are credited with teaching us how the world works, we ultimately learn what we know from Creation—that is what scientific research is all about. But that does not end the matter. We have been provided with the ability to probe and investigate God's world; we have been endowed with the ability to record in their mind's eye what they see, feel, hear, and smell; we have been granted minds that integrate what Creation teaches us—we have minds that create images of our world, representations of the world in our thoughts upon which we act when we plan and do our work in the world. The images we have in our minds—of our home town, our family, the great expanse of a wondrous forest or marsh, the microscopic life we observed under a microscope—are continually tested against our experience. We learn from our mistakes, learn from others whose observations and experiments we trust, and revise our models of the world better to represent the world in which we live.

This ability is not one that has come through modern science, although modern science in a very real way reflects this endowment by the Creator. The ability to learn from what Creation teaches us is an endowment provided by God to all human beings across the world, and throughout human history. A 1975 study of Hanunoo tribe of the Philippine Islands, for example, found that an average adult could identify 1,600 different species, all without the help of modern science. And this knowledge, gained from study of Creation by these people themselves showed that they had learned some 400 more plant species than previously recorded in a modern systematic botanical survey. Beyond the knowledge of scientific botanists, these people also knew their uses for food, construction, crafts, and medicine and, they knew where to find all of them—they knew their homes and habitats, they knew their "ecology." For Nigeria and elsewhere in tribal cultures there are similar findings.⁵ Of course, knowledge of such a large number of plants is just part of the learning that has been gained by these peoples and incorporated into their mental models—their understanding—of how the world works.

This ability of building mental models of Creation—in all its aspects, from plants and atoms to home and cosmos—is essential for meaningful human life. And our models are nurtured and often refined by the human culture with which we also are endowed. Early on we learned the warmth of our mother's love; in the days our youth we were imbued with our parents' and church's love for our Creator; and in our vocations we daily learn from the people and writings that touch us. The representations of God's world that we hold in our minds are remembered—we are "re-minded" by persons and situations—and upon what we hold in our minds to be true we respond and act in God's world. And when presented with concrete evidence or convincing arguments, we might even "change our minds." In God's providence, we have minds; in God's providence, these minds are cultured and cultivated by God's world and God's Word, and all that these contain.

⁵Awa, N. 1989. Participation and indigenous knowledge in rural development. *Knowledge* 10:304-316.

Christian people are "re-minded" by God's Word that the Earth is the Lord's and everything in it. They are cultured by the teachings of the Bible to learn of the One who made all things, holds all things together, and reconciles all things to himself (John 1, Colossians 1). More than that they are encourage to be like-minded with this One—this Jesus Christ who created, sustains, and reconciles the Creation. What it is to adopt the mind of the Creator, Sustainer, and Reconciler is something that we can spend a lifetime learning. And thus the Christian culture in which we are imbued prays:

May the mind of Christ, my Savior,
live in me from day to day, by his
love and power controlling all I do or
say.

What does it mean to have the mind of Jesus Christ? What does it mean to have the mind of the One of whom it is written:

He is the image of the invisible God, the firstborn over all Creation. For by him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things were created by 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.

The Creator, in a most marvelous provision for us and all people, has given us minds and nurturing cultures that allow us to imagine and know how the world works, and beyond this is the God-given provision that we can use what we have in mind to act on our knowledge. We human beings have been granted the ability to know Creation and to act upon that knowledge. To followers of Jesus this provision allows for the adoption of the mind of Christ—and this means that those who follow Jesus might not only learn from Creation, but also engage in its care, keeping, and reconciliation—in accord with God's love for the world.

**B. God's Economy:
The "Balance of Nature" and the Economy of Creation**

God's provisions for Creation have been recognized for centuries and millennia as operating in accord with each other—all working in together to do God's will in the universe. "In the beginning God created the heavens and the earth" (Genesis 1:1). And since God we know from the Scriptures as also from Creation loves and administers justice, all things work together according to God's will. God administers justice in governance of the universe. God is lawful and governs by law. In the biblical view, the law is Torah. And while this Torah is first perhaps understood by Christians as the decalogue (Exodus 20 and Deuteronomy 5) or the commandment to love God and neighbor as taught by Christ (Matthew 22:37-40), it is understood more completely to be the first five books, and even more completely to be the law whereby God orders and sustains the whole of Creation. Thus, the Rabbis, in *Genesis Rabbah*, can say: "...the Holy One, blessed be he, consulted Torah when he created the world."⁶

Here, as also is true for Psalm 19, God's Creation and Torah are inter-related. Torah is present before the creation of the universe. And it is God's Torah that underlies the order, integrity and goodness of the Creation, since it is by Torah that God created, is creating, and is sustaining. It is because of the testimony of the Scriptures, their commentators, and the Creation that various understandings of the lawfulness and accord within Creation have been expressed in terms such as "the balance of nature" or "the economy of nature."

Linnaeus and Oeconomia.— Beyond the many biblical descriptions of this orderliness of God's world, is that of Carl Linnaeus (Carolus von Linné), the renowned Swedish student of animals and plants of the 18th century and proponent of our present-day system of plant and animal classification. Linnaeus was a Christian man who lived prior to the invention of the word "ecology." During his time however, the remarkable order and integrity of the Creation with its complex inter-relationships and a remarkable matching of ends with means was recognized. Today, the study of these inter-relationships is the focus of the science of ecology.

Theologians of Linnaeus' time, not having the word "ecology," made the word *oeconomia* interchangeable with God's "dispensations," and by the seventeenth century "oeconomy" was frequently employed to refer to the divine government of the natural world. It was recognized that: "God's economy was His extraordinary talent for matching means with ends, for so managing the cosmos that each constituent part performed its work with stunning efficiency."⁷
Oeconomy of Nature.— Linnaeus, too, recognized God's economy and in 1791 wrote an essay entitled the *Oeconomy of Nature*. He writes:

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Genesis Rabbah: The Judaic Commentary to the Book of Genesis. A New American Translation. Vol. I. Parashiyot One through ThirtyThree on Genesis 1:1 to 8:14. [Jacob Neusner, transl.] 1985. Atlanta, Georgia: Scholars Press.

⁷ Worster, Donald. 1979. *Nature's Economy: the Roots of Ecology*. San Francisco: Sierra Club Books.

By the Oeconomy of Nature we understand the all-wise disposition of the Creator in relation to natural things, by which they are fitted to produce general ends, and reciprocal uses. All things contained in the compass of the universe declare, as it were, with one accord the infinite wisdom of the Creator. For whatever strikes our senses, whatever is the object of our thoughts, are so contrived, that they concur to make manifest the divine glory, i.e. the ultimate end which God proposed in all His works. Whoever duly turns his attention to the things on this our terraqueous globe, must necessarily confess, that they are so connected, so chained together, that they all aim at the same end, and to this end a vast number of intermediate ends are subservient.

But as the intent of this treatise will not suffer me to consider them all, I shall at present only take notice of such as relate to the preservation of natural things. In order therefore to perpetuate the established course of nature in a continued series, the divine wisdom has thought fit, that all living creatures should constantly be employed in producing individuals; that all natural things should contribute and lend a helping hand to preserve every species; and lastly, that the death and destruction of one thing should always be subservient to the restitution of another. It seems to me that a greater subject than this cannot be found, nor one on which laborious men may more worthily employ their industry, or men of genius their penetration. . . ."

If we consider the end for which it pleased the Supreme Being to constitute such an order of nature, that some animals should be, as it were, created only to be miserably butchered by others, it seems that his Providence not only aimed at sustaining, but also keeping a just proportion amongst all the species; and so prevent any one of them increasing too much, to the detriment of men, and other animals. For if it be true, as it is most assuredly, that the surface of the earth can support only a certain number of inhabitants, they must all perish, if the same number were doubled, or tripled.

It is sufficient for us, that nothing is made by Providence in vain, and that whatever is made, is made with supreme wisdom. For it does not become us to pry too boldly into all the designs of God. Let us not imagine, when these rapacious animals sometimes do us mischief, that the Creator planned the order of nature according to our private principles of oeconomy... We of the human race, who were created to praise and adore our Creator, unless we choose to be mere idle spectators, should and in duty ought to be affected with nothing so much as the pious consideration of this glorious palace (of Creation). Most certainly if we are to improve and polish our minds by the knowledge of these things; we should, besides the great use which would accrue to our oeconomy, discover the more excellent oeconomy of nature, and more strongly admire it when discovered."⁸

Praising God for God's Oeconomy.— Some 200 years later, we have all of this wonder of God's economy under study in the youthful science of ecology. And for all of God's provisions and their remarkable order and consistency we continue to bring forth our praise to God, in our

⁸ Quoted in Worster, op. cit.

speaking and writing, living and learning, planting and harvesting, praying and singing.

*Praise God from Whom all blessings flow;
Praise Him all creatures here below;
Praise Him above ye heavenly host;
Praise Father, Son, and Holy Ghost!*

*Section I.***LAND, CREATION AND JUST STEWARDSHIP:
A BIBLICAL STUDY**

And Jehovah God taketh the man and causeth him to rest in the garden of Eden, to serve it and to keep it.

—Genesis 2:15a (Young's Literal Translation)⁹

The custody of the garden was given in charge to Adam, to show that we possess the things which God has committed to our hands, on the condition that, being content with the frugal and moderate use of them, we should take care of what shall remain. Let him who possesses a field, so partake of its yearly fruits, that he may not suffer the ground to be injured by his negligence, but let him endeavor to hand it down to posterity as he received it, or even better cultivated. Let him so feed on its fruits, that he neither dissipates it by luxury, nor permits it to be marred or ruined by neglect. Moreover, that this economy, and this diligence, with respect to those good things which God has given us to enjoy, may flourish among us; let everyone regard himself as the steward of God in all things which he possesses. Then he will neither conduct him self dissolutely, nor corrupt by abuse those things which God requires to be preserved.

—French lawyer and theologian, John Calvin, 1554¹⁰

Just stewardship of Creation requires that we explore the relationship of our Creator-God, God's Creation, and God's assigned stewards of Creation. The framework for our thinking is: Creation, Fall, Redemption.

A. Creation

The biblical approach to Creation stewardship does not pit human beings against Creation, but humbly acknowledges we are creatures too. The language of the Bible has no provision for allowing people to separate themselves from the rest of Creation. As Paulos Mar Gregorios reminds us, the word, "nature," in the sense of non-human self-existent reality does not occur in the Old Testament; it is a concept alien to the biblical world.¹¹ So too with the word, *Creation*.

⁹ Young's Literal Translation of the Holy Bible: A Revised Edition, (Grand Rapids, Michigan: Baker Book House, 1953).

¹⁰ Commentary on Genesis 2:15, from John Calvin's *Commentary on Genesis*. First Latin edition 1554. First English Edition 1578. English translation of 1847, reprinted by Banner of Truth Publishers, 1965.

¹¹ Gregorios, Paulos Mar. 1987. In: Granberg-Michaelson, Wesley, ed. *Tending the Garden: Essays on the Gospel and the Earth*. Grand Rapids: Eerdmans, p.86.

The Bible does not allow a dichotomy between people and their environment. Human beings are part and parcel of God's created order, are God's creatures, embedded in Creation. Yet, unlike the other creatures, they are also entrusted with Creation's care and keeping; people are made to image God's love for the world.

The Scriptures, particularly Genesis 1 and Revelation 21-22, provide the envelope within which the interaction is played out among God, Creation and God's commissioned care-givers. The basics are put forth in Genesis 1: God created the heavens and the earth—all reality. The earth (*eretz*) at first is "formless and empty"—"*tohu wa bohu*"—unfit for life. But the promise of life comes as the Spirit of God hovers over it. God spoke.

In the first three days of Creation, God gave form to what had no form—dividing, separating, gathering. In the next three days God filled the emptiness with living creatures, blessing them with fruitfulness. Also blessed with fruitfulness were human beings, but beyond that, they were bestowed by God with God's image. This was in expectation that they would image God's love and care, binding them to one another, to God, to earth, and to all God's creatures. This tie was blessing and endowment—a gift to people who thereby would be sharing in God's caring.

As God blessed the fish and birds, He blessed people: "Be fruitful and increase in number.." Together with the other creatures, human beings were expected to fill and fulfill God's blessing of fruitfulness. Imaging God's caring control and loving rule over Creation, righteous people were expected to 'subdue' it and "rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground" (Gen. 1:28). All of this was glorious: God's work was good. It was very good. Blessing the sinless human beings He created, He gave them the capacity and authority to image God's delight, nurturing care, and righteous rule of Creation. His stewards were given the capacity to mirror in their own lives God's love for the world. God brought all of this joyful and satisfying creativity to full lustre on the seventh day—polishing and finishing it with sabbath rest.

Five Creation-based themes are disclosed in this opening chapter of Scripture, themes important at the dawn of Creation, themes important to people in their imaging of God's love, and themes in which God's redeeming work, brought later to sinful people and to the whole Creation, would find its meaning. These themes are *wholeness, divine ownership, habitability, goodness, and stewardship*.

1. Wholeness and relationship of God, humanity and land

God reveals Himself to be in relationship with Creation: God, humanity, and land are inter-related. Their inter-relationship—a theme of the book of Genesis and of the entire Bible—is a triad that illumines and informs the privilege and responsibility human beings are given as stewards of the earth that God owns. This triad corrects present notions of human ownership and control and disallows hierarchical notions of human domination. It also corrects the hermeneutic that would narrowly constrain and limit the Gospel to just one arm of the triad, namely a heart-relationship of people to God.

2. Divine ownership of all Creation

God is Creator and Owner of all Creation. Even we are not our own, but belong to our faithful God. As stewards and tenants (Leviticus 25:23) we serve under divine appointment as caretakers and keepers of Creation. We and all people are entrusted with God's property. Thus, Israel was appointed by God to be a kingdom of priests and a holy nation (Exodus 19:6), holding God's land in trust. Israel's territorial conqueror, David, therefore does not claim the land as his, but proclaims, "The earth is the Lord's and everything in it" (Psalm 24:1). God's ownership, in New Testament times, means that the new Christians at Corinth are freed from the idols around them since it is God who owns the land and the creatures. God binds humankind in covenant relationship to God and the land, and everything it contains.¹² God, land, and people are intertwined in a trust relationship, and this brings obligations and interdependency to human beings.¹³

3. Habitability of the Land

God did not create the earth (*eretz*) to be an empty place, but to be inhabited (Isaiah 45:18). The Bible uses the word, *eretz*, for the earth and *tebel* for that part of the earth that is inhabited. Thus, "...I was by him... Rejoicing in the habitable (*tebel*) part of the earth (*eretz*) (Proverbs 8:30a, 31¹⁴) and "The earth (*eretz*) is the Lord's and everything in it, the world (*tebel*), and all who live in it (Psalm 24:1; also cf. Psalm 98:7; Nahum 1:5; and Isaiah 34:1). And, "Their voice goes out into all the earth (*eretz*), their words to the ends of the world (*tebel*) (Psalm 19:4). This proclamation is paralleled in the New Testament: "...their sound went out into all the earth (*ge*), and their words unto the ends of the world (*oikoumene*) (Romans 10:18).

Tebel is land and habitat that God intends to support Creation's living fabric, including its human trustees. *Tebel* is inhabitable land where humankind, administering God's blessing, can flourish with the rest of the creatures placed in their trust. It is more than soil or acreage, more than villages or cities; it is the full and vibrant tapestry of life that comprises the biosphere. The reductionism that separates so many people from Creation in our time—city from farm, urban from rural—is thus disallowed. *Tebel* allows for full exercise of stewardship—for human imaging of God's love for the world.

Creation's purpose is to glorify God. Thus it may not be selfishly appropriated as if it were created for people alone. Adam ("the human") is formed by God from *adamah* ("the humus"). People are formed from the *eretz* that pre-exists people, the *eretz* that God owns. Thus it is that Wes Jackson suggests, that the "altars of unhewn stone" God asked Israel to construct after crossing the Jordan reminded Israel of God's possession—unshaped by human hands as these were prior to human occupation of the land. The land is God's land. It sustains God's people only as long as they acknowledged its owner; it sustains them only as long as they observe His

¹² Berry, Wendell. 1981. *The Gift of Good Land: further essays, cultural and agricultural*. San Francisco: North Point Press, pp. 270-271.

¹³ Kline, Meredith. 1962. Divine Kingship and Genesis 6:1-4. *Westminster Journal* 24:187-204.

¹⁴ Our translation.

sabbaths—the sabbath for the land and the Year of Jubilee (Leviticus 25-26).¹⁵ There is a corollary in Genesis 3:15, where God's ownership and God's kingdom are challenged by the kingdom of darkness. In the most pernicious expression since the Fall, Satan attempts to return Creation to formlessness and emptiness, to undo Creation, to destroy God's creatures. However, through a fallen and redeemed woman, God responds. God sends Jesus Christ, born of this woman, to wrestle that seed of Satan to the ground. God sends His Son to secure *eretz* and the whole Creation for its Creator—to save the cosmos that God loves.

4. Goodness of Creation and of God's creatures

The Lord repeatedly declares that His creatures and His whole Creation is good. This God-proclaimed goodness persists after the Fall so powerfully, that the psalmist can proclaim, "The heavens declare the glory of God..." (Psalm 19:1a) and Paul can declare that Creation's testimony leaves no one with an excuse for not knowing God's divinity and everlasting power (Romans 1:20, cf. Acts 14:17). When Creation's goodness and God-praising testimony are threatened by sinful people, God acts redemptively. God expresses His redemption decisively in the death and resurrection of His Son, in the outpouring of the Holy Spirit, and in the spreading of His Word for Creation by the apostles and the churches.

Even when subjected to horrible frustration (Romans 8:18-27), the land remains good, continuing to display and declare the glory of God (Ps 104; Psalm 19:1; the Belgic Confession, Art. 2; John Calvin's commentary on Genesis). Moreover the Law builds upon the premise that the Creation remains good. Thus, the land and animals proclaim their Maker's praise (Psalm 96, 148), and they do it so well that God's people often are told to take their cue from the other creatures. Yet, the land has no power of its own apart from God. It is not "Mother Earth," but a creature that depends entirely upon its loving Creator (II Kings 17, 18), who cherishes it with love and care (Deuteronomy 11:12).

Human perception of God's goodness is enhanced by wisdom. The beginning of this wisdom is love and respect for God. Beginning with the fear of the Lord, God-fearing people deepen their wisdom by participating in God-fearing culture of family and community. They deepen their wisdom through their preserving continuity, keeping promises, and remaining faithful. They deepen their wisdom by listening intently to the visible Creation. Wisdom requires passing on to younger generations discernment, faithfulness, righteousness, love, fidelity, community building, and worship. It requires passing on to them the practice of replenishment of the land and persistent listening to the requirements of the land (cf. Isaiah 28: 23-29). When tradition, continuity, and community are broken, we forget how to do the right thing and no longer know what truly is "fitting." We lose our way, distancing ourselves from God, from each other, and from the land."¹⁶ Creation groans.

¹⁵ Jackson, Wes. 1987. *Altars of Unhewn Stone: Science and the Earth*, San Francisco, CA: North Point Press.

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Groen, J and M. VanderVennen. The Scriptures and Land (unpublished. Background paper for the Committee for Contact with the Government of the Council of Christian Reformed Churches in

5. Stewardship of Creation

God blesses humanity with fruitfulness and stewardship. The first blessing—of fruitfulness—is shared with other creatures. The second—of stewardship—is given to human beings so that they may confirm and assure the primary blessing of fruitfulness, not only for themselves, but for all Creation. The blessing of stewardship affirms the first blessing. Thus, with John Stek, we read the word, *dominion* of Genesis 1:26-28 not as a hostile *subdue* but as *stewardly service*. In so doing, however, we recognize that sin influences how that service is accomplished, and whether it is accomplished in accord with God's will for Creation. It is only by listening to the Creator, only by assuring God's blessing of fruitfulness to the whole Creation, that human beings can bring the God-imaging service of love, justice, and blessing to fellow human beings, fellow creatures, and the whole Creation.

The Bible gives guidance on how rightly to live as stewards of the Lord's earth. Here are three biblical principles:¹⁷

a. Earthkeeping Principle: As the Lord keeps and sustains us, so must we keep and sustain our Lord's Creation

Genesis 2:15 expects Adam and Adam's descendants to *serve* and *keep* the garden. The Hebrew word on which the translation of *keep* is based is the word *shamar*. *Shamar* means a loving, caring, sustaining keeping. This word also is used in the Aaronic blessing, from Numbers 6:24, "The Lord bless you and *keep* you." When we invoke God's blessing to keep *us*, it is not merely that God would keep us in a kind of preserved, inactive, uninteresting state. Instead, it is that God would keep us in all of our vitality, with all our energy and beauty. The keeping we expect of God when we invoke the Aaronic blessing is one that nurtures all of our life-staining and life-fulfilling relationships—with our family, spouse, and children, with our neighbors and our friends, with the land that sustains us, with the air and water, and with our God. So too with our keeping of the Garden, our keeping of God's Creation. When Adam, Eve and we, *keep* the Creation, we make sure that the creatures under our care and keeping are maintained with all their proper connections, connections with members of the same species, with the many other species with which they interact, with the soil, air and water on which they depend. The rich and full keeping that we invoke with the Aaronic blessing is the kind of rich and full keeping that we should bring to the garden of God—to God's creatures and to all of Creation. As God keeps believing people, so should God's people keep Creation.

b. Fruitfulness Principle: We should enjoy, but must not destroy, Creation's fruitfulness

The fish of the sea and the birds of the air, as well as people, receive God's blessing of fruitfulness. In Genesis 1:20 and 22 God declares, "Let the water teem with living creatures, and

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¹⁷ These principles are taken from Christian Environmental Stewardship: Preparing the Way for Action, *Perspectives on Science and Christian Faith* 46(2)(June):80-89, 1994.

let birds fly above the earth across the expanse of the sky." Then God blesses these creatures with fruitfulness: "Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth." God's Creation reflects God's fruitful work of giving to land and life what satisfies. As it is written in Psalm 104,

He makes springs pour water into the ravines; it flows between the mountains. They give water to all the beasts of the field; the wild donkeys quench their thirst. The birds of the air nest by the waters; they sing among its branches. He waters the mountains from his upper chambers; the earth is satisfied by the fruit of his work.

And Psalm 23 describes how our providing God "... makes me lie down in green pastures, ... leads me beside quiet waters, ... restores my soul."

As God's fruitful work brings fruit to Creation, so should ours. As God provides for the creatures, so should we. We were created to reflect God whose image we bear. Imaging God, we too should provide for the creatures. And, as Noah spared no time, expense or reputation when God's creatures were threatened with extinction, neither should we. Deluges—in Noah's time of water, and in our time of floods of people—sprawl over the land, displacing God's creatures, limiting *their* potential to obey God's command, "be fruitful and increase in number."

Thus, while expected to enjoy Creation and to partake of Creation's fruit, we may not destroy the *fruitfulness* upon which Creation's fullness depends. We must, with Noah, save the species whose interactions with each other, and with land and water, form the fabric of the biosphere. We should let the profound admonition of Ezekiel 34:18 reverberate and echo in our minds:

Is it not enough for you to feed on the green pastures? Must you also trample them with your feet?

c. Sabbath Principle: We must provide for Creation's sabbath rests

Later, in Exodus 20 and Deuteronomy 5, we receive further instruction that requires one day in seven being set aside as a day of rest for people and for animals. As human beings and animals are to be given their times of sabbath rest, so also is the land. Exodus 23:10-11 commands, "For six years you shall sow your land and gather in its yield; but the seventh year you shall let it rest and lie fallow, that the poor of your people may eat; and what they leave the wild beasts may eat." "You may ask, 'What will we eat in the seventh year if we do not plant or harvest our crops?'" God's answer in Leviticus 25 and 26 is: "I will send you such a blessing in the sixth year that the land will yield enough for three years," so do not worry, but practice this law so that your land will be *fruitful*. "If you follow my decrees and are careful to obey my commands, I will send you rain in its season, and the ground will yield its crops and the trees of the field their fruit"

Christ in the New Testament clearly teaches that the Sabbath is made for the ones served by it—not the other way around. Thus, God gives the sabbath year to protect the land from relentless exploitation, to help the land rejuvenate, to help it get things together again; it is a time of rest and restoration. This sabbath is not merely a legalistic requirement, but a profound principle. Thus in some Christian farming communities, the sabbath principle is practiced by letting the land rest every *second* year, "because that is what the land needs." And of course, it is not therefore restricted to agriculture but applies to all Creation. The Bible warns in Leviticus 26, "...if you will not listen to me and carry out all these commands, and if you reject my decrees and abhor my laws and fail to carry out all my commands and so violate my covenant, ...Your land will be laid waste, and your cities will lie in ruins... Then the land will enjoy its sabbath years all the time it lies desolate... then the land will rest and enjoy its sabbaths. All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived in it." Of course, this warning becomes necessary only after the Fall.

B. Fall and Redemption

1. From Creation to Canaan

The relationship of our Creator God, God's Creation, and God's assigned stewards of Creation is strongly challenged by the choice of Adam and Eve and their descendants to go their own way. Fallen people challenge God's authority, selfishly exploit God's Creation, and violate their assignment as stewards of Creation. But God loves the world and works to secure the formed and filled habitable earth, to affirm the goodness of the whole Creation and its blessing of fruitfulness. The history of redemption recorded in Scripture, clearly shows that God does not condone the arrogance, ignorance, greed, violence and conquest that people pursue or admire. It is a history of struggle for the ownership of the land (cf. Genesis 3:15). The question confronts us: Is the earth the Lord's and all its fullness? Does our world belong to God?

Early on, at the Flood and at Babel, God shatters the arrogance that God's imagers proudly flaunt before their Maker. Checking human arrogance, ignorance, and greed, God preserves the lineages of the animals he has made, re-establishes the rhythms of the seasons, and re-instates the culture of the land. God calls Abraham, Isaac and Jacob granting them the stewardship of the land as their inheritance. They in turn become a much-feared and highly respected example to

the nations. But God destroys those who destroy the earth (Genesis 6-9, cf. Revelation 11:18) making them of no account.¹⁸ Following Babel, God calls His people out of the empire, emancipating them from Egypt, protecting them from the temptation to instrumentalize the land He had blessed (Exodus 1:7). God brings them into a wilderness that a self-centered "civilization" considers to be uninhabitable. God's people enter the Promised Land, erasing the farming and military customs of its former occupants to become "a paradigmatic sign to the nations of the goodness of the God; and of how to love with one another and how to live in and with the land."¹⁹

2. The Promised Land

God assigned the land by patriarchal tribe and family. Each nuclear family was to hold the land for succeeding generations in perpetuity, as an inheritance. The Jubilee legislation (Leviticus 25, Deuteronomy 15) put forth in the healthful rhythm of the original Creation how each member of the Covenant People was to live in peace, freedom, love, and caring—with neighbors, elderly people, the unborn, and the land. Every seventh year the land and its creatures were to observe a Sabbath—a year of solemn rest to the Lord. Creation, people, and other creatures were not to be relentlessly pressed. Business, agriculture, and pursuit of gain could not go on uninterrupted.

Failure to obey God's laws and ordinances, including the Sabbath laws, would have dire consequences. Disobedience and lawlessness would result in land that no longer supports its inhabitants. Relentlessly pressed land would ultimately enjoy its Sabbaths—Sabbaths it had not been given when people dwelt upon it (cf. Leviticus 26). Spousal abuse, divorce, or taking essential clothing or tools as collateral bring sin on the land as well (Deuteronomy 24:4). Beyond requirements for taking care of the land, God protects the dignity and privacy of the poor (Deuteronomy 24:10-15).

All of God's covenant actions from the Exodus through the Promised Land and on into exile were directed at recovery of the original triad of God-humanity-land. God is Creator and Owner of all Creation, the Blessor of land and people.

¹⁸ See Stek, John. *Land in Biblical Perspective*, p. 3.

¹⁹ N.T. Wright, N.T. *God's People in God's Land*, pp. 174-180.

3. The life, death and resurrection of Jesus

The people have chosen to go their own way. The prophets report Yahweh's searching among His people for justice and righteousness. Finding them wanting, God rejects their sacrifices, closes their temple and sends them into exile (cf. Amos 5:21-24, Hosea 4:1-3, Jeremiah 34). But they are not left in their sin. The Good News is that God so loved the world—so loved the cosmos—that he sent His Son to reconcile and redeem it all (cf. John 3). The Son of God, Jesus Christ, uses his hometown synagogue to proclaim the long lost year of Jubilee of Leviticus 25 (cf. Luke 4:18-21). The Bible envisions that "The kingdom of this cosmos has become the kingdom of our Lord and of his Christ - and He shall reign for ever and ever" (Revelation 11:15²⁰). Christ comes to return the Creation back to its Creator. Those who destroyed the earth are destroyed (cf. Rev. 11:18; Romans 8:18-25; Colossians 1:15-20; 2:15).²¹

God's paradigm of intent.— The Promised Land with its Steward People was the paradigm of intent for the relationship of God, land, and people. It envisioned bringing the whole Creation and all peoples to their Creator (Romans 4-13 ff; Galatians 3:7, 14). It envisioned through Abraham the blessing of all nations—the coming of the Kingdom of God.

God's love for the world is so great that ultimately God gives Himself in the person of Jesus Christ. Jesus Christ secures a renewed earth and heavens through the humbling sacrifice and death on a cross. Announcing salvation to the marginalized, the disenfranchised and confessing sinners, He performs miracles of body, land and water that point to His proclamation that "the meek... will inherit the earth" (Matthew 5:5). In giving them a place in the kingdom of God He denounces reclamation of a national Kingdom. In His servant rule, He rides into Jerusalem on a donkey, bringing the Kingdom of God into Jerusalem, Judea, Samaria and to the ends of the world, to all nations (Matthew 28:18-20; Acts 1:8, 2:5-21). God's claim to the cosmos is affirmed through His Son, Jesus Christ.²²

God's covenant promise.— God's covenant promise, through the serving and atoning work of Jesus Christ, through His commission to His apostles and through the blessing of His Holy spirit at Pentecost, is brought to the whole world. Under Christ's lordship believers share Christ's *inheritance* (Colossians 1:12; 2 Peter 3:13; Romans 4:13)—the inheritance of the land, and the whole of the earth. The Creation, through Christ's resurrection, is vindicated and affirmed. The whole Creation is to be restored at last.²³ God's intention for Creation is sustained.

²⁰ Our translation.

²¹ Wright, N.T. *The New Testament and the People of God*, p. 451.

²² Unlike any other religion. See N.T. Wright, *op. cit.*, p. 362.

²³ O'Donovan, O. 1986. *Resurrection and Moral Order: An Outline for Evangelical Ethics*. Leicester, England: Inter-Varsity; Grand Rapids: Eerdmans), p. 15.

The resurrection vindicates Creation.— The resurrection of Jesus Christ in the body affirms the significance and worth of the material Creation as does His incarnation.²⁴ It is in context of matter, space, and time that the resurrection makes sense.²⁵ Birthed in the flesh, crucified in the flesh, dying in flesh, resurrected in the flesh, God is God incarnate. Birthed, crucified, dying, and resurrected in time, the Eternal God acts temporally. "Late in time the Godhead see, hail incarnate deity!"

Thus we join the Apostle Paul, affirming "neither circumcision nor uncircumcision means anything; what counts is a new Creation" (Galatians 6:15). In Christ is life and sustainability. God-made-flesh is the inheritance of the Kingdom of God. It is not for the immoral, the impure or the greedy (Ephesians 5:5), but for those who follow Him as the One through Whom the world was made, is held together and is reconciled to God (cf. Colossians 1:15-20).

Creation is reaffirmed in Christ.— In Christ the goodness of the Creation is reaffirmed. "Eat anything sold in the meat market without raising questions of conscience, for 'The earth is the Lord's, and everything in it'" (1 Corinthians 10:25-26). However, in the freedom of Christ we always are bound to seek the good of others, in love (1 John 3:16, 17), and thus must not flaunt what we have learned of God and God's ownership of all things. Instead we must carry a cross of self-denial for the sake of righteousness and peace.

In Christ the triad of God-humanity-land is restored.

In Christ the land and the earth are acknowledged to belong to the Lord.

In Christ, the new heavens and the new earth are secured.

In Christ, the goodness of the land and Creation is reaffirmed and reclaimed.

In Christ, humanity is restored to recipients of the King's benediction, and thus humanity also is enabled to bless the land.

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Cf. VanLeeuwen, Raymond C. 1991. Christ's Resurrection and the Creation's Vindication. In: DeWitt, C. B. *The Environment and the Christian: What Can We Learn from the New Testament?* Grand Rapids: Baker Book House.

²⁵ Cf Wright, N.T. op. cit., p. 332.

*Section II.***LAND POSSESSION, DISPOSSESSION, AND RE-POSSESSION**

In earlier times we farmed and sowed maize (corn) without destroying the jungle. We need the trees because if there is no jungle it won't rain anymore. That's why it's better to have jungle: to have plenty of rain. If there is no jungle then the water won't come. With all that they've already cut down, the river is not deep anymore, all because of cutting down the trees. People who come here should respect the forest. But they don't. If people stop coming then the jungle won't die. I don't want this to happen. I don't want these people coming anymore. The jungle will end. That's how it is.

—Mayan native, Pepe, in Brazil, ca. 1986.²⁶

A. Confessional and Cultural Context

Centrality of land.— In his book, *The Land*, Walter Brueggemann makes the remarkable statement that "land is a central, if not the central theme of biblical faith" in the Old Testament. At first reading this sounds overstated, but when one examines the O.T. one finds that the theme of land emerges over and over again. In developing this idea, Brueggemann observes that land meant *place* to the Hebrews. And *place* is where one makes vows, lives out promises, and finds covenant. For God's people, land was the place where a people, in community, experienced Jahweh's blessings and fruitfulness. Thus, land was not primarily a resource nor a space to occupy. It was *place*; it had great depth of meaning. Land as *place* was intimately bound to culture and shalom.²⁷

However, the church—according to Brueggemann—has not been at ease with this basic Hebraic ethos. Instead, it has held a kind of dualism, with the more liberal elements focusing more on this world and social concerns, and the more conservative element finding ease in a spiritual Zion. One casts a wary eye on strictly spiritual matters, the other a dubious eye on the matters of this world. Yet, this is not condoned by Scripture. The profound Biblical concept of covenant—in Old and New Testaments—encompasses all Creation at once, with no distinction between justice for people and justice for other parts of the created order. As Larry Rasmussen reported to the Lutheran World Federation, "Justice here makes the radical assumption that the basic unity of reality is the whole Creation in God! For that reason justice, biblically considered, is the rendering of whatever is required for the fullest possible flourishing of Creation. Justice must then also be done in the land, together with its peoples. That which makes for wholeness in

²⁶ Interviewed in the film, *Only One Earth: The Road to Ruin*, 1987.

²⁷ Brueggemann, Walter. 1977. *The Land: Place as Gift, Promise, and Challenge in Biblical Faith*. Minneapolis: Fortress Press.

nature, psyche and society is 'just'.²⁸

Land as rude resources.— We have heard that "primitive" cultures, including the ancient Hebrew culture, often have a more holistic view of land and people than the developed West. Thus, it has been argued that the people of these cultures have a more normative world view and lifestyle than in Western society. The result is a great clash between cultures that results from Western cultural imposition through colonialization of the New World, Africa and the Pacific rim—a colonialization that first takes form as political domination and later by economic domination. With this domination has come a vocabulary of "developed" vs. "undeveloped" countries that presume a cultural superiority of the Western model of land and resource use. The prevalent Western view perceives land as a resource that is only valuable when used in a utilitarian and instrumental sense. It is this view that often is at the heart of the unjust exploitation of people, creatures, and Creation.

In this view, whether capitalist or Marxist, Creation is seen as "raw materials," "crude resources" (e.g. "crude oil") and "rude resources" (a term more common a century and more ago). We remove their crudeness and rudeness by "finishing" and "refining" them. Missing in this utilitarian world view is the humility that recognizes that our care and keeping of Creation, rather than our manipulation and exploitation of it, is the human task. Assurance of Creation's fruitfulness now and continuously into the future is over-ridden by an unquestioned drive to exploit and utilize.

B. Ecological Principles

While ecology as a formal science is not much more than a century old, it has articulated a number of principles important for land stewardship. These include the following:

1. Integrity of whole ecosystems and whole landscapes is essential for proper functioning of Creation's biogeochemical cycles.²⁹
2. Fruitfulness of land and its creatures (Genesis 1:22) depends on healthy and intact contiguous habitats. Habitat fragmentation leaves creatures functionally isolated on ecological islands, even meaning that extant creatures may be functionally extinct.
3. Human beings need and were created for a certain amount of contact with "otherkind" to be

²⁸ Rasmussen, Larry. 1990. Biblical Reflections. In: Rajashekar, J.P. and G. Planer-Friedrich, eds. *Land Is Life: Towards a Just Sharing of Land*. Document. No. 27, March 1990. Lutheran World Federation, p.19.

²⁹

Biogeochemical cycles include the carbon, hydrologic (water), oxygen, and nitrogen cycles, all of which involve life (*bio*), earth (*geo*), and transformations of matter (*chemical*) and are powered directly or indirectly by energy from the sun.

whole biologically, psychically and spiritually.

4. Fruitfulness of the soil must remain undiminished for the wellbeing of all creatures.

5. Development and agricultural technology must be sensitive to local biological, geological and meteorological limits and potentials, in an ecological region or watershed.

There are other considerations that point toward appropriate technology, not only in the kinds of implements and practices applied to land and water, but also in the kinds and concentrations of domestic species introduced. Technology transfer and utilization must have ecological compatibility. Markets, if developed, must subserve what is ultimately good for the local land, its community, and its ecosystems—all for the long term.

C. Human-Land Connections

All must have stewardship opportunity.— Every human being must have the opportunity for stewardship, for this is a major part of the human task. In their role of imaging God's love for the world, people can live normatively only if there are places and creatures to care for.³⁰ Deprivation of the freedom to be a steward over some part of God's Creation is reprehensible, and is imposed only upon those whose record makes them worthy of just imprisonment. Thus, there must be places and creatures to care for, which human beings of all kinds and all ages may preserve and keep.

Stewardship is best done in community.— The caring for and keeping of some part of Creation, while possible for individuals, is best done in community—in covenantal fashion where gifts of caring and serving can be freely and thankfully shared. The implications of this are many and profound. Children need to have a share in caring for Creation. Many people must be involved in caring for and keeping rural lands, not merely the ones called "farmers." Many people also need to be involved in caring for the wild creatures, locally and throughout Creation. All of us hold Creation and God's creatures in trust.

The semblance of community must be discerned from true community in the work of stewarding God's land and creatures. Thus if all produce of the land is exported, the meaning and reward for stewardship might not be sufficiently experienced, and people will lose sight of the importance of their work as stewards. Beyond this, without shared knowledge among producers and users, God's gifts are converted into mere commodities and the meaning and rewards for work are collapsed into money alone.

³⁰ Cf. Hall, Douglas J. *Imaging God: Dominion as Stewardship*. Grand Rapids, MI: Eerdmans, 1986.

Just stewardship at risk.— As global economies develop, great dangers emerge to challenge the just and responsible exercise of our stewardship of Creation. A consequence may be that God's Creation and its fruitfulness may be placed at risk, as well as human communities and populations. Global economies that alienate the producer from the user, that disrupt and break nutrient cycles, also disrupt the cultural meaning of place and of responsible stewardship.

Thus, responding to the biblical requirements for responsible and just stewardship of land and Creation means that food needs to be produced locally to supply local peoples and communities. Land tenure should not deprive occupants of the land from exercising their stewardship responsibilities, neither should it deprive them of the means to hold their lives and families together. Thus, development of the land to serve export needs first and foremost must be avoided. If people are deprived from exercising their stewardship responsibility, if the fruit of the land becomes unavailable to the local people, the land and people will become impoverished and both will be held in bondage and dependency. Psalm 37 is the prayer of a landless peasant, affirming the meek who live in community without exploiting their neighbors, affirming their stewardship. It is they who shall inherit the land (Psalm 37:11, Matthew 5:4).³¹

As we consider these things, Wendell Berry's Essay, "Conservation and Local Economy," provides material for considered reflection. He says that, "In relation to the land, we are ruled by a number of terms and limits set not by anyone's preference but by nature and by human nature:

1. Land that is used will be ruined unless it is properly cared for.
2. Land cannot be properly cared for by people who do not know it intimately, who do not know how to care for it, who are not strongly motivated to care for it, and who cannot afford to care for it.
3. People cannot be adequately motivated to care for land by general principles or by incentives that are merely economic—that is, they won't care for it merely because they think they should or merely because somebody pays them.
4. People are motivated to care for the land to the extent that their interest in it is direct, dependable, and permanent.
5. They will be motivated to care for the land if they can reasonably expect to live on it as long as they live. They will be more strongly motivated if they can reasonably expect that their children and grandchildren will live on it as long as they live. In other words, there must be a mutuality of belonging: they must feel that the land belongs to them, that they belong to it, and that this belonging is a settled and unthreatened fact.

31

Fuchs, Werner and Claus Mango Germer. 1990. Landis Life: The Case of Brazil. In: *Land Is Life: Towards a Just Sharing of Land*. J.P. Rajashekar, J.P. and G. Planer-Friedrich, eds. Document No. 27, March 1990. Lutheran World Federation Document, p. 47.

6. But such belonging must be appropriately limited. This is an indispensable qualification of the idea of land ownership. It is well understood that ownership is an incentive to care. But there is a limit to how much land can be owned before an owner is unable to take proper care of it. The need for attention increases with the intensity of use. But the *quality* of attention decreases as acreage increases.

7. A nation will destroy its land and therefore itself if it does not foster in every possible way the sort of thrifty, prosperous, permanent rural households and communities that have the desire, the skills, and the means to care properly for the land they are using."³²

Despite the challenges and resistance to procedures necessary to reinstate people's stewardship of their local lands it is necessary to do so. Required are the twin needs of decentralizing economies and decreasing the concentration of power of large land owners. Although decentralization is often not considered to be economically efficient, such practices may well be conducive to covenantal justice to land, the poor and the associated and supporting plant and animal life (biota).

Land races of domesticated species.— Another human-land-biota stewardship connection are the many "land races" of domesticated species that are used in indigenous agriculture. These agronomic species are cultural riches that are the latest target of exploitation by the north and west and/or threatened with elimination due to crop simplification being introduced to produce uniform crops for export. In addition are many wild species that are actively being sought for their economic exploitive value. Among evidences of this problem is the reluctance of the United States to relinquish its greedy stance on this issue at the United Nations Conference on Environment and Development at Rio in 1993.

Species ownership.— The concern here is not that these aspects of fruitfulness of the Creation should be used, but rather, how fairness and justice are to be met in this realm of biotechnological exploitation. Who "owns" culturally domesticated species, the wild germ plasm, or the herbal knowledge used in indigenous medicines? The whole issue of intellectual "rights," cultural "rights," and the ethics of obtaining proprietary patent rights to life forms needs addressing by the Reformed community. Of particular interest here are questions of whether the "discovery" to Western science of long-standing indigenous knowledge, long-standing products of selective plant and animal breeding, and genomes of long-standing species constitutes "ownership."

Indigenous knowledge.— Finally, while some local indigenous land use practices and use of biotic species and processes are now understood by Western science, there are others that, while validated historically in a particular area or culture, are not understood by Western minds. Our conviction of the God-given mental and rational capacities by all peoples must be put into practice, by respecting practices that we otherwise might ignorantly discount as backward, uncivilized, or pagan. While respecting these practices, however, we must be aware that they

³²Berry, Wendell. 1992. Conservation and local economy. In: Berry, Wendell. *Sex, Economy, Freedom and Community*. New York: Pantheon Books.

may be imbedded in a religious-cultural context that may call for reformulation in the light of God's word and ecological knowledge.

D. Stewards of God

Stewards of God.— The unique status of humans among creatures conveys to us wonderful privilege and responsibility. In the conduct of our just stewardship of God's world, we are expected to enjoy Creation's fruits while sustaining Creation's fruitfulness, we are expected to care for the ground and prevent it from damage, and we are expected to treat this marvelous world as an inheritance to be passed down to Godly stewards yet to come, even in better condition than we received it. We are expected to nourish whatever part of Creation God places under our care and keep it always in sight, not neglecting it. This is the *oeconomia* we should be about, imaging God's love for the world as stewards of God.

Let him who possesses a field, so partake of its yearly fruits, that he may not suffer the ground to be injured by his negligence, but let him endeavor to hand it down to posterity as he received it, or even better cultivated. Let him so feed on its fruits, that he neither dissipates it by luxury, nor permits it to be marred or ruined by neglect. Moreover, that this economy, and this diligence, with respect to those good things which God has given us to enjoy, may flourish among us; let everyone regard himself as the steward of God in all things which he possesses. Then he will neither conduct him self dissolutely, nor corrupt by abuse those things which God requires to be preserved."³³

Choosing life.— We human beings have been making choices. Early on, the Scriptures tell us, we made the choice to know good and evil. In the couple of centuries we have chose to redefine the long-recognized vices, avarice and greed, as virtues; we have come to believe that "looking out for number one" means getting more and more for self. Our society now professes that self-interest is what brings the greatest good—the greatest goodness. Choices made for the Creation, for the Creator, have been usurped by choices made for *me*, and for "the economy." Forgetting God's economy and the kind of economy John Calvin has in mind when he refers to "this economy, and this diligence, with respect to those good things which God has given us to enjoy," we seek what degrades the economy of Creation. Our world today has inverted the profession, by advocating, "Seek ye first a job, and all these other things will be added unto you."

The question before us is how the choices we have made comply with the admonition of the Torah: "...I have set before you life and death, blessings and curses. Now choose life, so that you and your children may live and that you may love the Lord your God, listen to his voice, and hold fast to him" (Deuteronomy 30:19b-20a).

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Calvin, John. 1554. *Commentary on Genesis*. First Latin edition 1554. First English Edition 1578. English translation of 1847, reprinted by Banner of Truth Publishers, 1965. The quote here comes from Calvin's commentary on Genesis 2:15.

*Section III.***DEPRIVATION OF FOOD AND LAND (FOOD SHORTAGE)**

During British rule (1884-1960), Nigeria became an exporter of primary goods, with large farms producing cash crops for export at the expense of food for domestic consumption. The colonial administration took land away from peasant farmers and created export crop plantations. Men moved to these plantations and to cities seeking employment, leaving women behind to run households and grow subsistence crops on left-over, low-quality land.

—Nigerian sociologist Patience Elabor-Idemudia, 1991.³⁴

A. Confessional and Cultural Context

Jesus Christ brings our attention very sharply to the hungry and dispossessed and the Kingdom significance of providing their needs. He tells us: "Then the King will say to those on his right, 'Come, you who are blessed by my Father; take your inheritance, the kingdom prepared for you since the creation of the world. For I was hungry and you gave me something to eat, I was thirsty and you gave me something to drink, I was a stranger and you invited me in, I needed clothes and you clothed me, I was sick and you looked after me, I was in prison and you came to visit me.' Then the righteous will answer him, 'Lord, when did we see you hungry and feed you, or thirsty and give you something to drink? When did we see you a stranger and invite you in, or needing clothes and clothe you? When did we see you sick or in prison and go to visit you?' "The King will reply, 'I tell you the truth, whatever you did for one of the least of these brothers of mine, you did for me'(Matthew 25:34-40).

Confessional Stance.— The confessional stance of the righteous, according to Jesus, is that whenever we deal our bread to the hungry, we are serving our Lord. Moreover, when we do not feed the hungry, we are not serving the Lord (Matthew 25:41-46). In a cultural context that includes people who need food and other basic necessities of life, righteous people have the opportunity and the responsibility of supplying their needs. This we do not only in the name of Jesus, but we also do it for him. There is no escaping it: feeding the hungry and providing the basic needs of the poor are necessary aspects of being a follower of our namesake, Jesus Christ. Of course, in teaching us these things, Jesus is reflecting God's love for his image-bearers, our providing God who "... makes me lie down in green pastures, ... leads me beside quiet waters, ... restores my soul" (Psalm 23).

Mother Teresa of Calcutta through her life of sacrifice informs us of the wide embrace of ecological interconnections by saying, "when I touch the body of the poor, I touch the body of

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From Patience Elabor-Idemudia, "Grappling with the economic crisis in Nigeria," in: *Hunger 1992: Second Annual Report on the State of World Hunger*, Washington, D.C.: Bread for the World, 1991, p. 70.

Christ."³⁵ And Christian rubber tapper, Chico Mendes, witnesses in his life and sacrificial death to the vitality of the rainforest and the necessity of sustaining its presence and fruitfulness in community with human culture. Mother Teresa gives bread to the hungry so that broken people are comforted, encouraged, and restored. Chico Mendes leads in preserving the fruitfulness of God's Creation, thereby preventing the economic brokenness that otherwise would cripple and enslave his people. In one, Christ is present to minister and to be ministered to—our compassionate Lord who tells us that if we do to the least of these we do it unto him (Matthew 25:40). In the other, Christ is present as the one through whom all things were made and through Whom all things have their integrity (cf. Colossians 1:15-20)—our creative and sustaining Lord who invites us to follow him as creator and reconciler of all things (*ta panta*). In both, we see those who read Romans 15, ponder it deeply and at length, and act upon what Christ teaches: "We who are strong ought to bear with the failings of the weak and not please ourselves... For even Christ did not please himself..." (Romans 15:1, 3a).

Food as God's gift.— More than feeding the poor and dispossessed, God provides for the poor ultimately to gain whatever capacity they have lost to provide their own needs. As we already have seen, the Jubilee legislation (Leviticus 25, Deuteronomy 15) put forth in the healthful rhythm of the original Creation how each member of the Covenant People was to live in peace, freedom, love, and caring—with neighbors, elderly people, the unborn, and the land. All of God's covenant actions from the Exodus through the Promised Land and on into exile were directed at recovery of the original triad of God-humanity-land and thus also the recovery of the capacity of people to produce the food needed to sustain their lives. God is Creator and Owner of all Creation, the Blessor of land and people, the Provider of every good and perfect gift. We as God's image-bearers, mirror God's love for the world, feeding the hungry and restoring the capacity of people to provide for themselves. God has called His people out of the empire, emancipating them to become a paradigmatic sign to the nations of the goodness of the God, how to love one another.

God's care for food and water needs even includes the other creatures: "God makes springs pour water into the ravines; it flows between the mountains. They give water to all the beasts of the field; the wild donkeys quench their thirst. The birds of the air nest by the waters; they sing among its branches" Psalm 104:10-12). And thus, God also cares for us, who are worth more than many sparrows (Matthew 10:31). As God provides for people and other creatures, so should we. As Jesus Christ is concerned that the hungry be fed, so should we.

Food as commodity.— As the vocabulary of "developed" vs. "undeveloped" countries has become established along with the prevalent Western perception of land as a resource, so too food increasingly is being regarded merely as a commodity to be bought and sold. It is this view that often is at the heart of the unjust deprivation of people of the food they need to sustain life. In this view food is seen as resource to be used as a means for making money. We often "process" these foods to meet the demand for refined, "convenient," and "instant" fueling of busy and demanding people. Missing in this utilitarian view of food is the humility that recognizes food as the staff of life, that sees food not as something to be manipulated and exploited, but

³⁵ Brody, Edward. 1982. Op. cit.

used to sustain the life of people. Assurance of good or adequate nutrition may be over-ridden by desire for economic gain.

B. Nutritional and Food Production Principles

Nutrition as a formal science helps us understand some of the basic requirements for maintaining the health and wellbeing of people. These include the following:

1. People need food at sufficient levels to provide their needs for energy. This caloric requirement varies with body size, activity, and individual differences. A typical basic need is 2000 Calories per day, with 3000 Calories per day for active people.
2. People need food that contains the basic raw materials (protein, carbohydrates, fats, vitamins, and minerals) for building and maintaining bodily functions, growth, and repair. These include requirements for certain amino acids, vitamins, and minerals.
3. Malnutrition-- generated by a diet that has insufficient raw materials (proteins, essential fats, vitamins, minerals, etc.) increases susceptibility to disease, may interfere with proper physical and mental development, and may reduce capacity to do work.
4. Undernutrition-- generated by a diet that has insufficient energy content (too few Calories)-- increases susceptibility to disease, may interfere with proper physical and mental development, and may reduce capacity to do work.
5. Children of undernourished and malnourished parents also tend to be undernourished and malnourished, leading to increased death rates and a perpetuated deficiency from generation to generation.
6. Overnutrition-- generated by a diet high in Calories, saturated fats, sugar and processed foods, and low in vegetables, fiber, and fruits-- produces high risk of diabetes, high blood pressure, and heart disease.
7. Food availability is reduced if increased food production does not keep pace with population growth.
8. Food availability is reduced if production per unit land area is reduced or land area used to grow food is reduced.
9. Many food production systems, such as ocean fisheries, have a maximum sustainable yield, which when exceeded causes a reduction in maximum sustainable yield.
10. In monetary economies lack of money or lack of ability to earn money when coupled with lack of land denies people access to food.

C. Human-Food-Money Connections

All must have stewardship opportunity.— In monetary economies every human being must have the opportunity for earning and being a steward of money. In subsistence economies people must have the opportunity to have land available for food production. Absent or insufficient access to money or land in order to meet basic needs for clothing, shelter and food is defined as poverty.

Just stewardship at risk.— As monetary economies develop, people must be enabled to develop access to means of earning money. While land tenure arrangements should not deprive people of their land, when this occurs they must not be deprived of the means to hold their lives and families together. Thus, if land use is transformed from producing food for local needs to serving export needs, provisions must be made for feeding those divested of land. In the previous section on land, we reflected on a list of principles from Wendell Berry's Essay, "Conservation and Local Economy" in which he shows how, in relation to the land, people are ruled by a number of terms and limits set not by anyone's preference but by nature and by human nature. These very same principles apply in this section. Food production will diminish if the land on which it depends is not cared for properly by people motivated by direct, dependable, and permanent interest. Food production of a nation will be destroyed if it does not foster thrifty, prosperous, permanent rural households and communities that have the desire, the skills, and means to care properly for the land they are using. Similarly, what was discussed in the previous section on land races of domesticated species, species ownership, and indigenous knowledge applies equally to food and food production.

Distribution and Extent of Malnutrition.— The World Health Organization reports that people without enough food to maintain normal body weight and engage in light activity is 33% in Africa, 19% in the Far East, and 13% in Latin America. One out of every four people are undernourished. In lesser developed countries (LDCs) 15% suffer from malnutrition and severe undernutrition. In more developed countries (MDCs) 15% suffer from overnutrition. As many as two-thirds of deaths in MDCs are associated with overnutrition. If the whole world ate at the level of MDCs current food production would support only 2.5 billion of the current 5.7 billion human population.

In 1990, according to the World Health Organization, more than 30% of the world's children under 5 years were underweight for their age. A quarter of all children under age 5 in the non-Western world are at risk of vitamin A deficiency, and so forth.³⁶ While it is possible, within a decade, to bring to an end child malnutrition, preventable disease and widespread illiteracy, it likely will not happen.³⁷ This is because a gap has been allowed to develop between what could be done and what is being done to overcome dire poverty. The cause for this gap is not primarily a deficiency in resources or capacity but a lack of commitment and priority by those with the power to act. The Children's Fund is putting forth an urgent appeal to those who would develop and join efforts to protect children from the worst aspects of poverty. They are seeking support

³⁶ World Health Organization. 1995. *The World Health Report*. Geneva: WHO.

³⁷ Grant, J. P. 1993. *The state of the world's children 1993*. Oxford, UK: Oxford University Press.

from the media, health and education professionals, NGOs (non-government organizations), and the churches.

A simplified, and yet complex, food system.— To seek justice for the impoverished and hungry people while not looking at the forces that are driving the emerging global food system is unwise. World food production has risen to keep pace with population growth so there is no overall global food shortage. However, (1) production of traditional crops such as millet, sorghum, roots and pulses has stagnated and has not kept up with demand, (2) people in the 40 poorest countries eat only one-third of what is consumed in the rich countries, and (3) malnutrition and undernutrition, as we have seen, is widespread.³⁸ And we know that at current population growth rates that world food production will have to double within the next 35 or so years.

The system of food production and distribution is complex but in some ways it also is simplified by having relatively few cereal grains as commodities in international trade. Three cereals, wheat, rice and maize, comprise 80% of the world cereal harvest and are distributed globally—they are commodities in the global market economy. These globally marketed grains are sold at low prices that often undercut the prices of traditional grains produced and sold in the local markets of the poor countries. This undercutting of local prices in turn makes it unprofitable for local farmers to grow their traditional crops for local markets, and in response to this disincentive they come to abandon their farms and move to the city to find new sources of income.

Induced rural to urban migration.— Since in poor countries up to two-thirds of the population is rural, the impact of this migration is appreciable. Most rural people under these conditions see exodus from the country to the city as the only answer to their economic problems. They are not making ends meet, and the city is worth a try since it likely is no worse and perhaps better. One consequence of all of this is the well-known rapid and unprecedented growth of the cities in the Third World. Once in the cities, these rural folk may enter more misery, but with at least a hope of productive employment or some form of welfare from relatives or government. The foreign debt load of these governments and other fiscal realities, however, do not bode well for providing these migrants with education, urban sanitation, health services, or social security. And so, accompanying the amazing expansion of Third World cities as shanty towns spreading outward into surrounding lands, are high rates of illiteracy, widespread disease and ill health, low life expectancy and continued poverty.³⁹

Disincentives to local food production.— The operation of disincentives to local food production that underlie the abandonment of traditional food production and migration to the cities is well known research done two decades ago by the United States Accounting Office. In a report published in 1975, entitled "Disincentives to Agricultural Production in Developing Countries" it pointed to how aid in the form food aid—cheap food or free food distributed within

³⁸ Bessis, S. 1993. La faim: une fausse fatalite? [Hunger - the real killer?] *Politique Internationale* 59:353-362.

³⁹ Bessis, S. 1993. Op. cit.

the needy countries—became a disincentive for local food production even in areas where food production was highly inadequate. The reason was that food aid delivered in the form of cheap or free food undercut the price at which the local farmer could sell their food, that farmers simply left their rural lands and moved to the cities, there to participate in what held at least some promise of jobs that paid money.⁴⁰

New hope.— Political and economic changes are occurring worldwide, and properly directed and influenced can offer new hope for overcoming the worst aspects of poverty. Poverty means deprivation of the means to sustain healthy life and deprivation of the opportunity to be steward of some part of God's Creation. To influence and give direction to the political and economic changes that are occurring worldwide, we must clearly recognize that actions on debt, trade, markets, aid, loans, and trading relationships are needed and that these actions need to be targeted to restoring to the poor a capacity for them to become stewards of land and life.

D. The Fast I Have Chosen

Is this the kind of fast I have chosen, only a day for a man to humble himself? ...Is not this the kind of fasting I have chosen: to loose the chains of injustice and untie the cords of the yoke, to set the oppressed free and break every yoke? ...if you spend yourselves in behalf of the hungry and satisfy the needs of the oppressed, then your light will rise in the darkness... (Isaiah 58:5a,6,10a).

Difficult though it be, we must work hard to free the impoverished captives from their chains of injustice by spending *ourselves* in behalf of the hungry. The barrier to just and responsible stewardship must be removed from the path of the impoverished peoples of the world, so they might become stewards of themselves and keepers of the earth.

⁴⁰ U. S. General Accounting Office. 1975. Disincentives to Agricultural Production in Developing Countries. (November). Washington, D.C.: Superintendent of Documents.

*Section IV.***HUMAN VIOLATIONS OF GOD'S LOVE AND CARE FOR THE WORLD**

That mud flowing over the dam has given my family food every year from long before I was born, and before my grandfather was born. It would have given my grandchildren food, and then given their grandchildren food forever. Now it will never feed us again. When you see mud in the channels of water, you know that life is flowing away from the mountains.

—Indian grandfather, Tata, speaking to boys at play in a rice paddy.⁴¹

A. God's Economy and Ours

Our human economy is necessarily part of God's Economy.— Whatever kind of economy we invent for ourselves, our economy always is part and parcel of God's economy. The relationship between human economies and the economy of God's wider Creation is described by the word, "stewardship." "Oeconomy" or "Economy," whether applied to the workings of cosmos or village, comes from the Greek word "oekonomia," meaning management of the household. The household can mean the cosmos, the household of all life on earth, or the household of house and family members. Ecology (study of the household), economics (management of the household) and ecumenical (in Greek, "oikoumene"—the inhabited world) all share the root word, "oikos," meaning "house." Our human household is part of the larger household of life, and that is part of the household of all God's Creation. Our human relationship within and among these households is describe by *oekonomia*—by stewardship. Stewardship is our use and caring for the household on behalf of the Creator, whose stewards we are. And thus, our economy is necessarily part of God's economy.⁴²

God's economy is the oeconomia of the cosmos.— "The Economy of God," according to John Reumann, is a worldview of history that has its origins well before Christianity. From household, city state, and "arrangement" of life in general, the Greek word, *oikos*, ultimately came to embrace the largest household imaginable: the world or universe. It was a logical progression from *oikos* to *polis* to *cosmos*. This extension of the *oikos* and *oekonomia* terminology brought the understanding that the world, the people, and all the world contains, have a certain order to them, "an arrangement or regulation by God or nature. This order was not simply provided at the beginning of things but continued providentially in human life and indeed the structure of all things." Reumann tells us that the pre-Socratic philosophers reasoned from a

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As told by Paul Brand in "A Handful of Mud" in: Wesley-Granberg Michaelson, *Tending the Garden: Essays on the Gospel and the Earth*, Grand Rapids, Eerdmans, 1987, p. 138. "Tata" means "grandfather."

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Cf. Meeks, M. Douglas. 1989. *God the Economist: The Doctrine of God and Political Economy*. Minneapolis: Fortress Press and Reumann, John. 1992. *Stewardship and the Economy of God*. Grand Rapids: Eerdmans.

scheme of arrangement in nature to an 'administration' (*oeconomia*, and other related words) of the universe. "God was viewed as 'administrator' managing the affairs of human beings and the whole universe in such a way as to fit the divine design and will." This, he says, "...provides a background for certain New Testament references and for an expanding application by later Christian writers." Thus, while *oeconomia* refers to the management of the household at various scales on up to the whole Creation, it also refers to "the *oeconomia* of God" whereby the whole cosmos is sustained according to God's design and will.⁴³

Our current human economy is depriving people of God-assigned stewardship.— A global market system that regards human beings merely as consumers is depriving people of their God-assigned stewardship of themselves, their families, and their environment. As this system expands to cover the whole earth and penetrates into every corner of the inhabitable world none are left unaffected. While the market is a truly remarkable means for the distribution of scarce resources and thus can be employed for the good of people and the rest of Creation, it also is the case that the market economy must operate as a subset of God's larger economy, not the other way around. Stewards of God's world are being transformed into consumers of God's world, all of which is being transformed in our minds into natural resources and their human use. This system is expanding to cover the whole earth and penetrates into every corner of the inhabitable world. No creatures are left unaffected.

We defend our human economy religiously and deny our loss of stewardship.— In all of this we deny the diminution and deprivation of our stewardship, we rarely and uncomfortably describe ourselves as *stewards*, but frequently and comfortably call ourselves "consumers." We have put to use one of God's many gifts for the distribution of goods—the market—but have expanded our use and faith in this tool so that it is becoming the arbiter of human ethics. We have come to defend religiously our identity as *consumers*, and to defend religiously our creature, *the market*. We have been insisting that the economy of God's Creation become a subset of our human economy. We have come to worship this creature, rather than its Creator. God's gift is becoming the people's god, as the only one meriting the status of global worth-ship.

Worship of God and Stewardship of God's world walk hand in hand.— The Creator of all things whose divine economy is the envelope in which human economies must operate, is the only one meriting worship. And God, whom we worship requires us to act justly and to love mercy and to walk humbly with our God. This is the core of stewardship of Creation and the Creator's gifts. Our worship of God and our just stewardship of God's world walk with us humbly, hand-in-hand. Worship of the market and consumership of the world also are compatible with each other, but worship of God and consumption of God's world are not.

B. Looking Out for Number One

Looking out for Number One.— "Looking out for number one" has come to mean seeking first oneself with the expectation that somehow "the Kingdom of God will be added unto you." But

⁴³ Reumann, John. 1992. *Stewardship and the Economy of God*. Grand Rapids: Eerdmans.

this is an inversion of the biblical teaching, "Seek ye first his kingdom..." (Matthew 6:33). It is also an inversion of greed being understood as a vice into its being understood as a virtue. The remarkable feature of the market economy is that it operates without the need to refer to Number One—the maker of the heavens and the earth and divine economist through whom the whole world was made, is sustained, and is reconciled (cf. Colossians 1:15-20).

Social Darwinism.— While often decrying "survival of the fittest" in the biotic world, many Christians have learned to advocate "survival of the fittest" in the economic world. Yet this inverts the biblical message. We are failing to understand that the centerpiece of this coercive system, something we personify as "the market," is but a part of a much larger picture—that it is part of the economy of God. Gift of God that the market is, it is but a creature of our own making and as such must subserve the larger and all-embracing kingdom of God. This means that responsible and just stewardship requires that we abandon the phrase, "Well, we must look out for number one" (meaning *ourselves*) and return to that rendition of Matthew 6:33, "We must look out for Number One." The Darwinism that so many Christians oppose in the world of nature must dictate the way we govern and live in human society. Social Darwinism—with its engine of survival of the economically fit—must not be the means or philosophy we employ to build society and deal with Creation. We are above that! The economy of God is the economy of the Kingdom. In it, the meek inherit the earth—the earth in which justness and rightness dwell.⁴⁴

The market economy has emerged in Western thinking as the primary means our stewardship of Creation.— Among other things, the market economy affects the ways we value, use and preserve the Creation. The market is a *private property price system* in which *private property* defines the basis for participation of people in the system—the conditions under which people may take part. Property creates boundaries within which things are administered, used and exchanged. Property rights convey to people the right to use, enjoy, destroy, and transfer the things they own. Prices are symbols that indicate value and the conditions for exchange of things among owners. Prices are indicators of willingness to buy or sell without any further qualification—the only condition under which a person states a person's willingness to release their property from their own stewardship. A wage represents the terms by which an employer is willing to accept work from a person, or the terms by which a person is willing to let go of the right of their own labor. The only qualifications for participation in the market are property or labor to offer in exchange, and willingness to accept the terms of the exchange.⁴⁵

Deficiencies of the market economy.— The market economy has no authority except the free self. Price and ability to pay are the sole criteria for treatment of Creation and human beings, leaving no room for questions of public's or Creation's good. Value is determined only by those with purchasing power. Ability and willingness to pay determines what is produced. Those

⁴⁴ The words *justness* and *rightness* are more written as *justice* and *righteousness*, but are used here to stimulate reflection on their meaning.

⁴⁵ Wilkinson, Loren, ed. 1991. *Earthkeeping in the Nineties: Stewardship of Creation*. Grand Rapids: Eerdmans, pp. 242-243.

without purchasing power—the poor and future generations—have no voice or influence. Satisfaction of individual preferences is a good, even when destructive of self, community, or Creation. Intrinsic good—that some actions and things are good in themselves, without price—has no place. Money and money alone announces whether views are to be taken seriously. Unless willingness to pay to preserve some part of Creation or achieve a social good is accompanied by ability, its voice is mute. The market economy cannot provide for those without money. The market economy cannot answer how one comes to hold legitimate title to property. The market economy reduces Creation to land, labor, and capital. The market economy presumes to operate without need for higher authority than self and presumes to operate independently from the larger economy of Creation.⁴⁶ Among those things in Creation without purchasing power are the poor who are sick and lame. Yet, in the ministry of Jesus Christ, and its imaging in the work of medical missions and Christian hospitals, the purpose and goal is the healing and caring for the sick and lame, irrespective of ability to pay. In Christ's economy, empty hospital beds is a positive indicator of the health of people, not a negative indicator of the health of the health care industry. Also among those things that "fall between the cracks" are complex ecosystems, whose "multiproduct nature" is not adequately evaluated by market forces, even when externalities are internalized and results in what economist Robert Gottfried calls *landscape scale market failure*.⁴⁷ Yet, the Creator gives these lands and ecosystems rain in its seasons and provides food for the wild creatures. In God's economy, a full and flourishing ecosystem is a positive indicator of the health of Creation, not a negative indicator of a human economy whose capacity of ecosystem alteration has not been applied.

But the day will come.— Economist John Maynard Keynes, in his *Essays in Persuasion*, wrote in 1930:

I see us free, therefore, to return to some of the most sure and certain principles of religion and traditional virtue—that avarice is a vice, that the extraction of usury is a misdemeanor, and the love of money is detestable, that those walk most truly in the paths of virtue and sane wisdom who take least thought for the morrow. We shall once more value ends above means and prefer the good to the useful. We shall honour those who can teach us how to pluck the hour and the day virtuously and well, the delightful people who are capable of taking direct enjoyment in things, the lilies of the field who toil not, neither do they spin.

But yet a little longer.— However, Keynes gives this warning:

But beware! The time for all this is not yet. For at least another hundred years we must pretend to ourselves and every one that fair is foul and foul is fair; for foul itself is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead

⁴⁶ Wilkinson, Loren. Op. cit., pp. 242-246.

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Gottfried, Robert, David Wear and Robert Lee. 1994. Institutional solutions to market failure on the landscape scale. Presented paper, Association of Environmental and Resource Economists Workshop, Boulder, Colorado.

us out of the tunnel of economic necessity into daylight.⁴⁸

And perhaps never.— Charles Schultze, past chairman of the U. S. President's Council of Economic Advisors, writes:

Market arrangements not only minimize the need for coercion as a means of social organization, they also reduce the need for compassion, patriotism, brotherly love, and cultural solidarity as motivating forces behind social improvement. Learning how to harness the 'base' motive of material self-interest to promote the common good was perhaps *the* most important social invention mankind has yet made. Turning silk into a silk purse is no great shakes, but converting a sow's ear into a silk purse does indeed partake of the miraculous... There is indeed a role for 'preaching' as a means of creating a political and cultural situation in which consensus can be reached on social intervention. Cleaning up the environment will only be achieved as environmental quality takes a higher place in the esteem of most citizens. But when it comes to the specifics of getting the job done, preaching, indignation, and villain identification get in the way of results.⁴⁹

C. Choosing Life

God upholds Creation's fruitfulness and so should we.— God has created us human beings with the ability to make choices, even the choice between life and death. In many ways the choices that are before us now are similar to those of people in Noah's day. The people then, as now, could acknowledge, even from the testimony from Creation itself, that God upholds, maintains, and sustains the earth in its interrelated entirety from day to day. And, knowing God's intent that they should mirror God's love for the world, they chose to go their own way, as Adam and Eve did in an earlier time. God had blessed them and the other living creatures with flourishing fruitfulness (Genesis 1:22,28). Flaunting the expectation of their Creator that they would enjoy the Creation and its fruitfulness, they chose their own pursuits, seeking to achieve things "bigger than life." They were stopped in their tracks by a devastating flood. God acted to save his endangered creatures together with believing Noah and his family, to establish his covenant with every one He saved through Noah's obedience: "the birds, the livestock, and all the wild animals, all those that came out of the ark with you—every living creature on earth" (Genesis 9:10b). It was a covenant with "all living creatures of every kind," (Genesis 9:15b), a covenant "between God and all living creatures of every kind on earth" (Genesis 9:16b).

God's covenant with all creatures derives from their first blessing.— "Let the water teem with living creatures, and let birds fly above the earth and across the expanse of the sky... Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth" God had proclaimed in an earlier time (Genesis 1:20-21). And Noah believed that blessing of

⁴⁸ Keynes, John Maynard. 1963 [1930]. *Essays in Persuasion*. New York: W.W. Norton, pp. 371-372.

⁴⁹ Schultze, Charles. 1977. The public use of private interest. *Harper's* (May):45-46.

fruitfulness God showered on all life. He was one—a lonely one—that diligently pursued just stewardship of Creation in a sinful world. We, like Noah are called to be just stewards of Creation in a sinful world, where ignorance, neglect, and desecration of God's Creation is standard practice—is "good business." We are called to speak out and act in behalf of just stewardship, and when God's creatures are endangered with extinction—as many today are—to reach out to halt such blasphemy, even when costly of time, materials and reputation.

The hope that is in us.— No one of is ignorant of what is happening in and to God's Creation. While in what has been called "the ignorance explosion,"⁵⁰ all of us still know what we are doing in and to God's world. While we still should be convicted when we believingly sing, "Praise God all creatures here below," we oftentimes now sing it as more of a hopeful song, hopeful that God's creatures—God's hippopotami and ostriches, God's deserts and prairies, God's Cedars of Lebanon—will continue to exist, will continue to bring their God their praise. It is a song hopeful that people will discover anew the praise-giving of all creatures, hopeful that people who build in the mouths of intermittent desert streams, in the floodplains of great rivers, on earthquake faults, at the foot of volcanoes, on slippery slopes, on drifting sands, will not push the blame on the Creator when disaster comes, as it must—that people will stop calling such events "Acts of God" but "Acts of Men." A song hopeful that people will rediscover what once they called "sin." Our hope remains. It remains amidst cultured ignorance of Creation and our God-assigned stewardship of it. It remains amidst human failure to read Creation, to read God's Word, to sing believingly, "Praise God all creatures here below."

⁵⁰ Cf. Lukasiewicz, Julius. 1994. *The Ignorance Explosion: Understanding Industrial Civilization*. Ottawa, Canada: Carleton University Press.

D. How Do We Know What We Know?

When we investigate how God expresses his love in Creation—when we evaluate human impacts upon God's Earth—we go to the Scriptures. And it is here we learn that "the heavens declare the glory of God," (Psalm 19:1a) that all are without excuse but to know God's eternal power and divinity through the things He has made (Romans 1:20). As emphasized in Article II of the Belgic Confession, the Scripture points us toward the universe whose Creation, preservation, and government "is before our eyes as a most elegant book, wherein all creatures, great and small, are as so many characters leading us to see clearly the invisible things of God, even his everlasting power and divinity...."

Seeking the truth.— When it comes to evaluating the workings of Creation, as we have done in describing God's provisions, we necessarily must seek the truth. Somehow we must avoid affirming the imaginary Phoenix as a real creature renewing itself from ashes, and we must not fall into believing the imaginary Kong Mountains as real mountains that once were shown on our maps as a great drainage divide separating streams flowing to the Niger River and the Gulf of Guinea. How do we know what we know? How do we know about Creation—both its testimony to God's provisions and of our abuse of its provisions?

Refereed literature.— This is where it is helpful for us to say what is meant, in our modern times, by "refereed literature," for it is through this literature that most of what we know about the world and our abuse of it is reported. This is not to say, of course, that poetry and psalms are unimportant. But without knowing what is meant by "refereed literature" we can easily be set adrift in a sea of undisciplined chatter and opinion—the talk of the town that frequently capsizes our efforts to discover what really is happening in and to Creation. As referees are used in sports, so they also are used in the publication of refereed literature. We know how referees are used in sports. Referees make sure the game is played by the rules, calling "foul" when it's foul and "fair" when it's fair. In screening and refining articles before they are published, referees often cry "foul" and the article they are reviewing may never see the light of day; when they say "strike one" the author is given one or two more chances to get things right by being sent back to re-write, do another experiment, make another series of observation. Referees—both in professional publications and in sports—are carefully chosen for the depth and breadth of their knowledge, for their discernment and judgement, for their record of fairness, for their being free from the influence of the sponsors and spectators.

The editors of refereed literature, or "primary literature" as it also is called, normally use three referees to critically evaluate each article or "paper." They make an independent and confidential report to the editor whether to "reject," "publish," or "publish with revisions." If the editor gets a mixed review, the paper may be sent to still more qualified referees. If the paper must be revised, each revision is again reviewed by three referees. And those articles that pass these reviews are published periodically in "professional journals" usually by a professional society to whom the editor is responsible. This highly disciplined procedure is employed to keep ourselves honest about what we know and what we do not.

Gray literature and popular literature.— "Gray literature" consists of reports of government agencies such as departments of environmental protection, departments of natural resources, of

colleges and universities, of granting agencies, and of institutes and foundations. This literature too is important; but it is not considered as authoritative since it does not have the same kind of disciplined review as the primary literature. Gray literature often has different standards and is more susceptible to influence. And therefore it generally is not relied upon by professional researchers for a basic understanding of how the world works and what is happening to it. A third kind of literature, the "popular literature" is comprised of newspapers, magazines, trade journals, leaflets and brochures. Like the gray literature, it is also important, but it is not normally considered to be authoritative.

What has been presented at the beginning of this chapter, on God's provisions for Creation, and what follows in the next section on environmental degradations, are derived from the refereed literature, as we have defined it above.

*Section V.***THE IMPACT OF THESE VIOLATIONS ON EARTH, WATER, & ATMOSPHERE**

Because of this the land mourns, and all who live in it waste away; the beasts of the field and the birds of the air and the fish of the sea are dying.

—the Jewish prophet Hosea, about 750 years before Christ.⁵¹

What is presented in this section as "Seven Degradations of Creation" is derived from literature of the first kind—the refereed literature. That means we have not gotten our information from government or university reports, newspapers, opinion polls, television, talk shows, or popular articles. This makes what is written here less dramatic than what can be read or heard elsewhere; but it is not boring.

A. Seven Degradations of the Creation⁵²

1. Land conversion and habitat destruction.— Since 1850 people have converted 890 millions of hectares (2,200 millions of acres) of natural lands to human uses around the world. This compares with Earth's total of 6,500 millions of hectares (16,000 millions of acres) that have some kind of vegetation (a nearly equal area consists of ice, snow, and rock) and a current world cropland of 1460 millions of hectares (3,600 millions of acres). This conversion of land goes by different names, depending upon what is done: it may be called deforestation (forests), drainage or "reclamation" (wetlands), irrigation (arid and semi-arid ecosystems), and opening (grasslands and prairies). The greatest conversion underway today is tropical deforestation, which removes about 25 million acres of primary forest each year—an area the size of Indiana, French Guiana, Malawi, or Hungary.

The scientists who study forests, ecology, and the ecological consequences of habitat fragmentation are being severely challenged these days by those who benefit from the destruction. The challenge takes many forms, but includes the observation that nearly every forest cut grows back as green growth, and does it very rapidly. And for tropical forests this often is the case. But from what everyone who really knows these forests, it is common knowledge that what comes back is not what was there before. Beautiful and complex inter-relationships among the forest plants and animals are destroyed, and whereas these would be re-established if only small plots were cleared, they are lost forever if whole ecosystems are cleared off the face of the earth.

⁵¹ Hosea 4:3.

⁵² This section is adapted from C. B. DeWitt, ed. 1991. *The Environment and the Christian*. Grand Rapids, MI: Baker Books.

The immensity of this destruction illustrates our new power to alter the face of Earth. We are doing this largely because we are able to do it—and in doing it we make cheaper plywood and bathroom tissue, more hamburger meat and orange juice, among other things, and through it often destroy the long-term sustainability of soils, forest creatures, and resident people. In the United States, the remaining woodlots and their creatures are replaced with parking lots, buildings, and additions to homes, offices, and churches. Of 400 million acres of cropland put into agriculture in the United States about 3 million acres is converted to urban uses every year. In many areas around the world, fields for grazing and crops no longer are "carved" from forests, they *replace* the forests; and houses and burgeoning cities are replacing some of the best cropland.

There is a Bible verse that we can ponder here. It is this: "Woe to you add house to house and join field to field, till no space is left and you live alone in the land" (Isaiah 5:8). The warning it puts forth no doubt had a different context then. What might the warning in today's context?

2. *Species extinctions.*— Rates of extinction are so far above the level that normally has been experienced in the Creation (*background rates*) that a major extinction episode clearly is in progress.⁵³ The engine that ultimately drives this extinction episode is the continuing growth in human populations coupled with increasing resource consumption that views the habitats of the creatures as commodities, and the substance of Creation merely as human resources. The current extinction episode has no precedent in the history of life on earth.

A conservative estimate is that more than three species of plants and animals are extinguished daily. Of the 250,000 flowering plants in the world, Peter Raven estimates that one-quarter may be driven to extinction by the middle of the next century. Their kind—their lineage—is cut off forever. If we have the 40 million species of plants and animals that some scientists estimate we have, then the rate of extinction of God's creatures may be 8 times higher. While we have given names to most species in the Northern Hemisphere, we have not in the tropics. Yet, named or not, they appear in stores, lumber yards, offices, boats and homes, as cheap plywood, furniture, and lizard-skin wallets and shoes.

Scientifically there is overwhelming data that shows this event. The best current summary is the book, *Extinction Rates*, by Lawton and May (1995) cited in the footnote. *Politically*, there are tremendous incentives to discredit the biological scientists whose life work is dedicated to the recording and assessment of the biodiversity on earth. And thus, there are concerted and organized efforts underway to undermine the work of those whose vocations are naming the creatures. Of course, it really would not matter whether species were going extinct or not, since we *still* would be responsible for mirroring God's love for His creatures (Cf. Psalm 104), much like we take care of our children even when they are not in trouble or have their lives threatened.

How does the "extinction engine" operate? It differs widely around the world. Among its components are the following: Habitat is destroyed on an extremely wide scale by deforestation.

⁵³ Cf. Lawton, John H. and Robert M. May. 1995. *Extinction Rates*. Oxford: Oxford University Press, p. 233.

Children at various locations around the world are given pennies to bring in skins of living creatures for marketing as items of fashion. Homes and churches are expanded, woodlots on the "back forty" of our farms are covered with houses or put into production, hedgerows and fence rows are removed as separators of our fields to allow for bigger equipment and higher production. Even butterflies, once so common in the everyday life of city and country, are losing hold as their habitats are destroyed, their food plants killed by herbicides as they themselves are killed by wide-spread use of "broad-spectrum" pesticides.

Some are responding by doing what they can. Butterfly gardens are planted as natural "arks" for preserving what otherwise might perish. Preserves of natural habitat are established in the face of destruction as natural "arks" in hope that they might someday become areas from which nature might become re-established as part of human habitat. Included among these refuges for the creatures are the church yards of England that supply the principal remaining habitats for some creatures.

A verse to ponder, as we consider these losses is this: "You are to bring into the ark two of all living creatures," says the Creator to Noah, "male and female, to keep them alive with you..." (Gen 6:19). Do we in the face of an episode of species extinctions brought at our own hand share any responsibility with Noah?

3. Land degradation.— The tall grass prairie of America has been converted into "the corn belt" that feeds hogs, cattle and people, and in it, where soil stewardship practices are not practiced, two bushels of topsoil are lost for every bushel of corn produced. Pesticides and herbicides, made available by transfer of army chemistry and chemists to developing "peaceful" uses of biocides after the World War II, have made it possible to plant corn, or any crop, year after year on the same land. Crop rotation, once practiced to control pests, now can be abandoned. Farmers have become "free" to plant the same crop year after year on the same parcel and often are urged to do so by those who make and sell pesticides. Farm animals now can be kept in feedlots and confinements, fencing and fence rows can be removed to allow for intensified use of the land, and losses of topsoil to wind and water erosion can be compensated by increasing fertilizer inputs. What *can* be done—what is technological feasible—*is being* done, and the living fabric of soils is being devastated.⁵⁴

In many areas, earthworms no longer inhabit farmland, microscopic life of the soil has been severely altered, birds no longer inhabit fencerows and hedgerows that once separated the fields. Most of the land never rests; the creatures are driven off. Much of the homeland of diverse creatures of the prairies, grassland, savannah, forest and field have become chemical deserts. Even many domestic creatures are deprived both of pasture and pastors.

Here again, voices are being raised against those who know of the nature and extent of land degradation. In an organized effort, attempts are underway to discredit those who advocate stewardship of the land and soil. Some say that there is no soil loss, but that it just gets moved around by wind and water, and so what is the fuss about? But to the soil scientist who on the

⁵⁴ Cf. Genesis 11:6.

high slopes of the Less Ghat Mountains in south India, this moving of soil around is what the problem is all about, and is illustrated by the farmers' observation that "the rocks are growing." And of course, soil does have organic matter within it that is formed from plant life of previous years. Exposed to water and to air, this organic matter is broken down into water and carbon dioxide just like any other exposed organic matter. An obvious lesson from Creation about soils is to keep soils in place, and steward the soil so that whatever organic matter is lost is built up at about the same rate.

As we consider soil and land degradation it is helpful to reflect upon the meaning of this passage from the Bible: "When you enter the land I am going to give you," commands the Torah, "the land itself must observe a sabbath to the Lord..." But if God's law is not obeyed the land will be laid waste. After it has become a desert, and you are driven off the land... "All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived on it" (Leviticus 25:2; 26:35). Are we, in our world of "open 24 hours a day, 7 days a week," giving Creation (including ourselves) its sabbath rests?

4. Resource conversion and wastes and hazards production.— Some 70,000 different chemicals have been created by human ingenuity. About 10,000 of these are part of the environment of us and all other life. Yet these are materials with which life has not had prior experience. Unlike chemicals made by organisms and the earth, some of these chemicals leave life defenseless. Among them are many specifically designed to destroy life: the biocides, pesticides, herbicides, avicides, and fungicides—literally, life-killers, pest-killers, herb-killers, bird-killers, and fungus-killers. Other materials such as petroleum, pose additional problems for life—oil spills destroy life and habitat of shore and sea, and human livelihoods. Not only chemicals, but every item in our homes, offices, churches, and industries are re-worked parts of Creation; every product we make, each housing and commercial development we build, all the roads we travel.

While knowing this full well, we neglect the immense reformation of Earth that 5.7 billion of us bring about. We remove parts of the Creation, making products and by-products, add value to them, destroy values we have added, producing discards and wastes. For example, some of us move oil by ship from Saudi Arabia to chemical plants in other countries and there transform it into monomers that are transported to factories that transform them into styrofoam cups that are moved to stores in our neighborhoods and then to churches for after-service coffee to be discarded in waste baskets from which they are moved to trash containers and trucked to the landfill where, upon decomposition, part enters the groundwater in the form of leachate that may contaminate springs and wells and part enters the atmosphere as carbon dioxide, methane and CFCs to alter Earth's energy exchange with the sun.

We are in the process of creating a flow-through economy. Our human "economy" taps Creation's wealth at one point and discards its transformations at another. God's economy—the Economy of Creation (of which ours should be a part)—by contrast, is a cyclical economy. Ecosystems sustain themselves by cycling materials. And Creation's economy is threatened by our own. We interfere with its cycles on a grand scale, "trash" its creatures, pollute its waters, mow down its vegetation.

Those who work to understand Creation's economy, particularly those among them who sought to warn of the dangers, have been and are the objects of concerted and organized efforts of defamation and discrediting. Despite the teachings of Ezekiel 33, sane and highly disciplined scientists, who have spent their lives in working to understand the workings of ecosystems and creatures that are part of them, are being called "insane" by those who appeal to "ecorealism" and "ecosanity." People who pull the alarm when the building is burning are being called "alarmists" and "prophets of doom." This has included the originator of the concept of biological control of insect pests, Robert van den Bosch, late professor of entomology at the University of California, Berkeley. In the Epilogue to his book, *The Pesticide Conspiracy*, he writes:

We as a species have many vices, and among these, corruption is the deadliest... the taint is everywhere: among politicians, industrialists, merchandisers, food processors, government and university researchers and extension specialists, federal, state, and local pest-control agencies, pest control advisers, pest-control applicators, growers' organizations, and elements of the media. This malaise is global in extent. Everywhere I have gone in the developing countries, when I have asked the question of respected colleagues, the answer is commonplace. This... state of affairs... symptomizes what must be going on in every branch of applied technology. This is why corruption is so deadly. It cripples our ability to responsibly assess what technology is doing to our planet and thereby to our own survival as a species.⁵⁵

A Scripture passage for us thoughtfully to consider here is this one from Ezekiel: "Is it not enough for you to feed on the good pasture?" asks the Sovereign Lord. "Must you also trample the rest of your pasture with your feet? Is it not enough for you to drink clear water? Must you also muddy the rest with your feet?" (Ezekiel 34:18).

5. *Global toxification.*— A major feature of the dynamic weather, ocean, and river systems of Earth is their life-sustaining transport and distribution of materials around the globe. Of the thousands of chemical substances we have created, hundreds have been injected into the atmosphere, discharged to rivers, and injected or leaked into the groundwater, both for "disposal" and from operating our vehicles, chemical agriculture, homes, and industry. Some have joined global circulations, with substances like DDT showing up in Antarctic penguins, and biocides appearing in a remote lake on Lake Superior's Isle Royale. Cancer has become pervasive in some herring gull populations. Spills of chemicals and oil kill Creation's life massively. In the intercourse between Creation's economy and ours, we face planetary challenge: the consequences of what is called by some the "rape of the Earth" is now experienced by all creatures. No longer is it merely a *local* environment affected by a *local* polluter.

Rachel Carson, of course warrants our deep gratitude for alerting us to this and related problems in her book, *Silent Spring*. In an even-tempered, and carefully-researched way, this woman scientist broke forth with the courage to do what prophets today need to do, producing a book that no longer is read but simply disparaged by those who appeal to "ecorealism" and "ecosanity." Prophets today need courageously to describe the present.

⁵⁵ Bosch, Robert van den. 1989. *The Pesticide Conspiracy*. Berkeley: University of California Press, p. 207.

Global toxification is affecting all life: all creatures, great and small; all people, rich and poor. We know this from many of the diseases we suffer, from the miscarriages we sustain, and from the diminution of the richness of Creation in our yards and cities. We are of course also taking local action, and many of our cities are cleaner—much, much cleaner. But we are toxifying the globe and already are paying the price.

In this regard we might think reflectively on this verse from the Bible: "I brought you into a fertile land to eat its fruit and rich produce" says the Lord. "But you came and defiled my land and made my inheritance detestable" (Jeremiah 2:7). What are we doing with our inheritance?

6. Alteration of planetary exchange.— Fundamental to the processes that sustain life and Earth's circulations of air and water is its exchange of energy with the sun and outer space. Earth's temperature depends upon the balance of energy received and energy re-radiated to outer space. Allowing visible solar radiation to penetrate the atmosphere is carbon dioxide, and some 25 to 30 man-made chemicals that have risen to the outer atmosphere of Earth, but these absorb energy re-radiated by Earth. Carbon dioxide and these man-made chemicals, including CFCs, operate like glass of a greenhouse or windshields of closed automobiles, and thus are named "greenhouse gases." As car windshields allow sunlight to flow into cars, but prevent re-radiated infrared radiation to flow back, so the greenhouse gases trap heat. With the right concentration of these gases, Earth retains enough heat to maintain temperatures much as we have experienced them for centuries. But burning and exposing of carbon-containing materials to oxygen brings rising concentrations of atmospheric carbon dioxide, allowing less heat to escape back to outer space, producing global warming. This increased carbon dioxide comes from burning petroleum, coal and wood, from deforestation, and draining wetlands.

Adding to effects of increasing carbon dioxide are other greenhouse gases produced by our chemical industry, such as CFC refrigerants in our air conditioners and refrigerators. Earth's temperature has been rising very slowly over centuries as evidenced by melting snow caps, receding glaciers, and slowly rising sea level. But now this rise likely will accelerate, with consequences not only for Earth's temperature but also for the *distribution* of temperature across the planet, with consequent changes in patterns of rainfall and drought, and even—ironically—lower temperatures than previously in some places in the world. CFCs operate not only as greenhouse gases. They also destroy Earth's ozone layer. This layer, located in the outer atmosphere, absorbs much of the sun's ultraviolet radiation, thereby protecting life from damage it otherwise would do to genetic material of living creatures. Its destruction results in more ultraviolet light reaching creatures on Earth, us included, where it causes among other things, increasing skin cancer. Consumption and production are now on a scale that alters basic processes at the planetary level. The regulating and protective provisions of the Creation themselves are being destroyed.

While there is no specific biblical passage that responds to this degradation, it is worthwhile to ponder the following passage at this point: "Is this the way you repay the Lord, O foolish and unwise people?" inquires the Torah. "Is he not your father, your Creator, who made you and formed you?" (Deuteronomy 32:6).

7. Human and cultural degradation.— Among the most severe reductions of Creation's richness

is degradation and extinction of cultures that have lived peaceably and sustainably on the land for centuries. Many Amish and Mennonite farming communities operate under severe pressures of increased land taxes and encroaching urban development that compel them to abandon their farms. The Amish of Lancaster County, Pennsylvania are threatened by a proposed highway through the center of their 300-year-old sustainable community. In the tropics, long-standing cultures living cooperatively with the forest are being wiped off the land by force, death, and legal procedures devised to deprive them of traditional lands. As they are extinguished so is their rich heritages of unwritten knowledge. Successful ways of living in harmony with the land are forgotten, names of otherwise undescribed forest creatures are lost, and uses of the wide array of tropical species for human food, fiber and medicine are extinguished.

Not only is the great variety of natural species being diminished, so too is the diversity of our agricultural heritage. Seeds of a wide variety of plants suited to small farms and gardens are displaced by new strains suited to mechanized plant planting and harvesting—strains uniform in color, size, and time of ripening. An aggressive economy, maximizing immediate return at the expense of long-term sustainability, is sweeping the globe. *Agriculture* is being lost, displaced by *agribusiness*. The meek of the Earth are displaced by labor-saving technology; they are pushed to the margins or to the cities. The displaced feed a world-wide explosive urban growth, and a cycle of poverty. Their inheritance—cultural and agricultural—is extinguished; they are deprived of their stewardship of Creation. Disconnected from land that could sustain them, they are driven into joblessness and poverty. The powerful, in the name of conducting "good business," finding "sound" investments, and making "good" money, use land and resources of the meek, depriving them of the ability to take care of themselves and the Creation, depriving them of the inheritance of generations.

At this point it is helpful to reflect on this Biblical teaching: "Do not take advantage of each other..." The Law asks that "The land must not be sold permanently, because the land is mine and you are but aliens and my tenants..." (Leviticus 25:17a,23) The land must be returned to the poor and the meek (Leviticus 25:28). The Lord observes 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." And the Lord marvels, "But my people do not know the requirements of the Lord" (Jeremiah 8:7).

B. Seeking the Truth

We concluded the last section with a description of the difference between the primary refereed literature and other kinds of literature. The reasons for making this distinction no doubt are clearer now that we have pointed to some of the problems of corruption of the truth.

What we have come to see in this section is not only that we human beings have in various ways brought about degradation of many of the earth's systems—have interfered strongly with God's provisions for Creation—but that we also, in the words of Dr. van den Bosch "have many vices," among which "corruption is the deadliest." His telling us "the taint is everywhere" and "This malaise is global in extent" is no surprise to those familiar with Reformed theology.

To live in the joy that we belong to our faithful Savior Jesus Christ, the Heidelberg Catechism informs us that we must know "how great our sin and misery is." And the Catechism goes on to say that the Fall "has so poisoned our nature that we are born sinners—corrupt from conception on." Human beings, we are informed, are poisoned and tainted with sin.

Sin is not a popular topic, and yet it must be perceived, recognized, and dealt with as we deal with the degradation of Creation and our stewardship of Creation. We need to know and believe that the taint and poison comes not only in the form of material pollution—of environmental degradation—but also in the form of polluting the truth.

We began with a doxology for God's provisions for Creation—a doxology we concluded with the statement by Carl Linnaeus in 1791 that "By the Oeconomy of Nature we understand the all-wise disposition of the Creator in relation to natural things, by which they are fitted to produce general ends, and reciprocal uses. All things contained in the compass of the universe declare, as it were, with one accord the infinite wisdom of the Creator."

Since that beginning we have twice dealt with the topic of "Seeking the Truth." To close this section, we present two other descriptions of "God's Economy" by more modern writers. We do this to affirm through the eyes of a scientist and student of Creation what Linnaeus also saw. But we also do this to affirm that all do not operate with the same motivation and thus follow the scientist's description with a statement of a person who is self-described as an "eco-realist." Our purpose is to prepare us to deal squarely with the means of restoring the groaning Creation in the context of the problems we face—with the reality of the situation that we must confront.

Here is what Rachel Carson writes, in her book, *Silent Spring*:

In some quarters nowadays it is fashionable to dismiss the balance of nature as a state of affairs that prevailed in an earlier, simpler world—a state that has now been so thoroughly upset that we might as well as forget it. Some find this a convenient assumption, but as a chart for a course of action it is highly dangerous. The balance of nature is not the same today as in Pleistocene times, but it is still there: a complex, precise, and highly integrated system of relationships between living things which cannot safely be ignored any more than the law of gravity can be defied with impunity by a man perched on the edge of a cliff. The

balance of nature is not a *status quo*; it is fluid, ever shifting, in a constant state of adjustment. (*Silent Spring*, p. 218; p. 246 in the 1994 edition)

Consulting Easterbrook's book, *A Moment on the Earth*, on the same topic, we read this: In the standard depiction of the balance of nature, "balance" means inaction. For immense amounts of time ecospheres hold about the same populations of about the same creatures doing about the same things... More than any ecological thinker, Rachel Carson popularized the notion of nature as existing mainly in idyllic changelessness for immense periods. This helped Carson highlight her premise that human-caused environmental changes were happening with unprecedented speed (page 658) Easterbrook has inverted Rachel Carson's message. He has made this professional biologist say the opposite of what she writes. Steven Shapin has written an important book that helps evaluate the discord between Rachel Carson and Glen Easterbrook. His book is titled, *The Social History of Truth*.⁵⁶ His book seeks "to display the shape of a culture which valued truthfulness very highly and whose members were apparently prepared and able to identify veracity and mendacity in the context of practical action." And he goes on to write that "Knowledge is a collective good. In securing our knowledge we rely upon others, and we cannot dispense with that reliance. That means that the relations in which we have and hold our knowledge have a moral character, and the word I use to indicate that moral relation is *trust*. In explaining that he is dealing with "traditions in philosophy and social science which identify the role of trust in building and maintaining cognitive order," he tells us, "These traditions suggest that the fabric of our social relations is made of knowledge—not just knowledge of other people, but also knowledge of what the world is like—and similarly, that our knowledge of what the world is like draws on knowledge about other people—what they are like as sources of testimony, whether and in what circumstances they may be trusted. Accordingly, the making of knowledge in general takes place on a moral field and mobilizes particular appreciations of the virtues and characteristics of types of people." In conducting his study of 17th Century England, he deals with the problem of what "professional *special interest* might do to the credibility of testimony." We are challenged by what we see and hear today to pursue the truth, and to develop the capacity and discernment to distinguish truth from half-truth, truth from mendacity. We must in our pursuit of just stewardship of Creation, among other things, be truth seekers.

Section VI.

⁵⁶ Steven Shapin. 1994. *A Social History of Truth: Civility and Science in Seventeenth Century England*. Chicago: University of Chicago Press.

MEANS OF RESTORING THE GROANING CREATION

Is not this the kind of fast I have chosen: to loose the chains of injustice and untie the cords of the yoke, to set the oppressed free...?

—the Jewish prophet Isaiah, about 700 years before Christ.⁵⁷

Adam, formed by God from *adamah*, was expected to serve and keep the garden. Not that it was his task alone, for God then as now loves the world, and the Father then as now sustains the whole Creation through the action of the Holy Spirit and integrative work of Jesus Christ, His Son.⁵⁸ The Spirit invests Creation with God's presence, the Son hold all things together in wondrous integrity. Yet, Adam was given the important God-given task of serving and keeping the garden. Imaging God's love for the world, Adam was to express this love and care for the world also—in service to the garden through sustaining care.

The expected service of mankind in Creation included and still includes naming of the creatures, maintaining Creation's fruitfulness, providing for Creation's sabbath rests, serving Creation's needs, and keeping all things in their wondrous integrity. Adam was a very important means for serving and keeping Creation. As God kept Adam, so also Adam was to keep the garden. God's keeping is a loving, caring, and sustaining keeping. And Adam's keeping was expected also to be a loving, caring, and sustaining keeping.

Yet all around us sounds the voice of a groaning Creation, telling us that Adam and his descendants have failed in their God-given task. We have chosen to go our own way, saying we can "do Creation one better," or can "make things bigger than life." This telling by Creation comes through the seven degradations we have described, and many more things we have not described. The whole Creation, while still proclaiming the glory of God, now also tells of its abuse by human beings. Creation groans under our assault. We seek ourselves, saying we must look out for "number one," but in so doing have become increasingly unconscious of "Number One"—the trinitarian God who creates, sustains, and reconciles all things. Human beings have become mainly unconscious of their Creator God. Signs of revival from this unconsciousness have recently come up among us—in word if not in deed. We call, and we must call, for revival of the vitality and consciousness of dedicated servants and earthkeepers. "Revive us again" we pray to our Triune God: Father, Son, and Holy Spirit as we RE - MEMBER our Creator.

And thus we come to ask, "By what means can we restore the groaning Creation? And, this soon also will bring us to ask, "By what means can we keep the restored Creation?" The means of restoring the groaning Creation resides in God triune. Without God, we are helpless to fight and overcome the sin that engulfs us in selfishness and self-centeredness. Otherwise we would be overcome and hopelessly distracted from our task of stewardship—of serving and keeping

⁵⁷ Isaiah 58:6.

⁵⁸Cf. Abraham Kuyper, Kuyper. 1903. *Keep Thy Solemn Feasts: Meditations by Abraham Kuyper*. [Reprinted in English translation.] Grand Rapids, Michigan: Eerdmans, 1928, pp. 70-71.

Creation. The MEANS reside in God triune.

As we think of "means," we remember that the Belgic Confession also considers "means" when it considers "By what means God is made known unto us." And then this Confession tells of these means: "We know Him by two means: First, by the Creation, preservation, and government of the universe... Second... by His holy and divine Word..."

The means of restoring the groaning Creation reside in God triune, but by God's assignment, also in people. Having the power to degrade and destroy, we also have the power to save and restore, God helping us. And whether we choose to save or destroy is a matter of the heart. We human beings are the means for restoring the groaning Creation, God helping us.

Our motivation for restoring Creation is God's love for the world. Imaging God's love, we also love the world. Reflecting God's care, we also care for Creation. God works His will in Creation through us as we commit ourselves to following the One through whom all things were made in their God-praising glory, by whom all things are held together in integrity, and by whom all things are and will be reconciled by making peace through His sacrificial death. We are His disciples. We are God's instruments: instruments of peace, of healing, and of reconciliation. We also make peace through sacrifice.

Nurtured in awe and wonder by God's provisions for Creation, confronted with ongoing degradation of Creation and abuse of these provisions, we respond faithfully: we search the Scriptures, and finding its marvelous teachings on the care of Creation, strive to put them into practice.

We know from Scripture, and life experience, that we should dedicate ourselves to care for Creation. But many of the things we know we should do, we do not do, for many good reasons. There are things that clutter our path and make us stumble. There also are holes in the road so big that they not only give us a bump but might also consume us. And there are roadblocks that simply prevent some people from continuing on their journey. Thus, we may be abruptly halted, side-tracked, or stalled well before we get to our destination. Therefore, to enable us to be just stewards of our Lord's Creation, we will have to be aware of the stumbling blocks, pitfalls, and barriers in our path.

A. Stumbling Blocks to Earthkeeping⁵⁹

Of the troublesome stumbling blocks in our way, some were invented by ourselves, others by our friends, and still others by our enemies. We must identify these now so we can clear the way for doing the service to which we are called. We know these stumbling blocks, for we have stumbled over many of them, thereby denying ourselves of the experience of the full honor of stewardship under our triune God—Father, Son, and Holy Spirit.

⁵⁹ Parts A through D in this section were first published in *Christian Environmental Stewardship: Preparing the Way for Action, Perspectives on Science and Christian Faith* 46(2)(June):80-89, 1994.

What are these stumbling blocks? Here are some of the major ones, each followed by a comment that might help us remove it from our path:

(1) *This world is not my home, I'm just passing through* (Since we are headed for heaven anyway, why take care of Creation?)

Those who truly believe in Jesus Christ (as Creator, Sustainer, Reconciler and Redeemer) will receive the gift of everlasting life. This life began with our birth and includes the here-and-now. And we in the here-and-now take care of our bodies, our teeth, and our hair, even though "the length of our days is seventy years—or eighty...(Psalm 90:10). Similarly, we take care of our buildings even though the largest of these—the skyscrapers—are constructed with both a construction plan and a demolition plan on file (to allow their safe destruction a hundred or so years later). Perhaps our learning how to take care of things in this part of eternity is important for the care of things with which we will be entrusted later? And then, of course, there are the Bible's teachings on care and keeping of Creation and Revelation 11:18 announcing "The time has come... for destroying those who destroy the earth. One pastor sums it up this way: "We should so behave on earth that heaven is not a shock to us!"

(2) *Caring for Creation gets us too close to the New Age movement* (Isn't concern for the environment and working for a better world what the New Age movement is all about? I don't want people to think I am a New Ager.)

The Bible is the announcer of the kingdom of God, not the New Age Movement. For thousands of years now, believers have looked forward to the coming of God's kingdom and for this we continue to look when we pray "Thy kingdom come..." Many "New Agers" have never been told of the kingdom of God and are doing what they can to invent their own. As Paul on Mars Hill explained to the Athenians their altar to the unknown God—so we also can explain the kingdom. We need to tell that the new age they seek is the kingdom of God, bringing them the Good News. For "...how can they hear without someone to preach to them?" (Romans 10:14b).

(3) *Respecting Creation gets us too close to pantheism* (If you care for plants and animals, and especially if you value the keeping of endangered species, you are close to worshipping them as gods.)

Pantheism, and panentheism, are growing problems and surprisingly, despite our scientific knowledge, worship of creatures is increasingly practiced. Thus, we must be careful to worship the Creator, not the creatures; we must be clear in telling the good news that God is the Creator, that the awe and wonder engendered by study of Creation is to be directed not at the creatures but to its Creator, as Paul teaches in Romans 1:25 and Acts 14:14-18. But this problem does not mean that we may deny the Creation or avoid taking care of Creation. The example of Noah is instructive: Noah cares for the creatures, and preserves the species endangered by the flood not because they are gods, but because God required it of him—to keep the various species and kinds alive on the earth.

(4) *We need to avoid anything that looks like political correctness* (Being "politically correct" these days means being pro-abortion and pro-environment, and I'll have nothing to do with that.)

The Ku Klux Klan—a racist organization in the United States—uses the symbol of the cross in its terrorizing activities. Does this mean that Christians no longer should use the symbol of the cross on their churches? Some New Age people use the symbol of the rainbow in their literature. Does this mean that Christians who know this to be the sign of God's covenant with "every living creature on earth" (Genesis 9:1-17) stop using this symbol in their educational materials? People who identify themselves as "politically correct" may advocate saving uneconomic species from extinction. Does this mean that there can be no new Noahs who, in response to God's call to save species from extinction, will act to preserve God's living creatures? Not only must we, as the children's song says, "Dare to be a Daniel, dare to stand alone," but we also must "Dare to be a Noah," even when we find ourselves complementing the work of a thousand unbelieving Noahs.

(5) *There are too many worldly people out there doing environmental things* (If people who don't share my beliefs in God and Jesus Christ are working to save the earth, I know it can't be right for me.)

God calls Cyrus into divine service. We read in Isaiah 45 that unbelieving Cyrus is anointed to do God's work. Often, if God's people are unwilling or unable to do God's work, God sees to it that the work gets done nonetheless. And so, if there are some worldly people out there clearly doing God's work, it must not be used to excuse ourselves from our God-given task as stewards of God's Creation.

(6) *Caring for Creation will lead to world government* (If we tackle global environmental problems, we will have to cooperate with other nations and that will help set the stage for world government.)

There is no doubt that cooperation will be necessary in order to address many of our environmental problems. Migrating birds, for example, do not recognize international boundaries; therefore their care requires cooperation. That this does not have to lead to world government is illustrated by the work of the International Crane Foundation through whose work cooperation has been achieved between Russia and China and between North Korea and South Korea, in the keeping of wetland habitats and birds.

(7) *Before you know it, we will have to support abortion* (Because of the relationship between environmental degradation and growing human population, we will soon find ourselves having to accept abortion as a solution to environmental problems.)

Our obligation and privilege to care for God's Creation does not give us license to use whatever means we have at our disposal to address environmental problems. The fact that many people use abortion and justify it in terms of the need to reduce population growth does not mean that people who are convicted of a God-given responsibility of stewardship cannot proceed to take care of the earth, including population problems.

(8) *I don't want to be an extremist or alarmist* (I want to be considered normal and not some kind of prophet of gloom and doom.)

Gloom and doom are not necessary components of the message that needs to be brought to

people about caring for Creation. Frightening ourselves into action is far less preferable than caring for Creation out of a love for the Creator and in gratitude and joy in keeping the earth. As for being called an alarmist, is it wrong to sound the fire alarm when a building is burning? In many cases today it may be necessary to sound the alarm.

(9) *Dominion means what it says—oppressive domination* (I think the Bible says that we have the right to destroy things that get in our way; that's what dominion is all about.)

Many, particularly critics of Christianity, have pointed to Genesis 1:28 to show that the Bible is the root cause of environmental problems. That this verse has been used in isolation from the rest of the Scriptures cannot be denied. But dominion as outright oppression is not advocated or condoned by the Scriptures. First, the Genesis 1:28 passage gives the blessing and mandate to people *before the Fall*. Second, this passage must be understood not in isolation, but in the context of the rest of the Bible. If this is done, one must come to the conclusion that dominion means responsible stewardship, to which the biblical principles presented in this paper attest. The Christian model for dominion is the example of Jesus Christ, who, given all dominion, and "Who, being in very nature God... made himself nothing, taking the very nature of a servant... he humbled himself and became obedient to death—even death on a cross!" (Philippians 2:6-8).

(10) *People are more important than environment* (I'm for people, and that means that people are more important than saving species of plants and animals—if anything is endangered it is people, not furbished louseworts or snail darters.)

This is an often-heard rationalization for not saving living species threatened with extinction. Our question here should be "what does the Bible teach?" We have of course an actual instance in the account of the flood given in Genesis 6-9. We need to ask: Who perishes? And who is saved? Are species less important than individual people? Is the environment of people less important than the people this environment supports? God respects the environment so much that God calls heaven and earth—as witnesses against people (Deuteronomy 30:19)—witnesses to the fact that God has set before them the choice and admonishes them to choose life.

B. A Pitfall to Creation's Care and Keeping

Beyond the stumbling blocks, there are the pitfalls into which we might fall, preventing us from becoming stewards of our Lord's Creation. We identify one of these that is particularly effective in catching us along our way. It is a pitfall that may seriously mislead and trap us, making us believe we are doing the real thing while eroding and destroying our own life blood and our ability to be stewards of our Lord's Earth.

Across Christendom, including the Reformed churches, there is belief in two major revelations through which we come to know God: these are special revelation and general revelation. Special revelation is the Holy Scripture, comprised of the Old and New Testaments, and general revelation is the revelation of God in the Creation—a revelation based upon the belief that God as Author is revealed in Creation, including God's power, eternal nature, beauty, justice, integrity and wholeness. This belief in "two books" of course, is affirmed in Article II of the Belgic

Confession and the passage from Romans 1:20 upon which it is based, as we studied in Chapter 4. And while there always have been some "one-book" Christians who have seen the Bible—special revelation—as the only revelation of God, they usually do not remain "one-book" Christians for long because the Bible itself affirms general revelation—Creation's testimony to God's divinity, everlasting power, glory, kindness, and providing care (Romans 1:20; Psalm 19:1; Acts 14:17). Thus, most Christians affirm "two books" through which we come to know God: the book of the created world, and the book of the written Word.

But some who claim to have passed through the Christian tradition have become so impressed with knowledge of how the world works as revealed through the tools of the natural sciences that they have come to believe the natural world is the only revelation with ultimate meaning for our modern day. Thus, there are some "one-book" people for whom general revelation is the only book. Some who believe this way consider themselves "post-Christian," thereby acknowledging their roots and their "journey" through Christianity, but seeing themselves as having passed through such thinking, denying that the Bible has any force anymore. Beyond that, some of these "one-book" believers see the Bible as being a major stumbling block to living rightly on Earth today, and insist that "the Bible should be put on the shelf for twenty years" or that the Bible should be dismissed today as totally irrelevant.

"One-book" believers who advocate Creation-centered spirituality, true to their Earth-centered approach, may describe God as something that emerges from the world, as the world develops consciousness of itself; God may be for them an emergent property of the evolutionary unfolding of the universe. And Christ may be transformed by them into the "Christ Spirit" that somehow expresses Earth's spiritual nature, differing here and there across the face of the globe according to the places, times, and cultures.

The pitfall here is not so much that there is a developing belief around "earth-centered spirituality," but that it is being injected into the churches. Adherents to this philosophy believe that it is needed in the churches, in order to wean Christianity away from its trust in the Bible and the personal God of Abraham, Isaac, and Jacob; to wean it from trusting in Jesus Christ as Lord; to bring it to the maturity coming through the new light shed by the revelation of the Earth itself. With this "weaning" comes the deliteralization or shelving of the Bible, equation of God with the Earth, and the degeneration of Jesus Christ to an earth spirit.

Why is this a pitfall along the road of just stewardship of God's Creation? Because it denies people the power of the Scriptures to inform, denies access through prayer to God who through our Mediator hears and responds to our praise and petitions, and denies our being open to the guiding of the Holy Spirit.

C. A Barrier in the Path of Stewardship

It is a sad fact that very large numbers of people in God's world today are prevented from being stewards of their own lives or some part of Creation. Such people are those we say experience poverty. Poverty is the lack of sufficient money or material resources, or both of these. Persons

without money have no ability to be stewards of their money. Persons without material resources have no ability to be stewards of their resources. Persons without land have no ability to be stewards of their land. And, if they have something but not enough of these, they have no ability to exercise their stewardship fully.

The meaning of poverty is the denial or the severe reduction of a person's ability to be a steward. An impoverished person is a person whose condition or circumstance prevents them from being stewards of God's Creation. Impoverished people have a severely diminished opportunity to be stewards of even a small part of Creation. Like prisoners, those in poverty are captives. This affirms the grisly truth of The World Health Report 1995 published by the World Health Organization when it observes, "...for many, the prospect of longer life may seem more like a punishment than a gift."

There are many ways to gain perspective on poverty and its causes. One can look at it as merely present in the world. Or, one can view it as having been chosen by the people who experience it. But the most helpful way of perceiving poverty is seeing it as having been produced. In this view, we are led not merely to describe it, but are opened to an extremely important question: "If poverty is produced, what produces it?" And in its short form, the answer to this question is very simple and accurate: "It is the system." Or: "It is the system in which impoverished people must operate."

In this view, poverty and its companions of hunger and food shortage, have their causes. In this view one is led to look for what might be labelled, "The Hunger Machine," the system of things with all their interactions that has as its net result the generation of poverty and hunger. A book by this label puts it this way, "If human poverty and hunger are so persistent, their causes must be found in the institutions, policies and ideologies which serve to widen the gap between rich and poor... it is a world *system* that ultimately determines who receives enough to eat."⁶⁰ Previously, we have identified some of the components of this system, and many more aspects of this system are discoverable from an abundance of material written on the subject. At this point, it is sufficient to know that a major task we have is to remove the barrier that prevents the poor from being stewards. Our inspiration, and challenge, in part comes from Isaiah 58, where we are invited to "fast" by loosening the chains of injustice, spending *ourselves* in behalf of impoverished people, and satisfying the needs of the oppressed.

D. Then What Must We Do?

And now, having considered the stumbling blocks, pitfalls and barriers that prevent many people from taking action—we now are prepared to ask, "Then what must we do?" The simple, yet profound, response to this question appears to be this: "Love God as Redeemer *and* Creator, acknowledge God's love for the world, and act upon this by following Jesus who creates, upholds, and reconciles all things." However, most people have been alienated from the Creator and God's Creation, and thus find it difficult to love, uphold, and make right again a world that we really do not know. Similarly, the poor have been largely put out of sight of the rest by

⁶⁰ Bennett, Jon. 1987. *The Hunger Machine: The Politics of Food*. Cambridge: Polity Press.

various forms of economic and political zoning that alienates rich from poor, that separates church from church. Thus, most people with the ability to break down the barrier of poverty are not well acquainted with the poor and their situations. Many will have first to become aware of Creation and its God-declared goodness before we can be good stewards of Creation. And we also will have to become aware of the poor and why it is they are prevented from being responsible stewards of our Lord's earth. Once having developed awareness, we then can move to appreciation. Once having developed appreciation we can move finally to stewardship, for ourselves as well as for the poor.

A Framework for Stewardship.

- (1) Awareness (seeing, identifying, naming, locating),
- (2) Appreciation (tolerating, respecting, valuing, esteeming, cherishing), and
- (3) Stewardship (using, restoring, serving, keeping, entrusting).

Our ultimate purpose is to honor God as Creator in such a way that Christian environmental stewardship is part and parcel of everything we do. Our goal is to make tending the garden of Creation—in all of its aspects, an unquestioned and all-pervasive aspect of our service—to each other, to our community, to God's world.

Let's deal with each of the three steps in the framework, as follows:

Awareness of Creation.— Awareness stands at the very beginning as the first of three components of Creation stewardship. Awareness means bringing things to our attention. In a time when so much calls for our attention—foreign affairs, local politics, jobs, or traffic—the Creation in its natural aspects doesn't even seem real to us. We might find that it seems real only on some of our travels, and even then it may be seriously obscured. We must consciously make ourselves aware of what is happening in God's Creation.

Awareness involves seeing, naming, identifying, locating. It means taking off the blinders provided us by ourselves and society so that we not only see God's Creation, but want to name and know the names of the things we see. It means providing ourselves with enough peace and thoughtfulness that we have the time and the will to identify a tree or mountain, bird or river. It means having the sense to enter the natural world intentionally in order to locate and find God's creatures we sing about each week in the doxology, "Praise God all creatures here below."

Appreciation of Creation.— Awareness is not an end in itself. From awareness comes appreciation; we cannot appreciate that of which we are unaware. At the very least, appreciation means tolerating that of which we are aware. We may tolerate, for example, worms and hyenas and so doing, appreciate them. But beyond toleration, appreciation can also mean respect. We certainly respect a large bear, but we also can develop respect for a lowly worm as we learn of its critical importance to the rest of Creation, including ourselves. And, appreciation can build from tolerating, to respecting, to valuing. We know that God declares Creation to be good, and we will find that God does so for good reason! As we become aware of the order of Creation, we will find ourselves imaging God's valuing of the creatures. And this will build even further until much of what we discover we will even esteem and cherish. Thus, awareness will lead to

appreciation.

Stewardship of Creation.— Appreciation does not end the matter either, for appreciation leads to its ultimate conclusion: stewardship. At first stewardship may mean use of Creation; perhaps our appreciation for a flower will lead us to put in a vase to decorate our table. But stewardship will bring us well beyond appropriate use, to restoration of what has been abused in the past. It becomes just stewardship. The widespread lack of awareness and ignorance of Creation and Creation's integrity means that we and many others have abused and degraded the environment unknowingly, and stewardship means that we will work to set things right again—to reconcile and redeem. We might even buy back something degraded to make it right again.

Beyond restoration, just stewardship means serving. As we understand that God through Creation is in so many ways serving our own lives, we will return this service with our own. This service will include a loving and caring keeping of what we hold in trust. And, our service in Creation will ultimately even involve our entrusting others with what we have served, kept, and restored.

A Framework for Justice

- (1) Awareness (seeing, identifying, naming, locating),
- (2) Appreciation (tolerating, respecting, valuing, esteeming, cherishing), and
- (3) Stewardship (using, restoring, serving, keeping, entrusting).

Our ultimate purpose is to honor God as Creator in such a way that Christian environmental stewardship is part and parcel of everything done, but the people short of the money, land, and materials cannot be responsible stewards of themselves and some part of God's Creation. Our goal is to make tending the garden of Creation—in all of its aspects, an unquestioned and all-pervasive aspect of the life of the poor and of *their* service to each humanity and to God's world. Our goal is to enable those who currently are prevented from exercising their God-assigned stewardship to be stewards of themselves and some part of Creation.

Again we can identify steps in a framework, as follows:

Awareness of impoverished people.— Awareness stands at the very beginning. For reasons similar to those stated in the stewardship framework, we must consciously make ourselves aware of the poor, their disproportionate exposure to environmental degradations, environmental health threats, and the system that keeps them captive.

Awareness involves seeing, naming, identifying and locating poverty and impoverished people. It means taking off the blinders provided us by ourselves and society so that we not only see them, but want others to see them too. It means providing ourselves with enough time out from economic pursuits to discover the economic plight of the poor. It means entering impoverished communities intentionally to locate God's people to reach and touch them.

Appreciation of impoverished people.— Awareness is not an end in itself. From awareness comes appreciation, toleration, and respect. And, we should work on building our appreciation until we can value the poor and perhaps learn to esteem and cherish them—not in their poverty but as image-bearers of God. On this journey we will find ourselves imaging God's valuing the poor, and God's desire that their chains be loosened, their cords untied, and their yokes broken. Our awareness of the poor will lead us to value and appreciate them.

Stewardship of and by impoverished people.— Appreciation of the poor does not end the matter, for appreciation leads to stewardship. Stewardship not only sustains what already is whole, but it restores what has been abused in the past. It becomes just stewardship. The pervasiveness of the system that generates hunger is so great that we and many others have abused and degraded the poor unknowingly. Just stewardship means that we will work to set things right again—to reconcile and redeem by removing the barrier that prevents our impoverished friends from being stewards of some part of Creation. In places of involuntary servitude, if such places still exist, we might even buy back someone, to give them freedom.

Beyond restoration of stewardship for the poor, our stewardship means serving. As we understand the way the poor have provided us with the coffee we drink and the inexpensive clothing we buy, we will return their involuntary service with our own. And our service to the

poor will ultimately even involve our entrusting others with what we have served, kept, and restored—for we, too, in earlier years or previous generations, once were impoverished.

Truth telling and prophetic vocation.— Beyond restoration of stewardship for the poor, serving the poor, and entrusting the poor, our stewardship must challenge the old while announcing the new. Jim Wallis, who lives with the poor in Washington, D.C., puts it this way:

Like the prophets we must call certainty into question. The biblical prophets always had a twofold task. First, they were bold in telling the truth and proclaiming that justice is rooted in God. They named the idols that had led the people astray and unmasked their destructive reality. And they called the people to return to their true selves and purpose, to reject false gods, and to remember who they were as children of God.

But in addition to truth telling, the prophets had a second task. They held up an alternative vision; they helped the people imagine new possibilities... Today, we need those who are willing to live as if an alternative vision is possible. Even when the possibility of real change seems quite dim—and especially then—history needs people who believe that change is possible and are willing to bet their lives on it.

A number of transformations are now absolutely essential... Reconnecting personal values to political morality is the first step. Healing family life, asserting the covenantal character of our relationships, and rediscovering the preciousness of our children are all crucial for building our communities and reestablishing the integrity of our public life. Our addiction to materialism must be healed. We can be freed from the falsehood that the accumulation and consumption of things are the substance and measure of human life. Our alienation from the rest of Creation must be overcome. We can be converted from the idea that the earth belongs to us; we can live as if we are part of a Creation that belongs to God. Our assumption that the world's created abundance is ours to use and use up, to own and divide, to exploit and destroy, can be replaced with the values of stewardship and equity. Our ethic of profit can be transformed by an ethic of community as the foundation of our economic system. We can live as if social goods were more highly valued than consumer goods in measuring our quality of life.

We can squarely confront and repent of our sins of racism and sexism, correcting the oppression of people of color and women in our personal behavior, cultural attitudes, and social structures... Genuine citizen participation can replace passive public polling... The dominant power of money over the political process can be broken and wealth removed as the primary key to government influence. The hold of media conglomerates on the flow of information and political debate can be exposed and public discussion opened to plural voices. Our wasteful and destructive militarism can be reversed as we begin to place our security in domestic equity, international justice, multilateral cooperation, and the persistent negotiation of our inevitable human conflicts—not in weapons of technological destruction. Finally, we will begin to see and feel the connections between us all and with the earth, and come to understand that, one way or another, our destinies are irrevocably tied together... The vision we now require is nothing short of a new

covenant. At root, we need to return to our spiritual identity as the children of God.⁶¹

E. Vibrant Testimonies

Christian environmental stewardship—our just stewardship of Creation and our encouraging and enabling others to be stewards too—is a central, joyful, part of the human task. We are a very important means for administering God's love to the world, and we need to pursue our task vigorously. As communities of God's stewards—as the Body of the One who made, sustains, and reconciles the world—our churches and our lives can be, and must be, vibrant testimonies to the Creator of the world and lover of justice—bright witnesses to the Creator, Redeemer, and Sustainer of all things whom we image in our lives and landscapes, as we pray, "Thy Kingdom come. Thy will be done on earth..."

Thou art worthy, O Lord, to receive glory and honor, and power: for thou hast created all things, and for thy will's sake they are, and have been created. (Revelation 4:11 Geneva Bible)

Section VII.

MEANS OF KEEPING THE RESTORED CREATION

May the herds prosper and be free from all danger. May the fish abound in our lakes.

—from a Kenyan intercessory prayer from Rev. Isaac Muringhi, 1995.⁶²

In a subsequent section we get down to specific actions on caring for Creation, and the means for discovering the specific actions we can take. In this section we lay the biblical foundation for those actions. This foundation in Scripture provides the means whereby specific actions derive their power and resolve. These foundational means elicit the specifics of our engagement in just stewardship of Creation. Here are some of these foundational means:

Means 1: Keepers of Creation

We, as imagers of God and God's love for the world are important means for keeping and sustaining our Lord's Creation.

Genesis 2:15 conveys a marvelous teaching. Adam is expected by God to *serve* the garden. And as God keeps His people, Adam is expected also to *keep* the garden. People are expected to be servants and earthkeepers. They are a principal means whereby God keeps His Creation.

⁶¹ Wallis, Jim. 1995. *The Soul of Politics*. Maryknoll, N.Y.: Orbis Press, pp. 45-47.

⁶² From Rev. Isaac Muringhi, Nyeri, Kenya.

Human beings, as God's means for service and Earthkeeping, derive their inspiration from God's keeping of His people. As God keeps them, so are they to keep the garden. This word, *keep*, is the word sometimes translated *tend*, *take care of*, *guard* and *look after*. The Hebrew word upon which these translations of *keep*, as used in Genesis 2:15, are based is the word "shamar." And "shamar" means a loving, caring, sustaining keeping.

In our worship services, we often conclude with the Aaronic blessing, from Numbers 6:24, "The Lord bless you and *keep* you." The word "keep" here, is also the Hebrew word "shamar"—the same word used in Genesis 2:15. When we invoke God's blessing to keep *us*, it is not merely that God would keep us in a kind of preserved, inactive, uninteresting state. Instead, it is that God would keep us in all of our vitality, with all our energy and beauty; it is a loving, caring, sustaining keeping. The keeping we expect of God when we invoke the Aaronic blessing is one that nurtures all of our life-staining and life-fulfilling relationships—with our family, spouse, and children, with our neighbors and our friends, with the land that sustains us, with the air and water, and with our God.

And so too with our keeping of the Garden—in our keeping of God's Creation. As God's means for caring for Creation, we are expected to engage in a loving, caring, keeping relationship. When Adam, Eve, and we, *keep* the Creation, we make sure that the creatures under our care and keeping are maintained with all their proper connections—connections with members of the same species, with the many other species with which they interact, with the soil, air and water upon which they depend. The rich and full keeping that we invoke with the Aaronic blessing is the keeping that we are expected to bring to the garden of God—to God's creatures and to all of Creation. As God keeps believing people, so should God's people keep Creation.

Means 2: Disciples of Jesus Christ

There is no question about it. The Bible calls us to be disciples—*followers after* someone. But we are not to be disciples of the first Adam who neglected to "*abad*" and to "*shamar*" the Creation—the one who failed the task of caring service and diligent keeping. We must not follow those who choose to go their own way and do their own thing. Instead, the Bible tells us, we must be disciples of the *Last* Adam—we must be disciples of Jesus Christ. We ourselves become one of God's means for expressing God's love's for the world.

The New Testament teaches, in John 3:16, that God loved the world so much that our Lord's own Son was given to bring true life—to make things right again. We read in 1 Corinthians 15: 20-22, "As in Adam all have died, so in Christ will all be made alive," and in 1 Corinthians 15:45 we find Jesus Christ referred to as the last Adam.

Those who follow the last Adam—Jesus Christ—follow the example of the One who makes all things new, the One who makes all things right again. As Colossians 1:19-20 puts it, "For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself *all things...*"

Who is this Christ we are to follow?

He is the One *by whom* all things were created. And,

He is the One *for whom* all things were made.

So we read, in John 1, Colossians 1, and Hebrews 1.

And so it is *apparent* why God reaches out sacrificially to make things right again. Jesus Christ—the Final Adam—undoes the damage of the first Adam and Adam's followers. While Adam's followers bring death and degradation, Christ brings life and restoration, as we learn from Romans 5. All that the first Adam wrecks, the Final Adam restores. And all that is restored is sustained and kept. Working as followers and disciples of the Final Adam are the children of God—Christ's servant stewards for whom the whole Creation is eagerly looking.

We must, then, be disciples of Jesus Christ. We must walk in the footsteps of the One who reconciles all things, in the path of the One who takes the form of a reconciling servant. We must be disciples of the Last Adam, not of the first—we must work to reconcile all things to Christ. We are among God's means for restoring and keeping all things.

Means 3: Providers of Sabbaths

In Exodus 20 and Deuteronomy 5, the Bible requires that one day in seven be set aside as a day of rest for people and for animals. This sabbath day is given to help us all get "off the treadmill," to protect us all from continuous work, to help us get things together again. It is a time to enjoy the fruits of Creation, a time of rest and restoration.

As human beings and animals are to be given their times of sabbath rest, so also is the land. People, the land and all of its creatures must not be relentlessly pressed. Exodus 23 commands, "Six days do your work, but on the seventh day do not work, so that your ox and your donkey may rest and the slave born in your household, and the alien as well, may be refreshed..." It also commands, "For six years you shall sow your land and gather in its yield; but the seventh year you shall let it rest and lie fallow, that the poor of your people may eat; and what they leave the wild beasts may eat. You may ask, 'What will we eat in the seventh year if we do not plant or harvest our crops?'" God's answer in Leviticus 25 and 26 is: "I will send you such a blessing in the sixth year that the land will yield enough for three years," so do not worry, but practice this law so that your land will be *fruitful*. "If you follow my decrees and are careful to obey my commands, I will send you rain in its season, and the ground will yield its crops and the trees of the field their fruit."

Christ in the New Testament clearly defines for us the meaning of Sabbath: the Sabbath is made for the ones served by it—not the other way around. The Sabbath is made for the land, for the people, and for God's other creatures. Thus, the sabbath year is given to protect the land from relentless exploitation, to help the land rejuvenate, and to help it get things together again. It is a time of rest and restoration. This sabbath is not merely a legalistic requirement; rather, it is a profound principle. In some farming communities, the sabbath principle is practiced by letting the land rest every *second* year, "because that is what the land needs." The sabbath is made for the land, and not the land for the sabbath. And of course, it is not therefore restricted to

agriculture but applies to all Creation—to our use of water and air, for example, as we discharge into them our exhausts, smoke, sewage, and other things we throw "away."

The Bible warns us in Leviticus 26, "...if you will not listen to me and carry out all these commands, and if you reject my decrees and abhor my laws and fail to carry out all my commands and so violate my covenant, ...Your land will be laid waste, and your cities will lie in ruins. Then the land will enjoy its sabbath years all the time it lies desolate... then the land will rest and enjoy its sabbaths. All the time that it lies desolate, the land will have the rest it did not have during the sabbaths you lived in it."

But, proclaims Isaiah 58:13, "If you keep your feet from breaking the Sabbath and from doing as you please... then you will find joy in the Lord, and I will cause you to ride on the heights of the land..."

We are God's means for assuring Sabbath in Creation.

Means 4: Enjoyers of Creation

A fourth teaching of the Scriptures, that can point us away from degrading the Creation, and toward fulfillment of God's intent for the world, is this: that we may enjoy, but not destroy, the fruit of God's good Creation. The fish of the sea and the birds of the air, as well as people, are given God's blessing of fruitfulness. In Genesis 1:20 and 22 God declares, "Let the water teem with living creatures, and let birds fly above the earth across the expanse of the sky." And then God blesses these creatures with fruitfulness: "Be fruitful and increase in number and fill the water in the seas, and let the birds increase on the earth."

God's Creation reflects God's fruitful work—God's fruitful work of giving to land and life what satisfies. As it is written in that beautiful Creation Psalm, Psalm 104, "He makes springs pour water into the ravines; it flows between the mountains. They give water to all the beasts of the field; the wild donkeys quench their thirst. The birds of the air nest by the waters; they sing among its branches. He waters the mountains from his upper chambers; the earth is satisfied by the fruit of his work." And Psalm 23 describes how our providing God "... makes me lie down in green pastures, ... leads me beside quiet waters, ... restores my soul."

As God's fruitful work brings fruit to Creation, so too should ours. As God provides for the creatures, so should we people who were created to reflect God whose image we bear. Imaging God, we too should provide for the creatures. And, as Noah spared no time, expense, or reputation when God's creatures were threatened with extinction, neither should we. Deluges—in Noah's time of water, and in our time of floods of people—sprawl over the land, displacing God's creatures, limiting *their* potential to obey God's command, "be fruitful and increase in number." Thus, while expected to enjoy Creation, while expected to partake of Creation's fruit, we may not destroy the *fruitfulness* upon which Creation's fullness depends. We must, with Noah, save the species whose interactions with each other, and with land and water, form the fabric of the biosphere. We must let the profound admonition of Ezekiel 34:18 reverberate in our minds:

Is it not enough for you to feed on the green pastures?
Must you also trample them with your feet?

Is it not enough for you to drink the pure water?
Must you also muddy it with your feet?

Means 5: Seekers of the Kingdom

A further teaching of the Scriptures is that we must first seek the kingdom of God, and not self-interest. Our world today proclaims its insistent message: "Seek ye first a job and the kingdom will be added unto you." While it is tempting to yield to this message, while it is tempting to follow those whose highest priority is to accumulate immense material gain, Jesus advises us, in Matthew 6:33, to seek first the kingdom of God and God's right-ness. And then, Jesus says, as a consequence of seeking God's kingdom, all else we need will be given as well. Happiness, joy, and fulfillment are not what we seek. Instead, we seek the kingdom of God.

Happiness and joy are *by-products* of stewardship. Fulfillment is a *consequence* of seeking the kingdom.

It is the kingdom of God—Creation freshly refined and new—toward which we are striving as children of God.

Who will inherit this kingdom? Those who seek it as their first and all-consuming priority. Its inheritance is not for those who arrogantly press their neighbors, the land, and the creatures for all they are worth; nor is it for the destroyers of the earth. The inheritance of the arrogant destroyers is death.

But how about those who keep the Garden in meek humility? Christ confirms their inheritance, in Matthew 5:5, when he preaches: "Blessed are the meek, for they will inherit the earth."

Revelation 11:18 sums this up with its solemn, ominous, yet auspicious, message: "The nations were angry; and your wrath has come. The time has come for judging the dead, and for rewarding your servants the prophets and your saints who reverence your name, both small and great—and for destroying those who destroy the earth."

Seeking God's kingdom first is our calling—our vocation. This is affirmed, in Matthew 6:9, in the prayer our Lord teaches us, when Jesus says "This then is how you should pray, Our Father in Heaven, hallowed be your name, your kingdom come, your will be done *on earth*."

Means 6: Proponents of Contentment

The fruitfulness and grace of the Garden—the productive and beautiful Creation—did not satisfy our first parents and their succeeding generations, as we know from Genesis 1 through 11, and also from our own experience. Even though God promised not to forsake nor leave them, people

chose to go their own way—grasping more and ever more from the Creation for selfish advancement. This relentless pressing of land and life to produce more—ever more, without limit—is seriously degrading the earth and all Creation today, as we have seen. But selfish gain is not what should be sought; rather, our prayer should be that of Psalm 119:36, "Turn my heart to your statutes and not toward selfish gain."

If accumulating the goods of Creation is not gain, then what is? What, according to the Scriptures, constitutes true gain? In 1 Timothy 6:6 we are taught that it is "godliness... with contentment... that is great gain." Contentment means aiming to have the things that will sustain us, but not going beyond that. There is an Amish saying based on this passage that goes like this: "To desire to be rich is to desire to have more than what we need to be content". Abraham Kuyper puts it this way: "The mystery of contentment lies in childlike faith *that God cares for us.*" And, "Let your life be one continuous service of love, a service which never grows irksome, a service which will hallow even the smallest task. Seek not the external, the visible, that which the world chooses as its goal. But that which is invisible, the hidden power behind the things which we see—in short, seek the Kingdom of God, where God is enthroned and self is denied; seek all that is right, all that is in conformity with His righteousness; seek these things not only in seasons of prayer and meditations and worship, but always, in every situation, in every daily task."⁶³ Why is it important not to pass the point of contentment? In the words of 1 Timothy 6:11, it will allow us to "pursue righteousness, godliness, faith, love, endurance, and gentleness." Hebrews 13:5 tells us, "Keep your lives free from the love of money and be content with what you have, because God has said, 'Never will I leave you; never will I forsake you!'" But besides contentment's effects on *ourselves*, it also helps preserve Creation's integrity—it preserves Creation's ability to bring God praise and bring to the world its powerful voice that witnesses to God's divinity and everlasting power.

Why does human contentment help preserve Creation's integrity? Because all the things we use, all the things we make, everything we manipulate, everything we accumulate, derives from the Creation itself. If we learn contentment—learn to seek godly contentment as our great gain—we will take and shape less of God's earth; we will demand less from the land; we will leave room for the other creatures; we will keep something over which to have dominion. We will thus allow Creation to heal itself; we will thus allow Creation to perpetuate its fruitfulness and its God-glorifying praise.

Means 7: Advocates of Justice

A very basic teaching of the Scriptures is that we must diligently pursue justice. In the words of one Reformed servant-politician, this means "that Christians do all they can to maintain government as a caring, justice-defending structure. Constant vigilance and constant involvement are essential if God's means of promoting justice is not to be turned into a means of reinforcing injustice. Christians have the sense of purpose and mission necessary to resist the

⁶³ Abraham Kuyper. 1948. *The Practice of Godliness*. Marian M. Schoolland, *trans.* Grand Rapids: Wm. B. Eerdmans, p. 115, 117.

seduction of power and prestige that can cause many to fall and... turn government away from its God-given purposes..."⁶⁴

The purpose of government's authority is justice. Those who are appointed judges and officials in biblical times are told, "Do not pervert justice or show partiality. Do not accept a bribe, for a bribe blinds the eyes of the wise and twists the words of the righteous. Follow justice and justice alone, so that you may live and possess the land the Lord is giving you" (Deuteronomy 16:19-20). And those who pervert justice are warned, "Woe to you who make unjust laws, to those who issue oppressive decrees, to deprive the poor of their rights and rob my oppressed people of justice..." (Isaiah 10:1-2a). And, Psalm 72 of Solomon begins, "Endow the king with your justice, O God, the royal son with your righteousness. He will judge your people in righteousness, your afflicted ones with justice" (Psalm 72:1-2).

In every society, the Church must advocate justice. In democratic societies the people must be advocates for justice as voters and participants in just governance and just stewardship of a nation's land and people. And all of this means that the Church and its members must assure that governmental authorities understand the way in which God wants their authority to be exercised.

Means 8: Lovers of Mercy

What does God require of us? Writes the prophet Micah, "To act justly and to love mercy and to walk humbly with your God" (Micah 6:8b). Thus, beyond pursuing justice, God requires us to love mercy. "Be merciful, just as your Father is merciful," Jesus teaches (Luke 6:36). As God as merciful, so should we be merciful. We should image God's mercy through our mercy. "Good is the Lord and full of kind compassion; most slow to anger, plenteous in love," proclaims the hymn. And we, imaging God, should reflect God's compassion, slowness to anger, and plenteous love.

Our mercy, as with God's mercy, is poured out to the questionable characters of society, the unappreciated, the sick, the aliens, and the impoverished. Thus, when Jesus has dinner with tax collectors at Matthew's house, mercifully ministering to the sickness of their spirits, he replies to His critics, "It is not the healthy that need a doctor, but the sick... go and learn what this means: 'I desire mercy, not sacrifice.' For I have not come to call the righteous, but sinners" (Matthew 9:12-13; cf. Hosea 6:6). And the word of the Lord to Zechariah is this, "Administer true justice; show mercy and compassion to one another. Do not oppress the widow or the fatherless, the alien or the poor" (Zechariah 7:9-10a). As God our father is merciful, so should we be merciful.

⁶⁴ Monsma, Stephen V. 1984. *Pursuing Justice in a Sinful World*. Grand Rapids: Eerdmans.

Means 9: Practitioners (Expositors) of Truth (Belief)

Finally, the Scriptures admonish us that we must not fail to act upon what we know is right. Knowing God's requirements for stewardship is not enough. Believing in God is not enough—for even Satan believes in God, we are told by the Scriptures. Instead of *merely* believing, instead of *merely* knowing God's requirements, we must practice them, or they do absolutely no good.

All of us have had this experience: We have studied a book over a period of weeks in our Sunday School class or discussion group, and come to one of the last weeks when someone asks, "What will we do after we are finished with this book?" The answer often is: Study another book!

But Christian environmental stewardship does not end with the last chapter we are reading. It does not end when one more book is picked for study. Instead, study of the Bible's requirements for stewardship of Creation marks a kind of beginning. It brings us directly to the life-and-death question, "Now what must we *do*?"

The Bible gives forthright and direct teaching along these lines. The hard saying of Scripture—of Ezekiel 33—is this: "We hear from our neighbors, 'come and hear the message that is come from the Lord', and they come, but they do not put them into practice. With their mouths they express devotion, but their hearts are greedy for unjust gain. Indeed to them you are nothing more than one who sings love songs with a beautiful voice, and plays an instrument well, for they hear your words, but they do not put them into practice." And in Luke 6:46 Jesus asks, "Why do you call me 'Lord, Lord,' and do not do what I say?" —why do you come to Jesus but do not put Christ's words into practice?

The prophet Isaiah, in chapter 58, tells us that we must do more than go through the motions—in our fasting, for example, we find that God requires a caring, serving fast—one that shares our food with the hungry, one that looses the chains of injustice, one that lets the oppressed go free. Our environmental stewardship challenge is to move forth and put what we know and believe into practice.

Means 1. Revisited: Servers of Creation

We, as imagers of God and God's love for the world are important means for serving our Lord's Creation.

When we discovered from Genesis 2:15 that Adam, and we as Adam's descendants, are expected to keep Creation, we likened our keeping of Creation to God's keeping of those who seek to do the Creator's will. We could also have said that we, as we go about imaging God in our lives, should care for and keep Creation as God does. We are expected to be Earthkeepers, imaging God's keeping of Creation.

But, you remember, we skipped over the word, *serve*, which comes earlier in this verse. It may have made you wonder a bit, especially if you checked your Bible, since the Hebrew word for *serve* in most recent versions of the Bible is translated as *till*, *dress* or *work*. The Hebrew word

here is '*abad* [*pron. ah-bahd*']. And so, from most of the Bible versions we have read that Adam is expected to till, dress, and work the garden. What has come to my mind when I first remember reading these words, is a hoe, shovel, disk and plow. But, as we will discover as we move along, there is little doubt about its meaning. Adam is expected to *serve* the garden, and so are Adam's descendants—we are expected to meet the needs of Creation so that it will persist and flourish. Even as I write this, I find this remarkable—as you probably do also. It really is hard to believe! First of all how on earth can we ever *serve* Creation? Isn't it the other way around, with Creation serving us? Second, if that's what '*abad*' means, why not come right out and translate it that way? Well, those are good questions to ask. And they are very important ones to ask. But if they were answered at this point, our discussions would not be as lively—and neither would our learning from each other and from God's Word. And the questions that follow will help us find the answer. But we will remain in a kind of "creative tension" even when our discussion of this chapter is finished. And this will make the following chapter even more interesting. And so, since we are at the conclusion of this chapter, let's conclude by shifting our attention to Romans 8—that most beautiful chapter that contains so much richness.

Romans 8 tells us that the whole of Creation, groaning as it is, is eagerly waiting, with neck outstretched—on tippy toes. It is looking for something!

For what is Creation looking?

Romans 8 tells us that Creation "is waiting in eager expectation for the coming out of the children of God!"

As we move forth into the world God loves after our reading and discussion today, as we follow God's Son—through whom the whole world was made, is held together, and is made right again—we should ask the question, "When we now go out into the world, will the Creation expect the worst from us? Will it cringe at our coming?"

Or, will it announce,

"Aha! Here they come!

Here come the children of God!"

*Section VIII.***TRADE, TECHNOLOGY AND WEALTH IN THE ECONOMY OF CREATION**

*Before the Industrial Revolution, commerce and culture were powerfully regulated by natural energy flows—mainly, the solar energy captured by food, wood, and wind. Scholars may debate the exact inflection point at which society turned to stored energy and, through it, harnessed the power of steam, railroads, and machinery, but once the process of industrialization commenced, the economic life of culture shifted from working with natural forces to working to overcome them.*⁶⁵

—American businessman Paul Hawken

In seeking the just stewardship of Creation, we must work to assure institutional policy and technology that is appropriate and supportive. The degree to which these are appropriate is the degree to which they provide for, protect, and enhance the stewardship of Creation by various components of society, including the poor. It is difficult, however, to discover what is appropriate. Moreover, success in achieving stewardship goals depends not only on appropriateness but also on whether and how technologies and policies are put into practice. This in turn this depends upon the values of the people involved. Thus in this section, we consider the place of appropriate technology and just policies for trade, money, and economic policy.

Institutional policy that addresses or affects stewardship of the land and the care of Creation, in a similar vein, can be appropriate or inappropriate—just or unjust. By policy is meant "a providence or wisdom in the management of affairs." It is "a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions."⁶⁶ "Management of affairs" we already know, is captured well by the word, *oeconomia*. The adjective, "Institutional," refers to "institution" which is the term for "any organized element of society"⁶⁷ and "the established order by which anything is regulated."⁶⁸ Thus, institutional policy is providential wisdom applied by organized elements of society to *oeconomia*. The institutions we consider in this section are the churches, governments, transnational institutions, the electorate and the family. We also consider the wealthy class and the poor.

Policies involve trade, money, economics, the environment, and the rich and poor, among many other things. The measure of appropriateness of *trade policy* is the degree to which it provides

⁶⁵ Paul Hawken, *The Ecology of Commerce*, New York: HarperBusiness, p. 130.

⁶⁶ Webster's Seventh New Collegiate Dictionary. 1963. Springfield, Massachusetts: G. & C. Merriam Company.

⁶⁷ Williams, Raymond. 1983. *Keywords: A Vocabulary of Culture and Society*. [Revised ed.] New York: Oxford University Press, p. 169.

⁶⁸ Oxford English Dictionary. 1971. [Compact Edition] Oxford: Oxford University Press.

for, protects, and enhances the stewardship of Creation both in the exporting country and in the importing country, including stewardship of Creation by the poor. The measure of appropriateness of *money policy* is the degree to which it provides the means for human access to basic and other needs and enhances the stewardship of Creation both within a given nation and internationally, including poor nations. The measure of appropriateness of *economic policy* is the degree to which it provides for, protects, and enhances the stewardship of Creation, including peoples, social classes, and ethnic groups and in the biblical view, particularly the poor.

A. Ecology, Economics, and Christian Thinking

In properly addressing technology and institutional policy in our time it is necessary to keep in the forefront the concept of *oeconomia*. *Oeconomia*, as we have seen, applies both to God's economy (the processes whereby God sustains the whole Creation) and to the human economy (the arrangements we have made for exchanging goods and managing our individual households). Stewardship and God's economy walk hand in hand. Economics—the study of the human economy—goes hand in hand with ecology—the study of the biospheric economy. Both work within the economy of God's Creation. Yet, these companions within God's economy have been separated and isolated over the past two centuries with the result that students of economics and students of ecology rarely conceive of themselves as belonging to the same household. Rarely do they see themselves as sharing the same subject matter, the same *oeconomia*. Our work here is a contribution toward bringing these two in vital association again, and beyond that to perceive and to work with *oeconomia* in its entirety.

This is not the first such attempt. In 1977-1978 an earlier one took place at Calvin College where an economist, ecologist, physicist, philosopher, and literary scholar were selected by the governing board as the first research team for the newly created Calvin Center for Christian Scholarship. Following their selection they set about their task to explore their assigned topic, "Christian Stewardship of Natural Resources." The label given this topic and the subsequent titles of the two books coming from this effort tell by their succession the major finding of this year-long effort by these five professors. In 1980 their book was entitled, *Earthkeeping: Christian Stewardship of Natural Resources*; in 1991 their substantially revised and enlarged book was named, *Earthkeeping in the Nineties: Stewardship of Creation*.⁶⁹ This succession of labels tell us, that although we might at first not recognize it, resources are not independent of Creation. Creation is much more than resources, and it is to the whole of Creation that our stewardship must be directed. The bringing together of the disciplines of economics and ecology into integrative scholarship brought these professors to discover the economy of God, transforming them through a decade from "stewardship of natural resources" to "stewardship of Creation." Creation is more than resources. The chapter on economics in this book was the most transformed over the decade of any chapter in *Earthkeeping*.

⁶⁹Wilkinson, Loren, ed. 1991. *Earthkeeping in the Nineties: Stewardship of Creation* [Revised ed.] Grand Rapids: Eerdmans.

Creation is God's visible testimony of His love for the world, whose witnessing voice goes out into all the world, convicting everyone, pre-Socratic Greek scholars, modern scholars, and present day inhabitants of God's earth, of the testimony of Creation of God's divinity and everlasting power in Creation, as the apostle Paul says (Romans 1:20).

Later, the World Council of Churches undertook the effort entitled Justice, Peace, and Integrity of Creation (JPIC), with some remarkable successes. However, the third point in this three-point theme, *Integrity of Creation*, was not strongly linked with Justice and Peace, leading one scholar to make the attempt to bring it into the discussion through his book, *Het derde punt (The Third Point)*.⁷⁰ From 1980 to the present the Au Sable Institute has undertaken integration of justice, economics, and ecology through dialogue among ecologists, theologians, economists and others with a number of published books and papers coming from this work. Most recently produced along these lines is the *Evangelical Declaration on the Care of Creation*. This is presented at the conclusion of this report as informative for work in Reformed theology.

For the most part, then, ecology and economics have remained separated according to modern disciplinary boundaries as these have been created and reinforced within the colleges and universities. Our problem is that all of us are products of that separation; if we were educated in economics we were not educated in ecology, and vice versa. We thus have an extremely difficult time seeing God's oeconomia whole, even while believing we in fact do see it whole within our own discipline.

It is helpful, therefore, in dealing with the more integrative topic of just stewardship of Creation (requiring integration of ecology, economics, and theology) to review some of the contributions made thus far in ecology and Christian thinking on the one hand, and economics and Christian thinking on the other, recognizing all along that we have done this as specialists in one of these three disciplines even when we have had more than one of them represented in a given meeting or deliberative assembly.

1. Ecology and Christian Thinking

Many reports and denominational studies have been produced in this area.⁷¹ Of these, an important example is *Keeping and Healing the Creation* produced by the Eco-Justice Task Force

⁷⁰Klinken, Joh. von. 1989. *Het Derde Punt: een bijdrage tot het conciliair proces met natuurwetenschappelijke achtergronden*. Kampen, Netherlands: Uitgeversmaatschappij J. H. Kok.

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For a listing of publications in this area, cf. Sheldon, Joseph. 1992. *Rediscovery of Creation: A Bibliographical Study of the Church's Response to the Environmental Crisis*. ATLA Bibliographic Series No. 29. Metuchen, N.J. and London: American Theological Library Association and Scarecrow Press.

of the Presbyterian Church (U.S.A.).⁷² The important contribution of this statement to our own study is its linking of Creation stewardship with justice. It identifies God's urgent call to earth-keeping in our time—this call being a contemporary intensification of God's command to keep the garden. "But because the earth already is degraded, earth-keeping includes earthhealing—not just protection but restoration." This report finds it "impossible to divide human well-being from that of nature" and emphasizes that we "cannot excuse industrial pollution, forest-destruction, over-fishing, and the like by claiming that these are the only ways for some to earn their livelihood." Speaking to longer term consequences of human actions this study reminds us that "...wherever economic activity or development fails to preserve the integrity of the natural environment, we are finding that temporary economic gains are followed by larger losses." "The appropriate norm for earth-keeping is *sustainability*." This is the major conclusion of this study. "All who are concerned for sustainability realize that the way we moderns have been treating the natural order cannot continue. As a norm for human behavior, sustainability requires that we relate to the realm of nature in ways that respect its integrity, so that natural ecosystems may continue to function properly, the earth's beauty and fruitfulness may be maintained and kept sufficient for human sustenance, and life may continue also for the non-human species." While it deals only briefly with technology and economics, this report deals with it substantially, and in relationship both to ecology and economics. "Sustainability is a norm that keeps the future in view... Sustainability reverses the burden of proof for technology, industry, and agriculture." Reflecting upon the relationship between ecology and economics, it concludes, "...throughout the modern era we have assumed that nature could accommodate our management of it for our private purposes; for decades we have been pressing hard against the ecological limits; we have held out for proof that our projects were dangerous, and in instance after instance we have gone too far; now it is time to exercise restraint, to demand less, to be very careful that what we do or propose will not disrupt the natural balances or jeopardize the future. It is time to shift the challenge of technological innovation from destructive technologies to those 'appropriate' to economies that will be sustainable as well as profitable." On government policy and societal practice the report finds that the norm of sustainability requires that we "... desist from policies and practices that damage the natural capacity of these systems to renew themselves; restore nutrients that have been taken away; do not demand yields that cannot be maintained indefinitely."

In addressing the relative power of individual citizens to engage in stewardship and of the economic system to shape that stewardship for good or ill, it observes that, "Individual persons, families, and companies are all locked into social and economic systems that have much more aggregate impact on natural systems than do the good intentions of individuals. The two sets of systems bear a reciprocal relationship to each other whereby neither is sustainable very long without the other." In evaluating the relationship between natural and human-made systems, they address the core of our current situation. "At the heart of the eco-justice crisis we see the heavy weight of evidence that the social/economic systems of the modern world are overstraining the natural systems and thereby destroying the basis of their own continuation. The basic dynamic of modern systems is not geared to sustainability but the maximization of production and

⁷²Presbyterian Eco-Justice Task Force. 1989. *Keeping and Healing the Creation*. Louisville, KY: Presbyterian Church (U.S.A.).

consumption. This means that they tend inherently to deplete resources and pollute the environment.

"Of course," the report observes, "they can become more efficient, and technology can take away the competitive advantage from polluting. So can measures to require companies to 'internalize' the costs of environmental damage, so that ecologically insensitive practices cost more. But the market as such does not and cannot prevent the environmental abuse that results in making costly what once was abundant and free—such as fresh air and water. The market, through price rises, eventually signals abuses and shortages, but by then the damage is done. Consequently, to rely on the market alone is like waiting to have a heart attack before doing any health maintenance. Market mechanisms can be adjusted to help lessen the environmental damage, but we need to find ways to build a framework to ensure sustainability within which the market can operate."

In dealing with whether we can and should put bounds on the market, the report uses the example of child labor laws to remind us that "the free market already works within a socially designated framework... We have set bounds—for the common good—within which production, competition, and profit-making can proceed." And having found that the market, whose behavior we already shape in various ways, is not supporting the norm of sustainability it points out that, "Now we face the task of changing our economic framework to foster sustainable enterprise. This will entail incentives, disincentives, and regulations, which some people and corporations will oppose as obstacles to the production of certain 'goods.'"

The report finishes its work with this statement:

Sustainability is a necessity for survival and a humane future. There is no greater challenge to the creativity, goodwill, and tenacity of humankind than that presented by this norm and the norms of justice. The first step is to accept this set of ethical norms and begin to think and live by the mindset that they engender. They will lead us to undertake a necessary critique of existing systems, serious planning for a better future, and incremental steps that will minimize major disruptions for earth and people and provide a more satisfying way of life.

2. Economic Theory and Christian Thinking

Many reports and denominational studies in this category have been produced. They cover a wide spectrum, ranging from those that deal with individual responsibility, choice, market laws, fair exchange, and wealth creation to others that deal with economic power manipulation, conflict between countries of North and South, debt bondage, and wealth redistribution.

Three recent documents from major Christian communities that reflect these studies are helpful in our work.⁷³ In January 1990, a diverse group of 100 evangelicals crafted *The Oxford Declaration on Christian Faith and Economics*.⁷⁴ The group included theologians, economists, bankers, ethicists, development workers and church leaders from all areas of the world. Although the participants represented only themselves as individuals, they wrote in the context of the doctrinal positions of the Lausanne Committee.

The second document is a study booklet produced by the World Council of Churches in 1992. This booklet, *Christian Faith and the World Economy Today*, is the result of a four-year study process, although it also built on several discussions and consultations in the history of the ecumenical movement. It was created by the WCC's Advisory Group on Economic Issues. It was not officially adopted by the WCC, but represents the major line of thinking in that body.⁷⁵

The third document is an encyclical letter of Pope John Paul II, *Centesimus Annus* (One hundred years), issued on the 100th anniversary of Pope Leo XIII's letter called *Rerum Novarum* (New Things). Although crafted in consultation with Vatican experts and other Catholic scholars, *Centesimus Annus* is part of the magisterium of the Pope, and thus authoritative for Catholic believers.⁷⁶

The three documents have much in common. All build significantly on the role of justice in economic affairs. All recognize the environmental threats raised by industrialization and rapid technological growth. All three seek to build on the theme of Creation, that God created something good and continues to work with it.

The three documents also have distinct points of view. In each section, *The Oxford Declaration on Christian Faith and Economics* focuses on God's law and care for the Creation from the perspective of economics and Christian faith. Its controlling idea is stewardship, that we are

⁷³ Hay, Donald. "What Does the Lord Require?: Three Statements on Christian Faith and Economic Life," *Transformation*, Vol 10, No. 1 (January/April 1993) 10-15.

⁷⁴ The Oxford Declaration on Christian Faith and Economics, *Transformation: An Evangelical Dialogue on Evangelical Social Ethics* 7(2, April/June 1990):1-9.

⁷⁵ World Council of Churches. *Christian Faith and the World Economy Today: A Study Document from the World Council of Churches*. Geneva: WCC Publications, 1992.

⁷⁶ John Paul II. *Centesimus Annus: Encyclical Letter on the Hundredth Anniversary of Rerum Novarum*. Vatican City: Libreria Editrice Vaticana, 1991.

God's servants trying to manage things in the way God intended. The document pays attention to our weaknesses and mistakes, but its main points focus on the basic structures of our lives, and how we ought to live positively.

For example, in its the section on "Work and Leisure" (par. 13-31), it affirms the intrinsic value of work followed by looking at alienation in work, as follows:

17. The deepest meaning of human work is that the almighty God established human work as a means to accomplish God's work in the world. . . .

18. Human work has consequences that go beyond the preservation of Creation to the anticipation of the eschatological transformation of the world. . . .

19. However, work . . . is also a place where the misery of human beings as impeters of God's purposes becomes visible. . . .

23. Discrimination in work continues to oppress people, especially women and marginalized groups. . . .

24. For most people work is an arduous good. Many workers suffer greatly under the burden of work. . . .

In *Christian Faith and the World Economy Today*, the focus is on the human side of economic activity. The main theme is power and its misuse:

The economy is always a realm in which *power* operates in many different ways—some more hidden, some quite naked—whether in the access to and use of resources like oil or grain, in the way men treat women in their household, in the attitudes of rich people to their poor neighbors [or] in the policies of the richer nations in institutions like the International Monetary Fund...

Economic discourse . . . often hides the concrete experiences of the people who are actually doing the deciding, the consuming or the suffering...

The vital point is that 'economics' always involves value judgments. The economy is not some kind of independent sphere of reality governed by its own neutral and globally applicable laws... Terms like 'economic laws' and phrases like 'the economy demands that such or such happens' hides the fact that choices have been made by some person or persons on the basis of their value judgments—and that such choices can be changed. What Adam Smith called the 'invisible hand' which distributes 'the necessities of life' has to be made visible, and power relationships need to be revealed. (pp. 5-6.)

Coming at the issue from this perspective, the WCC document is rich in drawing attention to the plight of the oppressed. It is also strong in focussing on the macro-economic forces that

exacerbate poverty. Among these are the transnational corporations,⁷⁷ the foreign debt crisis for countries in the South, land as a macro-economic commodity, and the effects of war and militarization.

The encyclical letter of Pope John Paul II, *Centesimus Annus* begins with the doctrine of the human being. When it focuses on Creation, it focuses on human nature. Foundational to the document are the place of the family, the relation of the individual to work, the person's right to own property, the right to a just wage, the right to rest, and a person's place in economic communities.

From this point forward it will be necessary to keep in mind that the main thread and, in a certain sense, the guiding principle of Pope Leo's encyclical, and of all the Church's social doctrine, is a *correct view of the human person* and of his unique value. . . . (*Centesimus*, par. 11, p. 23)

Another major feature of *Centesimus* is its focus on the evils of socialism. This reflects both the choice of Pope Leo XIII a century ago and the personal experiences of John Paul II in his native Poland. He has been sympathetic to Poland's Solidarity Movement, and spends much of his time analyzing how the socialist movement came into conflict with a Christian view of the human person.

Centesimus Annus adds its own new views. Work, the Pope suggests, is not done for one's own sake but for others and with others. "Man works in order to provide for the needs of his family, his community, his nation, and ultimately all humanity" (p. 84). Economic activity is collaborative activity. Ownership, property and profit become illegitimate when they impede the work of others or when they break solidarity among working people. He concludes: "Just as the person fully realizes himself in the free gift of self, so too ownership morally justifies itself in the Creation, at the proper time and in the proper way, of opportunities for work and human growth for all" (p. 85).

The other documents begin with different views of Creation. *The Oxford Declaration on Christian Faith and Economics* begins with Creation, mentions its perversion, and then focuses on the atoning and restoring work of Christ:

The central act of God's redemptive new Creation is the death, resurrection and reign in glory of Jesus Christ, the Son of God, and the sending of the Holy Spirit. This restoration will only be completed at the end of human history and the reconciliation of all things. (Preamble)

When *Christian Faith and the World Economy Today* discusses Creation, it means primarily the characteristics of human community. Christ is portrayed primarily as a witness to living in this truth:

⁷⁷ Cf. Boer, Jan H. 1992. *Caught in the Middle: Christians in Transnational Corporations*. Jos, Nigeria: Institute of Church and Society.

The basic fact, for Jews, Christians and many others, is that this world belongs not to humankind but to God. . . . Christians go on to witness to the astonishing fact that God has made himself known in the form of a person sharing our human lot, that the Creator in his humility and love is as we have seen him in the man Jesus. Jesus centered his witness on the promise of "God's kingdom", a transformation and fulfillment of life on earth when all creatures respond fully [to] God's loving purposes. . . . Jesus handed on the power of the Holy Spirit to his followers for them to serve and witness to God's kingdom... (p. 7)

The WCC document concludes that the role of Christian faith is to offer a basis for living in truth, hope and love. These are basic characteristics of human community that reflect God's creating nature.

Therefore, although all documents begin with Creation, *The Oxford Declaration* treats economics as having its own rules, which must be saved from distortion. *Christian Faith and World Economy Today* begins with the more flexible laws or principles governing human relationships, and sees them as basic to reforming economics. *Centesimus Annus* begins with the unique value of the human person, and deduces relationships and economic principles from that point. Interestingly, none of these begins within the discipline of ecology, or from an integrative perspective that draws strongly from this discipline.

3. Reformed Views on Economics

There is no established Reformed view that we can neatly reference. There were economists from Reformed traditions involved in formulating the Oxford Declaration. There are also Reformed thinkers working at crucial points in the WCC process.

While the World Alliance of Reformed Churches has not made a recent study on faith and economics, it has made a significant contribution to the World Council of Churches, through its help in linking of Justice, Peace, and the Integrity of Creation. By linking these, the WARC contributed to the formation of a lengthy conciliar process addressed by the WCC throughout the second half of the 1980s. The WARC has been concerned with the issue. At its 1989 meeting in Seoul, Section II focused on Justice. According to the report, the one refrain that surfaced repeatedly is that the rich get richer and the poor get poorer. The consensus of the participants was that the present global economic order will have to change. They concluded that, "Basic to all other injustices today is *economic* injustice: and this means that the churches are being called to recognize that the present world economic order and the systems and structures which maintain it are unjust *at base*."⁷⁸

The report challenged the churches to study the role of the debt crisis, militarism, assumptions of a lifestyle that supported wealth and power and to work on distinguishing legitimate states (governments) from illegitimate ones.

⁷⁸ World Alliance of Reformed Churches. *Seoul 1989: Proceedings of the 22nd General Council*, Geneva: WARC, 1989, p. 194.

Within the Reformed Ecumenical Council, the official assemblies and synods have dealt with social issues other than economic ones. At the Commission level, the Committee for Sharing Resources sponsored two conferences dealing with poverty and development issues.⁷⁹ No official statements of the Council have arisen from these.

At a more general level, the REC developed a policy statement, *The Church and its Social Calling*. The general stance of the Christian toward social involvement is stated this way:

The Calvinist perspective seeks to honor an integrally unified, religiously whole view of life, free of sacred/secular dichotomies. All of life is religious. It is an ongoing response to the Word of God in every sphere of human activity. That response is either obedient or disobedient. All Creation fell under sin, but all of it has come again under the redeeming work of Christ. Christ is Lord of all, society as well as the church, and summons his disciples to Kingdom service in all life's callings. Society no less than church is embraced in Christ's kingly rule. The Kingdom of God is not exclusively past or present or future, but anchored securely in what God has done decisively in the cross and resurrection of Jesus Christ. Moving along expectantly toward the final consummation of all things, Christians are to seek meaningful ways to demonstrate the present reality of the coming Kingdom.⁸⁰

The Reformed Ecumenical Synod at Nimes in 1980 also passed a resolution with a general condemnation of structures that "create poverty, injustice or oppression."⁸¹ It called on the churches to reject totalitarian systems and to become critical of capitalistic ones. The document was not, however, more specific about a Reformed, Christian perspective on economic issues.

From the REC statement of 1980, it is clear that its churches emphasize a strong view of Creation, fall, atonement, and restoration. In its theological language, REC documents sound more like *The Oxford Declaration on Christian Faith and Economics* than the WCC's *Christian Faith and the World Economy Today*.

In addition to the work of these groups, there are Reformed scholars that have contributed substantially to developing a reformed approach to economics. One of these is economist Prof. Eugene Dykema whose work, together with other members of the earthkeeping team at the Calvin Center for Christian Scholarship, has been published in the book, *Earthkeeping in the*

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Cf. Reformed Ecumenical Council. *The African Experience in Development*, Report of Development Conference at Chongoni, Malawi, 1994; Reformed Ecumenical Council. *What Shall We Do Then?* Report on a Seminar on Poverty, Mamelodi, South Africa, 1990.

⁸⁰ Reformed Ecumenical Synod. 1980. *The Church and its Social Calling*. Grand Rapids: RES, p. 10.

⁸¹ Reformed Ecumenical Synod. 1980. *The Church and its Social Calling*. Grand Rapids: RES.

Nineties.⁸² Another is Reformed economist Bob Goudzwaard. He has made a number of contributions, some of which we summarize, as follows:⁸³

The basic assessment of socioeconomic life by the church of the Reformation was neither negation nor sanctification but *vocation*. The church did not start with the sinfulness of economic life, but with the confession that it is an integral part of God's Creation. Therefore, the reformers, especially Calvin, rejected the notion that socioeconomic life was sinful in itself. Instead, the reformers emphasized that all of life fell within the scope of Christ's redemption. Economic activities were no less holy, no less sanctified than spiritual or ecclesiastical activities. According to the reformers, economic life should break its scholastic shackles and begin its *own* development in harmony with its own peculiar character.

Anticipating the objection that economic life developing its *own* laws as having led society into its present chaos, he tells us that Calvin's approach is that "Economic exchange and interaction should be the expression of the fact that God gave the riches and resources of His earth to the *whole of mankind*" and that "Man may not use earth's resources as if he were the ultimate possessor and sole owner." "Economic life, then, is a creation of God and forms an integral part of man's calling. As such, economic life is entitled to have its own development. But it may never be divorced from its *purpose* and *destination* to be an expression of genuine solidarity between men, nor from its *obligation* to serve God and neighbor, an obligation which is inherent in the calling to stewardship." He warns us that "The moment economic life is severed from this purpose and from this obligation, it turns into a deadly and devilish temptation, a cause for sin. Then money indeed becomes Mammon, and man bows in reverence before that god."

Biblical rules.— Observing that social and economic development has undergone influences other than the simple desire for economic autonomy, Goudzwaard draws our attention to three biblical rules for explaining the relation of people to God.

(1) The *first* basic rule is *that every man is serving god(s) in his life.*" Referring to this rule as Augustine's law of concentration, he points out Augustine's well-known observation that the unrest in every person's life is removed only if they find God. Our resting point can be in God or in God's Creation. If it is the latter, we remain restless as we seek happiness in material wealth, in our intellectual capacity, or in progress by means of technique; we have chosen *our* god. If it is the former, we achieve our rest in the living God.

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Also see Dykema, Eugene. 1980. Economic Justice and the Future. *Justice in the International Economic Order: Proceedings of the Second International Conference of Reformed Institutions for Christian Higher Education*. Grand Rapids: Trustees of Calvin College.

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Goudzwaard, Bob. 1975. *Aid for the Overdeveloped West*. Toronto: Wedge Publishing Foundation. Some of this material first was published in Goudzwaard, Bob. 1975. Socioeconomic way of life. *International Reformed Bulletin*. Winter/Spring, 1975.

(2) The *second* basic rule is *that every man is transformed into an image of his god.*" The choice of a god has immense consequences. Christians, renewed by the Holy Spirit, come to image the living God, and God's love for the world. Those who choose another god—whether they bear the name "Christian" or not—come to image the god of *their* choice. When progress by technique is "the foundation of our final hope and trust in life... we should not be surprised to find ourselves transformed and deformed into an extension of a machine" (cf. Romans 1:24-25).

(3) The *third* basic rule is *that mankind creates and forms a structure of society in its own image.* In the development of human civilization, man forms, creates, and changes the structure of his society, and in doing so he portrays in his work the intention of his own heart. He gives to the structure of that society *something of his own image and likeness.* In it he betrays something of his own lifestyle, of his own *god*" (cf. Revelation 13).

In our western civilization we have first given our trust to the powers of economic growth, science, and technique to lead us in all our ways; we are still following these powers as our infallible guides. But, correspondingly we have turned *ourselves* into images of these gods, and we find these traces of ourselves in the structures of our present-day, growth-obsessed society. For we cannot deny that our society displays a powerful *belief* in the full, selfsufficient autonomy of economic development as the source of both private and social happiness...

In the area of industrial labor... , for example, our real problem is not that many workers are treated as dehumanized robots. That is old hat already. No, the deepest misery lies in the fact that many of these labourers no longer experience such a work situation as dehumanizing. Instead, they feel they are quite happy and reject any possibility of obtaining real responsibility. Since they often think of work as simply a means to earn money, they look on responsibility as a burden. Here we witness a transformation of man into the image of the modern gods...

We see a parallel development in the structure and direction of the modern business enterprise... the root problem is that the modern enterprise in the pursuit of its goals not only tends to captivate men's bodies but also their souls and minds. There is an enormous pressure on every leading person within the corporation to adapt his lifestyle and *his life view* to that of the corporation and to identify his personal hope for the future with the goals of the enterprise. Love is transformed into loyalty to the enterprise, faith becomes dedication to its goals, harmony turns into a duty to eliminate any conviction which might disturb the development pattern of the enterprise. ...to a large extent western man has tied his *salvation*, his deepest happiness, to what economic growth and technical progress can give to him. It is this faith that expresses itself in the structure of our institutions and societies. These gods, in turn, are now shackling and binding their servants. They transform their adherents into slaves.

All of this brings us to understand that the Word of God is a *detecting power* that detects the origins of the troubles and degradations we observe in our world, that the Word of God is a *disclosing power* that discloses the consequences of choosing other gods, that the Word of God is a *liberating power* that liberates people to become stewards of their own lives and God's Creation, that the Word of God is a *directing power* that directs us toward substantial healing of people and Creation, that the Word of God is a *witnessing power* that visibly witnesses through the body of Christ—the Church—that our world belongs to and that we as members of the body

belong to God through visible expression that we are wholeheartedly willing and ready to live for Him.

B. An Appropriate Technology

Technology is a gift God has given to human beings, so that they can discover more of themselves and the wider Creation, and unfold the additional potential in themselves and in Creation. As with other of God's gifts, our sinfulness has distorted our technology, it often has often gone sadly awry, and some of us have placed an almost religious confidence in it, believing that whatever goes wrong we can fix, that whatever the problem we can create a tool or a device to solve it.

We have learned that every application of our technique has consequences, many of them unintended. Indeed, many of our deepest environmental problems arose during industrialization. And yet technology is a gift. What we have learned that it, as for other gifts from God, must be used wisely. It must be used when it serves and does not degrade others or the rest of Creation. It must be employed to the honor of God. It must be *appropriate*.

Appropriate technology is the set of tools for producing goods and services appropriate to meeting needs and goals in society and the broader Creation, while not undermining or degrading other valued things. For an agrarian society with an overabundance of labor and a severe shortage of land, appropriate technology might include hoes and cultivators for weeding, with consequent increase of crop yields and no displacement of labor. *Inappropriate technology* for the same setting might be a machine that saves labor with little or no regard for the people who need food and need the means to produce or buy it. If there is an abundance of land, but shortage of people, however, labor-saving agricultural technology may be appropriate. Thus, the same technology that is appropriate for one setting might not be for another.

Not only must the technology we employ be appropriate, technology and its development must be employed in a spirit of humility and keen awareness of our limitations (*Oxford Declaration*, par. 9, 10). Particularly important is the need to recognize the tendency people have to employ "quick fixes" to problems without considering longer-range consequences.

E. F. Schumacher, the great advocate of *appropriate* technology writes in his book, *Good Work*, "I suggest that those who want to promote a *better* society, achieve a *better* system, must not confine their activities to attempts to change the 'superstructure'—laws, rules, agreements, taxes, welfare, education, health services, etc. The expenditure incurred in trying to buy a better society can be like pouring money into a bottomless pit. If there is no change in the base—which is technology—there is unlikely to be any *real* change in the superstructure."⁸⁴ In writing thus, Schumacher recognizes the importance of technology, but sees it driven by earnest seeking to achieve something better, to restore what has been degraded, to create what will bring praise to the Creator.

⁸⁴ Schumacher, E. B. 1979. *Good Works*. New York and London: Harper & Row, p. 43.

At the micro-level Christian development agencies have long known the value of appropriate technology. For individuals who are supporting themselves by subsistence agriculture, knowledge about fuel efficient stoves built with local materials, wells and pumps that operate with minimal energy input, ways of improving traditional agriculture that avoid the overuse of chemical fertilizers or other soil-depleting technologies is very significant. At the REC development conference in 1994 called "The African Experience in Development," participants focused on ways to unfold and improve African traditions, but not replace them wholesale.

The *Oxford Declaration on Christian Faith and Economics* offers four useful principles for evaluating and guiding our technological activity:

First, technology should not foster disintegration of family or community, or function as an instrument of social domination. Second, persons created in the image of God must not become mere accessories of machines. Third, as God's stewards, we must not allow technology to abuse Creation. If human work is to be done in cooperation with Creation, then the instruments of work must cooperate with it too. Finally we should not allow technological advancements to become objects of false worship or seduce us away from dependence on God (Genesis 11:1-9). [Par. 10]

C. Toward Just Policies for Trade, Money, and Economic Planning

1. Economy of the Market

Thus we come to understand that the economy of the market is part of the economy of the household, community, state, country, and the Creation. All these economies must subserve the greater economy—the economy of God.

We have discovered in our study that:

(1) the market economy as it has emerged in Western thinking is the primary means our stewardship of Creation, (2) the market economy affects the ways we value, use and preserve the Creation, and that the market economy in its most abstract form; (3) has no authority except the free self; (4) operates with price and ability to pay as the sole criteria for treatment of Creation

and human beings; (5) determines value only by those with purchasing power; (6) determines what is produced by ability and willingness to pay; (7) gives no voice to those without purchasing power such as the poor and future generations; (8) considers satisfaction of individual preferences as a good, even when destructive of self, community, or Creation; (9) has no provision for intrinsic good; (10) uses money and money alone to determine whether views are to be taken seriously; (11) does not provide for those without money; (12) cannot answer how one comes to hold legitimate title to property; (13) abstracts and reduces Creation to land, labor, and capital; (14) presumes to operate without need for higher authority than self; and (15) presumes to operate independently from the larger economy of Creation, except to view it as resources.

We also have discovered in our study that these characteristics of the market economy are well-recognized, and for economist John Maynard Keynes, constitute a temporary arrangement someday to be replaced by our "return to some of the most sure and certain principles of religion and traditional virtue—that avarice is a vice, that the extraction of usury is a misdemeanor, and the love of money is detestable, that those walk most truly in the paths of virtue and sane wisdom who take least thought for the morrow." Keynes looks more positively to the future, when "We shall once more value ends above means and prefer the good to the useful. We shall honour those who can teach us how to pluck the hour and the day virtuously and well, the delightful people who are capable of taking direct enjoyment in things, the lilies of the field who toil not, neither do they spin."

But when he wrote this in 1930 he warned us: "The time for all this is not yet. For at least another hundred years we must pretend to ourselves and every one that fair is foul and foul is fair; for foul itself is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight."⁸⁵ Charles Schultze reinforces Keynes by informing us that the market economy—the system we have invented to "to harness the 'base' motive of material self-interest to promote the common good—was perhaps *the* most important social invention mankind has yet made."

Goudzwaard, puts a different look on all of this by telling us that the church of the Reformation began by confessing that economic life is an integral part of God's Creation. Thus, socioeconomic life is not sinful in itself; it like us, falls within the scope of Christ's redemption. Calvin also casts a different light on this by observing that "Economic exchange and interaction should be the expression of the fact that God gave the riches and resources of His earth to the *whole of mankind...*" and that "Man may not use earth's resources as if he were the ultimate possessor and sole owner." Thus, concludes Goudzwaard, economic life may never be divorced from its *purpose* and *destination...* Severed from this purpose and obligation, it becomes our god. Avarice and usury become our gods and people come to serve and image these gods. And then people construct society in their own image, publishing in their work the intention of their hearts.

2. Wealth and Some Lessons from History

⁸⁵Keynes, John Maynard. 1963 [1930]. *Essays in Persuasion*. New York: W.W. Norton, pp. 371-372.

"Honor the Lord with your wealth, with the firstfruits of all your crops; then your barns will be filled to overflowing, and your vats will brim over with new wine." Wealth is gained by adding value to materials derived from the Creation. It is done within the natural world by photosynthesis, growth, and development of plants. It is accomplished by people who apply human labor to plants and other materials derived from the Creation. And, it is gained by accumulation of things and money that can buy those things. Wealth in part is created by plants and animals. Wealth is created by human beings. Low-value iron ore is converted by people into a fine kettle. People convert cheap silica sand into silicon microprocessors that make our computers operate. For some human products, like computers and watches, the greater part of the value of a product is the value added by labor; for others, like gold bars and diamonds, the greater part of the value may be in the material itself. Processes that operate in Creation and human enterprises of all kinds generate wealth—by adding value. And, people engaged in enterprise become wealthy by this means, and by accumulating what is valuable.

But wealth can and does generate some special problems, as we learn from Scripture and from many instances in society. Wealth outside of the context of the kinds of values proclaimed by the Gospel and the Church can be abused and misused. And thus it is that the Church has a key role in dealing with the blessings and the dangers of wealth.

The wealth of the Creation.— When dealing with the topic of wealth, we must recognize that we often have reduced the meaning of many beautiful gifts in Creation to their economic value as a commodities. Rather than stewardship, we have spoken of our ownership and given ourselves permission for destructive actions because we can make a profit. But as we consider financial wealth we also must consider Creation. Creation is more than resources. Creation itself is characterized by wealth—the wealth of the larger *oeconomia*, God's economy. Unfortunately, Creation's wealth is rarely counted toward the wealth of an individual, community, society, or nation state. Oil in the ground may be given no value, unless it is "produced" and priced. Trees may be given no value unless they are converted into lumber and priced. But Creation does have value that constitutes wealth, if not in the eyes of the seeker of monetary gain, certainly in the eye of God. The wealth of Creation may be comprised of its praising God, providing creatures with oxygen and rain, building the soil, circulating the elements, and cleansing the waters by filtration and distillation. A too narrow definition of wealth, confined to things with a monetary value, can get people into a lot of trouble by inducing them to destroy Creation's wealth in pursuit of monetary wealth.

This brings us to identify five major challenges for achieving a just stewardship of Creation. The first challenge is maintaining or increasing the total wealth of Creation, not merely human monetary wealth, or an individual's "net worth." Moreover, since wealth is created by adding value and by accumulation, wealthy people are produced. Thus the second challenge is impressing indelibly on our minds that gaining wealth carries with it a gain in responsibility in Creation's stewardship, under God. The third challenge is that the value added to some part of Creation, while adding wealth to the human economy does not necessarily add value to God's economy. Carving a piece of tree trunk into a idol that is worshipped, may generate "value added," but the worshipper of that idol may generate "value subtracted" in the eye of God. Value and wealth are evaluated in the context of God's *oeconomia*, not merely the human economy. The fourth problem in wealth generation is wrongful pride in human ingenuity and disrespect for

Creation's limits. The fact that human activity is a major factor in the Creation of wealth has led some economists, both Christian and non-Christian, to argue that resources are basically created by people. Believing the growth of wealth is, for practical purposes, unlimited they see the only limits as the resourcefulness and inventiveness of human creatures. They are reinforced by the observation that whatever people put their mind to, they can do, and they see that when one resource appears to be nearing exhaustion (oil or copper, for example), human inventiveness finds another or creates a synthetic substitute. The fifth challenge comes from the dramatically increased availability of wealth-generating opportunities as these have increased dramatically in the 20th Century. Along with this have come greater opportunities and greater temptations to misuse power. Companies, corporations, and systems of corporations are bought and sold at gains and losses measured in billions of dollars without regard for the very things that are being bought and sold. Risk-taking by stock brokers in New York may have severe impacts on farmers in Nigeria, with neither one knowing how or why.

In the biblical view, human beings are appointed as stewards of Creation, but belong to God and remain servants of God. Each of us is responsible for sustaining God's world just as God sustains it in his providential care. Thus, the *Oxford Declaration* aptly concludes:

Therefore all work must have not only a productive but also a protective aspect. Economic systems must be shaped so that a healthy ecological system is maintained over time. All responsible human work done by the stewards of God the Sustainer must contain an element of cooperation with the environment. (par. 7)

Since human work and thought is a major source of our wealth, our economic actions must also allow our work and thought to fulfil God's purposes. When our working and thinking become our misery, destroys childhood, or fails to overcome bare subsistence living by fellow human beings, we are not remembering our Creator, nor are we remembering God's Creation and our responsibility for its just stewardship.

D. The Responsibility and Contribution of Institutions and Individuals

1. The responsibility and contribution of the Church

Where do these considerations bring us? First, as the pre-eminent institution that addresses values in life, society and the Creation, the Church is a principal source of wisdom. This wisdom is derived and developed from its very start "in the fear of the Lord," and the continuous prayer of the Church of Jesus Christ, "Thy Kingdom come; Thy will be done, on earth..." The Church is *crucially* important. The cross of Jesus Christ provides correctives to our social and economic activities and life, including our economic system and the global economy. The Church, because of its dedication to the Word and to the truth is a major, and perhaps *the* major, institutional source of providential wisdom for *oeconomia*—for the stewardly management of the affairs of society.

The teachings of the Scriptures that we have opened here, and the wisdom of its people expressed through their publications in life, landscape, articles, and books must not be selfishly kept within the bounds of church walls and church libraries. Instead they should be made available and proclaimed to the world as witness to an economic and social life that acknowledges, in word and praxis, the Creator's *oeconomia* that provides the context of our own *oeconomia*. The Church should profess in word and life that the economy of the market and the economy of human life must be captive to God's economy. Only then will it find its true freedom, proclaiming that the "free market" is not free unless made captive to God's economy. When and only when captive to Jesus Christ can the market be free indeed. And thus the Church can make it clear to society that salvation comes not from the free market, but from captivity to Christ in whom true freedom is found—from working within God's economy which brought salvation to the world through Jesus Christ.

2. The responsibility and contribution of governments

Where do our considerations bring us with respect to government? They bring us to this: Governments are powerfully important. Government, as the pre-eminent institution for protecting and assuring just and responsible stewardship of land and life, is a principal source of power. This power is derived from God and must be always administered according to God's will and law for life and society. The prayer of the government should echo that of the Church: "Thy Kingdom come; Thy will be done, on earth..." Governments are *powerfully* important.

Thus, it is primarily governments to whom our concerns are addressed. It is to governments that God has given the task of the promotion of justice. It is governments that must step in where economic powers oppress the rest of society. And it is governments that must be reforming themselves, addressing the problems that can be foreseen and emerge. It is the responsibility of governments that they are organized and nurtured such a manner that they diligently engage in (1) *detecting* the origins of the troubles and degradations we observe in our world—both in human society and the wider Creation; (2) *anticipating* troubles and degradations in human society and the wider Creation; (3) *correcting* the behavior and practice of the system that produces these troubles and degradations through just laws and policies and their just enforcement; (4) *liberating* people to become stewards of their own lives and God's Creation through just laws and policies; and (5) *leading* society to achieve substantial wholeness of people, of human society, and Creation by proclamation as well as by witness in governmental

behavior and practice that everything is done in accord with God's oeconomia. Thus, governments do not do the work that people and other institutions have as their responsibility. Instead, governments through making and enforcing laws—by creating a legal framework—provide authentic opportunity for individuals and various institutions to meet the needs of people and the rest of Creation—so that Creation truly flourishes. Governments provide for situations and structures that allow for just stewardship of Creation; they release human potential for doing good. When social and environmental degradations develop, governments are responsible for timely evaluation of the situation and correct policy, law, and enforcement for restoring structures that bring about just stewardship of Creation. Governments assure that individuals are able to conduct freely their God-assigned task of being a steward of themselves and some part of God's Creation, individually and in community. Governments also provide for situations and structures that restrain evil and correct injustice and careless degradation of Creation.

Governments should provide and maintain a framework of justice that assures that things are done justly and fairly, that each person gets their due, that evil is restrained, and that society and the whole Creation flourishes. There are times and places where injustices will require governments to intervene to assure that justice is done for people, God's creatures, and Creation. However, it is largely through other institutions, individuals, and communities, that the continuing work of societal and Creation stewardship is accomplished.

Among many other things, governments should develop and enforce just policies that accomplish the following nationally, and transnationally:

- protect and preserve Creation;
- develop self-sufficiency for the poor;
- provide for education for all, including the poor, male and female;
- produce food by local people for local use as a high priority;
- grant concessions to people who feed themselves from their own land;

- put meeting local food needs at higher priority than food production for export;
- provide authentic opportunity for credit and small loans for the poor;
- remove disincentives to local production and economic participation;
- limit agribusiness development;
- remove incentives for rural people to move to cities;
- correct situations that compel the poor to degrade their environment;

- correct situations that make poor countries waste depositories;
- provide opportunity for small-scale industry and business by the poor;
- remove competitive disadvantages for environmentally sound business;
- encourage environmentally-sound alternative energy development;
- achieve and maintain clean water and clean air;

- address future considerations (e.g. soil loss, ozone, global warming);

- assure that the interests of whole communities are met;

- assure that postal, transportation, and communication services are provided;
- provide protection from crime and abuse;
- assure that research is accomplished for gaining needed knowledge.

3. The responsibility of and contribution of transnational institutions

Transnational institutions (TNIs) include governments, transnational corporations (TNCs), transnational banks, and transnational NGOs (non-governmental organizations). Governments with transnational status include all those that affect and in various ways determine the means and scope of Creation stewardship beyond the boundaries of a single nation state. Thus, TNIs include all governments that are parties to international treaties, transnational corporations that set the terms of trade between at least two nations, the United Nations, the World Court, the World Bank, the International Monetary Fund (IMF), the World Council of Churches, and the Reformed Ecumenical Council. Clearly, TNIs overlap with others kinds of institution. And they are very great in number.

There is immense work that needs to be done in evaluating the role and contribution of TNIs in the just stewardship of Creation. Clearly, any honest investigation of international Creation stewardship and poverty issues immediately point to transnational corporations as *principal institutions in just stewardship of Creation*, for it is they that are in the pre-eminent position of power in this arena of activity. Since they bridge several nation states in their activities, they do not answer exclusively to any one of them, and this provides them with an immense responsibility to act justly in their stewardship of Creation and their relationships with the societies they serve and affect. The ways in which this responsibility is exercised differs widely depending on the ethical base from which corporate operations are managed. The need for the Church's witnessing power here is great indeed. Direct witness ecumenically and denominationally to TNCs is vital and necessary.

An equally important witness is needed on the matter of *debt bondage of nation states*. In the 1970s world financial centers and governments of the wealthy countries concluded that large-scale loans to the poorer nations were not only a good risk but a way of assisting development. In the 1980s, however, rising interest rates, falling commodity prices and falling oil prices combined to create a crisis in international debt. Many countries were unable to meet payments, and payments became an inordinate amount of the country's budget. Named "the international debt crisis," this crisis included problems of national indebtedness, deficits in balances of payment, falling domestic output, monetary inflation, unemployment, and general hardship for the population.⁸⁶

Today the estimated global debt of developing countries is around \$1.3 trillion, and is rising. The high interest paid to creditors already is greater than the principal. It has become the source of daily hardship for individual citizens. *Christian Faith and the World Economy Today* summarizes the problem:

⁸⁶ Cf. Bashir and Gana in Boer, 1990, p. 15.

The human sides of all this beggar imagination—the irresponsibility of the lenders, the cynicism of many borrowers immediately misusing what they now expect their compatriots to pay back, the callousness of IMF officials insisting on the execution of "structural adjustment", the wilful blindness of the "world economic summit" of Northern political leaders at Cancun refusing to consider new mandates for the IMF... It has become the prime example of an economic "system" that grinds tragically on for sheer lack of the political, indeed the spiritual imagination and will to devise a way through and out. (p. 22)

At the 1994 meeting of the International Monetary Fund, rescheduling, partial remission and other provisions had removed the crisis aspect of the problem and thus the world monetary system is no longer threatened. But there was considerable debate and struggle at the IMF meeting about competing economic interests. In 1994 the Structural Adjustments, conditions the IMF and the World Bank imposed on debtor nations before extending further credit, came into force, and troubled many debtor nations. Many observers, such as Great Britain's Oxfam, have concluded that these adjustments have contributed to greater poverty and suffering. Countering this conclusion, a World Bank study said it is not clear that life deteriorated, and that structural adjustment had little influence on either income or the social indicators.

At issue here distributive justice—"the fair distribution of benefits and burdens between members of a unit or parties to a bond."⁸⁷ But on what principle do we decide what is fair? Fairness might mean achieving absolute equality for every person, seeing that every person has their basic needs met, or assuring that distribution is by merit or contribution of each person.⁸⁸ We can also ask about who the parties are in this—states, nations, peoples, or economic classes. Seeking just stewardship of Creation can give direction here. Because we are stewards of God's world, we do not own property and possessions absolutely, but manage them in trust. Our world belongs to God. Goudzwaard and van Baars point to three aspects of the norm of stewardship: conservation, avoidance of waste, and urgency. In *conservation*, we must care for the world not only now but also for future generations, not robbing it for our own benefit. In *avoidance of waste*, we must not throw out or lose what has been made or earned, nor lose the opportunity for new uses of things given to our care. In *urgency*, we must give preference to uses that are most urgent in total fulfillment of the mandate to care and keep Creation.

How might the Church express its concern to the transnational institutions on this matter? By working from the biblical sense of justice, which means that the world's goods must in some measure be available to all. An Israelite farmer was required to leave some grain behind in the field to be gathered by the poor. He should also leave in his gate one-tenth of his harvest for any who might need it. The poor are entitled to what the rich can give, without thought of repayment. In a less urgent case, at least in terms of protecting Creation and serving the needs of

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Dykema, Eugene. 1980. Economic Justice and the Future. *Justice in the International Economic Order: Proceedings of the Second International Conference of Reformed Institutions for Christian Higher Education*. Grand Rapids: Trustees of Calvin College, p. 214.

⁸⁸ Cf. Dykema, Eugene. Op. cit., pp. 214-215.

the poor, the United States initiated a \$500 billion (\$0.5 trillion)⁸⁹ program to restore funds lost by its Savings and Loan industry. Does this give any indication that similar responses are needed to do something for others who are in a much worse condition? Biblical justice is emancipating. Justice restores life, life that is not just bare existence but the prospect of a fruitful and happy life. It is right for every human being to have a place where they can fulfil their calling. A just stewardship means that those who manage this world's goods should take liberating restoration as their goal.⁹⁰

These considerations lead us to the following conclusions:

- The wealthy nations of the world and transnational financial institutions must take steps to reduce interest on the debts of developing countries in the South.⁹¹
- Future aid, investments and loans from North to South must be accompanied by means to guarantee that such investments benefit the poor within the countries concerned. Regulations analogous to the Sullivan Principles for investment in South Africa during the apartheid regime should also be developed for other countries where government corruption contributes heavily to national indebtedness.
- International mechanisms should be established so that currency expansion and interest rates in wealthy countries do not benefit the wealthy countries at the expense of the poor.
- Beyond the question of international debt, some better arrangements for sharing the world's resources must be created. In part, this means producing resources within developing countries. It is not so much that countries of the North must transfer resources to the South as much as countries of the South being encouraged to develop their own resources.

4. The responsibility and contribution of businesses and corporate enterprises

Businesses and corporate enterprises include businesses run by individual people, small businesses, large businesses, and corporations ranging from small operations to the largest transnational corporations. Businesses and corporate enterprises have a leading role and contribution to the just stewardship of Creation and clearly are principal stewardship institutions.

⁸⁹ Compare this with the \$1.3 trillion figure for the international debt total cited earlier.

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Goudzwaard, Bob and van Baars, John. "Norms for the International Economic Order," *Justice in the International Economic Order: Proceedings of the Second International Conference of Reformed Institutions for Christian Higher Education*. Grand Rapids: Trustees of Calvin College, 1980, pp. 233-235.

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For a discussion of opinions on debt reduction, debt qualification and debt elimination, cf. Boer, Jan H., ed. 1992. *The Church and the External Debt: Report on a Conference held in Jos, Nigeria, November 26-30, 1990*. Jos, Nigeria: Institute of Church and Society, pp. 119-126.

Every such institution operates from an ethical base, and differ greatly to the extent they do or do not compensate in their own activities for the shortcomings of the "pure" market economy. For example, such institutions range from those who deal with food or pharmaceuticals primarily as a commodity to be bought and sold to those who deal with these primarily as a necessity for life and health; they range from those who "deliver health care" as profit-making business for those who can afford it to those who administer healing to those who are sick. People engaged in business and corporate enterprise range from those who take the top 10% of their earnings for charity to those who utilize or re-invest every penny.⁹² Businesses and corporate enterprises need to take very seriously the biblical teachings to honor the Lord with their wealth and with the firstfruits of their enterprises, and need to recognize that this is basic to true productivity. There is great need for witnessing by businesses and corporate enterprises who have developed and apply measures to use their "firstfruits" with biblical wisdom to pursue just stewardship of Creation. There is crucial need for the Church's witnessing to businesses and corporations on biblically-based and God-fearing ethics. Direct witness ecumenically and denominationally to businesses and corporate enterprises is vital and necessary. Businesses and corporations are major ethical entities in human society. Their ethical stance toward humanity and Creation oftentimes is the primary source of ethical education in human society. Thus, as ethical entities, businesses and corporations perform a major leadership role. It is important therefore that they consciously and deliberately build into their management the development and exercise of biblical wisdom from which they can be and become testimonies and examples of just stewardship of Creation. Among the many things that can be achieved, are the following:

- Where the exercise of leadership in just stewardship of Creation would put them at disadvantage in the market, they can and should lobby for appropriate policy.
- They can cooperate on development of ethical codes of conduct while still competing in the marketplace, much like competitors in the sports arena do, but in the context of Creation, and its dedicated care and keeping.
- Businesses and corporations can assess the environmental consequences of their operations, anticipate problems they might be generating, and take corrective action.
- They can determine the impact of whatever extractive components there are to their operations and research and apply new ways to reuse materials and reduce consumption that disrupts the operation of ecosystems.
- As ethical entities, they can engage in kinds of tithing to provide service and support to achieving just stewardship of Creation.

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An example of the former is Gov. Nelson Rockefeller, who described in widely-broadcast hearings by the United States Senate the procedure of allocating the top 10% of profits to charity as a matter of policy, taught him by his father.

- They can establish independent "pass through" foundations—-independent legal entities for any disbursement of corporate profits for philanthropic purposes.
- They can provide that the establishment, management and specific disbursements of the corporation's independent foundation is approved by shareholders at an open public meeting where shareholders' democracy is exposed to local community views on local philanthropic projects.
- They might arrange for a gift of grain for alleviation of starvation.
- They might produce and give a drug for parasitic disease infecting the poor.

Businesses and corporations are in the business of wealth generation—adding value to products derived from the Creation, and thus much of what is presented in the following section on the responsibility and contribution of the wealthy fully apply to them also.

5. The responsibility and contribution of the wealthy

"Honor the Lord with your wealth, with the firstfruits of all your crops; then your barns will be filled to overflowing, and your vats will brim over with new wine." This is the teaching of Proverbs 3:9-10. And then, "Blessed is the man who finds wisdom, the man who gains understanding, for she is more profitable than silver and yields better returns than gold." (Proverbs 3:13-14). All who achieve and accumulate wealth are wealthy. Those who accumulate great wealth are rich. And, the wise are those who honor the Lord with their wealth, with the firstfruits of their gain.

Honoring our Creator.— Ours and Creation's wealth can bring honor to the Creator. "Honor the Lord with your wealth, with the firstfruits of your gain..." It is, after all from God and God's larger oeconomia that all our gains ultimately depend. "We give Thee but Thine own," is the prayer we pray to our God, the Creator and Provider of all things. Even "human ingenuity" applied to the material Creation to add value in the human economy of things is God's gift. Our comfort is not in this gift, or in the wealth it can generate, but only in God, our Creator, to our faithful Savior, to whom we belong body and soul. And thus it is that we respect the wisdom of the Scriptures: "Do not withhold good from those who deserve it, when it is in your power to act," continue the Scriptures. "Do not say to your neighbor, 'Come back later; I'll give it tomorrow—when you have it with you'" (Proverbs 3:27-28). Human wealth is accompanied by and conveys responsibility to the wealthy. As we have learned from Payton, the Church is crucially important in affecting an appropriate distribution of wealth. And so too are the wealthy who reside in the Church.

Recommended legal changes.— Political economist, Jonathan Riley (Tulane University) finds, however, that wealthy people often are motivated by government policy to participate in providing financial support for worthy causes. Thus, the Church and the wealthy within the Church need to take an interest in policy and in its shaping to provide incentives to the wealthy to disperse their wealth to meet societal needs, including the needs of the poor. In this regard, he

suggests the following reforms, that while directed at the American political economy, have general applicability worldwide:⁹³

- sharply progressive federal taxation of all gifts and bequests to able-bodied individuals beyond some moderate ceiling (for example, the cost of a higher education and/or of an average home), so that large holdings of surplus wealth will tend to be dispersed among many recipients to avoid taxation...;
- sharply progressive taxation of luxury expenditures, to discourage ostentatious living;
- equal tax treatment for private foundations and public charities, as opposed to the current bias established by the 1969 Tax Reform Act against the former;
- a requirement that for-profit corporations should establish independent "pass through" foundations (that is, legal entities under independent management) for any disbursement of corporate profits for philanthropic purposes; the establishment, management and specific disbursements of the independent foundation would be subject to approval by a majority of the donor corporation's shareholders at an open public meeting (so that shareholders' democracy would be exposed to local community views when funding philanthropic projects in that community);
- unlimited charitable deductions from taxable income for itemizers, including shareholders of for-profit corporations who agree to disburse their dividends through an independent foundation for community purposes; as well as restoration of a minimum charitable deduction for non-itemizers;
- a substantial increase (say, doubling) of the required annual payout rate (currently five per cent of investment assets) for private foundations, as a means of underscoring the goal of philanthropy as opposed to perpetual growth of foundation assets;
- perhaps even a constitutional amendment to permit suitable public recognition of extraordinary philanthropy during one's lifetime, for example, a ceremonial Order of Benefactors..."

Needed involvement of the Church and educational institutions.— Riley informs us that these kinds of reforms can go a long way, but they likely will not be implemented, or if implemented would not motivate people, without the crucial influence of the Church and the educational influence of schools, colleges, and universities. While indicating that "suitable laws can strongly discourage adverse attitudes, such as exclusive love of family and taste for ostentation... a package of legal changes, however perfectly designed, cannot by itself engender liberal philanthropy and community. Clearly, laws alone cannot generate the disposition to help others or the intellectual discrimination required... Only a suitable liberal education can help to do this. Church and school officials must take the lead in evoking in young people a liberal character,

⁹³Riley, Jonathan. 1992. Philanthropy under capitalism. In: Burlingame, Dwight F. 1992. *The Responsibilities of Wealth*. Bloomington and Indianapolis: Indiana University Press, pp. 83-84.

including a disposition to help the community and an intellectual capacity to assess the likely outcomes of various types of aid. Universities should facilitate this by undertaking curriculum reforms that engage more faculty and students in community service, including volunteer work..." He tells us that "a passion to hoard is neither so innate nor sufficiently strong in many people" that it endure the contempt of an educated and moral community. "Moral and political advocacy is required to prevent further decline of philanthropic activity, the one feature of modern American life that is both individualistic and communitarian. That tradition of giving is crucial to the flourishing of both the individual and the community, and is deservedly cherished."⁹⁴

6. The responsibility and contribution of the poor

The poor must respond appropriately to their priority status. They need to relate to the rest what brought them to their current status and what their aspirations are for themselves, their children and families, communities, and country. They must relate to the rest how they are working to bring in the Kingdom of God. They need to teach us the lessons they have learned and the truths they know and understand.

While there is no indication in Scripture that God intended absolute economic equality among human creatures, a well-ordered society arranged according to God's intentions should have no poor among them (Deuteronomy 15:4-5). Each member of society should have access to the basic necessities of life. For those who can work, they should have a place where they can work to gain the basic necessities. For those who cannot work, other ways of access must be made available. So God's prophets and Jesus Christ admonish us to pay attention to the poor, attending to their needs, thereby imitating the love Christ shows by giving His life for us (1 John 3:1618).⁹⁵

The Church can be a sign to the world. The Church is called to be a new community, not patterned after the ways of the world, but after the way of Christ. From the REC discussions held primarily among southern African members we affirm that the Church must not only do something *for* the poor but *with* the poor. The Church is convicted by discussions worldwide that the gospel includes a "preferential option for the poor."⁹⁶ The Church must be engaged at three levels. First is diaconal relief—providing immediate needs for shelter, food, clothing and medical care. Second is equipping the poor to provide for themselves—helping them gain skills, employment or the means to help themselves. Third is ensuring access to wealth and land,

⁹⁴ Riley, *op. cit.*, pp. 84-85.

⁹⁵Cf. Wolterstorff, Nicholas. "The Moral Significance of Poverty," *Perspectives*, Vol 6, No. 2 (February, 1991) 8-11.

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Goudzwaard, Bob and van Baars, John. Norms for the International Economic Order. *Justice in the International Economic Order: Proceedings of the Second International Conference of Reformed Institutions for Christian Higher Education*. Grand Rapids: Trustees of Calvin College, 1980, p. 233; Cf. Sherman, Amy L. *Preferential Option: A Christian and Neoliberal Strategy for Latin America's Poor*. Grand Rapids: Wm. B. Eerdmans Publishing Co., 1992.

including removing barriers that prevent such access. Skills are not enough. In so doing, the Church is called to witness not only within communities and nations, but also internationally on matters that are causes of poverty.

How we work at these levels is extremely important. The Church may lead, but the poor must set the pace. The Church must act, but it must act only *along with* the poor. To achieve this, the Church must take the time to understand the world of the poor. It must spend time listening—hearing the language of a sub-culture of an often quiet and hidden people. The poor, together with the rest of us, are God's creatures, created in His image. Those who have enough, as adopted children of God themselves, must respect the poor, and give them a place within the structures of the Church. With the priority the Church must give to them, they must be allowed to participate, including decision-making. Diaconates can serve by coordinating—assisting in programs that work at the pace of the poor.

7. The responsibility and contribution of educational institutions

There is serious need for sustained provision of education by institutions whose main task is to convey the truth about the world to its students. Educational institutions must be nurtured by serving on school boards and boards of regents, participating in parent-teacher organizations and educational organizations, assisting on field trips, serving as volunteer aides, helping in fund-raising, making financial contributions, and contributing tax money. Educational institutions must themselves assure that they are bound to seeking the truth in all things and teaching it to the students under their tutelage. Education of necessity must include substantial teaching on just stewardship of Creation, including opportunity to directly engage in its practice.

8. The responsibility and contribution of families

Families are an extremely important institution with a critical role in the just stewardship of Creation. The family should engage in making itself vitally aware of God's Creation by planting seeds and gardens, taking walks, hikes, trips, and visits to museums; watching birds, stars, and other creatures; and reading field guides and books. The family should also make itself aware of the labels on the items they buy, knowing the nature, purpose, and origin of every listed component. They also should know the names of the producers of the foods they eat, including the names of those who own these producers, and those who own them in turn. Eating should be an educational experience. So should the use of any materials that are brought in from the store, lumber yard, or market whose origins can be discovered. The family should also inventory everything they throw away and determine where it came from and where it ultimately will end up. It is largely in the family that awareness of Creation and the interconnections of food, clothing, material goods, and Creation are learned.

9. The responsibility and contribution of purchasers and the electorate

The electorate in a democracy has the responsibility of evaluating what is needed for achieving just stewardship of Creation, making sure that the voting community puts forward candidates to pursue such stewardship, elect these people to office, and support them in their leading and governing task. As purchasers, people exercise an economic voice which if done in community

can be a powerful influence on the kinds and quality of items bought and sold. Purchasers should not always buy at the lowest price when doing so will reduce the quality of Creation, deprive the poor of their stewardly task, or support enterprises that are engaged in activities contrary to just stewardship of Creation. Accompanying these responsibilities is the vital need to gain the necessary knowledge. Dependency in any way on modern advertising as a source of a reliable education is generally unwise. A deliberate written listing of what you are told is best for you, based upon the billboards you read between home and work, or along a vacation route will show the deficiency of billboard education.

Whether it be policy or technology, the overriding consideration is that it be for the glory of God. Whether policy or technology, it should be a prayer expressed in loving and caring deeds, published in life and landscape: "Thy Kingdom come. Thy will be done, on Earth..."

Section IX.

**GUIDELINES FOR ECCLESIASTICAL ACTION AND
GUIDELINES FOR INTERACTION AMONG MEMBERS OF THE
REC**

If you do away with the yoke of oppression... and expend yourselves in behalf of the hungry and satisfy the needs of the oppressed, then your light will shine in the darkness, and your night shall become like the noonday.

—Isaiah 58:9b-10.

A. Ecclesiastical Action

The role of the Church.— The Church has long celebrated the Lord's Supper, using the fruits of the land in sacramental fashion. While acknowledging that the Old Testament rites and sacrifices are now obviated with the coming of Christ, we must not thereby believe that we can discard the responsibilities for Creation and Creation's fruitfulness that were celebrated by God's people. Our freedom in Jesus Christ has not given us license to disregard acknowledging our blessing and task of stewardship in the assembly. Worship of our Creator for his remarkable provisions in Creation is appropriate when each year Creation breaks forth with fruitfulness. It is appropriate that celebration of "first fruits" be re-established, helping us incorporate Creation-stewardship into our thanksgiving to God. While we still praise God for giving rain in season and food to the creatures (Psalm 104) and thank God by entering his courts with thanksgiving and praise (Psalm 100), the Church often has neglected the earthy means God uses in dispensing His providence and administering His grace to us and all creatures.

The Church must be refreshed by proclaiming the good news for all of Creation; the Church must advocate and practice stewardship of the land and all God's creatures; the Church must embrace as our own poor and marginalized human beings; the Church must, with Noah, protect and provide for all God's creatures. The Church's biblically informed covenantal land ethic stands in serious need of refreshment and renewal. The Church's teachings on Creation stewardship and Creation accountability call for revitalization and commitment. And the Church must lead in accomplishing all this.

The role of seminaries.— Seminaries, as "seed beds," must become seminal in planting the Word of the Lord today. Seminaries must disseminate the Good News for all Creation, not constricting or denying Creation stewardship by too narrow a view of John 3:16. God loves the *cosmos*, not merely *anthropos*. Seminaries must therefore provide seminal leadership in responding to the groaning Creation and showing the way toward its reconciliation. Seminaries must size up these times in which we bear the witness of the Gospel—these times of environmental and human degradation—in the context of the hope of the coming of the kingdom of God. Seminaries should be developing shepherds and pastors that can help their flocks drink without muddying the waters and feed without trampling the pastures (cf. Ezekiel 34:18).

Seminaries need to assume a leadership role in the preparation of leaders who will pursue with knowledge and enthusiasm the just stewardship of God's Creation.

Proclamation and Preaching the Word.— In preaching and proclamation of the Word, we must no longer neglect our responsibility under God to care for and keep the Garden—our responsibility to be earthkeepers. And this must be preached with power and efficacy. The Gnostic teaching that would have us elevate the soul and eschew God's material world must be confronted squarely. "Soul saving" must not be divorced from "earthkeeping." We must reject teachings that would remove our incarnate Savior from coming in the flesh bringing Good News to all creatures, thereby vindicating God's Creation. The power of John 1:1 and Colossians 1:15-20 must be brought forth in the churches, inspiring our life and work in the world. We must learn to follow the One through whom the whole world was made, by whom all things (*ta panta*) are held together, and through whom all things (*ta panta*) are reconciled.

The role of Christian education.— Schools and colleges have an extremely important contribution to make toward achieving a just stewardship of Creation. These institutions have the capacity to engage in and convey ecological science, theology, sociology and practice, and the other fields of study that are basic to understanding and implementing a just stewardship of Creation. Beyond the contributions from the disciplines within these institutions, they also have the capacity to engage in the integrative scholarship that is necessary for addressing the issues and complexities in putting belief into practice. We described earlier how the disciplines that should have strong linkages under concern for the same *oeconomia* have been isolated from each other through what has become the traditional disciplinary structure of the universities. Thus, remarkably economics, ecology, and theology do not share in their scholarly work, have faculty reward systems that discourage integrative scholarship, and thus may perceive their own discipline as adequate for addressing fully the nature and stewardship of God's *oeconomia*. Moreover, many of those who benefit from environmental degradation and injustice for the poor increasingly are putting forth vigorous efforts to preserve ignorance about God's economy and have committed themselves to distort the truth as necessary to meet their own immediate ends. Thus, all of us who seek the truth on these matters need to be on guard that we engage in careful discernment in our time. All of us must hone our abilities to perceive vested interests and discern truths from half-truths. Our schools and colleges have a particular role of seeking the truth, preserving the truth, and conveying the truth to those they teach. They are the principal institutions for engaging in the scholarship of integration. They are the principal institutions for preserving and teaching the scientific, ethical, and practical knowledge required for engaging truthfully in just stewardship of Creation.

Church land holdings, and facilities.— In stewarding and keeping of its own lands, the Church must be exemplary—a light to the world. The Church must make its awareness of Creation clearly evident, and especially those aspects of Creation it directly affects and with which it interacts. The Church must demonstrate awareness of what has been marginalized among God's creatures, including threatened creatures, but particularly the poor. And all of this awareness must result in serving and keeping—in just stewardship of Creation. Knowledge must be put into practice, and practice must be evident so that it shines as a beacon to light a darkened world—in its holdings, lands, buildings, programs, fellowship, liturgies, hymnody, sermons, and community service.

The Church's missions.— The Church's missions must continually reform their policies and practices in bringing healing to lands and people. The Church and its missions must responsibly define its work as reconciliation of *all things*, and therefore must question the unquestioned urge to develop, modernize, become efficient, and replace cultures. Instead, it must always be a salting salt that seeks to transform lives, calling people to acknowledge their Creator, and to serve and keep God's Creation. People, serving the Garden, are served by the Garden of God—*conservice* between people and the land, under God who loves the world. It is not our task to be emissaries for Western or any other culture or ideology, but for the transforming work of the gospel of Jesus Christ. Thus, while bringing the gospel as our service, we in turn will be served by its recipients by learning of their renewed and reformed stewardship that might be forthcoming from their incorporation of the gospel of Jesus Christ into their own practice. Missions thus foster conservice between people and the land, conservice between the bringers and recipients of the Gospel, under God.⁹⁷

The Church as advocate.— The Church must be the compassionate advocate for the poor, the fatherless and landless. The Church must be the advocate for safeguarding God's Creation. Thus, while it deals directly with the poor and Creation, it necessarily must also relate to other institutions and to governments in pursuing its task in Creation and its serving the poor. Thus, the Church is an advocate in relief, appropriate development, aid, environmental organizations and NGOs to be a transforming influence to care for Creation and serve the needs of the poor. Since it is to governments that God has given the task of the promotion of justice, the Church must also be an advocate to governments. It is governments that must step in where economic powers are inadequate to serve the needs of people and the rest of Creation. It is governments that must intervene where economic powers oppress the rest of society. The advocacy of the Church to governments, corporately and through individual members, must assure safeguarding the whole Creation and attending to the needs and vitalization of the poor. For the poor, such advocacy will include assuring provision of land, assuring the means for the production or purchase of the necessities of life, and assuring authentic opportunity to be responsible stewards over their own lives and some part of God's Creation. Since it is governments, rather than the Church, that are vested with the authority and legal frameworks to assure these provisions, means, and opportunities, the Church must serve as a moral and ethical conscience to governments on these matters.⁹⁸ The Church must see to it that governments exercise their capacity to allow and protect varied and free expression in organizations whose purpose is doing good. The Church must persist in holding governments to their obligation to see that things are done fairly, with each person receiving their due. Thus, the Church is the reminder of governments of these responsibilities, as it speaks for God's Creation and the poor.

Reformed theology.— Creation is vital to covenant theology. It must not be neglected or diminished. The framework for Reformed theology, Creation, Fall, Redemption, begins with a

⁹⁷ Cf. DeWitt, Calvin B. and Ghilleen T. Prance. *Missionary Earthkeeping*. Macon, GA: Mercer University Press, 1992.

⁹⁸ Cf. Goudzwaard, Bob. "Economics, Sin and the Way to Justice," *One World*, No. 176 (June 1992) 15-17.

world and creatures God repeatedly declares "good" and concludes with a world and creatures reconciled to their Maker through the work of Jesus Christ (Colossians 1:15-20). Christ's coming in the flesh, dying in the flesh, and rising in the flesh is vindication of Creation. In this regard, the statement of the World Alliance of Reformed Churches is important to heed: "...The Creation has never really been fully incorporated into covenant theology; or rather, Reformed Christians historically have regarded Creation as merely the 'stage' on which the drama of the divine-human covenant is played out, a role which over time became strictly utilitarian. That is, Reformed covenant theology has been bound up with a social or political vision; it has not contained an ecological or environmental vision. That omission needs urgent correction by Reformed Christians in our age."⁹⁹ In Reformed theology flesh matters; matter matters. And so does human work in the world. We as followers of the Reconciler, move and work in the world to transform it according to the will of our faithful Savior, Jesus Christ, to Whom we belong body and soul.

The Church as witness.— Finally, the Reformed churches world wide must increasingly present themselves and the Good News as a holistic witness to God's love for the world. As human beings are imagers of God's love for the world, so is the Church. The Church announces and brightly exemplifies the biblical vision of shalom, peace, justice and righteousness. The Church is witness. The Church is the visible living out of our Lord's prayer: "Thy Kingdom come, Thy will be done. **On earth...**

The concern that is expressed in our work for Just Stewardship of Creation is not confined to the Reformed Churches but is very wide spread. As environmental degradation becomes more apparent to everyone, along with increasing visibility and extent of the plight of the poor, various denominations, councils, and communions have worked to address the role of the church in addressing the issues.

Among the efforts Christians have been making on Just Stewardship of Creation, is "An Evangelical Declaration of the Care of Creation," a statement that has received very wide support among evangelical leaders, including many of the Reformed churches. It is reproduced here for our information, study, and reflection. In view of its concord with most of what we have written here, it can provide us encouragement and serve as a helpful resource. It is not a proprietary document and thus may be used in whole or in part by any people, communions, or denominations who confess Jesus Christ and are committed to bringing the Good News to all Creation.

B. An Evangelical Declaration on the Care of Creation

⁹⁹ World Alliance of Reformed Churches. 1989. *Seoul 1989: Proceedings of the 22nd General Council*. Section III, Part I, "Justice, Peace and the Integrity of Creation." Geneva: WARC, p. 5.

As followers of Jesus Christ, committed to the full authority of the Scriptures, and aware of the ways we have degraded Creation, we believe that biblical faith is essential to the solution of our ecological problems.¹⁰⁰

- Because we worship and honor the Creator, we seek to cherish and care for the Creation.
- Because we have sinned, we have failed in our stewardship of Creation. Therefore we repent of the way we have polluted, distorted, or destroyed so much of the Creator's work.
- Because in Christ God has healed our alienation from God and extended to us the first fruits of the reconciliation of all things, we commit ourselves to working in the power of the Holy Spirit to share the Good News of Christ in word and deed, to work for the reconciliation of all people in Christ, and to extend Christ's healing to suffering Creation.
- Because we await the time when even the groaning Creation will be restored to wholeness, we commit ourselves to work vigorously to protect and heal that Creation for the honor and glory of the Creator-- whom we know dimly through Creation, but meet fully through Scripture and in Christ.

We and our children face a growing crisis in the health of the Creation in which we are embedded, and through which, by God's grace, we are sustained. Yet we continue to degrade that Creation.

- These degradations of Creation can be summed up as 1) land degradation; 2) deforestation; 3) species extinction; 4) water degradation; 5) global toxification; 6) the alteration of atmosphere; 7) human and cultural degradation.
- Many of these degradations are signs that we are pressing against the finite limits God has set for Creation. With continued population growth, these degradations will become more severe. Our responsibility is not only to bear and nurture children, but to nurture their home on earth. We respect the institution of marriage as the way God has given to insure thoughtful proCreation of children and their nurture to the glory of God.
- We recognize that human poverty is both a cause and a consequence of environmental degradation.

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An Evangelical Declaration on the Care of Creation. This declaration is presented here as guidelines for ecclesiastical response in the Reformed churches of the Reformed Ecumenical Council. No doubt that improvements and refinements can be made here. Nevertheless, this declaration, based as it is on the same and similar considerations covered in this report, provides a fine starting point for ecclesiastical action. Copies can be obtained from the Evangelical Environmental Network, 10 East Lancaster Avenue, Wynnewood, Pennsylvania 19096-3495, USA.

Many concerned people, convinced that environmental problems are more spiritual than technological, are exploring the world's ideologies and religions in search of non-Christian spiritual resources for the healing of the earth. As followers of Jesus Christ, we believe that the Bible calls us to respond in four ways:

- First, God calls us to confess and repent of attitudes which devalue Creation, and which twist or ignore biblical revelation to support our misuse of it. Forgetting that "the earth is the Lord's," we have often simply used Creation and forgotten our responsibility to care for it.
- Second, our actions and attitudes toward the earth need to proceed from the center of our faith, and be rooted in the fullness of God's revelation in Christ and the Scriptures. We resist both ideologies which would presume the Gospel has nothing to do with the care of nonhuman Creation and also ideologies which would reduce the Gospel to nothing more than the care of that Creation.
- Third, we seek carefully to learn all that the Bible tells us about the Creator, Creation, and the human task. In our life and words we declare that full good news for all Creation which is still waiting "in eager expectation for the sons of God to be revealed" (Romans 8:19).
- Fourth, we seek to understand what Creation reveals about God's divinity, sustaining presence, and everlasting power, and what Creation teaches us of its God-given order and the principles by which it works.

Thus we call on all those who are committed to the truth of the Gospel of Jesus Christ to affirm the following principles of biblical faith, and to seek ways of living out these principles in our personal lives, our churches, and society.

- The cosmos, in all its beauty, wildness, and life-giving bounty, is the work of our personal and loving Creator.
- 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.
- God the Creator is relational in very nature, revealed as three persons in One. Likewise, the Creation which God intended is a symphony of individual creatures in harmonious relationship.
- The Creator's concern is for all creatures. God declares all Creation "good" (Genesis 1:31); promises care in a covenant with all creatures (Genesis 9:9-17); delights in creatures which have no human apparent usefulness (Job 39-41); and wills, in Christ, "to reconcile to himself all things" (Colossians 1:20).
- Men, women, and children, have a unique responsibility to the Creator; at the same time we are *creatures*, shaped by the same processes and embedded in the same systems of physical, chemical, and biological interconnections which sustain other creatures.

- Men, women, and children, created in God's image, also have a unique responsibility for Creation. Our actions should both sustain Creation's fruitfulness and preserve Creation's powerful testimony to its Creator.
- Our God-given, stewardly talents have often been warped from their intended purpose: that we know, name, keep and delight in God's creatures; that we nourish civilization in love, creativity and obedience to God; and that we offer Creation and civilization back in praise to the Creator. We have ignored our creaturely limits and have used the earth with greed, rather than care.
- The earthly result of human sin has been a perverted stewardship, a patchwork of garden and wasteland in which the waste is increasing. "There is no faithfulness, no love, no acknowledgement of God in the land. ...Because of this the land mourns, and all who live in it waste away; the beasts of the field and the birds of the air and the fish of the sea are dying" (Hosea 4:1b,3). Thus, one consequence of our misuse of the earth is an unjust denial of God's created bounty to other human beings, both now and in the future.
- God's purpose in Christ is to heal and bring to wholeness not only persons but the entire created order. "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" (Colossians 1:19-20).
- In Jesus Christ, believers are forgiven, transformed and brought into God's kingdom. "...if anyone is in Christ, he is a new Creation" (2 Corinthians 5:17). The presence of the kingdom of God is marked not only by renewed fellowship with God, but also by renewed harmony and justice between people, and by renewed harmony and justice between people and the rest of the created world. "You will go out in joy and be led forth in peace; the mountains and the hills will burst into song before you, and all the trees of the field will clap their hands" (Isaiah 55:12). We believe that In Christ there is hope, not only for men, women and children, but also for the rest of Creation which is suffering from the consequences of human sin.
- Therefore we call upon all Christians to reaffirm that all Creation is God's; that God created it good; and that God is renewing it in Christ.
- We encourage deeper reflection on the substantial biblical and theological teaching which speaks of God's work of redemption in terms of the renewal and completion of God's purpose in Creation.
- We seek a deeper reflection on the wonders of God's Creation and the principles by which Creation works. We also urge a careful consideration of how our corporate and individual actions respect and comply with God's ordinances for Creation.
- We encourage Christians to incorporate the extravagant creativity of God into their lives by increasing the nurturing role of beauty and the arts in their personal, ecclesiastical, and social patterns.
- We urge individual Christians and churches to be centers of Creation's care and renewal, both

delighting in Creation as God's gift, and enjoying it as God's provision, in ways which sustain and heal the damaged fabric of the Creation which God has entrusted to us.

- We recall Jesus' words that our lives do not consist in the abundance of our possessions, and therefore we urge followers of Jesus to resist the allure of wastefulness and overconsumption-by making personal lifestyle choices that express humility, forbearance, self restraint and frugality.
- We call on all Christians to work for godly, just, and sustainable economies which reflect God's sovereign economy and enable men, women and children to flourish along with all the diversity of Creation. We recognize that poverty forces people to degrade Creation in order to survive; therefore we support the development of just, free economies which empower the poor and create abundance without diminishing Creation's bounty.
- We commit ourselves to work for responsible public policies which embody the principles of biblical stewardship of Creation.
- We invite Christians-- individuals, congregations and organizations-- to join with us in this evangelical declaration on the environment, becoming a covenant people in an ever-widening circle of biblical care for Creation.
- We call upon Christians to listen to and work with all those who are concerned about the healing of Creation, with an eagerness both to learn from them and also to share with them our conviction that the God whom all people sense in Creation (Acts 17:27) is known fully only in the Word made flesh in Christ the living God who made and sustains all things.
- We make this declaration knowing that until Christ returns to reconcile all things, we are called to be faithful stewards of God's good garden, our earthly home.

Section X.

GUIDELINES FOR CONGREGATIONAL ACTION

For I regard the troubles that befall us in the present time as trivial when compared with the magnificent goodness of God that is to be manifested in us. For the created order awaits, in eager longing, with neck outstretched, the full manifestation of the children of God... for the Creation itself has something to look forward to... The Creation itself is to share in the freedom, in the glorious and undying goodness, of the children of God. —paraphrase from Romans by Metropolitan, Paulos Mar Gregorios, Delhi, 1987.¹⁰¹

This study provides insight from which we can develop and implement concrete actions in our churches. However, in moving ahead toward putting ideas into practice we need to remind ourselves that just stewardship of Creation is not so much a set of guidelines or prescribed actions as much as it is a way of life. Thus, the material we present here is to prime our thinking about what can and must be done at the congregational level. What is appropriate in one congregation may be inappropriate in another. And what needs to be accomplished this year might be different from what was necessary last year.

Thus while our grounding in Scripture stands firm through the generations, our response as stewards of our Lord's Creation will vary from time to time and from place to place. We live in different places, cultures, and climes. While an energy audit of a church building may make sense for a congregation high in the North Temperate Zone, it may not for one in the tropics. Similarly, tree-planting may make sense in the Sahel of Africa, but perhaps not for some residents of the forests of the Amazon. However, no matter where we are, we must take God's Word seriously and must live our lives as psalms to our triune God, acting justly, loving mercy, and walking humbly with our God in our Lord's Creation. The measure of our just stewardship is not the number of check-marks we can place on lists of things we should do, as much as it is a continual living under the eye of God as just stewards of God's Creation.

Nonetheless, in this final section we put forth some ideas, not as prescriptions, but as primers for thinking. Therefore, please take these guidelines as discussion-starters and idea-generators as together we pursue the privilege and responsibility of being just stewards of Creation.

A. What We Can Do for Just Stewardship

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Romans 8:18-21 paraphrase by Paulos Mar Gregorios, "New Testament foundations for understanding the Creation," in Wesley Granberg-Michaelson, *Caring for Creation: Essays on the Gospel and the Earth*, Grand Rapids: Eerdmans, 1987, p. 84.

1. Church Program

- a. We can assure that God's care for Creation and our just stewardship of Creation is reflected in preaching, hymnody, and worship.
- b. We can develop and implement means for increasing knowledge about Creation, God's provisions for its proper functioning, God's justice for people and Creation, and the privilege of stewardship.
- c. We can find out about the relations between of our church and its members with the wider Creation, so we can better appreciate God's provisions and so we can correct things that have gone wrong.
- d. We can assure that the church is a witness for just stewardship of Creation to the community and region it serves, including its worship, programs, land, facilities and people, and the other creatures under its care.
- e. We can consider whether and how the church can become an information source for practicing just stewardship of Creation.

2. Knowing Our Place in Creation

- a. We can determine the ecosystem type within which the church is situated and learn of its members and functioning, in the context of God's provisions for Creation.
- b. We can conduct field studies out of doors to learn about Creation, Creation's care and abuse, and the relationships of environmental issues with justice.
- c. We can discover the differences in response needed in different settings (tropical vs. temperate, urban vs. rural, forested vs. deforested, etc.) to generate understanding and respect for differences in response among various churches.
- d. We can provide the opportunity for pastors and teachers to expand their knowledge of just stewardship of Creation.

3. Taking Action in the Community

- a. We can take responsibility for a particular part of Creation in our region to assure social and ecological integrity.
- b. We can work to reclaim or restore a degraded part of Creation in the context of just stewardship.
- c. We can commit ourselves as a congregation to live out our faith through caring for that part of God's Creation in which we live. Examples are caring for the watershed of which we are a part

or adopting an endangered species.

d. We can encourage members to make their homes and work places Creation Covenant Centers.

4. Providing Leadership

a. We can be leaders in society in speaking out for just stewardship of Creation.

b. We can be sponsors of environmental improvement and just stewardship projects in the community.

c. We can lead in providing the knowledge base in just stewardship needed for effective action.

5. Working with Other Churches

a. We can invite some other churches to join us in our efforts on just stewardship of Creation.

b. We can glean from other churches the best ideas and approaches for just stewardship of Creation.

c. We can organize a regional meeting on just stewardship of Creation with concrete projects and examples demonstrated.

B. Some Very Specific Ideas

In working to care for Creation we can make, do, or arrange the following: roof-top gardens, ground-level gardens, fish ponds with fluorescent night light for insect feeding, edible cultivars, edible flowers (Nasturtiums), rotational grazing, regenerative gardening, native plant restoration, indigenous gardening and forest garden techniques, seed and tree distribution, church lawn conversion, liturgical expression, signing of gardens and woods and fields to describe their contributions to the atmosphere, establishment of walking trails, provide for substantial window box support in building design to allow even for the growth of small trees and shrubs, restore habitats around houses to provide for a large diversity of creatures, do an audit of energy and materials use in the church, implement some ecological principle so that it is visible to the community, define and develop missionary earthkeeping, assist on a farm, buy the beef you eat on the hoof and have it processed, do a Creation-hymn search through older editions of church hymnbooks, define what is meant by ecclesiastical earthkeeping, make your church a center for distribution of native flower, tree, and vegetable seeds, identify a member of your congregation as an environmental stewardship coordinator, teach children the principles of seed germination and plant nurture, make bird guides readily available to all who can use them, conduct a food-source awareness dinner at church, conduct a hunger awareness dinner at church, discuss the difference between tree planting and forest restoration and follow it with a restoration project, buy a worn-out piece of land and redeem it, arrange for an astronomy night to make Psalm 19 come alive.

C. Ideas for Creating Stewardship Opportunity

In working for justice for the hungry we can work cooperatively between congregations and denominations to understand and shape international food policy and become informed on the politics of "food aid." We can become informed on legislation and transactions of our own countries in the global marketplace. We can question legislation, request explanations, and ask for improvements. We can work to assure that our governments have in place the means of rescuing those who are caught in economic injustices and threatened with hunger and nutrition problems. We can encourage the International Monetary Fund and the World Bank to move more and more toward economic and environmental policies that effectively address the system that produces poverty, hunger and degradation of Creation.

We can work to set aside national rivalries between North and South and strive for solutions to the problem of inequitable distributions of wealth. We can work on removing obstacles that prevent many countries from engaging in sound and stewardly economies. Most importantly, can start by looking carefully at ourselves and taking corrective action. As we become more aware of our own place in God's economy and the human economy, we can become more proficient at addressing the regional and national questions about how to provide for the stewardship of land and life for the poor.

D. Encouraging a Critique of Self

In everything we do we can recognize that over-consumption in the industrialized North has a debilitating impact on countries of the nonindustrialized South. Degradation of Creation and world hunger are major scandals of our world today. The widespread poverty we experience is an embarrassment to advanced civilization. And waste, as an unwanted byproduct of luxury is also an embarrassment. These realities of our time call into question the ways and means we have employed to achieve "progress," "development," and "modernization." To the extent that the power and promise of our technological, industrial, and post-industrial age fails to address and alleviate the growing holocaust in Creation and society, it will increasingly expose and encounter its own corruption, decadence, blind-sightedness. The Church has much to say and do here.

When we pray for God's will to be done on earth we must realize that the weakest of the weak, the marginalized, and the poor are not in a position to change, bring about change, or articulate succinctly the alternatives and options. Others must empower and re-empower them to provide local leadership and stewards of land and life. The knowledge they may have of their own environment often exceeds that of itinerant experts. So too does their interest and ability to engage in responsible stewardship. But they must have the freedom to use that knowledge and act on their God-assigned stewardship of some part of Creation. The Church has much to say and do here as well.

"Salt and Light" is a mark of the Reformed heritage. Through our prayerful resolve and determined action we can make a powerful contribution to the church universal. As we proceed, we and other Christians must urge the proclamation of the full gospel. The church must preach

the kingdom of God so that the world may be brought to acknowledge and to live under God as king of the whole of life. Creation, and not only we ourselves, is the recipient of God's salvation. Christ's redeeming work envelops us all.

Remembering and honoring our Creator, following our Savior as Maker, Sustainer, and Reconciler of all things, responding to the testimony of the Holy Spirit in our hearts, we seek to live lives of responsible and just stewardship. We seek to so behave on earth that heaven will not be a shock to us!

*Section XI.***A BIBLIOGRAPHY OF SUGGESTED READINGS**

...my people are destroyed from lack of knowledge. "Because you have rejected knowledge, I also reject you as my priests; because you have ignored the law of your God, I also will ignore your children.

—the Jewish prophet Hosea, about 750 years before Christ.¹⁰²

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¹⁰² Hosea 4:6.

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EPILOGUE

Dear Reader,

We hope that reading this report has been mostly inspiring and uplifting to you. We hope it has helped empower you and your friends to address the world and its environmental concerns in a healthy, wholesome way—in the Reformed Ecumenical Council, our denominations, our churches, and in our homes, work, and society. We hope you have renewed with us your awe and wonder in our Lord's Creation. No doubt, at points in this study, you also experienced the stress we felt, when we faced up to human degradation of Creation and its roots in human sinfulness. But we have passed through that valley and have come to the highland of participation in the joy and delight of responding in love and gratitude to the Creator of heaven and Earth—into the light of imaging God's care for Creation. We are affirmed now in our joyful singing of the Doxology—affirmed in our deep-seated hope that God's creatures of whom we sing will continue their successive generations of praise to God—praise to their Creator and ours. Today, we are renewing and refreshing ourselves in God's marvelous Creation. Praise God all creatures here below! May they continue to praise God through the coming generations. And may the Lord bless and keep you, as together we continue to keep our Lord's Earth!