

Population Growth,
Resource Consumption,
and the Environment:
Seeking a Common Vision
for a Troubled World

Rick Searle



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**Population Growth,
Resource Consumption,
and the Environment:
Seeking a Common Vision
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*Prepared by
Rick Searle*

Based on the 1993 International Summer Institute

*Population and the Environment
Population Pressures, Resource Consumption,
Religions, and Ethics*

Chateau Whistler, Whistler, BC, Canada
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This volume often refers to the papers presented at the Summer Institute. The full papers appear as chapters in a companion academic book, *Population, Consumption, and the Environment: Religious and Secular Responses*, edited by Harold Coward (State University of New York Press, 1995). Additional material has been drawn from interviews with participants as well as from small group and plenary discussions. My

approach to all this material has been to distil the essence of the arguments and ideas presented, while remaining true to both the spirit and the wording of what was said. However, I recognize that misinterpretations may have occurred and the responsibility for any errors must rest with me.

RS

Foreword

Any discussion of environmental ethics must begin with a statement of the scientific evidence as a baseline from which to begin the analysis. The consensus of environmental scientists is that the chemical balance of the atmosphere is being upset by the introduction of alien chemical species – CFCs and the increased flow of greenhouse gases. Although the atmosphere is self-cleaning, its self-cleaning is too slow to cope with the excess gases pumped into the atmosphere, and so we will not be able to avoid their consequence – the greenhouse effect which threatens human welfare.¹ This is a problem we have created for ourselves and which population increase will make worse. Indeed some suggest that the rise of the world's population is rapidly outstripping the earth's carrying capacity and simultaneously fouling the atmosphere so that the very survival of humans and other species and the quality of our environment are in question.² To make things worse, demographic projections show a population increase of unprecedented magnitude continuing well into the next century.³

In a recent *Atlantic Monthly* article, Charles Mann asks the question "How Many is too Many?" for the earth to sustain.⁴ Mann shows that the answers to this question since the 1700s have varied between those who believe that continued population growth will eventually lead to an environmental catastrophe (e.g. the 1798 economist Robert Malthus, and the biologist Paul Ehrlich in his 1968 book *The Population Bomb*) and those who argue that increasing technological efficiency and changing social/economic patterns will solve the problem (e.g. the Marquis de

¹ F. Kenneth Hare, "The Challenge" in: Harold Coward and Thomas Hurka (Eds.) *Ethics and Climate Change: The Greenhouse Effect*. Waterloo: Wilfrid Laurier University Press, 1993, pp.11-22.

² "Ethics and Global Population", *Philosophy and Public Policy*, Vol. 13, 1993, pp.1-3.

³ Ibid. p.2.

⁴ *The Atlantic Monthly*, February 1993.

Condorcet in 1794, or A.L. Lovins in his recent article "Least-cost stabilization"⁵. At the Rio Earth Summit the developing countries responded to the developed countries on this issue by saying that the problem is not one of overpopulation in the South but of excessive consumption of the earth's resources by the well-off few in the North.

The debate has ranged across the disciplines of biology, economics, ecology, anthropology, philosophy, and demography. The brilliant summary of this long, complex, and crucial debate in *The Atlantic Monthly* is particularly significant in that *the role of religion is never mentioned*. Yet it is clear that religions can and do strongly shape people's attitudes and behaviour to the environment, to the practice of fertility planning, and to the sharing of resources. To respond to this gap in knowledge, the Centre for Studies in Religion and Society at the University of Victoria brought together some 40 scholars from North America, Europe, Africa, India, Thailand, China, and Japan for an intensive ten-day seminar to examine what the world religions and the Aboriginal traditions say about this debate.

In some ways this seminar, held at Whistler BC in August 1993, was a Canadian follow-up to Rio and the 1991 and 92 meetings organized by Carl Sagan, the Very Rev. James Parks Morton, and (as he was then) U.S. Senator Al Gore. What made the Whistler seminar unique was the breadth of representation present from Aboriginal and Eastern as well as Western religions – and the fact that most religions were represented by women ethics scholars. What follows is an analysis of points of convergence and divergence in the responses of the various religions to the double-sided question: "How can we respond to population pressure and excess consumption and their degradation of the environment?"

Let us begin with the areas of divergence, move on to the points convergence and conclude with the recommendations that the seminar produced.

I. POINTS OF DIVERGENCE

At the outset it should be noted that most religions are just now beginning to examine systematically what their traditions have to say about threats to the environment from overpopulation and over-consumption. Often it is women scholars who are taking the lead. At

⁵ A.B. Lovins, "Least-cost stabilization" *Annual Review of Energy and the Environment*, vol. 16, pp.433-531.

Whistler, for example, Judaism, Christianity, and Islam, the three patriarchal Western religions, were represented by female theologians. Buddhism, Chinese religions, and the Aboriginal traditions were also represented by women. Feminist scholars have paid particular attention to the issues. Let us now examine points of divergence under the three headings of Nature, Consumption, and Population Pressure.

Nature

While all the religions see nature as having varying degrees of intrinsic value, the Eastern and Aboriginal religions take a stronger stance on this issue. They emphasize that the cosmos is made up of interdependent parts of which humans are simply one species among many. The Western religions are more anthropocentric, yet none of them give humans unchecked dominion over nature in satisfying their desires. Their various visions of a transcendent creator God place upon humans the responsibility of being co-stewards of the environment that God, the creator, has provided for their use.

Consumption

All the religions agree in warning against overconsumption and the dangers it would bring by damaging the environment and causing injustice between peoples. However, one religion, Christianity in its modern Western forms, is singled out as having the overwhelming responsibility for the imposition throughout the planet of unsustainable patterns of development. As Catherine Keller notes, it is not that Christianity has the worst ideas for the environment and the consumption of its resources, but that the modern Western Christian cultures have developed the ideological framework for unprecedented domination in the political, economic, and cultural spheres.⁶ It is this aggressive domination of peoples and nature by the ideological framework of the modern West that seems to be a root cause of much overconsumption.

In a widely quoted article, the historian Lynn White has pointed to the Christian understanding of the biblical notion of humans as having “dominion over the earth” as a major factor in making possible the Industrial Revolution, its attendant overconsumption of natural resources,

⁶ Catherine Keller, “Chosen Persons and the Green Ecumenacy: A Possible Christian Response to the Population Apocalypse” in Harold Coward (Ed.), *Population, Consumption, and the Environment*. Albany: SUNY 1995.

and the devastation of the environment that has followed.⁷ Christian theologians (e.g. R.L. Shinn⁸) have responded by pointing out that White's thesis oversimplifies an extremely complex historical development. Nonetheless, no one denies that there is some truth to White's analysis. Quoting Genesis 1:28, in which humans are told to "fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the air and over every living thing", White suggests that such Christian ideas led directly to a human-centred and domineering attitude towards nature. Christianity established a dualism between humankind and nature and also insisted, says White, that God wills humans to exploit nature for their proper ends. Consequently, concludes White, Christianity, as well as making possible the Industrial Revolution, also bears a burden of guilt for human alienation from nature and the overconsumption and environmental degradation that has resulted.

Population Pressure

It is with regard to population pressure and its impact upon the environment that we find the greatest divergences among religions. Most of the religions in their traditional formulations have been solidly pro-natal. However, two religions, Buddhism and the Aboriginal traditions, appear to have taken different approaches. Rita Gross points out that early Buddhist and Mahayana texts lay out three rules for response to the problems of population pressure (and overconsumption).

1. Buddhism assumes that humans must live within the limits of nature because they are a part of that web of life.
2. Morally there must be an equitable distribution of resources among the earth's peoples.
3. Population control is necessary to ensure (1) and (2) which are non-negotiable.

Buddhism requires moderation in reproduction to ensure that the carrying capacity of the earth is not strained. Therefore the practice of birth control, but not abortion, is encouraged. Reproduction is not an accident or a duty but is seen by Buddhism as a mature deliberate choice which is to maintain the balance and harmony of the interdependent cosmic web

⁷ L. White Jr "The Historical Roots of our Ecological Crisis", *Science*, Vol.155, 1967, pp.1203-7.

⁸ R.L. Shinn, "Science and Ethical Decisions: Some New Issues", in: I.G. Barbour (Ed.), *Earth Might Be Fair*. Englewood Cliffs, NJ: Prentice-Hall, 1972.

of life. In this approach the emphasis on interdependence seriously challenges any notion of individual rights as overriding the greater value of the whole. Individuals, in other words, must not, as an individual right, choose to reproduce without concern for the overall impact on the biosphere.

Although Aboriginal traditions place a high value on the sacredness of life, contraception, and abortion have historically been practised but have become increasingly unacceptable as a result of the impact of European Christianity.⁹ As Aboriginal people adopted Christianity, the size of their families grew from an average of two children (widely spaced) to six (closely spaced). Methods employed included birth control by sexual abstinence during periods of war, hunting, or spiritual quest, and the knowledge of medicine people who specialized in contraceptive medicines and techniques. "The decision to abort or use contraceptives is initially an individual one; however, it was not carried out without the specialist [the medicine person] who acted as both counsellor and doctor."¹⁰ Overall guidance in such matters is provided by the Aboriginal sense of needing to live in interdependence with nature – to maintain a state of equilibrium between humans and their natural environment.

Chinese Religions should perhaps also be seen as divergent from the traditional pro-natal approaches of most religions. Throughout China's early history the concern was with underpopulation, therefore these sources offer little guidance with respect to overpopulation. However, during the past three centuries overpopulation and its negative impact upon the environment has become a matter of serious concern. With the possibility of a doubling of the population every generation, China in 1980 adopted a one child per family policy. This policy is widely practised and appears to have the support of the people who see overpopulation as a threat to the future of the globe and to family well-being. The success of this policy is especially remarkable as it clashes directly with the fundamental imperative of Chinese Religion, namely the

⁹ R. Gross, "Buddhist Resources for Issues of Population and Consumption in Relation with the Environment", in: *Population, Consumption, and the Environment. Op. Cit.*

¹⁰ See information provided by Winona Stevenson on the Woodland Cree in Harold Coward, "World Religions and New Reproductive Technologies" (forthcoming). See also Daisy Sewid-Smith, "Aboriginal Spirituality" in *Population, Consumption, and the Environment. Op. Cit.*

continuation of the patrilineal family. If the one child is not a son to conduct the family rituals, then, according to traditional religion, the parents, grandparents, etc., will cease to exist upon the last son's death and the family will come to an end. And in Chinese culture, familicide is the greatest moral crime.¹¹ However, changes are occurring which suggest that a gender neutral family is developing in which a daughter *or* a son could perform the rituals required for the continuation of the family and the support of those in the afterlife.¹²

II. CONVERGENCES

While the points of difference noted above are significant, the Whistler Summer Institute also identified important points of convergence.

Nature

All the religions reviewed see nature as having varying degrees of intrinsic value and all religions offer correctives to the exploitation and destruction of the environment that threatens the globe today. Each of the Western religions emphasizes that humans are to use their intelligence and the technology they create in being stewards of nature, according to God's plan rather than their own selfish interests. While Eastern and Aboriginal religions may not always conceive of God as separate from nature, their stress on the interdependence of all of nature, of which humans are simply one part, has a similar result – humans are morally responsible to live in harmony with nature and this rules out selfish exploitation. The spiritual disciplines of meditation upon nature in the Eastern religions (e.g. Zen) are designed to keep this awareness front and centre in human consciousness so that it will guide all thought and behaviour. These Eastern practices are resensitizing modern Westerners to a recovery of similar aspects of their own traditions. Thus a common basis of respect for nature and humans, as being in a relationship of interdependence, is occurring. This is especially true when the Western religions are re-visioned through feminist eyes – e.g. Rosemary Radford Ruther, Sallie McFague, and Katherine Keller.

¹¹ Stevenson, *Op. Cit.*, p.519.

¹² The above is based upon the chapter "Chinese Religions" by Jordan Paper and Li Chuang Paper in *Population, Consumption, and the Environment. Op. Cit.*

Consumption and Population Pressure

The ethic of interdependence, now endorsed by all religions, requires a radical change in consumption patterns – especially from the well-off people in the developed and developing countries. This change, which would give up excessive consumption, is required for two reasons: (1) our respect for nature of which we are an interdependent part; and (2) our commitment to social justice which the ethic of interdependence entails. It is of interest to note that the 1993 Parliament of the World's Religions, held in Chicago just one week after the Whistler Seminar, also grounded its statement of "A Global Ethic" on the premise of "interdependence". Like the Whistler Seminar, the Parliament of World Religions found that a global ethic of interdependence requires respect for the earth and its community of living beings (including people, plants, animals, air, water, and soil) and respect for others in the worldwide human family.¹³ Effectively this ethic demands a "transformation of consciousness" that would give up excessive consumption with its attitudes of domination and exploitation. Instead preservation of nature and concern for others (present and future generations) must be the new consciousness that directs our thinking and behaviour. Such a transformed consciousness, both gatherings agreed, would produce a just economic order, for women and children particularly. For this to happen requires that in the developed countries especially, "a distinction be made between necessary and limitless consumption, between socially beneficial and non-beneficial uses of property, between justified and unjustified uses of natural resources, and between a profit-only and a socially beneficial and ecologically oriented market economy".¹⁴ Such a transformation begins with the individual, for it is through changes in individual thinking and behaviour that changes in government policy and business practice arise. And it is the stated goal of religions to bring about just such transformation of consciousness within individuals. Although techniques differ, the various religions all show a commitment to this common goal of limiting human consumption by transforming thought and behaviour.

Judaism employs the approach of requiring obedience to God's commands to offer the first fruits of harvest in thanksgiving, to let the land lie fallow every seventh year (Exodus 23:10-12), and to return

¹³ *A Global Ethic*. Chicago: Council for a Parliament of the World's Religions, 1993.

¹⁴ *Ibid.* p.6.

everything to God for a fresh start every fiftieth year (Leviticus 25). These practices serve to remind humans that the land and its produce are not for their selfish use but are owned by God and given to humans as a trust to benefit all. Leviticus suggests a fifty-year cycle where all hierarchy is abolished and everything renews itself on the basis of harmony between God, humans, and all of nature. With regard to population pressure, many Jewish thinkers call upon the mystical thought of the Kabbalists, which suggests that humans must learn to limit themselves – their rate of reproduction, their use of natural resources, and their production of fouling wastes. The example to emulate is the Kabbalist vision of how God created the world. If God is omni-present, then, reasoned the Kabbalists, the only way God could create would be by an act of *tsimtsum* – of voluntary withdrawal or limitation to make room for creation. Similarly we as humans must withdraw or limit both our reproduction and our wants so as to make room for coexistence with our environment in this and future generations. As Schorsch put it:

The miracle of co-habitation with other living species, the beauty of collective I – Thou relationship with beings wholly different from ourselves, requires our self-limitation. If we were everywhere, our presence would herald the end of the teeming diversity of nature. Our fragile and unique habitat needs a reprieve from human assault.¹⁵

Nature's fragility and susceptibility to human greed is also emphasized by Islam. Nature's balance can easily be upset by human wickedness. Natural disasters, such as floods, hurricanes, fires, and earthquakes, are interpreted by some Muslims as warnings from God that people are embarked upon a fundamentally wrong course of action, and the disasters that the greenhouse effect threatens could be similarly understood. When seen as a kind of "wake-up call" from God, the greenhouse effect resulting from human excessive consumption poses a serious dilemma to Muslims around the world, but particularly to those Muslim countries such as Saudi Arabia whose economy has come to depend upon the heavy use of oil. For such countries, and for the world at large, Islam's view of humanity as the "custodian of nature" (*Khalifa*) poses critical questions. Humans, as custodians of nature, are free to satisfy their needs only with an eye to the welfare of all creation. The harmony and beauty God gave nature must be respected by humans in their stewardship of nature resulting in the following rules:

¹⁵ I. Schorsch, "Trees for Life", *Melton Journal*, Vol.25, 1992, p.6.

1. The use of nature resources must be balanced and not excessive.
2. Humans must treat nature and its resources with kindness.
3. Humans must not damage or abuse nature in any way.
4. Humans must share natural resources, for no one owns nature. All persons are benefactors and stewards. Therefore, population pressure will dictate limits to consumption so that there can be equal access to resources by all.
5. Conservation is enjoined by the *Qur'an*. Therefore, in Islamic law there are rules for the conservation of forests, water, and animals.¹⁶

While the above rules served previous ages well, they are just now being enlarged by Muslims to address the modern issues of pollution, chemical warfare, and technological hazards, which are for the *Qur'an* clearly abuses of God's creation. While fertility control is generally forbidden by the *Qur'an* and the production of children is encouraged, some Muslims now suggest that fertility control may be acceptable if seen as part of self-discipline on the part of humans to avoid upsetting the balance of nature.

Although there is great diversity within Christianity today (from conservatives to the radically progressive), many Christian thinkers are holding Christianity responsible for fostering much of the world's excessive consumption and overpopulation. Within Christianity there are strong forces at work transforming Christianity's mainstream into a self-critical force for justice, peace, and the maintenance of the integrity of nature. As Catherine Keller puts it, planetary ecology cannot be separated from social justice, especially as seen through feminist theology.¹⁷ However, even in this perspective, the traditional Christian opposition to fertility control has not yet been critically examined in relation to the looming crisis of overpopulation. Christian thinkers are recognizing, however, that it is the overconsumption of the developed Christian countries of the North that is both polluting the environment and depriving the developing countries of the South of the resources they need. It is not the babies of the underdeveloped Asians, Africans, or Latin

¹⁶ Nawal H. Ammar, "Islam and the Environment: A Textual and Juristic View", in: *Population, Consumption, and the Environment. Op. Cit.*

¹⁷ Catherine Keller, "Chosen Persons and the Green Ecumenacy: A Possible Christian Response to the Population Apocalypse" in *Population, Consumption, and the Environment. Op. Cit.*

Americans who threaten the ecology, but rather the babies of well-off first-world parents. The first-world child will, due to excessive consumption, have thirty times the environmental impact of a third-world child. Therefore it is the child who has most, the first-world child, that the world can least afford. This leads to the radical conclusion that well-off Christians should choose to reduce their own populations and resource consumption so as to make room for the migrating poor. Such an ascetic choice is not seen as a denial of pleasure, but as a responsible practice of fertility control in relation to others and to nature. It also challenges the traditional patriarchal family patterns basic to many Christian cultures, just as it has for the contemporary Chinese.

All of this is grounded in the teachings of the Hebrew prophets who politicize the relationship of humans with nature, maintaining that “nature and man are bound together in a fateful history where the responsibility of man for his life and his world meets the demands of a new order in which basic justice is required”.¹⁸ In line with the prophets, the New Testament teaches that one must love one’s neighbour in need (e.g. act as did the Good Samaritan). Christians today are realizing that their neighbour’s welfare is strongly affected by the way they treat the environment and by the number of children they produce. The prophets addressed the issue of resource consumption from the vantage point of the poor. The lesson for Christians today, says Keller, is: do not multiply the quantity of life but enhance the *quality* of life through the sharing of nature’s abundance. The result is an ethic of interdependence with the rest of creation, which may also mean an ethic of “non-creation” for Christians in developed nations – for the good of the whole.¹⁹ Although the prophets were quick to criticize human greed and sinfulness in its many forms, they also held out a hope for the future, a harmony that would include all of humankind and all nature. In the New Testament the idea of “the Kingdom of God” is seen as referring both to another world and to this world in its hoped-for state of harmony among people and between humans and nature. For the early New Testament Christians, the notion of an immanent end-time (the second coming of Christ) led them to counsel “few possessions and no children”. Christians today are

¹⁸ D.D. Williams, “Changing Concepts of Nature”, in Ian G. Barbour *Earth Might Be Fair: Reflections on Ethics, Religion, and Ecology*. Eaglewood Cliffs, NJ: Prentice-Hall, 1972.

¹⁹ Catherine Keller, *Op. Cit.*

hearing a similar counsel not because the end (Apocalypse) is coming but in order to avoid another kind of end – an environmental catastrophe.

Like Christianity, Hinduism has traditionally opposed fertility control. The purpose of marriage is the production of children and a childless marriage is grounds for divorce. A large number of children, especially sons, has been seen as both a social and an economic asset. Abortion or other means of fertility control have been condemned except when the mother's health is in danger.²⁰ There have, however, been times in India's history when the population pressure exceeded the earth's carrying capacity. At such times many young people have chosen, or been urged by society, to enter *sanyassi* or celibate monastic life, perhaps to help ease the population pressure on the environment. Although Hindu leaders today would not advocate fertility control, most educated Hindus likely practise it. Indeed, with the social and economic stress on sons there is evidence that the technologies which offer possibilities of sex selection and abortion to ensure the birth of sons are being used by some parents.

Traditional Hindu lifestyles have used resources carefully and tried to conserve for the future. Possessions were kept to a minimum and fasting was popular. All of this was based on respect for nature as the body of God. To overexploit nature through excessive consumption was to do damage to oneself; because oneself and nature were simply different aspects of the same whole – God. With the British came the modern Western idea of the exploitation of nature for profit, and the technological means to do so in abusive ways. They also brought modern medicine which cut deaths dramatically allowing the population to escalate, resulting in a vicious circle. Hinduism has largely shut its eyes to these problems with the exception of some women's movements and the Aboriginal communities.²¹ Hindu-owned industry in India has not proven to be more environmentally responsible than were the British. And well-off Hindus have shown themselves just as open to engaging in unnecessary and conspicuous consumption as those in the modern West. One contemporary Hindu reformer, Mahatma Gandhi, attempted to bridge

²⁰ See Julius J. Lipner, "The Classical Hindu View on Abortion and the Moral Status of the Unborn", in: Harold Coward, *Hindu Ethics: Purity, Abortion and Euthanasia*. Albany: SUNY, 1989, pp.41-70.

²¹ Klaus Klostermaier, "Population Pressure, Natural Resources, the Environment and Hinduism", in *Population, Consumption, and the Environment. Op. Cit.*

between India's traditional ideals of restraint and conservation. Gandhi attempted to guide India between the extremes of no growth at all and growth for material values only. In his view Hindu ethics do not reject technology or material possessions, but see them as having a restrained but proper place in the cosmic order of God's body. His Hindu Vaiṣṇava background – with strong Jaina influence – led him to advocate social models that balanced economic and environmental needs under spiritual values. Nehru, however, disagreed and moved India quickly into the modern world. That action, together with India's population explosion, has resulted in the creation of huge cities (e.g. Calcutta and Bombay) whose rate of growth has far outstripped the expansion of infrastructure such as roads, water, and sewers. To such cities, which threaten to double in size in the next 50 years, the Hindu ethic of conservation and respecting nature as God's body poses a serious challenge. In spite of its fine ecological teachings, India, like the West, has ignored these teachings in its rush to modernization; it has not followed Gandhi's ideal of restraint.

III. CONCLUSIONS AND RECOMMENDATIONS

The above analysis reveals many points of convergence, along with some differences in the approaches of the religions to the two-sided problem of population pressure and excessive consumption in relation to environmental degradation. In spite of their differences, however, all the religions view nature as having varying degrees of intrinsic value and therefore commanding human respect. Also almost all religions come to see the need for humans to limit their increase so as to leave room for other species to exist – and indeed for humans to live in the ways intended for them.

In spite of these rather significant points of agreement, recent commentators observe that the views of the various religions do not seem to make much difference when we examine how humans have in fact interacted with nature. Callicot and Ames point out that in both the East and the West the environment has been ruthlessly exploited. In their view it is our innate aggressiveness as *Homo Sapiens*, inherited from prehuman savanna primates, that is at the root of the problem. This might lead one to the pessimistic conclusion that what religions teach about the environment does not after all matter, for we as humans are simply driven by our biological inheritance. The religions reviewed would not accept such a deterministic position. There is simply too much evidence that humans can and do change their behaviour – sometimes in radical

fashion. It is in this context that the question to be asked of the religions is not what have their followers done in the past in relation to the environment, but what do they teach today? Two questions must be considered: (1) do the religious ideas of a tradition encourage environmental exploitation and destruction? (2) do the religious ideas of a tradition offer correctives to exploitation?

When these questions are asked, we can begin to make distinctions between religions. While all the religions reviewed here teach that nature is to be respected and not abused for human self-satisfaction, it is true that the Eastern and Aboriginal traditions are more congenial to ecology and a conservationist ethic. They teach the unity of humans and nature in ways that are quite different from the separation between humans and nature fostered in much Western religious thought. While the active domination of nature may not have been the intent of Jewish and Christian teachings, one can see how Genesis is open to such interpretations in ways that the Eastern views are not. Lynn White's contribution is useful in helping us to see how biblical views about the human domination of nature, when decontextualized, encourage us to exploit. Eastern and Aboriginal ideas are a clear corrective in this regard.

Although the traditional ideas of all religions, with the exceptions of Buddhism, Chinese Religions, and the Aboriginal traditions, have encouraged population growth in irresponsible ways, feminist scholars in all religions are introducing new readings that would limit population growth out of respect for our necessary interdependence with each other and the environment.

T.S. Eliot in his poem "The Hollow Men" says

Between the idea
And the reality
Between the motion
And the act
Falls the shadow²²

If, as Callicot and Ames suggest, "the shadow" obstructing the actualization of our responsibilities to the environment is our innate human aggressiveness, then the worldviews of the religions can only help. Each offers an assessment of our human condition in relation to the cosmos that to varying degrees would temper our aggressiveness toward

²² T.S. Eliot, "The Hollow Men" in: O. Williams (Ed.) *A Little Treasury of Modern Poetry*. New York: Charles Scribner's Sons, 1952, p.286.

nature. While there are failures within all cultures and religions, there is also evidence that what we think can affect the way we act. The shadow can be flooded with light. All of the religions reviewed show, to varying degrees, an enlightened understanding of our human duties to the environment. To meet our current crisis, the ecological resources of these religions can usefully be engaged at the levels of individual believers, religious leaders, government leaders, business CEOs, and workers in NGOs. The changing of people's thinking and behaviour is after all the one thing that the religions have consistently demonstrated the power to accomplish. It was with this hope that the forty representatives of the above religions concluded their ten-day seminar at Whistler. Far from being depressed by the observations of Callicot and Ames, they concluded their work inspired that the religions have important wisdom to offer the global problems of population pressure, excessive consumption, and the degradation of the environment.

Harold Coward

Overview

Every day, humankind destroys more than 46,000 hectares of forest, degrades nearly 60 million tonnes of top soil, dumps almost 2 million tonnes of carbon into the atmosphere from their cars alone, and causes the extinction of perhaps as many as 50 species of plants and animals. Whether driven by arrogance, greed, or ignorance, human activity now threatens to overwhelm the planet's capability to sustain life. In 1992, 1575 scientists from around the world issued a brief report entitled "World Scientists' Warning to Humanity" (reported in the *Victoria Times Colonist*, 19 Nov. 1992): "Human beings and the natural world are on a collision course". A spokesperson for the scientists elaborated: "There is an exceptional degree of agreement within the international scientific community that natural systems can no longer absorb the burden of current human practices". With as little as a decade for governments and people to act, the scientists urged that measures be taken immediately to curtail unrestrained population growth and to reduce the waste and pollution associated with excessive resource consumption.

The scientists further urged an immediate reduction in the world's human population, and for good reason. Every minute, 171 people are added to the global population, i.e. approximately 10,200 every hour or 7.5 million every month. But how to comprehend these numbers? The world's monthly increment is roughly the same as the current population of the four western provinces of Canada. At this rate, and given the current world population of 5.7 billion people, there will be slightly more than 6 billion people on the planet by the end of the twentieth century. In just a hundred years, that figure could be anywhere between 8 to 12 billion, if serious efforts are initiated to slow population growth immediately. If not, then world population could exceed 27 billion. John Stackhouse, reporting in the *Globe and Mail* (3 Sept. 1994), noted "that means four people where there is now one".

Nowhere is this image more vivid and real than in the poorest of the poor regions of the world. Engulfing large parts of Africa, Latin America, and Asia, the poor comprise as much as 85% of the world's population,

experiencing as they do unprecedented growth rates. The population of some sub-Saharan African countries has been increasing at rates in the range of 3.5–4%. George Mathews, in his comment on the Cairo Conference, entitled “Where the population crisis is – and isn’t” (*Globe and Mail*, 6 Sept. 1994), explains: “To grow at 3% a year is to double in 23 years, quadruple in 46 years, multiply by 16 in 92 years and by 64 in 140 years”. He then sternly counsels: “We are not talking about ants, but about human beings who need water, food, a place to live, and a sense of destiny. Something has to give, and sooner rather than later”.

As the planet’s ability to support life diminishes, basic necessities become more and more scarce, fanning ethnic, racial, and political sparks into violent infernos of armed conflict. In addition to the hundreds of thousands of lives extinguished, wars shatter societies, sending countless millions of people on the run. The United Nations High Commissioner for Refugees estimates that there are more than 49 million refugees worldwide, that is about one in every 115 people on the planet.

Throughout the developing world, the alluring hope for a better life draws countless millions of people from the countryside into already crowded cities. This migration is very pronounced in Latin America where in 1950 city dwellers accounted for 42% of the population, whereas today they make up 73%. The city of El Alto in Bolivia, for example, experienced a quadrupling of its population in just 16 years. In 1976 it had approximately 95,000 inhabitants; by 1992 the number had skyrocketed to just over 400,000. The most recent population estimate for the city puts it at about 500,000 people and growing at 9% a year. At this rate, it will double in as short a period as eight years. Already the city cannot adequately provide for its current inhabitants; only 33% of the population have running water, others must draw it from extremely polluted rivers. Garbage and sewage flow together along dirt streets, exposing hundreds of thousands of people to the risk of serious illness. Yet the city has only one thirty-three-bed public hospital. At first glance, then, El Alto doesn’t seem like the kind of place that would attract people seeking a better life, until it is understood that Bolivia’s rural poor rank among the worst off in the world, with more than 97% of them living below the poverty line. As dirty and unclean as it may be, El Alto offers the one possibility that the impoverished countryside cannot provide: the chance of finding work and escaping from debilitating poverty.

Not surprisingly, the question of how best to reduce population growth has become tied up with questions concerning social justice and economic development. Many developing countries aspire to achieve the

North American standard of living, and therefore actively pursue policies and programs designed to stimulate economic growth. However, while increasing the standard of living often translates into lower population growth rates, it is not without deleterious side effects on the environment, as even a quick glance at the United States or Canada will reveal.

Ranking among the richest people in the world, Americans and Canadians consume resources at a voracious rate, far in excess of their basic needs. According to the 1991 *State of the World* (New York: Norton, 1991), Americans consumed more minerals from 1946 to 1976 than did all of humanity up to 1940, and currently use more than four times as much steel and twenty-three times as much aluminum as their neighbours in Mexico. They also use more than twenty-five times the amount of nickel as a person living in India. Canadians use more energy per capita than any other people in the world. To satisfy their inordinate requirements, North Americans have strangled the flow of rivers with dams, ripped open the sides of mountains with mines, and ploughed under vast tracts of the prairies with farms. Adding insult to environmental injury, North Americans also hold the dubious distinction of being the world's biggest producers of waste. In 1989, John Langone, in his essay "A Stinking Mess" (*Time*, 2 Jan. 1989), estimated that each year Americans throw away 16 billion disposable diapers, 1.6 billion pens, 2 billion razors and blades, and 220 million tires. They discard enough aluminum to rebuild all of the U.S. commercial airlines every three months. Every year, Canadians toss out an estimated 1.7 billion disposable diapers, and generate about 20 tonnes of carbon dioxide and astonishing amounts of garbage. The average North American exerts an impact on the environment 80 to 100 times greater than many of the people living in the poorest regions of the world, raising the question of whether the world can afford another North American.

And so it is that an increasing number of developing countries have adopted the stance that the global crisis is not so much a result of population growth as it is the result of overconsumption by the developed countries, which account for less than one fifth of the world's population. The solution, they say, is for the developed countries to consume less while assisting the developing countries in raising the standard of living of the poor, so that the motivation to bear children will be diminished.

While the solution appears straightforward enough, it is not without its complexities. On the one hand, people of the developed regions of the world show little desire to curb their consumption or to provide adequate resources in the form of aid to people in the developing regions. On the

other hand, people within many of the developing regions of the world appear to be strongly motivated to have children, especially sons, even with an improving standard of living. Woven in and through these issues, there are questions concerning the status and rights of women, the roles of children within a family and community, the perceptions of nature, the type of economic development – to mention but a few. The questions ultimately challenge very basic values, beliefs, and assumptions which form individual and collective worldviews or frames of reference. In other words, the questions lead into still deeper questions laden with moral, ethical, and religious overtones, as was seen at the recent International Conference on Population and Development held in Cairo (1994). Here, the Roman Catholic Church and fundamentalist Islamic countries exerted a very significant influence over discussions concerning women's rights, abortion, families, and acceptable sexual practice. In the end, these forces could not hold back the tide of change at the conference. However, it would be unrealistic to expect that they won't continue to influence personal and state decisions concerning population for some time to come.

Given the backdrop of such attitudes, the gathering which took place in August 1993 was truly remarkable. Coordinated by the Centre for the Study of Religion and Society (CSRS) at the University of Victoria, forty-two people came together in Whistler, British Columbia, for a critical examination of religious and ethical perspectives concerning population growth, resource consumption, and environmental degradation. Rarely has the role of religion within this context been subjected to such intense scrutiny, even though such scrutiny has been long overdue. Perhaps religion has managed to escape critical examination in part because of a Western tendency to dismiss matters of values and beliefs and, instead, to embrace matters of facts and figures. Whatever the reasons might have been in the past, they were not sufficient to deter the diverse group assembled for the task. Among the participants were scientists, social scientists, theologians, educators, academics, activists, civil servants, and students – encompassing a wide range of ethnic backgrounds and perspectives, including Chinese, Indian, African, European, Arabic, and Aboriginal. Their diversity enriched the discussions and made them all the more challenging. They took nothing for granted, not even commonly used words, for it quickly became apparent that these often carried meanings offensive to other cultures, or no meaning at all. Still they persisted in seeking common understandings through questioning and sharing in a spirit of openness and willingness

to learn from each other. What made this process possible was the depth of concern for the planet, humanity, and other forms of life, that each of the participants brought to the gathering.

This book attempts to distil the essence of those ten days of discussion. It presents the ideas, concerns, and questions that filled each day and seeks to elucidate the process by which these were examined and clarified. For in the end, it was the process that enabled an acknowledgement of and respect for individual differences, while at the same time fostering a sense of unity through convergence. Hopefully, this book does justice to both the content and the process of the 1993 International Summer Institute and encourages the wider adoption of its approach.

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SECTION I
THE PLANETARY CRISIS

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The Human Context

“Human populations are the prime cause of environmental stress” Anne Whyte stated simply as she began her presentation, the first of the week-long Summer Institute. “The planet’s capacity to meet human demands for natural resources, and equally, its ability to absorb the wastes produced by human activities, are under attack.”

As a Director of the International Development Research Centre based in Ottawa, Whyte brought to the gathering a global perspective well grounded in science. Widely respected for her work in the fields of environmental impact assessment, environmental policy, and food security, she has been made a Fellow of the Royal Society of Canada and a Fellow of the World Academy of Arts and Sciences.

The sense of crisis has deepened, as the scale of environmental change has become apparent, and the understanding is growing that the causes are not easily fixed for they lie deep within human desires and the way that societies function. When we look at the “environmental crisis”, we see our own human reflection.

Some of the areas in the world where the crisis is most apparent are found within the developing countries. Here, essential resources such as land and water are being degraded or depleted at frightening rates. With increasing population, two things happen: farm sizes decrease and more people are forced onto marginal lands. The inevitable result, in either case, is a reduction in food production coupled with increased soil erosion and deforestation. The United Nations estimates that as much as 80% of the deforestation occurring within the tropics can be attributed to in-migration forced by population growth.

There are three trends which are particularly worrisome. First, more than 85% of the current population growth is occurring within the world’s poorest areas: Africa, Latin America, and Asia. Just how many people does this growth represent? About 85 million people every year, given a global population of 5.6 billion growing at 1.8% per annum. To put this into a North American context, it is like adding a city the size of Chicago to the planet every month. Second, many countries in these

regions are now experiencing *unprecedented* growth rates. For a country such as Ecuador with a population of approximately 10 million, its current rate of growth will lead to a doubling in just 25 years. The third trend is the scale of out-migration spawned by problems triggered by exponential population growth. In 1993, the United Nations placed the number of refugees forced to flee their homes due to conflict or oppression at somewhere in the order of 44 million people. This is roughly equivalent to the population of Ethiopia.

But the problems associated with population are not those of the developing world alone. "Between North and South, there lies a great consumption divide. ... The epitome of the modern consumer society is North America." To back up this assertion, Whyte noted that on average an American citizen exerts about fifty times the impact on the environment of someone living in India or China, and perhaps as high as 300 times that of a person in Uganda or Laos.

The developed countries, for their part, have less than a quarter of the world's population, and consume about 65% of the food calories. ... The North creates more waste in total and per capita, and spreads its waste around the globe through the atmosphere, the waterways and oceans, and in land fill sites and waste dumps within and beyond their own borders.

To support their excessively wasteful consumption, developed countries have increasingly turned to exploiting the people and ecosystems of the developing countries. Of particular concern to Whyte is the suffering experienced by environmental refugees, the landless rural poor, the urban squatters, and the women and children of the poorest families. These, she insisted, were the human faces of the environmental crisis.

At least four actions could be taken to break the vicious circle of population growth and environmental degradation found in many of the world's poorest countries. Whyte identified these as:

1. Raising the standard of living;
2. Reducing child deaths;
3. Narrowing the gender gap by improving the lot of women; and
4. Making family planning choices more available.

"Any one of these interventions has some beneficial effect, but to achieve significant success, they need to occur, or be introduced, together."

To underscore this point, Whyte stated that as family income rises, the number of births declines. A key element of this relationship is the

change in perspective regarding children. Within many societies, children, especially sons, are extremely important for caring for their parents' "afterlife" spiritual needs. They also provide labour, both inside and outside the family, and thus can make a significant economic contribution. These factors, along with others, tend to encourage higher birth rates among traditional rural families. However, with modernization, the costs of providing for children – child care, education, and housing – tend to outweigh the economic contribution of children. Additionally, it is not uncommon to see an erosion of the traditional expectation that offspring will care for their parents in old age or in their afterlife. Consequently, the desire for fewer children increases.

Turning to the status of women in these countries, Whyte stated that improvements here have been shown to be the most consistent variable in reducing the number of children born, and in improving each one's chances of survival beyond infancy.

"Education is a key component in the social progress of women. When women are educated, they are more likely to have higher status in the family and in society, and be more empowered to make their own decisions." Dramatic changes occur with respect to reproduction when women have increased access to adequate economic resources and health care. "If women are confident that their children will survive, they will have fewer births."

In many countries, men are favoured over women to the extent that females are less likely to get access to sufficient health care, education, and nutrition. This trend forced Whyte to conclude: "The human face that suffers most from environmental stress is female".

If better social policies are indeed better environmental policies, then what role and responsibilities does religion have in bringing them about? In answering this question, Whyte began by observing that both religion and science "seek to provide explanatory frameworks for understanding the relationships between individual human beings and the larger community, and between people and the natural world". Additionally, each exerts six critical influences relevant to social and environmental policy:

1. Values relating to population issues;
2. Values relating to the natural world;
3. Teachings on justice and equity;
4. Attitudes towards the future;
5. Value for speaking out, for bearing witness; and
6. Emphasis on individual responsibility.

Before commenting on each of these, she noted that there is often a marked difference between a religion's "original spiritual truths" and its reification as institutions, rituals, or customs, and that it was the latter which typically exerted the most influence over attitudes and behaviours. With this difference noted, she turned to examine each of the six influences from a religious perspective.

Religion has much to say about population by virtue of what it asserts with respect to

the status and role of women; the purpose and meaning of marriage; attitudes to sexual intercourse and procreation; attitudes to family planning generally and to abortion specifically; and the spiritual, biological, social, and economic value placed on children and on the family.

With respect to the natural world, religions play a critical role in its degradation to the extent that they either encourage or discourage the notion of humans as being separate from the natural world.

Our view of the natural world influences the degree to which we are prepared to transform it for our own ends, to engineer our own concrete habitats, to reverse the flow of rivers, and to make the desert bloom.

On justice and equity issues, Whyte indicated that the explanations offered by religions for the gross inequities in the world very much influence their participation and effectiveness in the search for solutions. The combined weight of these issues, along with the mounting environmental crisis, has eroded many people's faith in the future, especially among youth. "What does a religion teach about the future? Does it provide hope and reason for continued effort? Does it provide a coherent or fragmented explanation for what is happening? Does it even address the environmental crisis as a matter for religious attention?" On this latter point, she criticized those Christian denominations within Western societies which "appear to behave as though they exist in an intellectual and moral ghetto, lacking confidence in their moral authority to speak out on major social issues, including environmental pollution and destruction". This tendency is commonly shared by too many scientists. Both are abdicating their responsibilities "to bear witness" on critical social and environmental issues.

Without the added incentive of pressure from religious leaders or scientists, too many governments have taken soft stances on population issues. Currently less than 1.5% of all international assistance goes to population issues. Part of the reason for the soft stance is government

reluctance to intrude on what are typically viewed as private choices. “The real challenge for public policy is to frame population policies within environmental, cultural, and spiritual goals. This means that private choices must be brought into line with the public good.”

How is this alignment to be achieved? The use of force or coercion is not likely to be effective, except under the most draconian of regimes. Public education is required.

People will support policies that require a change in their own lifestyles and personal choices if, and only if, they agree personally with the goals of the policies and can see equity and effectiveness in the way they are applied.

In closing her presentation, Whyte urged religious leaders, scientists, and elected representatives to work together to forge new alliances. “For too long, these spheres of influence have talked within their own houses, as solitudes.” To underscore the need for greater cooperation between these groups of decision makers, she referred to the “Mission to Washington: the Joint Appeal by Religion and Science for the Environment” (*Congressional Record*, 13 May 1992), an initiative that she had been part of, and wherein many of North America’s foremost scientists and religious leaders came to this agreement:

We are people of faith and of science who, for centuries, often have travelled different roads. In a time of environmental crisis, we find these roads converging. As this meeting symbolizes, our two ancient, sometimes antagonistic, traditions now reach out to one another in a common endeavour to preserve the home we share.

We believe that science and religion, working together, have an essential contribution to make toward any significant mitigation and resolution of the world environmental crisis. What good are the most fervent moral imperatives if we do not understand the dangers and how to avoid them? What good is all the data in the world without a steadfast moral compass?

Differences of perspective remain among us. We do not have to agree on how the natural world was made, to be willing to work together to preserve it.

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The Natural Background

Kenneth Hare possesses an impressive array of credentials and experience, including organizing the scientific content at the First World Climate Conference in 1979, and chairing the first annual assembly of the Global Climate Change Program in 1990. With research interests spanning such issues as nuclear winter, acid rain, and desertification, he is well equipped to provide an overview of the global changes being generated by human activity.

He began his presentation by reminding us that the earth is not made up of just air, water, soil, and rocks, but also includes life. Of particular concern to him is the fact that, by virtue of our self-consciousness, we have obligations to ourselves, to other living species, and to the earth. This is especially so in terms of our impact on the environment.

It would be tragic if self-conscious life should bring about its own destruction – and in so doing, severely damage the stage on which the drama has been enacted – the planet Earth. Yet that is what is beginning to happen. We have come to Whistler to ask whether the world may yet be saved. ... The issues before us are not scientific; they are profoundly moral.

To help us understand what he meant by this comment, Hare first turned to the issue of global change. Here he differentiated between natural changes and anthropogenic changes. The former tend to be quite slow for the most part, while the latter occur very rapidly with often catastrophic effects. “As a rule, the outcome is unintentional, it arises from the failure to see or care about the possible consequences of our actions. Human folly and ignorance easily outweigh malice.” But the situation has now become so serious that the folly and ignorance must be overcome to develop globally effective remedies quickly. Science is one way in which we can overcome these “blind spots”, because scientists “try to observe and understand things as they really are, and not how our prejudices might prefer”.

What does science have to tell us about global change? After all, considerable amounts of data have been collected concerning temperature

and precipitation patterns affecting the various regions of the world and going well back in history. What initial analysis of these data strongly suggests is that the global average temperature has increased by about 0.5°C since 1910. This may not sound like much, but there are some critical aspects to it. First, there are marked regional differences. While some parts of the world have warmed, others have actually cooled. Across the prairies temperatures have risen by 1.5°C or more during the past 100 years, while in the Atlantic region they have fallen since 1920. Second, there are large year-to-year variations, which tend to create confusion.

A single cool summer or cold winter invariably leads to the ironic question: "what's happened to global warming?" Third, the warming has been essentially confined to the uppermost layer of the oceans (whose deeper waters are extremely cold worldwide) and the lower parts of the atmosphere (in general the bottom 6 kilometres).

As a result of these features, perceptions differ markedly among scientists, politicians, and the public, complicating the task of developing strategies to deal with the issue.

The complexity increases even more when the search for causes of global warming commences. Currently, the accumulation of greenhouse gases in the atmosphere is considered the most likely source of recent dramatic increases in global temperatures, although there are some scientists who dispute this connection. Greenhouse gases, most notably water vapour and carbon dioxide, allow heat from the sun to enter the earth's atmosphere, but not to escape. The result is, of course, global warming. Water vapour, because it is naturally abundant and fluctuates continuously, is considered part of the normal atmosphere, while carbon dioxide is not.

In the case of carbon dioxide, human interference is adding at least 6 and probably 8 billion tonnes of elemental carbon to the atmosphere every year, of which about 3.4 billion remain there – an annual increase of 0.5 per cent. ... The net effect, therefore, is that human action seems responsible for raising temperatures above those due to the natural greenhouse effect, at a rate that might prove damaging to living communities. ... Indeed, using very sophisticated computer models and estimates for the release of greenhouse gases by human activity, some scientists have suggested that global temperatures could rise by as much as 1.6 to 3.5°C over the next seventy years or so. If that does occur, it seems likely that there will be serious impacts on sea levels, on ecosystems, and on crops.

Of equal concern to many scientists and to an increasing segment of the public is the issue of ozone depletion. Ozone is a naturally occurring gas in the atmosphere that protects life on earth by screening out much of the sun's damaging ultra-violet rays. Since the 1970s scientists have become increasingly concerned about the weakening of the ozone layer by such gases as nitrous oxide from vehicle and aircraft exhausts, and chlorine released from chlorofluorocarbons (CFCs) used as coolants and in aerosols. While the connection between these gases and the destruction of the ozone layer is still in question, there is widespread agreement that ozone depletion is occurring worldwide. The urgency for immediate action is underscored by the awareness that the accumulated ozone depleting gases already present within the atmosphere will continue to inflict damage for quite some time to come. Hare commented grimly:

The atmosphere is in many ways self-cleansing; but removal of the more unwelcome species [of gases] is bound to be slow – too slow, in fact, for us to avoid the consequences of their increase in the atmosphere. We created this problem for ourselves; and it will not be easy to undo the damage to which the atmosphere has already been committed by our actions.

While there is much uncertainty as to the causes and effects of global warming and ozone depletion, there is even greater uncertainty as to the impact of these. One of the principal reasons for this uncertainty is the extent to which we have modified, and are continuing to modify, the earth's ecosystems. This activity obscures those effects resulting from global climate change. For example, the clearing of tropical rainforests, recently estimated to be occurring at a rate of 148,000 square kilometres annually, makes the task of investigating the often subtle ways in which global climate change affects this ecosystem a race against time. Moreover, the removal of forest cover has also been shown to contribute to global warming through slash-and-burn and the oxidation of soil humus.

In closing his presentation, Hare acknowledged two emotions: "One is anger at the role of my own species in this assault on nature. And the other is a sense of urgency, coupled with a feeling of impotence at the size of the challenge facing us all". In this remark, he echoed Anne Whyte who, during the question period following her presentation, admitted: "Sometimes I wake up very scared".

Where do we look for solutions if science is only now really beginning to probe the mysteries of global change? On this question, Hare was very clear.

I believe that what we are discussing here is fundamentally a moral issue. What we are discussing is what we ought to do about our future. This inevitably includes our religious positions.

I do not believe that you can successfully bring about a revolution in the attitude of the species – humanity – to its natural environment by regulation, by government action, alone. ... They are necessary, but not sufficient.

What, and only what, will be sufficient is a change in public attitude – a change toward the position that nature ought to be protected, a change toward the view that some things in nature are sacred.

SECTION II

RELIGIOUS ETHICAL PERSPECTIVES

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Aboriginal Spirituality

Daisy Sewid-Smith's opening remarks pointed out the quite different situation of the Aboriginal peoples with regard to population pressure:

The Aboriginal Nations do not have the population pressure that the rest of the world faces because circumstances never gave them the opportunity to increase in numbers for several reasons. Until quite recently the Aboriginals have been in danger of becoming extinct and that is the reason they were referred to as the "vanishing race" ... The main concern of the Aboriginal Nations over the years has been to settle land claims and to preserve the race so that they would no longer be a "vanishing race".

Sewid-Smith is a member of the Mamalilikalla tribe of the Kwakiutl Nation whose traditional territory encompassed a good portion of the mid-coast of the British Columbia mainland and most of Vancouver Island. For the past twelve years she has dedicated herself to improving education for First-Nations children attending schools in and around Campbell River on Vancouver Island.

To put her opening remarks into perspective, Sewid-Smith pointed out that early population estimates of Aboriginal peoples in British Columbia placed them somewhere between 70,000 and 80,000 individuals. With the arrival of Europeans, commencing in the mid-1700s, Aboriginal populations were subjected to diseases to which they had no immunity. A series of devastating epidemics swept through the villages, the most notable being in 1775, 1848, and 1862. As a consequence, populations plummeted. By 1885, little more than a third of British Columbia's Aboriginal peoples survived.

Since the early 1960s, Aboriginal populations have been steadily increasing, although accurate estimates are difficult to obtain due to complications arising from the government's definition of native. "Native women who married unregistered Aboriginal or non-native men were no longer natives in the eyes of the Canadian government", Sewid-Smith explained. She continued with her criticism of federal government policy and its effects on women:

The laws against Native women were devastating to the Aboriginal Nations of the coast because women [already] had equal ranking with men. There was no need for a feminist stand. Women held powerful positions in our Nations. Women had seats in Council, seats in our government, they became medicine women, and women of great wisdom were sought when advice was required.

The affront to Aboriginal culture did not end with attacks on the role of women. The dominating Euro-Canadian culture placed Aboriginal peoples on reserves. On the coast, white administrators allocated reserves on the basis of twenty acres per family. Such allocations made no provision for population growth, quite possibly because, as Sewid-Smith alleged, Aboriginal people were being treated as a vanishing race. On these reserves, the people were treated as “wards of the government”, like a child needing a guardian. Meanwhile, their traditional territories, once the basis of their culture, were turned over to the Province. This action not only cut them off from their subsistence, but also from the foundation of their spirituality.

There are distinct differences among various First Nations with respect to their spirituality. Sewid-Smith explained that her contribution was based on personal knowledge of her own people, the Kwakiutl Nation.

Aboriginal spirituality can mean many things to many people: meditating, beating a drum, burning sweet grass, going to sweat lodges, or singing songs. All these are mere rituals or expressions of the religions of the respective tribes of North America. However, Aboriginal spirituality was more than a ritual. It was a daily encounter with what the Kwakiutl call the “supernatural” and through this encounter an individual is changed from within. By linking with this force that goes beyond human comprehension, an individual might receive special abilities or gifts. Such unions were actively sought. The Kwakiutl believed that the secular and the supernatural were only divided by a thin veil and one only had to walk through it.... To seek this supernatural force one had to go into the forest for several months. They had to bathe four times daily in a river or lake. After each bath they were required to rub themselves with hemlock branches and meditate.

Through such rituals, the Kwakiutl prepared themselves for an encounter with the supernatural force. Equally important, through their sojourn, they gained a deep respect for nature and all living beings. These lessons were combined with others which taught them to show gratitude

to other beings who gave up their lives in order for humans to live. These demonstrations of gratitude might include giving praise to a slain bear or a caught salmon.

These practices may seem foolish to modern man, but these daily acknowledgements seemed to remind the Kwakiutl that they were not the only important species on this planet. ... It also helped to remind them that one must live within certain boundaries, otherwise they must face the consequences. In our society we have social boundaries enforced by our laws. We all know if these boundaries did not exist we would have anarchy. Man is the only species on this planet that seems to need laws to keep him within his own boundaries.

But it was not just human-made laws that the Kwakiutl were concerned about. They were also very careful not to break the laws of nature, for they believed that to do so was to invite “anger from the supernatural realm”, with impending dire consequences. Fortunately, the supernatural forces would first give warnings that the people were doing something they ought not. These warnings usually came in dreams which subsequently were viewed as a direct link between the supernatural and the secular worlds.

Given these beliefs, many Aboriginal people saw strong parallels between Christianity and their own spirituality.

Christianity believes in a supernatural God, a supernatural world, supernatural powers and an upper world that you go to after death, called heaven. Christianity also teaches that one must take care of the many gifts of the creator Jehovah and that includes this planet we call earth.

As a consequence, many Aboriginal people converted to Christianity. However, Christianity has also been a disappointment for many of her people. Among other things, it has not supported environmental protection to a strong enough degree. “They have the power to do something about the environment, if they choose to use it. They should play a more active role.”

Focusing once again on Aboriginal perspectives concerning the environment, Sewid-Smith noted that the majority of the Aboriginal people

still place the environment at the pinnacle of importance, followed by conservation and the notion of maintaining balanced use of the environment. However, the rest of the world seems to place the environment as having the least amount of importance and industry and

consumption are considered the most significant of the three. Placing industry and consumption before the environment is incomprehensible to the Aboriginal mind. ... We [non-Aboriginals] have arrogantly unbalanced the scales of nature. There will no longer be a dream of warning, for we are now more concerned about the material rather than the spiritual. Materialism is considered the norm and being spiritual is now considered foolish.

Although she was talking primarily about non-natives, Sewid-Smith also worriedly acknowledged that materialism was beginning to catch on among her people. "Many Aboriginals are now very materialistic and they have left the ancient ways. Perhaps there is something in the ancient ways that will help modern man rethink his position on this planet."

The Environmental Crisis and Jewish Earthways

The crisis of the environment is a crisis of relationship – with our selves and our world, spiritual at its root, practical in its fruit. The seriousness of these outer challenges offers an opportunity for growth, and reconnecting to the inner earthways in our traditions. These ways are implicit in Judaic lifeways or “*halacha*”. Ancient Jewish earthways offer a unique and powerful spiritual-ecology path that can profoundly address modern challenges.

The speaker was Elisheva Kaufman, an environmental educator who specializes in the development of sustainable-living curricula. In her presentation she drew heavily on writings from the Bible and the Talmud, as well as from a Jewish mystic named Moses Maimonides, in order to formulate what she called “earthways”. These are ways of thinking and behaving that foster stewardship of the earth. Before explaining these earthways further, Kaufman drew our attention to what she perceived to be critical misinterpretations of common biblical texts, specifically Genesis, Chapter I, Verse 28, in which God commands Adam and Eve to “be fruitful and multiply, and have dominion over the earth”.

The idea of domination, Kaufman argued, is translated from the word “*kivush*” which originally meant “to marinate or to pickle”. Hence, the word more accurately expresses a relationship of encompassing influence, or an imbuing with one’s essence something that yet remains intact. Realizing that this might sound a little too abstract for some, she rephrased it as the notion of “*Shomrei Adamah*” or earth stewards, whereby humanity has a responsibility to God to care for the earth.

How was the earth perceived by the early Hebrews? According to Kaufman, as a living organism, intimately connected to all creatures. This was a hold-over belief from the Canaanites, kept alive within the mystical side of Judaism. To emphasize this point, Kaufman paraphrased the medieval Jewish philosopher Maimonides as saying:

We must consider the entire globe as one individual being which is endowed with life, motion, and soul, not, as some persons maintain, inanimate matter like the component elements of fire or earth, but an animate, organized and intellectual being capable of comprehension and response.

As wild as the idea seems, it bears a lot of resemblance to James Lovelock's Gaia Theory, which has slowly begun to win acceptance within mainstream science.

In any event, the realization of the earth as a living organism lies at the root of what Kaufman referred to as a "Jewish social ecology", which embodies several principles: "*Tzedekah*" or justice for natural and human rights, "*Tikkun Olam*" or repairing the world, and "*Tza'ar Ba'alei Chaim*" or reverence for life. From these principles, Kaufman argued, a Jewish environmental ethic can be derived that encourages the notion of stewardship rather than domination. To underscore this point, she told a story drawn from the Talmud:

Two men were fighting over a piece of land. Each claimed ownership, and presented apparent proof. To resolve their differences, they agreed to present their case to the rabbi.

The rabbi listened carefully to each argument, but could not come to a decision. Each perspective seemed to be right. Finally he said: "Since I can not decide to whom this land belongs, let us ask the land". He put his ear to the ground, and after a quiet moment straightened up and said, "Gentlemen, the land says that it belongs to neither of you – but that you belong to it".

What the Talmud seems to be challenging here is the belief that the world was created for the sake of humanity, a notion that Maimonides found extremely foolish. As he put it:

...the universe does not exist for Man's sake, but each being exists for its own sake; not for any other purpose. No part of creation exists for the sake of another part – but each part is the expression of the order of the Universe, of God's wisdom, and fulfils the intention of the Creator.

But where does all this leave us with respect to the issue of population growth? On this subject Kaufman was quite clear. Both the Bible and the Talmud stress the value and the blessing of having children. However, she also quickly pointed out that you can't say anything "on one foot" in Judaism, and emphasized that the notion of "being fruitful" was qualified. The intention was to preserve the species while also

ensuring that the environment was protected and not used wastefully. “God commanded Noah to not have more children while they were in the ark. One may conclude from this that it is not wise to rock the boat with population numbers that would consume more than the supply of resources can provide.”

In concluding her presentation, Kaufman suggested that in keeping with the idea of humanity as stewards, there should be a movement from zero population growth to zero impact population growth, and then on to positive impact populations. “In other words, we propose a focus not merely on numbers of people, but on how these people relate with each other, and with the earth and its resources.” Such a movement ultimately depends on all individuals taking personal responsibility for doing what they can within their communities, regions and countries. Kaufman finished with these words:

If I am not for myself, who will be for me?
And if I am not for others, what am I?
And if not now, then when?

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Chosen Persons and the Green Ecumenacy: A Possible Christian Response to the Population Apocalypse

Christianity today includes the single most vocal force of pro-natalism – of opposition to any effective birth control options and policies. At the same time, modern Christian – Western – cultures have been overwhelmingly responsible for the imposition throughout the planet of ecologically unsustainable patterns of development.

Catherine Keller, a Professor of Theology, introduced her talk with this provocative statement. Very quickly she established that, in her mind, the issue of planetary ecology cannot be separated from issues pertaining to social justice, most particularly those concerning the status of women. “There can be no effective, let alone humane, approach to overpopulation that does not begin with the situations of women in poverty.” Consequently, she argued that only a feminist analysis can really penetrate the interlocking relationships between the social and ecological injustices being perpetrated by Christianity.

Before delving into this analysis, Keller noted that there appears to be a conspiracy of silence at work among all shades of Christians concerning the population issue. One of the reasons for this silence, she suggested, arose from the uncomfortable awareness among first world peoples that, by reason of their highly consumptive lifestyles, they are exploiting the peoples and ecosystems of the third world. To advocate population control then might be perceived as something “akin to the genocidal policies which seek to rid the world of the troubling, potentially revolutionary masses of the poor”. Other reasons could include a desire to avoid the controversy surrounding abortion; an ambivalence about sex, women’s bodies, and the natural world; and the lack of any biblical teachings which would encourage greater consideration of the population question. And yet, as Keller pointed out, the problem does not go away simply because there is a reluctance to confront it.

Let me suggest that we will only be able to overcome the rather formidable inhibitions to addressing the population explosion globally and ecumenically inasmuch as we move toward a discourse which can sustain multiple voices advocating multiple commitments, without retreating into stale Western logic of “either vs or”, of “a or not-a”.

Instead, Keller urged the adoption of an alternative logic – an “eco”-logic, “which seeks to understand the ‘eco’nomy and ‘eco’logy as interrelated dimensions of our ‘ecu’menical accountability to each other and the earth”.

In the absence of this type of discourse leading to the development of alternative Christian perspectives, it is the Pope’s voice which sets the tone and direction of policies affecting population questions. As a consequence, notions concerning life have become entangled in debates about abortion, and morality has become hung up on sexual behaviour. “The appropriate ecumenical Christian response to this particular universalization of opinions of a celibate male elite cannot be polite silence.” She urged that Christians seriously engage in questioning how this “reductive, biologicistic, anthropocentric, and patriarchal notion of life” arose, in other words, to probe the origins of pro-natalism.

As Kaufman had done in the previous presentation, Keller immediately centred her criticism on the “be fruitful and multiply” commandment of the Hebrew scriptures. She argued that this soon became translated into an imperative to maintain the male line. However, she quickly noted that “pro-natalism as reinforcement of the population explosion is a Christian rather than a Jewish problem”. How this became so, however, is a complicated matter, as reflected in the tension between the Old and New Testaments. While the former carries the previously mentioned pro-natalist imperative, the latter is strangely devoid of such references. One possible explanation for this absence, Keller suggested, was the apocalyptic mood that prevailed at that time.

If the world was expected to conclude its business within the generation, there was hardly any point to further fertility. As a consequence, the apocalyptic foreboding engendered a tendency towards celibacy. When the world did not end, the church moved quickly to establish itself as principal institution around which people would order their affairs. However, it did so with a particular structure: a hierarchy of elite celibate males who enforce a patriarchal order wherein marital chastity is presented as the only alternative to reproduction and wherein the healthier Hebrew earthiness is replaced by the sexual guilt complex.

Maximizing fertility, minimizing pleasure – somehow the Christian heritage has left us with the worst of both worlds. Hence the pronouncements by celibate males today encouraging either overpopulation or sexual suppression.

Does all this mean that Christianity has nothing to offer towards possible solutions to the problems of population growth and resource consumption? Not at all, according to Keller. Indeed, it has much to contribute. In particular there is the Hebrew tradition of justice which encourages an equitable distribution of resources. Additionally, there is the Hebrew belief of every child as a gift of God. From this belief could arise the notion of seeing children as “chosen persons” rather than “receiving them merely as a vaguely supernaturalized biological fate”. It further suggests an ethic of “not giving birth to more than we as a world and as communities and families are capable of cherishing”. From this standpoint, Keller argued, “that the choice of no children – if taken in the context of commitment to work for justice for all the children – will sometimes appear as precisely the way to affirm life and choose children!”

Turning more specifically to the Christian tradition, Keller suggested that its “apocalyptic asceticism” might prove to be very useful, if revised. First she noted the strong parallels between the sense of apocalypse that dominated during the early Christian period and the sense of apocalypse now casting a foreboding shadow across Western contemporary cultures. Rather than succumbing to apathy instilled by the immensity of global issues, she encouraged “facing the apocalyptic threat – in letting it exhort us to ‘wake up’, and ‘to prepare’, to rub away the numbness brought on either by too much pain or too much comfort”. Indeed, she urged a counter-apocalyptic movement wherein the sense of urgency propels individuals not to plan on ultimate doom but rather to begin to experience the divine realm through the support of communities of resistance and solidarity which help reaffirm the meaningfulness of life. From out of the counterapocalyptic, then, would arise a new eco-asceticism, which Keller characterized as not based on “self-denial per se – but a lively choice to awaken desire to the needs of the larger earth-community, that is, to know oneself as a creature inextricably created in interdependency with all the other denizens of creation.”

Such an eco-asceticism would, however, have to be placed into the larger eco-political context, wherein great disparities exist among peoples of the world with respect to resource consumption. From this perspective, Keller formulated one hard-hitting principle: “The child who will have

the most is the one the world can least afford". In so saying, she was equally quick to acknowledge that the growing populations of many third world countries are certainly having an impact on their environment. Nevertheless, one clear point remains:

But there is simply no way for affluent denizens of the North, whose life style preys upon just those beleaguered resources and populations of the South, to make any credible case for world population control in isolation from the larger context of our own resource use and environmental impact. Indeed, only as we in the North begin in greater numbers to practise our own forms of eco-asceticism, thus reducing our disproportionate dependency upon resources and technology – and continuing to reduce our own populations to make space for the needs of the migrating poor... may we engage the population issue in good faith.

This stance should not be taken as cause for deferring discussion on the population issue. Rather, she urged ecumenical Christianity to "actively advocate non-procreative options for fulfilment, precisely in order to realize the blessing of every child as chosen and as gift".

Returning to the notion of a new eco-asceticism, Keller maintained that it would "seek to maximize joy, including erotic joy, by heightening the awareness of our interdependence with each other and with all creatures". As such, it would also become a "sensuous asceticism" wherein a deep appreciation for the simple joys of life would encourage a much less consumptive lifestyle. Additionally, it would draw people into more active participation within their communities, thereby perhaps satisfying "many needs traditionally met by reproduction" through involvement in "a communal support network for the care of children, those chosen responsibly as well as those neglected, abandoned, or abused". With respect to sexuality, sensual asceticism would once again place the emphasis on the development and nurturing of relationships rather than on a "genital piety".

Summarizing her presentation, Keller called for ecumenical Christianity to become a "green ecumenacy", embracing ecological and social justice concerns. She also encouraged an "ecumenism of mind", a pluralism in ways of looking at problems which recognizes our interdependence and the interdependence of the problems. In this regard she noted an unprecedented coalescence of previously divergent movements now occurring and this she found very inspiring and hopeful. Mindful that much remained yet to be done, she left us with these words, "Hope is only found in taking the next step".

Islam and the Environment

Nawal Ammar, a Professor of Criminal Justice Studies and a Muslim, began by stating that there is great diversity among Muslims which makes her task of presenting an Islamic perspective on the global issues of population growth and resource consumption very difficult. How was she to proceed? By offering a view which represented mainstream thinking, or by providing an interpretation drawn from sacred texts? The problem with the former approach is that there are many mainstreams and many marginals. Clearly this approach cannot be relied on to yield a meaningful perspective. Consequently she opted for the latter approach, noting:

It is only justifiable to discuss the Islamic world as a homogeneous community in so far as Muslims adhere to a defined textual literature. Beyond such a unity, a discussion of an Islamic mainstream, or one Islamic view, is methodologically unsound and politically dangerous.

The Islamic holy texts consist of four works: the *Qur'an*, the Prophet's Sayings (*Hadiths*), the Prophet's Actions (*Sunnah*), and the Jurists' Decisions (*Sharia'h*). Of all of these, the *Qur'an* is considered to be the highest religious and most absolute source in Islam. This is so because it is believed to contain "the uncreated words of God" as "revealed to the Prophet Muhammad in 610 AD". As such, Muslims should neither tamper with its organization nor use it in any form other than its Arabic original. Its revelations clearly distinguish between matters of what and matters of how. The former constitute "God's injunctions", while the latter encompass "the domain of humans". The *Hadiths* were written some fifty years after the Prophet's death, while the *Sunnah* are passed on orally. The *Sharia'h* constitute a "form of law that covers the ever-changing conditions and situations of human life". Together, the *Qur'an*, the *Hadith*, *Sunnah*, and the *Sharia'h* provide the ethical foundation for Muslims.

What do these texts have to say about population control? Fertility control (*Tahdid al Nasl*) is forbidden by the *Qur'an*. Human reproduction is viewed as being a sign of God's power and will. More than just

forbidding birth control, the *Qur'an* “encourages reproduction, as does the Prophet’s Sayings, one of which warns men: “An ugly woman who is fertile is a better wife than a beauty who is barren”. There are, however, a few situations in which some form of birth control may be permissible, such as when there is a serious health risk to the woman. Nevertheless, whatever form of birth control is adopted, it is expected that it will neither be permanent nor interfere with natural hormonal cycles.

Because of these strong beliefs, Ammar urged “a sensitive, inclusive discourse” as a means for drawing Muslims into the process of developing solutions for global issues. Such a discourse could be initiated by drawing upon guidelines concerning nature contained within the Islamic tradition. These guidelines could then be used to inform different reproductive choices. To help us understand these linkages, Ammar turned to the Holy Texts to reveal what they had to say about the environment.

In the *Qur'an* the protection of nature is based on the principle that God created the various components of the universe, and that all these components are ordered, have purpose and function. To respect God means you should respect His creation.

It is assumed that humans are immersed in a Divine environment, but are only unaware of the reality due to their own forgetfulness and negligence. The Qur’anic injunction “withersoever you turn there is the Face of God” is often used to convey this message.

Ammar was also quick to point out that the *Qur'an* did not draw a sharp distinction between the human and the natural world. Rather it emphasized that all life forms emerged out of a common origin. Furthermore, it portrayed each species as a community or nation. As such, all creatures are “alike and equal” – with one notable exception. By presumably being the only species to possess reason, humans are set apart slightly by Islam as “God’s vice-regent (*al-Khalifah*) on earth”.

“The role of *Khalifahs* is more like managers and not as proprietors, more like beneficiaries and not disposers.” This role came about because humans accepted the earth in trust from God, a belief reinforced by the *Qur'an*, which states:

God offered his trust to heaven and earth and mountain, but they shied away in fear and rejected it, Humans only carried it.

This covenant between God and humans is based in humans being God’s servants (*Ibad Allah*), who obey him and respect his creation. In return God makes nature and the earth subservient to them. All humans

are thus entitled to the use of the earth equally without discrimination, abuse, corruption, or coercion.

It is this covenant, then, that provides the basis for an Islamic environmental ethic, in which Ammar sees five essential principles:

1. Use nature and its resources in a balanced, not excessive manner;
2. Treat nature and its resources with kindness;
3. Do not damage, abuse, or distort nature in any way;
4. Share natural resources; and
5. Practise conservation.

With respect to the first principle, she noted that the *Qur'an* states: "Eat and drink, but waste not by indulging in excess, surely, God does not approve". This injunction is reinforced by one of the Prophet's Sayings in which the standard for usage was defined thus: "The merit of utilization lies in the benefit it yields, in proportion to its harm". Concerning kindness, this virtue arises naturally from celebrating God's creation and it discourages careless disregard for other species. The third principle of not damaging or abusing nature is very similar to the second, and it too rests upon a Qur'anic verse which warns: "Do not mischief on the earth after it hath been set in order", mischief being understood as corruption, destruction, or deterioration. The fourth principle simply acknowledges that "no one person owns nature" and therefore its fruits should be shared. The last principle speaks of the need to protect nature as well as to repair it. The Prophet's declaration of sacred groves or mountains is seen as an example of preserving nature. However, conservation also includes an active involvement on the part of humanity. As the Prophet once said: "Whoever revives dead land it shall be his". He is also reported to have commented: "Whoever plants a tree and looks after it with care until it matures and becomes productive, will be rewarded in the hereafter".

Despite these words of wisdom, Muslim governments have done little to address distressing contemporary global issues, even though many of their citizens suffer from them. And somewhat ironically their suffering is compounded, to a degree, by their faith. The *Qur'an* says: "Never will Allah change the condition of the people until they change themselves". Hence the people know that unless they become actively involved in finding ways to create change and movement within their governments, nothing will change.

So what can be concluded from this overview of the Islamic tradition? First, if Muslims are to be included in the international effort to address the critical issues of population growth and resource

consumption, then the discussions must be culturally sensitive. This means being aware of Islamic beliefs and not seeking to impose upon Muslims others more reflective of Western cultures. On the other hand, this does not mean that a hands-off stance should be adopted. Rather, there is much within the Islamic Holy Texts to provide a basis for discussion and for the search for solutions, especially those injunctions which establish connections between economic wellbeing and the conservation of nature. In some circles, this connection is referred to as sustainable development. No matter what the connection is called, establishing it comes down to at least one key virtue, i.e. discipline. As Ammar put it:

Nature was created, according to Islam, and entrusted to humans as a test of their ability to use it in a moral way. Such a moral test requires humans to utilize nature in a utilitarian/functional way but at the same time maintain their aesthetic respect for it as the creation of God. Such a use model emphasizes moderation in, kindness to, and preservation of nature.

Population Pressure, Natural Resources, the Environment, and Hinduism

In his opening remarks, Klaus Klostermaier, head of the Department of Religion and Director of the Asia Studies Centre at the University of Manitoba, emphasized that, like Islam, Hinduism is extremely complex, demonstrating, as it does, a remarkable degree of plurality and diversity. It possesses no centrally controlled institution and lacks a single set of doctrines and a unifying creed. On the other hand, it does encompass numerous sects, utilizes a plethora of holy texts, and acknowledges many inspired teachers. While in the past it focused solely on such concerns as the development of love of God, high moral character, and insight into the mysteries of existence, lately Hinduism has begun to take on a decidedly political agenda frequently associated with fundamentalism.

Despite these difficulties, Klostermaier felt that some generalizations could be proposed. First, it should be considered a way of life encompassing both private and social concerns. Second, it has demonstrated an increasing tendency to distance itself from other religious traditions. Third, it is essentially pre-modern and pre-technological, although it has not been hesitant to incorporate aspects of modernity and technology to its advantage. Fourth, it has traditionally focused on the spiritual emancipation of its followers. Finally, Hinduism embraces a fairly pessimistic view. As stated by Klostermaier:

According to widely shared beliefs, humankind had been going downhill from its beginnings, some million years ago. Some thousand years ago we reached the *Kaliyuga*, the age of strife, which is to last for another several millennia, before the final cataclysm occurs.

Turning to the issue of population pressure, Klostermaier noted that procreation was viewed as the purpose of marriage, so much so, that a childless marriage was reason for divorce. Having children, then, was imperative, especially sons who not only maintained the family lineage but also ensured the parents a good afterlife. As might be expected under this regime, abortion, or any other means of limiting births was

condemned. Now, these principles should be placed in their historical context wherein pre-modern Indians suffered high infant mortality rates, low life expectancy, frequent droughts, and extensive famines or floods. As a consequence, population growth was considerably restricted and thus encouraging a higher birth rate made sense.

But what of the current population explosion India is experiencing? Klostermaier stated that Hindu leaders have commented very little on the issue. Indeed, he felt that there may not even be a consensus as to whether or not there is a problem.

On the matter of resource consumption, Hinduism has considerably more to offer. "All traditional ways of life were conservative in the literal sense: they used resources carefully and circumspectly and tried to preserve and conserve them for the future." This was partly encouraged by the awareness of the tremendous amounts of energy and time that had to be devoted to gathering resources; hence, there was a reluctance to see them wasted. But there was also a respect for nature which induced Hindus to restrict interference to a minimum. It was not uncommon for this respect to take the form of sacred groves, mountains, or rivers. "Sacredness implied that one could not with impunity damage or pollute the object of worship." If one did, dire consequences were bound to follow, such as epidemics or floods. In addition to respect for nature and an awareness of the time and effort required to obtain resources, Hindus strove for purity and purification, "which could be obtained through abstention from the use of natural objects, reduction of consumption of resources, voluntary limitation of enjoyment, introspection rather than outward activity". All these reasons, then, reinforced an attitude of conservation in pre-modern times.

The modernization of India, however, has brought many changes which have challenged traditional beliefs and values. Describing what he saw as a vicious circle, Klostermaier noted that a rapidly expanding population, demanding more and more consumer goods, has fuelled a burst in industrial growth within large urban centres, which in turn, have drawn people from the hinterlands, leading to a growth in slums, while at the same time depleting the countryside of human and material resources. According to Klostermaier: "Hinduism as a religious tradition shut its eyes: it kept repeating ancient teachings and encouraging ancient ideals". By adopting this stance, it fell out of touch with the new emergent realities sweeping across India.

This is not to say that there hasn't been some resistance to these modern changes. Ghandi was certainly aware of the damage being

inflicted on people by modernization and he fought back, using Hindu ideals for guidance. Today, much of the resistance comes from *adivasis* or tribal peoples, whose existence depends much more immediately on the land. The Chipko Movement of the Himalayan foothills was offered as an example of this resistance. Interestingly, Klostermaier also pointed out that the most active in the resistance were women.

Stepping back to get a look at the big picture, Klostermaier posed the question of what could be learned from the changes occurring within Hinduism. First he noted that it had resisted change, to its detriment. "Religions, in order to remain meaningful, must change too". This is especially so in a period when more and more people are living in and depending on the human-made world and are less aware of and less connected to the natural world.

If traditionally religious people express thanks to the Creator before they sit down for a meal, the modern person – if capable of gratitude at all – will consider the human effort that went into creating the strain of cereal or vegetable forming the raw material of the meal, the human work required to bring these largely man-made crops to maturity, the producers of the fertilizers and pesticides, the manufacturers of sowing and harvesting machinery, the chemical and industrial engineers processing the foods, the chain of merchants and sales people making the food available at that particular place. It requires a major metaphysical effort to add, as the last link in the food-chain, a Creator of earth and heaven.

Klostermaier asked provocatively, but did not answer the question: "Does religion consist only of this last link?"

Klostermaier moved on to outline five levels of Hinduism which may have some relevance to the issues of population growth and resource consumption. The first level is that of the vedic-mythical. Here he observed that many vedic myths are permeated with ecological references. "It is this mythic worldview which tends to accept things as they are, restricting human influence on the course of events to imploring the supernatural powers by means of prayers, sacrifice, and self-mortification." It is a worldview which fosters a holistic, universalist, and reverential thinking, in contrast to the absence of reverence for things higher than pleasure and profit which has much to do with the degradation of life in the so-called advanced countries.

The second level is the puranic-religious, which overarches the vedic. This worldview promises transcendental salvation and, although it is mainly concerned with "intra-psychic and trans-mundane" matters, it also

has a strong aesthetic sense which could form a basis for an ecological conscience. For example, the *Puranas* encourage the planting of trees and gardens.

They teach the sacredness of nature not only as creation of God, but as God's own body. The *Bhagavata Purana*, in particular, identifies the mountain ranges, the courses of the rivers, the plains and the forests as the bones and veins, the limbs, and the hairs of the deity: humans are to meet nature with reverence as something divine, and doing harm to nature is equivalent to sacrilege.

The third level, that of the *dharmic*, Klostermaier portrayed as the most central concept to Hinduism. The *dharma*, he explained, literally means "that which sustains". It is considered to be a universal, cosmic as well as transcendental principle associated with a conviction of the fairness and equitableness of the unfolding of the universe. It is believed to be grounded in unchanging reality – *sanatana dharma*, eternal law – and yet it is also flexible and adaptable to changing circumstances.

"Can we entertain the notion of an ecological *dharma* not only for India but for humankind as well?" Klostermaier asked. To do so, it must somehow bring together modern knowledge with ancient wisdom.

It also must reflect the actual life experience of those who are striving to lead ideal lives and must sustain and uplift the deepest in ourselves. Ecology in its truest meaning must be more than a branch of economics or of biology, it must be expressive of, and give support to, our concern for truth, goodness, and beauty. It must recover a holistic vision.

Turning to the fourth level, the *yogic*, Klostermaier commented that elements of this level could be found in virtually all branches of Hinduism. It stresses restraint, self-control, the establishment of the rule of higher reason over sensual impulses, striving towards higher states of consciousness. As such, Klostermaier stated it provided a path of transcendental liberation, leading to a blissful contemplative state of mind, a condition in which a person makes no demands on the environment at all, but rests happily in self-contentment. Needless to say, discipline plays a major role in the attainment of this state which prompted Klostermaier to comment:

Whether India or America, it is obvious that lack of discipline is rampant and cause not only for indignation but of serious harm. ... Again, it becomes clear, indiscipline not only affects the individual itself, but has social and ecological consequences.

Ecology, understood as a mode of thought as well as a way of life, demands discipline and engenders discipline in its turn.

Among the yogic tenets are: respect for life, the notion of “*ahimsa*” or not-killing which is extended to all life, self-control, and continence. Of this last concept, Klostermaier noted that for dedicated Yogis this could mean life-long celibacy.

There is considerable misunderstanding in Western culture about the last level, that of the *vedantic*. Not uncommonly the vedantic is seen as some kind of “radical solipsistic idealism, disinterested in, or even hostile to, the natural world”. This view, Klostermaier stated, is much too narrow. “For some, nature is a means to salvation, a marvel in and by itself, the basis for everything. Awareness of a higher reality need not result in contempt for everything else.”

In concluding his presentation, Klostermaier suggested that there was much within Hinduism which could inform the development of a deeper ecological conscience. However, one had to look very hard to find its ideals being practised. The best place to look, he argued, was among the *adivasis*, the indigenous people of India.

Contrary to caste Hindus, who often see the world through the glass of a particular abstract philosophy, developed not from immediate knowledge of the physical environment, but from notions of ritual purity and caste ideology, the tribals have remained true to nature and their myths reflect more closely the experience of a people that successfully lived on a particular tract of land for a very long period of time.

Unfortunately, these people and their way of life is now severely threatened by encroaching farmlands and industrialization.

Like the tropical rainforests, they need protection as important ecological resources. They may already have answers for many questions – the message which they give to the rest of the world is quite clear: live in harmony with your environment, in peace with your fellow men, return to the earth what you take from her, avoid greed, stress, and artificiality.

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Buddhist Resources for Issues of Population and Consumption in Relationship with the Environment

Rita Gross followed Klostermaier and introduced herself as a “feminist academic scholar of religion for whom Buddhism is the long standing religion of choice”. She directed our attention to three possible scenarios arising from the interaction of population, consumption, and planetary limits. The first she described as “a sufficiently small population living well on a stable, self-renewing resource base”. Opposite to this, the second scenario portrayed “an excessive population living in degraded conditions on an insufficient resource base”. The last scenario, is a continuation of the way things currently are: “a few people living well and large numbers of people barely surviving.” This she considered “morally obscene”, and she labelled the second “incomprehensible”, leaving her to conclude that only the first was worthy of real consideration. Furthermore, the one factor that could make this ideal become a reality was fully in our control, that being population. “All that it requires is the realization that many other pursuits are at least equally as sacred and as satisfying as reproduction.”

Buddhism provides the resources to foster such a realization. For unlike many other religions, it does not subscribe to pro-natalist values or policies. It does not present reproduction as a religious duty, nor does it perceive sexuality negatively. It accepts birth control through either contraceptives or abstinence. Fundamentally, Buddhism encourages reproduction as a “mature and deliberate choice, rather than an accident or a duty” whereby “only children who can be well cared for, physically, emotionally, and spiritually, should be conceived”.

What are the pro-natalist ideas concerning reproduction that stand in sharp contrast with Buddhist ideas? Gross suggested that there are at least three ideas that ought to be challenged. The first is the belief that birth is “a positive occasion, under any circumstance, even the most extreme”. Second, to reproduce is “to be an adequate human being”. And third, reproduction is “a private right not subject to public policy”.

“The tragedy of pro-natalism is that excessive populations could be cut quite quickly by voluntary means, but lacking those, probably will be cut by involuntary means involving great suffering – disease, violence, and starvation.” The spectre of this tragedy should instigate a critique of pro-natalist programs and a search for more long-term, life-affirming choices. In this latter effort, Gross believed, Buddhism offers a great deal.

Before elaborating on what it has to offer, she drew our attention to two controversial issues arising from the Buddhist notion of interdependence in relation to individual rights and to different worldviews. With respect to the former, Gross argued that there is something seriously amiss with the notion of unfettered exercise of individual rights, especially with consumption and reproduction, since this practice leads to environmental damage.

The rhetoric of individual rights and freedoms certainly has cogency against an overly communal and authoritarian social system. But today that rhetoric and stance threaten to overwhelm the need for restraint and moderation to protect and preserve communities and species.

Moving on to the second area of controversy, she noted that, while relativism with respect to the acceptance of different worldviews is good in that it allows room for diversity, it could also lead to “intolerable results” when applied to basic ethical questions.

And both consumption and reproduction are ethical issues of the highest order, since their conduct gravely affects everyone’s life. We can no longer afford to let individuals who believe that they should produce many children do so, just as we no longer condone slavery, the exploitation of children, or treating women as chattel.

With these controversies addressed, Gross focused our attention on the basic Buddhist notion of interdependence. It is, according to her, “the bottom line which cannot be defied”. Rather than being isolated and independent entities, Buddhism sees all beings as interconnected with one another in a great web of interdependence. As a consequence, interdependence and the laws of cause and effect are inextricably linked. “Since Buddhism understands cause and effect as interdependence, actions unleashed by one being have effects and repercussions throughout the entire cosmos. Therefore, decisions regarding fertility or consumption are not merely private decisions irrelevant to the larger world.” An appropriate response to the realization of all-pervasive interdependence and the laws of cause and effect can only be moderation in all activities, especially reproduction and consumption.

Interdependence is understood to be something deeper than a mere ecological explanation of the relationships with ecosystems, for it encompasses fundamental ideas concerning human rebirth. “The preciousness of human birth is in no way due to human rights over other forms of life, for a human being was and could again be other forms of life – though Buddhist practice is also thought to promote continued rebirth in the human realm.” Moreover, Buddhists affirm that “all beings have at some time been our mothers and we theirs”. This idea is captured in the metaphor of “mother sentient beings”, and encourages an attitude of “non-harming” rather than one of superiority.

Rebirth as a human being is valued because human beings, more than any other sentient beings, have the capacity for the spiritual development that eventually brings the fulfilment and perfection of enlightenment.

The achievement of enlightenment is more readily attainable if sufficient resources are available. It takes no stretch of the imagination to see that activities which degrade or destroy “mother sentient beings”, or other humans, seriously impinge on the conditions for enlightenment.

How, then, is one to live one’s life so as not to violate the basic precepts of interdependence, thereby cheating oneself of enlightenment? By following the Middle Path, or Middle Way as it is also sometimes called. Gross characterized this as: “not too much, not too little, not too tight, not too loose”. Essentially it encapsulates the idea of avoiding extremes, such as richness and poverty. Referring to the Buddha’s own experience of this duality, Gross said:

First he learned that a life of luxury was meaningless, but then he had to learn that a life of poverty also leads to nowhere. The Buddha concluded that in order to become fully human, one needs to live in moderation, avoiding the extremes of too much indulgence and too much poverty or self-denial.

This latter point is especially critical when considering the plight of the world’s nearly one billion starving people.

Those in dire poverty or grave danger and distress do not have the time or inclination to be able to nurture themselves into enlightenment, into actually benefiting fully from their human rebirth, which is quite unfortunate. Buddhism celebrates moderation, but it does not celebrate poverty because it sees poverty as unlikely to motivate people to achieve enlightenment – or even allow them enough breathing time to do so.

As a consequence, Buddhists realize that a sufficient level of material wellbeing and psychological security must first be in place before spiritual practice can be established and maintained.

This point dovetails quite nicely with the point made by many who advocate that curbing excessive population growth is much more possible if people have an adequate standard of living. ... However, it is equally clear that too much reproduction would overwhelm all attempts to curb poverty because a finite earth has limited resources.

On this note Gross returned to her critique of religions which contribute to the problem of excessive reproduction through pro-natalist ideals. In particular, she countered the notion of the “perpetuation of one’s family lineage as a religious obligation”, noting that there was no such requirement in Buddhism. Indeed, Buddhists might argue that reproduction could get in the way of helping the world, or realizing one’s highest potential. Not uncommonly, Buddhists are sometimes accused of being selfish for taking this position. In response, Buddhists point out that making one’s most valuable contribution and having children are clearly not dependent on each other. They also note that too frequently parental instincts are themselves driven by very self-centred and selfish motivations. Buddhists argue that what people ultimately want or what satisfies our deepest longings can only be found in “the simultaneous pursuit of wisdom and compassion, to the point of enlightenment and even beyond”.

Rather than seeking self-perpetuation through biological reproduction, Buddhists are encouraged to arouse “*bodhicitta*”, the basic warmth and compassion inherent in all beings. Then, to use a traditional Buddhist metaphor, having recognized that we are pregnant with Buddha-nature (*tathagatagarbha*), we vow to develop on the *bodhisattva*’s path of compassion pursuing universal liberation. Rather than regarding this choice as a personal loss, it is regarded as joyfully finding one’s identity and purpose in a maze of purposeless wandering and self-perpetuation.... Given that *bodhicitta* is regarded as the basic inheritance and potential of all sentient beings, including all humans, rousing and nurturing *bodhicitta* in oneself and encouraging its development in sentient beings is fostering family lineage in its most profound sense, beyond the narrow boundaries of genetic family, tribe, nation, or even species.

Bodhicitta is also sometimes referred to as “awakened heart-mind” or as “enlightened gene” and it fosters an acceptance and validation of alternative non-reproductive lifestyles, including celibacy. It also

embraces reproduction arising from the principles of “egolessness, detachment, compassion, and *bodhisattva* practice” rather than motivated by social, political, religious, or personal compulsion.

Turning to an issue she had set out in her opening remarks, Gross observed that the pro-natalist ideology not only encourages biological reproduction but also denigrates sexuality, and this denigration has equally serious implications for the population crisis. “Regarding sexual experience as forbidden fruit in no way fosters mindful and responsible sexuality”, she stated emphatically, before cutting through pro-natalist rhetoric concealing some very questionable assumptions, such as equating sexuality with reproduction. Under this assumption, only sexual activity that is open to reproduction is considered moral.

Therefore, the potential link between sexual activity and reproduction cannot and should not be questioned or blocked. Non-reproductive sexual activities, such as masturbation, homoerotic activity, or heterosexual practices that could not result in pregnancy are discouraged or condemned.

The result is not less sexual activity, but higher birth rates. Consequently, Gross argued that the moral linkage between sexual activity and reproduction has to be broken and that this challenge could be met through the re-evaluation of the function of sexuality. “It seems quite clear, when we compare human patterns of sexual behaviour with those of most other animal species, that the primary purpose of sexuality in human society is communication and bonding.”

Another assumption needing exposure to critical inquiry concerns equating motherhood to womanhood. “When sex cannot be dissociated from fertility and when females have no other valid and valued identity or cultural role than motherhood, most women will become mothers”, Gross warned. Motherhood is also linked closely with nurturing, a dangerous linkage in her view.

If nurturing is so narrowly defined, then those who want to nurture will see no other option than to become parents. ... If nurturing is associated so closely with motherhood, then other forms of caretaking are not recognized as nurturing and are not greatly encouraged, especially in men.

Since nurturing is valuable and essential to human survival, it is critical that our ideas about what it means to nurture extend beyond the image of physical motherhood to activities such as teaching, healing, caring for the earth, engaging in social action. ... It is equally important

that all humans, including all men, be defined as nurturers and taught nurturing skills, rather than confining this activity to physical mothers.

In closing her presentation, Gross proposed that sexuality be seen as a “sacred symbol and experience ... helpful rather than detrimental to spiritual development”. She pointed out that within Vajrayana Buddhism, wisdom and compassion are frequently represented as a female and male wrapped in a sexual embrace, referred to as the “*yab-yum*” icon.

This icon is then used as the basis for contemplative and meditative practices, including visualizing oneself as the pair joined in embrace. ... One of the most profound implications of the *yab-yum* icon and its centrality is the fact that the primary human relationship used to symbolize reality is that of equal consorts, of male and female as joyous, fully co-operative partners.

As her concluding remark, Gross added:

One cannot help but speculate that this open celebration of sexuality as a sacred and profoundly communicative and transformative experience between divine partners would significantly defuse pro-natalism based on a belief that sex without the possibility of procreation is wrong.

Chinese Religions

Jordan Paper is a Professor of Comparative Religion, and Li Chuang Paper is an education consultant specializing in curriculum design and intercultural communication. They have a personal familiarity with Chinese religion based on experiences in Taiwan and China. In addition, their presentation drew on interviews with recent Chinese immigrants to Toronto.

Introducing Chinese religion, Paper stated that there is no specific term to denominate it in the Chinese language, no separate institution, no recognizable priesthood, no doctrines, and no texts. On the other hand, it is not amorphous either. "It has a specific and recognizable pattern of rituals that can be traced back to at least the late neolithic period, over four thousand years. It is inseparable from Chinese culture, because it defines Chinese culture."

Paper went on to point out that when Chinese religion was in its formative stage, underpopulation was more of a concern than overpopulation. Indeed, population expansion was seen as a good and desirable thing. In contrast, a concern for the environment was already present. "The concern with overexploitation of the environment is found within the context of class exploitation, of the elite consuming far more than necessary for a comfortable life, forcing the peasants to overproduce to their own detriment."

Within the earliest beginnings of Chinese religion, one finds an understanding of humans as created from nature. More specifically, they are the offspring of male Sky and female Earth, their life-force being the result of the interaction of natural female and male energies, "*yin*" and "*yang*". Creation, then, is understood to be both spontaneous and continuous. There is no separation between the creator and the created. As for the natural world, it is seen as "the reality beyond the ultimate nothingness; there is no other world than this one". One might conclude that Chinese religion should, in theory, be more sensitive to environmental concerns.

Unfortunately, the theory runs afoul of one of Chinese religion's most powerful moral imperatives: to continue the patrilineal family line.

The religion focuses on the patrilineal family rather than the individual to the degree that it has been called "familism". Family includes the living, the dead, and the future unborn; it includes both the members of an extended family, as well as known branches comprising a clan. Ruling clans traced their origins to spirit-beings; the clan foundation myths functioned like the creation myths encapsulated in the Bible and *Qur'an* do in Western religions.

Rituals link the living members of the family to the dead through the offering and sharing of banquets. The living nourish and care for the dead and the dead protect as well as foster the prosperity of the living. If the living did not take adequate care of the dead, then the departed ancestors become malevolent hungry and lonely ghosts. Without family, life for the individual has no meaning. Hence, if a male, especially an eldest son, has no son to continue the family, his own death as well as the death of his wife is truly terminal; more important, he has terminated the nexus of existence, the timeless family.

The implications of this imperative in terms of fuelling population growth are not very difficult to see, although they weren't readily apparent at first.

From two thousand years ago until approximately three and a half centuries ago, the population remained relatively stable, from somewhat under one hundred to one hundred and fifty million persons. Then, the population went through its first big burst, largely due to the introduction of new crops, such as sweet potatoes and peanuts, which could be grown on marginal lands. The quelling of border wars also fuelled the population explosion. For more than a century, the country experienced political stability and growth, until internal corruption complicated by European and American expansionism triggered another period of instability which lasted another century. After this period, China emerged as we know it today. The new stability, together with policies that led to the end of famines and universal if minimal health care, along with changes in marriage laws that removed many of the negative aspects of marriage for females, again led to a geometric growth of the population. Between the censuses of 1952 and 1982, the population doubled.

The Chinese realized that they could not improve their standard of living, their international security in the context of rapid technological development, as well as their place in the highly competitive global

economy unless they could not only bring their population under control, but actually reduce it.

The rapid growth in population was not only seen as a policy problem, but also as a social one, and was reflected in the common statement "*ren tai do*", or too many people. Hence, the government felt on solid enough ground to implement a very controversial solution, one which, among other concerns, impinges on individual families. In 1980 the government initiated its "one-child policy", aimed at curbing population growth in just one to two generations. The policy touched upon almost every facet of individual and family choices surrounding marriage and reproduction.

Each family would only be allowed a single child. Late marriages were encouraged. The timing of the single child was under the control of the factories and/or communes, who were required to adhere to quotas. Those couples that had more than one child would lose many of their privileges. More effective, in urban areas, neighbourhood committees intervened to prevent couples from having more than a single child.

The policy did make more lenient allowances for farming couples, who were allowed to have two children under certain circumstances.

There can be no greater contention than between the one-child policy and traditional Chinese religion, particularly if the single child is female. For without a son, not only would a person cease upon death, but, unless there is a brother with a son, so would a male's parents, grandparents, ad infinitum. In Chinese culture, there can be no greater moral crime than familicide.

Despite this inherent conflict, the policy appears to be holding very well, most particularly in the urban areas. Population growth is still occurring, but much more slowly. The apparent success of the policy suggested to Paper that the Chinese people were supporting it, although probably reluctantly. He contended that the changes could not have been brought about by a centralized totalitarian government since China, contrary to many Western notions, does not have such a government. Instead, education and moral suasion are relied upon to bring about change and compliance. Worker incentives also help.

Perhaps more than anything, it has been the shift towards urbanization and modernization that has facilitated the policy's effectiveness. Limited housing, the absence of grandparents as secondary caregivers, and the unavailability of day care facilities discourage large families within the urban centres. Modernization contributes to this trend

by being associated with greater child care costs, especially for education. Beneath the surface, there is also a fundamental shift occurring within parent-child relationships.

The concentration of parental love on a single child has led to the frequently discussed “spoiled-child syndrome”. Parental authority has eroded, and parental expectations in regard to behaviour may be ignored. The expectation of support by grown children is no longer certain. Rather than children caring for older parents, grown children often want to live with retired parents, to share their pensions, and have the parents take care of the grandchildren, and do all the housework. Hence, one now can hear expressed that children are “too much trouble”.

Since the one-child policy conflicts with Chinese religion, the government has made efforts to eliminate the latter from the culture. In particular, they have sought to shift the cultural focus from the family to Chinese society as a whole.

The most radical of these attempts was the Cultural Revolution, in which the goal evolved to be the eradication of all traditions of the past. Its collapse left a generation with no sense of identity, no sense of social responsibility, and no norms for interpersonal behaviour.

Despite these attacks, Chinese religion has not only survived, but in very recent times, has begun to show signs of rebounding, in no small part due to males born prior to the Cultural Revolution who still want sons. As a consequence, prayers are offered for sons.

Lest Chinese culture be misunderstood as androcentric or misogynist, Paper explained that it emphasizes complementary dualities. With reference to space and gender, the duality can be seen as the interior of the home being the female domain, while the exterior of the home was the male’s realm. While clans are patrilineal, the clan temples male domains, and clan spirits predominately male, many of the more significant deities are female. Additionally, the Cultural Revolution gave women greater access to power within society. Footbinding and confinement to the home ended and were replaced with greater equality for women. “In China today there are recent laws that require the heads of institutions of varying sorts to be held by both a female and a male.”

In closing his presentation, Paper concluded that, given present trends, Chinese religion would probably undergo a shift to “a concept of family that will not necessitate a single gender base. ... Should this shift not take place, not only is there a major conflict between religious values

and population control, but a serious gender imbalance will become apparent in Chinese demographics". The appearance of prenatal testing centres is part of this ominous concern. Determining the gender prior to birth is enabling parents to terminate female foetuses. "China's population may well be reduced, but to the detriment of females, the gender balance, and the social chaos that will entail."

China's one-child policy has also not escaped the criticism of Westerners, especially those of the Christian tradition. "The United States, under the influence of fundamentalist Protestants and conservative Catholics, insists that limiting the size of families violates human rights." These criticisms have, however, only strengthened China's resolve to pursue its policy, much to the West's benefit.

For should the Chinese population continue to grow geometrically as it did for the first three decades following unification, the West would ultimately suffer as much as China from the resulting degradation of the global environment and international turmoil from massive Chinese overpopulation.

Furthermore, the West's industrial interventions in the name of a free-market ideology have also contributed greatly to the environmental deterioration of China. Foreign companies display little concern for the environment, and unfortunately their bad habits are being picked up by the Chinese as well.

Together these factors are leading to environmental degradation on an enormous scale. We can but hope that China will take the same initiative towards environmental problems as they have towards controlling population.

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SECTION III
SECULAR ETHICAL PERSPECTIVES

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Prescriptions from Religious and Secular Ethics for Breaking the Impoverishment/Environmental Degradation Cycle

Michael McDonald, Director of the Centre for Applied Ethics at the University of British Columbia, posed three basic questions with respect to global environmental issues: What should be done? Who is responsible? and: Why act? Each of these questions involves ethical considerations, especially concerning justice or equity.

If equity is central to sustainable development, or at least to ethically defensible versions of sustainable development, the challenge of constructing a global consensus around sustainable development is a formidable one given the different circumstances and diverse moral perspectives of the many peoples of this earth.

In addressing this challenge, McDonald saw three matters as paramount: that overpopulation and excessive consumption dangerously stressed the earth's natural limits; that humans had a simple choice between either continuing as is or changing their behaviour; and that the "globally prudential choice" must be the latter. However, this choice must also consider questions of equity, most particularly between "haves and have-nots, rich and poor, present and future generations, males and females, and majorities and minorities". Perhaps the most critical of these, he suggested, concerned whether or not the most wealthy people who consume a disproportionate share of the planet's resources have a right to condemn the world's poorest, who fuel the overpopulation problem.

If equity questions are central, then whose idea of equity is to prevail or be determinative? Is the idea of equity or fairness to be found in religious or secular ethical perspectives? If so, which belief system: Christian, Jewish, Buddhist, Hindu, or Chinese; or alternatively: liberal democratic, socialist, nationalist, individualist, or communitarian? Even within these belief systems there is considerable diversity as to what counts as equity and fairness in current global circumstances.

Finding our way out of this dilemma begins with understanding what ethics is. Towards this end, he offered the following definition:

Ethics is the science or study of morals, where morals are concerned with conduct, character, intentions, and social relations insofar as they are appraised as excellent, right, deserving, virtuous, just, or proper.

From this standpoint, ethics are knowable, that is, they are based upon reasons and these are open to examination. "Like scientific or other factual claims, moral claims can be true or false ... they are not meaningless, not mere expressions of emotion, and they are not simple statements of individual or collective preference." Based as they are on reasons, ethics are also fallible and corrigible, raising the question of how we test the validity of a moral claim.

To answer this question, McDonald suggested using the four Cs test, the first two being *consistency* and *coherence*. "These are internal standards to be applied to secular or religious moralities. The test is whether a morality's prescriptions hang together and make sense as part of a single whole." The next two tests are those of *conformity* and *confirmation* with life experience, and on these two points he contended that there must be a "responsiveness to the moral sensibilities of minorities" and to taking "seriously the life experiences of lay people".

Focusing on the Summer Institute's theme, McDonald observed that the interaction of poverty and environmental destruction sets off a downward spiral of ecological deterioration that threatens the physical security, economic wellbeing, and health of the world's poorest people. ... among the poorest of the poor caught in this downward spiral, women are often in the worst circumstances.

In carrying out an ethical analysis of this impoverishment/environmental degradation cycle, McDonald set forth a model in which there were "*moral patients* who suffer evils that could be removed or alleviated by human action; *moral agents*, whether individual or institutional, who could help break the cycle; and *moral agendas* that link moral agents to moral patients". Aware that these terms could be misinterpreted, he spent considerable time carefully explaining his reasons for choosing them.

The word "patient" comes from the Latin word for "suffering", "enduring", or in other words, "being acted on". The term "agent" describes a being who acts or has the capacity to act. Most human beings in the course of their lifetimes are both agents and patients.

The terms also emphasize the notion of activity, doing something, instead of assuming a role of passivity. Additionally, they call attention to constraints under which some people suffer.

The people who suffer most from the impoverishment/environmental degradation cycle have under current circumstances very limited opportunities for the significant exercise of either collective or individual agency. What I see as morally essential is removing from their situation obstacles that bar them from having a meaningful set of choices; in other words, it is their empowerment that is morally mandatory.

Lastly, the term “agenda” should be taken as a call to action, involving the critical task of setting priorities. On this latter point, McDonald made the following telling observation:

Where on the moral agenda of the rich and powerful of the world is helping to break the impoverishment/degradation cycle? If we judge by actions, I am afraid that we would have to say that it is not a priority item for most agents and agencies who could break the impoverishment/environmental degradation cycle.

Based on this model, McDonald saw three critical questions: Is a patient on a moral agent’s agenda? If so, what priority are they? and: What does the agenda prescribe for the patient?

The first question raises acutely the question of whether a particular religious or secular moral perspective instructs its adherents to do anything about those suffering the impoverishment/environmental degradation cycle, and what specifically it tells them to do by way of positive or negative injunctions.

The responses given to this question influence the answer to the second, concerning priorities. The answers are also complicated by limitations on time, energy, and resources, as well as by competing demands among diverse patients. The problems escalate when trying to develop strategies to address the third question. Strategies to assist patients may “inflare cultural sensitivities” by challenging existing social customs, habits, or norms; provoke anger over the reassignment of “entitlement patterns”; or incite a backlash in deciding between “conflicting priorities”.

Given the variety of interests involved, it is unlikely that there are many optimal strategies in which everyone will be a winner. Furthermore, it is hard to find strategies that are going to be morally acceptable to all relevant agents and patients. ... All this said, I believe that the basic

moral issue involves linking moral agents to moral patients via moral agendas that are morally compelling to both agents and patients.

How can this be done? The response must come from the community level. However, here we find people already under incredible strain, to the point that their capacities to change and adapt are being hampered. Whether a community survives or flourishes depends greatly on its moral agenda and on adherence to it by community members.

I would suggest that for a moral agenda to be adequate it must be both environmentally and ethically sustainable. But what conditions should be set for ethically sustainable moral agendas, especially those that could break the impoverishment/environmental degradation cycle?

In answering this rhetorical question, McDonald proposed four key elements: trust, non-maleficence, beneficence, and the encouragement of diversity.

The first element speaks to the idea of stewardship, caring for the planet, not only for present generations but also for future ones, and for other living beings as well. It also encompasses the notion of full disclosure of the underlying motivations of those in positions of power. This is a critical challenge to be put to religious or secular ethics that command women to remain in a subservient position since what appears to be one of the best ways of escaping the impoverishment/environmental degradation cycle is the empowerment of women through education, investment, legal reform, and health care. The same challenge ought to be placed before political agendas that promote tribal hatreds.

The second element could be summed up as “reduce waste” and “eliminate pollution” and could be extended to require that governments, corporations, and individuals, especially from the First World, refrain from activities that degrade the lives of others caught in the same impoverishment/degradation cycle.

Beneficence, the third element, directs agents to do good either through free-market exchanges or through gifts.

Much could be done to help the situation of those caught in the impoverishment/environmental degradation cycle by way of fair, mutually beneficial exchanges through trade, investment, as well as reciprocal research, and educational ventures. ... Unfortunately not all the poorest of the poor are very bankable even over the long term. We need to think about gift relationships because market solutions are inadequate for ameliorating the lot of those without real bargaining power.

With gift relationships, however, caution is necessary as even they can be used to exploit the receivers. Aid must be aimed at engendering self-reliance and empowerment. To guide gift relationships, he suggested six criteria:

1. Distinguish between meeting needs (necessities) and satisfying wants (luxuries);
2. Remain detached enough to pursue other important tasks and to identify whose needs can best be met;
3. Encourage a diversity of approaches to breaking the degradation cycle;
4. Develop a broad and creative view to identifying needed resources with consideration of the transfer of soft goods such as information and low cost technologies;
5. Establish appropriate moral reward structures; and
6. Be genuine in response to the needs of others.

On the question of diversity, the last of the four Cs, McDonald noted that “it is essential to identify ways in which the moral agendas of agents and patients can be hooked together without sacrifice of the moral integrity of any of the parties involved”. In this, he saw some hope as all moral traditions demonstrate varying degrees of adaptability to changing circumstances. However, he did add the cautionary note that “if pushed too hard too fast, people can become resistant to change”, resulting in cynicism and scepticism.

In closing his presentation, McDonald emphasized that to bring about sufficient change to break the degradation cycle would require “steadfast, coordinated, and adaptable action over a protracted period of time”. Further, such action must be grounded upon good judgement and character, which ultimately must be cultivated in ourselves and future generations.

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Ethics, Family Planning, the Status of Women, and the Environment

McDonald was followed by Jael Silliman, who, in the conference notes, introduced herself, saying she was Jewish from Calcutta, immersed in Hindu culture, went to school in a Catholic Convent, but married a Hindu, and now has very conservative in-laws. She is a program officer with the Noyes Foundation, visiting professor at the University of Iowa, and has research interests in women's movements, as well as race and social justice issues.

Women have much to contribute in restoring broken relationships, in opposing violence in all its forms, and in redirecting development. In the area of population thinking and policy women's voices are and must be heard, because [women] will be most affected. Women's views and vision of population policies are not drawn from ancient doctrines and traditions, but have been forged on the anvil of experience and reflect harsh political realities. Women are demanding a different kind of development – one that places values and ethics at the core of development, population, and environmental policies.

Before dealing specifically with what kind of development women want, Silliman directed our attention to what she called the "population/environment stalemate" between the North and the South, wherein people in the North have sought to protect their standard of living while those of the South have sought to raise theirs. The North has also linked environmental decay to population growth, a linkage which Silliman questioned.

There is no evidence for asserting that high rates of population growth or high population densities necessarily hasten environmental decay, nor do low growth rates or population density guarantee sustainable resource management. Experience has shown that particular patterns of consumption and production can lead to environmental destruction at any level of population growth or at any level of poverty or wealth. Therefore, to halt environmental decay, it will be necessary to forge

policies at the local level to respond to the specific situation to be effective.

Reducing population cannot be the stock answer for halting environmental decay, and in and of itself cannot be an effective strategy.

Although they do not provide a quick and easy fix to environmental problems, Silliman still saw fertility regulation programs as useful and important for at least three reasons: They allow women and men to control their own fertility, placing them in a stronger position to determine what is best for their families and communities; they provide a critical basis upon which to build and extend women's rights; and lastly, they do contribute to ameliorating environmental problems. No matter what the underlying motivations are for such programs, they must not be driven solely by demographic concerns. On this point, Silliman was very adamant. "Where demographic considerations have driven and determined the policies and programs put in place, abuse has been rampant, as individual needs are compromised to meet other goals."

Abusive policies and programs frequently arise from what Silliman sees as a fundamentally flawed development model, a model which originated in Europe after World War II and which was applied *carte blanche* to developing regions of the world. Although superficially designed to "usher in social and economic wellbeing", the policies, in actuality, opened the South to economic exploitation by the North. The principal characteristics of the model include: a narrow focus on economic indicators as a measurement of progress; an emphasis on growth and consumption; an exploitation of natural ecosystems; a disregard for local knowledge and traditions; and a discounting of the role of women in the social, cultural, economic, and political fabric of a region or community.

This model also called for the limiting of population growth as a way to assist countries in achieving economic self-sufficiency. In this regard, birth control pills were seen as "magic bullets" designed to enable countries to climb out of poverty and usher in prosperity for their populations. Along with the model came the notion of efficiency: to deliver family planning services to the greatest number of women possible in the most rapid and efficient manner. Women receiving fertility control technologies became known as "contraceptive acceptors" and their number became an indicator of program success. Needless to say, the model disregards the notion of women's reproductive rights: control over one's own sexuality, choice over whether or not to have children and

over the decision as to how many children to have. Instead the “magic bullets” were “targeted” at women’s bodies, while control over fertility choices was held by family planning authorities.

Not too surprisingly there have been abuses of women’s rights under these patriarchal programs.

While there is some understanding and acknowledgement that there have been specific cases of widespread violation of human rights in population programs, the public is less aware of the many subtle and not so subtle ways in which traditional family planning programs consistently undermine the rights and dignity of women.

To illustrate this point, she presented three fictionalized case studies based on her observations and research.

The first case presented the plight of Ameena, a woman living in Bangladesh, who is offered a radio if she agrees to be sterilized. The radio represents a considerable amount of money, and if sold would help her meet daily needs, and so she agrees to the procedure.

What does this example tell us? While the incentive system may indeed help the family planning workers to meet the targets on which their own salaries depend, it does little to address Ameena’s health needs, nor does it respect her right to make an independent and appropriate contraceptive decision. If anything, it takes advantage of her poverty, pushing her to make an irrevocable decision she might not otherwise choose.

In the second case study, we were introduced to Mary, a mother of three children living in Kenya, whose contraceptive had failed. Unable to get a legal abortion, in desperation she turns to a neighbour for assistance, only to find herself in hospital later suffering from a septic abortion and permanent damage to her health.

What does this example tell us? No contraceptive is 100% reliable. Contraceptives do fail, and abortion is a necessary back-up.

Despite social and religious strictures, women always have had and will continue to have abortions. Where public health systems do not make safe abortions available, women must and do resort to having unsafe abortions. The lack of safe, legal abortion services takes an enormous toll on individual women, their families, and societies. Over 200,000 women a year die from unsafe abortions and countless more suffer life-long disabilities. Nevertheless, family planning clinics in many parts of the world do not offer women this essential reproductive health service.

The last case study was meant to underscore the fact that abuse of women in matters pertaining to fertility choices does not occur only in developing countries. In this case, we were introduced to Anita, a thirteen-year-old African-American, who had a Norplant inserted. Not too long after the implant, she began to bleed. What she got from the doctor when she expressed her concerns was dismissal and a prescription for birth control pills to control the bleeding.

What does this tell us? First, the young Anita probably did not receive adequate counselling, which would have warned her of the potential side-effects, like break-through bleeding, and would have enabled her to choose whether she wished to use Norplant as a birth control method.

Second, even if she did receive counselling, just as she was entitled to make an informed decision to use Norplant, it must be her decision to decide whether and when to have it removed.

Thirdly, there are still many unresolved medical questions about the safety of long-term use of hormonal contraception for teenagers. Given this fact, the doctor's decision to combine the pill and Norplant leads one to wonder about the doctor's competence and judgement.

All of these cases, Silliman argued, could be construed as abuses arising from population programs too narrowly focused on limiting fertility, instead of attending to the broader health needs of women. As a consequence, women have become increasingly distrustful of the programs. The solution, Silliman contended, was to give women more responsibility, something she called "a women-centred approach". To back up this proposal, she pointed out that a United Nations Fund for Population Activities survey found "that 25% of the women in 23 countries said they would prefer small families, and up to half of the women aged 40 to 49 had not not wanted their last pregnancy". As a consequence, women are beginning to develop their own programs that are sensitive and aware of the realities of women's lives. In particular, these women-centred programs have defined reproductive rights as encompassing fertility control, sexuality, and reproduction. They help women cope with male resistance to family planning, and encourage male responsibility for fertility control and child rearing. Considerable effort is devoted to empowering women and assisting them in developing economic independence as well as helping them to get out of abusive relationships. All of these services are provided within an atmosphere of trust and respect.

In addition to establishing these alternative programs and clinics, Silliman pointed out that women globally have begun to come together

to ensure their voices are stronger and are heard. Indeed, an international network of women's health activists presented a "Declaration on Population Policies" at the 1994 United Nations Conference on Population and Development in Cairo. The Declaration demands a "fundamental revision in the design, structure, and implementation of population policies, to foster the empowerment and wellbeing of all women". It states that "women's empowerment is legitimate and critically important in its own right, not merely as a means to address population issues". And, it proposes a "set of ethical principals to serve as a basis for establishing population policies that are responsive to women's needs". These principles include:

1. Women can and do make responsible decisions for themselves, their families, their communities and... women must be subjects, not objects of any development policy, and especially of population policies.
2. Women have the right to determine when, whether, why, with whom, and how to express their sexuality. Population policies must be based on respect for the bodily integrity of girls and women.
3. All women, regardless of age, marital status, or other social conditions, have a right to information and services necessary to exercise their reproductive rights and responsibilities.
4. Men also have a personal and social responsibility for their own sexual behaviour and fertility and for the effects of that behaviour on their partners and children's health and wellbeing.
5. Sexual and social relationships between men and women must be governed by principles of equity, non-coercion, mutual respect, and responsibility.
6. The fundamental sexual and reproductive rights of women cannot be subordinated, against a woman's will, to the interests of partners, family members, ethnic groups, religious institutions, health providers, researchers, policy makers, the state, or any other actors.
7. Women committed to promoting women's reproductive health and rights, and linked to the women to be served, must be included as policy makers and implementers in all aspects of decision making including definition of ethical standards, technology development and distribution, services, and information dissemination.

In her concluding remarks, Silliman noted that much has been achieved by women health advocates in recent years, but that a great deal still needs to be done.

The notion of reproductive autonomy for every woman must seep into the structures of government, the fabric of health care systems, and the thinking of women themselves. This will require the restructuring of services and the retraining of staff from the top level to the clinic in the field. It will also require the reallocation of services for the empowerment of women.

Projected Population Patterns, North–South Relations, and the Environment

Mahendra Premi, a Professor of Demography in New Delhi, continued the discussion on North–South relations as reflected in population and environment issues. He began by drawing attention to global population patterns, noting that the rate of population growth worldwide has remained relatively stable since 1975 at approximately 1.7% per year and that fertility rates have slightly decreased from 3.8% per year for the period 1975–1980 to 3.3% for the period 1990–1995. While these trends may eventually translate into population stabilization, or even possible decline, the immediate to mid-term forecasts (about 30 years) still call for further increases due to the momentum of past growth. What happens after that very much depends upon the decisions of those people currently in or about to enter the reproductive ages. By 2050 the world population could be as high as 12 billion or it could be as low as 8 billion. The difference is very significant.

Probing these trends still deeper, Premi pointed out that in 1990 the developing nations' share of the world's population topped 93%, up from 77% in 1950, and could be expected to reach 95% by the year 2000. In contrast, the developed nations of the world have experienced slow growth and in some cases declining populations, with birth rates varying at or below replacement rate.

Related to population growth are matters pertaining to its distribution, most notably urbanization and migration. On the former topic, Premi pointed out that the proportion of people living in rural areas within the developing countries of the world has been steadily declining, from 83% in 1950 to quite likely 60% in the year 2000. Even more remarkably, more than half of the world's population could be living in cities early in the next century. With respect to migration, Premi noted that environmental factors are becoming increasingly influential. "Of the estimated one billion poor people in developing regions, some 450 million live in low potential agricultural areas." These areas often suffer from drought or over-grazing, forcing people to move on in search of

more productive lands. Increasingly, however, the exodus has been into the cities, where poor people go in search of a better life.

Unfortunately, the change often does not bring about an improvement in either quality of life or standard of living. "A large proportion of migrants live in slums and squatter settlements, where they do not get proper housing, sanitation worth the name, and even the minimum necessary quantities of water, which results in poor quality of life."

Moving from the global population situation to that of his own country, India, Premi indicated that its population growth pattern could be divided into three periods. Prior to 1921, population growth was slow, characterized by high birth rates and high death rates. Between 1921 and 1951, growth began to increase moderately (1-1.3%) as the death rate declined under the influence of modern medical interventions. After 1951, however, the rate skyrocketed, from 1.3 to 2.2% in 1971. This surge was largely attributed to the declining death rate while the birth rate remained high. Only in the past two decades has any noticeable decrease in the birth rate become apparent.

One may probably say that the decline in birth rate during the 1980s was slightly higher than the decline in the death rate, leading to a slight, but only slight, decline in the growth rate. ... With a birth rate falling at a faster pace than the death rate in recent years, one may say that the country has positively entered the third stage of demographic transition.

Nevertheless, India's population will soon break the one billion mark, raising the question of "how many is too many?"

In addressing this question, Premi first noted the two extreme positions frequently taken on this issue. On the one hand are those who assume a growing population that has exceeded, or is about to exceed, the earth's carrying capacity. On the other hand are those who assume scientific and technological advances capable of supplying resources for an ever-growing population. As for his own opinions, he stated:

I am not in a position to comment on the future population-environment balance as I am not an ecology student and have no knowledge about the known and unknown earth's resources. I may, however, say that even if we are able to tap solar energy commercially, and succeed in nitrogen fixation from the atmosphere and thus revolutionize agriculture, there would still be questions related to water availability, particularly in poor countries, as well as the manner in which human activities in future would affect the global water systems.

He went on to note that in many parts of the world people are already encountering real limits to water accessibility, especially in the arid and semi-arid regions of Africa. By 2025, over one billion people worldwide would be living in areas subject to extreme water scarcity. Just how much suffering is experienced, however, very much depends on sound and immediate management of existing water supplies and on the reduction of population growth in water-scarce regions.

Where does one begin in the management of resources and population? Premi identified three levels: macro, meso, and micro. The macro level encompasses such issues as global warming and ozone depletion. The meso level includes issues such as the release of city and industrial effluent into water courses, deforestation which has been linked to droughts, and the construction of large water containment or diversion projects which frequently change water tables in the surrounding areas. The micro level concerns the perspective of the common person.

In India, as in several other developing countries of the world, there are a large number of villages that do not have safe drinking water supply of their own, and it is a part of the daily chore of women and children to fetch water from a distance, sometimes a few kilometres, to meet the daily household needs.

Many of these villages also lack adequate sewage disposal, resulting in cesspools of stagnant water, breeding grounds for diseases such as cholera, malaria, gastro-enteritis, and filaria.

In terms of addressing problems at these various levels, international debate has typically remained focused on macro level issues, alleged Premi. Specifically, the debate has revolved around issues of responsibility and blame, with the North asserting that the South is responsible for damage to the environment by reason of its exploding population, while the South has countered by accusing the North of over-consumption. Irrespective of the positions taken, Premi emphasized that whatever solutions are developed, they must be within the means of the common person, or the micro level. And, at this level, religion can play a critical role.

Noting that religion has typically encouraged births, Premi argued that it must now "play a reverse role from what it did in the past", especially in the developing countries. In the developed countries, religions must emphasize protecting the natural environment by limiting our needs and consuming less.

No matter how population and environment problems are approached, whether through religion or government, these agencies must understand the perspective of the common person who is not concerned about what will happen to the world a few centuries hence, but is concerned about his daily woes. These woes revolve around providing sustenance for his family, obtaining potable water, and eliminating diseases. These are the problems the common person would like to see government or society help him solve. These are some of the realities in the lives of the masses in the developing countries, but little attention has been paid to such issues in international forums. Instead, these issues have been left to national or regional governments, which in turn have engaged in the construction of large mega-projects in an apparent attempt to meet the needs of the common person. All too often, however, these projects result in the displacement of people, as well as in considerable ecological damage. Nor has the Indian government shown much concern in the past for the denudation of its forests. As for the discharge of effluent into water courses, although there are legislative tools available to curtail these abuses, often the government itself is the biggest offender.

Bringing his presentation to a close, Premi asked what might be concluded from the foregoing discussion. First, he felt that it indicated that there has been little concern for the long-range environmental questions, either on the part of governments or on the part of the people. Instead, the people have been focused on their immediate survival needs.

If their life can become a little more comfortable, they might start thinking of other environmental issues. Hence, from the viewpoint of the people, efforts should be made to provide them with safe potable water where it is not available yet, a cleaner environment so that a number of communicable and water borne diseases etc. could be controlled, a liveable house, and ways and means to have sustainable living. All this requires both government and community involvement. But most of all, it requires a basic shift at the individual level. The fatalistic attitude of "what can I alone do?" needs to be moulded in a positive active attitude of working out one's own action plan.

SECTION IV
ECONOMIC, LEGAL, AND DEEP ECOLOGICAL
PERSPECTIVES

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Environmental Degradation and the Religion of the Market

Rod Dobell, Professor of Public Administration at the University of Victoria, with research interests in environmental policy, administrative ethics, and policy analysis outlined two different perspectives on the global economy. On the one hand, there is that of the United Nations Development Program which has lamented the disturbing growth in joblessness worldwide. Referencing the Program's 1993 report, Dobell said: "Since 1975, employment growth has consistently lagged behind output growth, and this gap is likely to widen during the 1990s".

On the other hand, there is a perspective which sees the situation very differently. In the pursuit of more efficient operations, balanced budgets, and greater output, industries and governments have downsized their operations, trimmed excess staff, and de-layered their hierarchies. Although this means greater unemployment, it also makes possible continuing increases in wages for those employed, and creates an environment favourable to continued new investment and economic progress. What basically distinguishes the two perspectives, Dobell contended, is how they see employment, whether it is simply as a cost of doing business or as someone's opportunity to participate in production and thereby claim a social role and a share of the world's material resources.

While it may be tempting to embrace the latter quickly as a more wholesome perspective of employment, it too creates problems. By emphasizing ever-increasing individual incomes, Dobell alleged, it raises all the concerns of the emerging "dual economy" and "enclave society" wherein rising incomes for a falling proportion of the population lead to an increasingly polarized and strained community. This allegation is most readily seen to operate at the global level where a massive gap is widening between the richest people of the world, usually found in the North, and the poorest people of the world, usually found in the South). Pointing out that the richest 20% of the global population receive nearly 83% of the world's total income, while the poorest 20% receive a mere

1.4%, Dobell suggested that this highly inequitable situation might seem to result from indefensibly irrational policies.

“Yet,” he argued, “day by day we accept these outcomes and live placidly (more or less) with their consequences. Why is that so?” Much of the answer, he stated, could be found “in our embrace of a particular European or Western religion, an individualistic religion of economics and markets”, which explains the inequities in income and the massive unemployment rates as “the inevitable result of an intricate but objective system”. Furthermore, it maintains that any kind of collective intervention, such as government regulation, that aims at correcting these problems is counterproductive. Characterizing this religion in greater detail, Dobell stated that within it, “employment is simply a cost of doing business, and Nature is merely a pool of resources for use in production”. Additionally, the natural world and the business world are seen as completely separate, and as with interventions aimed at balancing social inequities, any intervention focused on environmental protection is seen as a threat.

The hegemony achieved by this particular intellectual construct – a “European religion” or economic religion – is remarkable. It has become a dogma of universal application, the dominant religion of our time, shoring up and justifying what would appear to be a patently inequitable status quo.

The success of this religion appears to rest upon two basic premises: that one’s personal morality can be separated from responsibility for actions taken in business (as embodied by the concept of a limited liability corporation) and that prices can be taken as indicating the true value of something, and as a subsidiary point to this last premise, that the free market is the best mechanism for facilitating the exchange of values.

What is necessary as an antidote to this strange worldview is to shift to a dramatically different frame, in which the economic sphere is inexorably embedded in the biosphere, and the functioning of the larger ecological system provides the natural benchmark.

However, intervention in that functioning for economic purposes will be accepted only when demonstrably not threatening to the natural order.

What a paradox! On the one hand, he appeared to be calling for a fundamental change in the natural order of the religion of economics and yet, on the other hand, he argued that attempts to change the natural order

would be perceived as too threatening and would not be accepted. Was there a way out of this paradox?

Before offering any clues, Dobell introduced us to a formula first developed by Paul and Anne Ehrlich to encapsulate the major factors creating environmental degradation. The formula

$$S = (Y/P) \times (M/P) \times (S/M) \times P$$

basically says that environmental stress (S) results from the multiplication of income per capita (Y/P) by consumption of materials or resources per unit of income (M/P) by environmental stress per unit of material output or resource input (S/M) by and population (P).

The formula simply reminds us that several factors go into determining the level of environmental stress in any one region: the scale of population itself, the level of income per person to be maintained, the material content of the goods and services on which that income is spent, and the stress generated directly by the choice of technique by which the resources will be harvested or extracted to provide that material throughput.

Our contemporary economic religion has created a system of social organization and individual incentives that has enjoyed unparalleled success in a drive toward rapid growth of per capita incomes (Y/P), and it is clear that aspirations for higher incomes and material wellbeing are widely shared around the world.

This pursuit, however, has also become associated with extremely wasteful and destructive uses of resources. In the name of economic efficiency, all too often driftnets, draggers, clearcuts, and stripmines become the accepted methods of exploiting the planet's ecosystems, even if it means harvesting a species to the point of extinction, as has almost happened with the Atlantic cod populations off the coast of Newfoundland.

The economic religion thus seems to push inexorably toward high incomes, highly material intensive, highly environmentally stressful modes of production – toward the adoption of technologies that are unselective and wasteful of ecological resources and ecological integrity. At the same time, it leaves behind absolute poverty on a large scale, from which environmental degradation also flows inevitably.

Recognizing that the traditional economic religion has brought upon the planet severe ecological damage, some economists have begun to call for a new kind of religion, one that encourages more environmentally sensitive activities. Referred to as “Free Market Environmentalism”, this

new economic religion assigns prices and property rights to resources in order to ensure that they are more properly valued. And, while full private property ownership is one option, there are several others, including more restricted access, governed formally by well-defined organizations or community groups, or informal access, controlled by less well-defined traditional or cultural groupings.

The point of the “free market environmentalism” idea is that this process can, with appropriate prices and accounting, achieve appropriate utilization of environmental resources, taking into account intangible benefits, option values, and the like. Indeed, in a theoretical ideal world, it can be argued that the very short-term pursuit of maximum net national product, appropriately priced, can lead to the long-term objective of sustainability.

This argument, however, depends a great deal on several critical assumptions, such as being able to determine the “right” prices for ecological and social goods, and having a social rule in place that encourages reinvestment into the maintenance of cultural and biological diversity. Such assumptions raise many questions. Of particular concern to Dobell was the issue of intergenerational equity as it pertains to sustainability. He noted that sustainability is typically taken to mean meeting the needs of current generations without compromising the capacity of future generations to meet their needs. To achieve this, he argued, present generations have to undertake sufficient reinvestment to maintain the capital stock of society undiminished. Capital stock can be thought of as either natural or constructed, with the former being all that which humans did not make, and the latter being that which humans have made through exploiting the former. And as Dobell warned: “It is not clear that we can treat all these forms of capital as fully interchangeable and easily substitutable”. In particular, he questioned whether it was possible for constructed capital to replace natural capital which he saw as critical to human survival and, one could well add, all other forms of life. Since this is the case, a strong argument for sustainability must go beyond simply reinvesting in the maintenance of biodiversity, it must also include setting limits on resource extraction and the preservation of a minimum natural stock. A good example of this latter point, he suggested, was the recommendation of the World Commission on Environment and Development which stated that the amount of protected area globally should be at least tripled, a recommendation currently being followed by the British Columbia government.

Adopting this approach to natural capital also leads inevitably, it might be noted, to the inversion of the frame or image of the free market environmentalism approach. Rather than viewing the environment as a pool of resources embedded in the economy, whose utilization as raw material or as disposal capacity should be properly priced and rationed, it becomes more natural to see our pool of natural capital as a continuing heritage or bequest to future generations, from which fund withdrawals can be made on a continuing basis for investment, for example in a “working forest” base or a commercial fishery.

In this image, the maintenance and continuity of the fund is the fundamental social obligation and the natural starting point; withdrawal for current production can be warranted only so long as the continuity of the fund is not compromised. In this image, one does not “withdraw” land from the “working forest” for parks or wilderness preservation purposes; those purposes form the starting point, and “withdrawals” from the fund for commercial forestry (or settlement) can be contemplated only when they do not jeopardize the integrity of the overall commitment to sustainability.

What one should conclude from these arguments, Dobell insisted, is that some form of social valuation is required to guide the free market system, especially in terms of its interactions with the biosphere. A social response should set some ground rules to guide the market, such as the requirements for adequate reinvestment and preservation of natural resources to maintain biodiversity and ecological integrity. Having said this, however, Dobell recognized that some economists and decision makers would probably question the rationality of such pre-emptive rules being used in place of market calculations. By way of an example he referred to proposed British Columbia government regulations that call for “massive investments in sewage treatment facilities in Victoria, even though scientific evidence is cited to show that there is no discernible harm from current discharges into the ocean”. In cases such as this, rules or regulations are often seen as too inflexible, unable to differentiate between differing ecological circumstances, while ignoring scientific evidence and economic reason. Indeed some might go so far as to say that they are merely an irrational response in the face of calculable risks. Despite these arguments, societies still appear largely willing to give much of the fine-tuning and precise optimization promised by market calculations in favour of broader but possibly more robust guidelines such as social rules or religious precepts.

Focusing on the issue of existing inequities between the North and the South, Dobell noted that the commons have traditionally been the

property of the poor, at least for the most part, and that recognition of their rightful share to it was also a recognition of some part of intrinsic human claims to a share of the earth's life support systems. This recognition has been set forth as a central principle for developing countries to "have an inherent right to adequate environmental space to accommodate their basic development needs" which include:

- recognized right of access to the world's atmospheric resources by the South;
- recognition by the North of the enormous environmental debt already incurred as a result of the "irresponsible" development path followed thus far;
- recognition of special property rights systems and appropriate compensation mechanisms, in particular in respect to biodiversity and genetic materials.

Of the principle of "environmental space" and the rights which follow from it, Dobell thought that the developed countries were not yet prepared to accept them. As a consequence, debate remains focused on possibilities for sharing responsibilities through joint implementation programs, technical assistance and transfers of resources, technology, or information.

Bringing his presentation to a conclusion, Dobell summarized:

1. We do face a crucial problem, and it is centred on the problem of scale – the scale of human numbers, activity, and appetite, all pressing the limits of a finite biosphere;
2. Numbers and the growth of numbers – the expansion of population – are key factors contributing directly to this crisis;
3. Another key factor is the pervasive influence of a flawed – probably fatally flawed – religion or belief system: the "European" religion of the market;
4. "Free market environmentalism" – the introduction of prices and property rights for ecological services and natural capital as steps towards filling some of the recognized gaps and completing the information base for social decisions – is a necessary step in a social response to the current crisis, but it is not, and cannot be, enough;
5. Beyond such steps to complete the market, we require measures to embed the market in a larger vision. We need acceptance of more fundamental principles, amounting to ethical guidelines, to shape our relationship with our land, and control the pace of our

harvesting it. Two such basic ground rules may be sufficient to assure sustainability:

- Do not eat into the capital (consumption must not exceed net national product); and
 - Do not sell the heirlooms (preserve parks, gene pools, the biosphere, biodiversity, cultural diversity, natural capital in general);
6. Most fundamentally, in order to achieve this goal, it is essential to address current inequities in wealth and income, and hence to address a fundamental reallocation of property rights.

The key conclusion advanced here [Dobell recapitulated] is that for a workable and responsible stewardship, some version of “free market environmentalism” is necessary, but not sufficient. Delegation of almost all environmental management responsibility to markets, or market-like community decisions, is inescapable. But the direction ultimately demands social ground rules reflecting ethical judgements.

In addressing these issues, no matter how faithfully we pursue the religion of economics, and particularly that of free market environmentalism, there are two points at which we must inevitably appeal to social ground rules of a more traditional religious character:

- on the question of sustainability, or the preservation of critical natural capital, where we must recognize our obligation to respect some intrinsic (or at least terminal) value to Nature in its own right – that is, we need some form of “preservation ground rules” such as the two noted above; and
- on the question of ownership of the commons, or the distribution of initial endowments, where we must recognize our obligation to others in some form – that is, we need some “redistribution ground rule”.

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International Law, Population Pressure, and the Environment: North-South Relations

Elizabeth Adjin-Tettey, an African doctoral student studying international law, began her presentation by noting the growing number of international conferences focused on the environment. She pointed out that environmental degradation arising from population pressure continues to be seen as mostly a Third World issue, a perception, she thought, which too often neglects to take in the whole picture.

These countries lack resources to improve their standards of living which, as evidenced in the industrialized countries, is an important factor in reducing population growth. The developing world needs financial and technological assistance to improve their standard of living and to reverse exponential rates of population growth and pressures on the Earth's resources resulting from sheer numbers.

The urgency of the population-environment problem dictates that such assistance must not depend on the benevolence of the industrialized countries, but on a legal regime obliging the rich to do so.

Adjin-Tettey immediately recognized that some might question whether the poor have such a legal right, especially in the absence of any principle of international law which requires the developed countries to do so. She countered this argument by noting that the urgency for global environmental protection along with the emerging practice of developed countries to assist developing countries with environmental clean-up and restoration programs may constitute the basis for such a right. Furthermore, she contended there is also a moral obligation to be considered.

Just how urgent is the situation in the developing regions of the world? "Population pressures in these countries are creating an ever-increasing but impoverished peasantry who are compelled to depend on a dwindling natural resource base", Adjin-Tettey succinctly stated,

capturing the essence of the vicious downward spiral that McDonald had referred to the previous day.

This has tremendous effects on ecosystems. As humans, plants, and animal species compete for the same habitats and resources, the latter are marginalized by virtue of the survival of the fittest. In the process, some plants and animal species have suffered severe reductions in their population, while others are driven to extinction.

As populations in the poorer countries continue their exponential climb, people, especially the young, seek an escape from the poverty and degradation of the hinterlands by migrating to the cities. Here they join millions of others, all aspiring to a more affluent lifestyle, compounding the pressures on a dwindling resource base.

Pressures on natural resources do not only stem from the sheer numbers of people on earth. Poverty and underdevelopment prevent the developing world from using the natural resources they command sustainably.

Referring to the 1972 Stockholm Declaration, she pointed out that humans have “a right to a life of dignity and equality in an environment of quality”. However, we also have a responsibility “to protect and improve the environment for present and future generations”. These ideas were again reinforced by the World Commission on Environment and Development in 1987 which, in its formulations of sustainable development, declared that countries should “ensure that the earth’s resources are used and conserved for the benefit of present and future generations”. Both international bodies, then, have affirmed the notion of intergenerational equity with respect to the environment. The notion

obliges every generation to ensure that succeeding generations have available to them at least the options and uses the former derives from the natural environment. ...

Intragenerational or current equity emphasizes that there be fairness in the use of the earth’s resources within each generation. Though current equity may appear to be in conflict with intergenerational equity, the two can co-exist and must go together. Indeed, fairness within each generation is implied in intergenerational equity. To a significant extent, the realization of the latter depends on the degree to which the former is recognized and promoted.

By this reasoning, assisting impoverished members of the present generation translates into the fulfilment of obligations to future generations. Unfortunately, she argued, there has been a tendency to

ignore the needs of current generations in issues related to equity even though experience has shown that to do so would relieve much of the pressure on the earth's ecosystems. To drive home this point, Adjin-Tettey noted the experience of the developed countries where lower birth rates followed from improved standards of living.

Thus socio-economic growth is required in developing countries in order to break the cycle of poverty and high rates of population growth in these countries, which itself intensifies pressure on natural resources.

The achievement of the necessary level of socio-economic growth in developing countries, however, very much depends on assistance from the developed countries. In particular, she noted that there is a great need for significant transfers of financial, technical, and technological resources. She also quickly acknowledged that all too often assistance has addressed symptoms only rather than attacking root causes, and that it has also created its own environmental problems. Given these criticisms, she concluded that the nature of assistance must change.

Development assistance must be seen to be temporary and aimed at promoting long-term self-sufficiency in recipient countries. Funding institutions and donor governments must encourage sound environmental practices in recipient countries by ensuring that environmental assessment processes and criteria are integrated into the planning and implementation of projects funded by them.

In addition, the recipient countries must be full and equal partners in the decision making concerning which projects are funded and how they are implemented. Assistance needs to be directed towards improving birth control technology, women's health, and medical care generally. Lastly, to ensure that these objectives are met, assistance should be "untied" from the economic and political agendas of the donors and it should not be left up to the sporadic voluntary generosity of the developed countries. Instead, development assistance should be obligatory, consistent, and automatic.

Obligatory transfers do have considerable basis in the realm of international justice. Referring to the work of the socio-political philosopher John Rawls, Adjin-Tettey introduced us to the concept of the "difference principle" which she explained as a situation wherein

inequalities in social and economic benefits are justified in so far as they work to the maximum benefit of the least advantaged members of the society, because other things being equal, it is morally wrong for some people to be worse off than others in the society.

Following from this principle, then, injustice can be perceived to be at work within the global village since a great disparity exists among its members, which is clearly not to the advantage of the poorest members.

An additional ground for moral obligation for development assistance arises from past and present economic relations between the developed and developing countries.

Most developed countries were colonial powers while the colonies are the developing nations of today. These powers exploited the resources of their colonies for their own economic development without considering the long-term interest of the colonies.

In their wake, the developed countries left behind, and continue to leave behind, intolerable degrees of environmental degradation. In such cases, the "Polluter Pays Principle" could be brought to bear, forcing the developed countries to assist in the clean-up of messes they have often directly and indirectly caused.

Apart from these reasons, the developed countries themselves have begun to acknowledge their responsibilities to the developing countries of the world. One such sign of this awakening has been the establishment of the Global Environment Facility under the auspices of the World Bank, with the mandate to promote environmental protection and restoration in developing countries. To assist these countries in this vital work, the facility provides funds in the form of grants or concessional loans. Other financial assistance programs of similar nature have been established as part of the Montreal Ozone Protocol, the Framework Convention on Climate Change, and the Biological Diversity Convention.

These developments set valuable precedents for an evolving norm in international relations in which both rich and poor nations have accepted the common responsibility for stewardship of the environment. They also establish a general need and corresponding understanding to transfer financial and technological resources to poorer countries to enable them to meet their needs without intensifying pressures on natural resources.

A major obstacle to be cleared in the transfer of technology to developing countries is the matter of ownership of intellectual property rights. Typically these are owned by multinationals who are not uncommonly reluctant to offer them to developing countries on readily affordable terms. Further, international law provides extensive protection to intellectual property rights, so much so, that it conflicts with the provision of socio-economic assistance. Accordingly, Adjin-Tettey stated

that the notion of intellectual property rights must be redefined to accommodate the needs of developing nations. Until such time, developed countries should encourage the multinationals, who are often headquartered within their national borders, to “make their intellectual property rights available to the nations of the South by giving them incentives such as tax breaks”.

In concluding her presentation, Adjin-Tettey restated her belief that “the obligation to assist developing nations to deal with factors that compel them to degrade the natural environment is an emergent customary norm in North–South relations”. As such, she stated:

the obligation to assist developing countries in the interest of global environmental quality can be enforced just like any rule of custom. Consequences of breach, such as advisory opinion by the International Court of Justice denouncing them, public embarrassment, and the imposition of sanctions on the violating country, may serve to enforce said obligation.

To avoid misuse of resources transferred, recipient countries must be made to account for assistance received, showing how such transfers have promoted domestic self-sufficiency which respect to the environment, and the nature of subsequent assistance, if desired. Assisting developing countries in this way will help break the cycle of poverty, population increases, and environmental degradation, and will be in the long-term interest of humankind.

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The Northern Consumption Issue After Rio and the Role of Religion in Environmentalism

Yuichi Inoue, a Professor at Nara Sagyo University, Japan, began his presentation by noting that his country laboured under two environmental myths.

The first states that the population problem belongs to the South. The second says that constant economic growth and environmental protection can be made compatible by means of technological innovation and scientific resource management.

The net result of these two myths, he argued, was that most Japanese do not consider their social and moral obligations to the global community. If they did, they would probably reduce their consumption of resources. Japan, after all, has one of the world's highest material standards of living. As a consequence, these two myths engender a "naive, exceedingly optimistic view which totally neglects the global economic and ecological context".

Meanwhile the governments of developing countries have been increasing their demands for economic equity with the developed countries. Environmental non-government organizations from the South have also put social justice issues at the top of their agendas. Unlike their governments, however, these organizations reject the development models of the North. Despite these differences, the common viewpoint from the South is that the biggest global problem is the excessive resource consumption in the North.

This position is backed by the current North-South imbalance in resource and wealth distribution, which is too obvious to be politically ignored and too large to be morally neglected.

He emphasized this point by conservatively guessing that an average Japanese probably consumes about 10 times as much as a person in a developing country. Given Japan's population of about 125 million, this would amount to the equivalent of 1.25 billion.

When we imagine 1.25 billion people living in an area approximately the size of Montana, it is not difficult to see that Japan is truly “overpopulated”.

The above argument is by no means intended to de-emphasize the problem of overpopulation, but to emphasize that the Southern population problem must not be used for distracting attention from what has to be done in the North, which is claiming disproportionate shares of the world’s wealth and environmental space.

Given that the North’s excessive consumption is underpinned by the two myths of continuous economic growth and never ending technological fixes, then the search for ways to reduce its standard of living becomes a question of values and beliefs. Drawing upon the work of Norwegian environmental philosopher Arne Naess, Inoue indicated that there are two main forms of environmentalism with respect to social values. On one hand stands the “shallow” or mild reform movement, which avoids a serious and fundamental examination of values and worldviews, or sociocultural institutions. On the other hand there is the deep, radical, and long-range movement, which encourages an ecocentric, holistic awareness that “our ecological crisis is truly a crisis in our culture and consciousness and we need to make fundamental changes in our values and worldviews”.

Referring specifically to the technological myth, Inoue noted that technology has benefited humanity in the past and that it would likely play a critical role in providing solutions to some of the world’s ecological problems in the future. Nevertheless, technological innovation alone cannot bring about an environmentally sustainable society. This end can only come about through the questioning of deeper values.

Turning to the economic myth, Inoue stated, “Our belief in economic growth and material affluence is almost religious, and obviously hard to depart from”. He noted that these beliefs have begun to spread to many parts of the world, prompting him to conclude that the problem must be addressed at a fundamental level, a level commonly held to be the realm of religion.

Environmentalists of the deep, long-range movement exhibit considerable ambivalence towards religion. On the one hand, it has provided a source for alternative values related to spiritual richness and sacredness of being. This is particularly so for the traditions of North American native cultures and Eastern philosophies/religions. On the other hand, religions, especially the institutionalized ones, have tended to endorse “authoritarian, dogmatic, hierarchic, and chauvinistic values”

which, Inoue contended, stand in opposition to the ecological values of egalitarianism and libertarianism, which emphasize symbiosis and diversity.

By way of an example he cited Shinto, Japan's original religion, noting that it now has two distinct versions. Folk Shinto, he characterized as animistic, popular, and more traditional. State Shinto, in contrast, is institutionalized, authoritarian, and more recent. The former perceives gods (*kami*) in every entity in nature and, as might be expected, engenders a strong reverence for nature. It also promotes the concept of oneness of humanity with nature. The latter, State Shinto, developed out of a strong political agenda to subordinate people to the authority of the emperor, who was designated as a living god.

The ambivalence to Shinto is widely shared by Japanese environmentalists. Although they are aware of the critical relevance of Shinto to ecological values and worldviews, the dark memory of totalitarianism haunts them to prevent their commitment to the religion.

The ambivalence gives rise to a paradox of religion in environmentalism.

On the one hand, it might be ideal for ecocentric environmentalists if ecological values were established in ourselves to the extent that our behaviour will become completely ecological almost unconsciously,

he said, before pointing out that this outcome could arise if the deep, long-range ecological movement became a religion itself. Yet, such an event would not necessarily be a cause for celebration. For as environmentalists have observed, once established, religions tend to demonstrate a great reluctance to question their own ultimate premises. "Adherence to a specific set of ultimate premises" Inoue contended, "can result in narrow-minded, dogmatic, and chauvinistic responses to those who hold a different set of ultimate premises". Hence, environmentalists are concerned about becoming rigidly inflexible in their stances, at a cost to their ability to embrace diversity.

Ultimate premises, by their nature, cannot be derived from other norms or values; therefore, they are considered to constitute the first level of four within the ecology movement. Out of them arise principles (level 2). It is at this level, Inoue felt, that plurality and diversity could emerge and be accommodated. General views (level 3) and daily actions (level 4), however, typically vary, reflecting situational, personal, and cultural differences. Level two, then, has the potential to serve as a platform for

consensus among those seeking solutions to global environmental problems.

Each religion can make a uniquely significant contribution to environmentalism by informing and enriching the ecological platform comprising core principles, which in turn inform people, living with different backgrounds, of an ecological way of seeing and doing things.

Being ecological, he also said, consisted of at least three components: physical sustainability, such as reducing resource consumption and waste; social equity, that is, promoting fundamental human rights; and ontological richness, the achievement of personal growth and development. Further, he noted that many religions were now beginning to embrace such notions, as evidenced by the ethical principles for environment and development proposed by the United Church of Canada at the Earth Summit. Initiatives such as these on the part of the world's religions open up the possibility for creative and constructive interaction between religions and environmentalism, thereby increasing the likelihood of surmounting the current ecological crisis.

SECTION V
RESPONSES FROM BUSINESS, RELIGION,
AND GOVERNMENTS

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Possible Response Options for Corporations

Representatives from three areas of decision making – business, religion, and government – responded to the presentation and discussions of the first five days.

Representing business interests was Hugh Morris, president of Padre Resources Corporation and treasurer of the Canadian Geological Foundation, as well as current chair of the Canadian Global Climate Change Program of the Royal Society of Canada.

Morris noted that there are two broad categories of natural resources: renewable and non-renewable. The most crucial group of resources are the fossil fuels. As a measure of this group's importance, all one had to realize was just how much modern industrialization depends on them. If this was not convincing enough, consider that the seven largest oil companies are among the world's twenty largest corporations. The growth based on the burning of fossil fuels in the process of transforming natural resources into products to satisfy human needs is creating serious global environmental problems. In part, these problems arise from short-term thinking in the decision making processes, something which greatly disturbed Morris. "We do not handle time very well," he observed. "We only look ahead a few years. Instead, we need to think in terms of generations."

Global warming, ozone depletion, deforestation, and acid rain, all share a common link back to the burning of fossil fuels. Each of these trends pushes the earth's natural systems closer to instability. "We like to think that we are above chaos," Morris said, "but the mathematics of chaos may indicate that we are entering into it." That this may be so, he concluded from the possibility that humanity had either already gone beyond the finite carrying capacity of the planet, or was certainly rapidly approaching it.

With the problems becoming more and more urgent, a growing number of people have been awakening to the threats, prompting an anxious search for solutions. In this search, corporations can either assume a positive or negative role. Corporations, Morris asserted, by

virtue of the cross-section of ownership within them, are representative of society; however, they are also a bureaucracy organized to serve other people and their capital. Their primary purpose historically and presently remains to increase assets while securing the potential for still further growth. "Profits are essential." Morris stated, "The alternative is extinction." The actions of a corporation are governed by: their terms of reference, industry self-policing and internal morality, social impositions, and government regulations. Transnationals constitute a special breed of corporation. As companies that operate in numerous jurisdictions, they are – in Morris's view – highly regulated by virtue of the multiple jurisdictions within which they conduct their business.

Referring back to the desire to find solutions to global problems, Morris said that if people wanted change on the part of corporations, then they needed to understand that as they lead, so will companies follow. By way of an example, he held up several brochures espousing corporate green programs, including one from the hotel in which we were staying. "Perhaps these are only shallow environmentalism. Perhaps we should be sceptical. Nevertheless, they represent some change." He also emphasized that these changes probably came about because the corporations in question felt confident that the public demand was strong enough to warrant acting in this direction. He referred to this mentality as "reverse nimby" (nimby being an acronym for not-in-my-backyard). Corporations stand around and say: "Please not me. I don't want to be the one to move".

How is this reluctance to be overcome? Morris felt that corporate decision makers are best reached by educational means. He advised developing effective and appropriate messages, sowing seeds for on-going dialogues, and exhorting key groups in society to take leading roles. In this latter category, he believed that religion could play an important role, owing to the enormous weight it still carried within the corporate world.

Education also needs to be directed at society in general as well, he pointed out. Transnational corporations create products in the belief that society wants the products. Lately, these corporations have also tried conservation and substitution as methods to reduce the environmental impacts of their businesses. Unfortunately, these practices have not become a strong part of doing business. The reason, Morris contended, is that society as of yet has not indicated through its purchasing patterns that it truly wants these changes.

With his presentation concluded, Morris fielded questions, which came fast and furious. One participant alleged cynically: "I wish what

was just said was true, but companies are only money junkies". Morris calmly responded that it was the role of governments to determine what was appropriate behaviour for companies through regulations. Corporations will have to follow government directives.

The answer didn't satisfy another participant who immediately challenged: "How do you define profit? We seem to be so caught up in amassing wealth while losing our souls in the process. In addition, corporations don't represent society."

"Corporations reflect the dominant part of the global society" rejoined Morris.

"Dominant part, yes, but a small minority of the global society" reminded a third participant.

Clearly, the presentation by Morris had done little to allay the latent fears that many people have of the power corporations possess and wield in the global village.

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Possible Response Options for Religions

Bishop Remi De Roo is the Roman Catholic Bishop of Victoria and is very well known in that community for his work on issues concerning social justice, and for his outspoken criticism of an unfettered free market economy. He began by telling us he had just returned to our conference after a short speaking engagement at a youth conference back in Victoria. There, among those young people, he had seen a search and a longing for authentic hope. De Roo characterized true hope as a new creature on the social landscape. “It arises when we turn to a higher power. It occurs when we discover in our moment of weakness, a special imaginative and creative power.”

How might we go about discovering this creative power in this time of global crisis? De Roo noted that traditionally Aboriginal peoples and historically world faiths have operated on a model of the world that is organic. Furthermore, the source of divinity, he argued, was the womb. In recent times, however, this metaphor has been replaced by that of a clock, backed by the power of science. “This latter model is killing us. This model has to go.”

If returning to a more organic worldview, which has as its organizing metaphor the womb, is part of the pathway to regaining true hope, then how might this be accomplished? The way was clear in De Roo’s mind. “We are talking about all the disciplines coming together in a trustful relationship, to listen to one another in dialogue.” And by this latter term, he made it quite clear that he did not mean polite chit-chat. Rather, he emphasized, dialogue implies respect for the other as self-defined. “I have to listen to the deeper inner truth of you, the person, behind the language. I must recognize that sometimes I don’t understand the language and as a result I’m in danger of misjudging you.” We must be humble enough to ask the other person to repeat what they have just said and to ask them to help us in understanding them. This is especially important when trying to communicate across cultures. Most of all, we need to overcome our suspicions about and fears of the other person. “I need to put the best possible interpretation on what you are saying, and try to hear your

struggle for truth, even in the imperfect way in which you may be saying it.”

From the line of thought De Roo was pursuing, it was evident that he felt deeper communication among people held part of the answer to accomplishing the paradigm shift he called for. But religions also had a critical role to play, and which role they chose to take very much depended upon their attitudes. In the context of the global issues under discussion at the Summer Institute, De Roo saw three possible attitudes. One possibility is *accommodation*, encapsulated in the stance: “Let’s do the best we can. This is the situation we’ve got and there isn’t much we can do about it”. This attitude riled De Roo. “To me this is an evasion of responsibility. It is very dangerous today because it produces flights-into-cosmic-abstractions types of religions.” Although he didn’t offer any examples of these types of religions, the charismatic movement would probably fit his description. “Nor will we solve them in the ultra-rightist fundamentalism or primitivism that also menace us now. They want to take us back to some imaginary past that was an ideal. That is simply not reality.”

The second possibility he characterized as the *reformist response*, wherein improvements are proposed, but without calling into question the values, beliefs, and assumptions of the system which perpetuates the problems. He likened this approach to simply pulling levers in accord with the mechanistic worldview.

I think this approach is a luxury and history is going to judge us severely, because we have lost our innocence. Yesterday we did not know. Today we know. We are no longer innocent. We know the truth today, and all of us of the different religions have to face this reality.

If neither a reformist nor accommodating response are appropriate, then what is? For Bishop De Roo there can be only one approach, that of *transformation*. By this term, he meant some form of consciousness-raising in which fundamental societal beliefs would be challenged and changed.

The more radical solutions that will transform the world will reject not only the centrally planned market economies of communist dominated countries now in collapse and crisis, but will also reject the private-initiative Western capital-intensive global market economy and the ideologies which inspire and promote it. Real transformation will involve getting rid of the competitive economic model which encourages ever-increasing material accumulation and profit seeking.

This model must give way to another model which will be cooperative not competitive, participatory not monopolistic, and decentralized not centralized.

Is there hope that we can bring this alternative vision about? Yes, provided we can get out of the polarized dichotomy into a higher or broader or deeper synthesis.

There is a whole raft of people saying that hope lies beyond Marxism and beyond capitalism. Call it what you will – a social ecology – a new understanding of our relationship with nature. I think the challenge to all of the world’s religions is to get at this fundamental question: How are we to achieve this transformation?

In closing his presentation, De Roo suggested that there are at least four key actions that have to be taken in order to achieve transformation:

1. Name the reality;
2. Engage in historical reconstruction;
3. Assess in the light of current knowledge; and
4. Empower individuals and communities for effective political action.

De Roo referred to the first step as a critical examination of our individual and social worldviews. In particular, he expressed strong concern about the belief that religion is a private affair not applicable to social, political, or economic life.

It is seen as a set of values which may appeal to conscience and may result in certain practices congruent or not, but which constitutes a domain where science has no say. And here religion is very much at fault for having tried to marginalize science. This misunderstanding and the dialogue of the deaf between religion and science in my opinion constitute the most crucial problem in the world.

The second step is an intensive investigation of how things have come to be the way they now are. He contended that this step demands a systematic analysis to get under the surface of appearances to “lay bare the root causes”.

The third step, contrary to what it might seem initially, calls for the engagement in fantasy. For, as De Roo pointed out, “we can never do what we have not fantasized first”.

Lastly, with respect to empowerment, De Roo saw religion playing several critical roles, including: sharpening the core questions; providing forums for dialogue; maintaining the tension between immanence and transcendence as creative poles, rather than abandoning one or the other; proclaiming what is seen as truth, while denouncing what is seen as false;

and most importantly, celebrating what has been achieved. “So let us celebrate and give thanks for the wonderful things already happening here at this gathering.”

In the question period, De Roo was asked what he thought the solution was when one religion or culture comes into conflict with another. He replied:

The answer is to step back to our common humanity. You may believe in one religion and I may believe in another, but both of us are human beings and if we want to get along, then there are only certain ways of doing this. Now let us explore together what these ways are.

Another participant asked a similar question – only this time more from the perspective of what one individual can do to effect change, especially in the face of resistance – to which De Roo said:

The only answer is to form small groups who can share similar values, support one another, and allow one another to grow. In this we see a tremendous movement back to what Christians call basic communities.

Possible Response Options for Governments

Stephen Owen heads the Commission on Resources and the Environment, or as it is known throughout British Columbia, CORE. The Commission was established by the New Democratic Party (NDP) government to develop an overall land use strategy for the Province, as well as to make recommendations on contentious land use conflicts, most notably between logging and wilderness preservation interests. The latter is an extremely challenging responsibility, given the complexity of the issues and the intensity of the emotions surrounding them.

His presentation focused on factors that constrain a government's ability to respond to the issues under consideration at our Summer Institute: lack of resources (financial primarily); public cynicism; high levels of confrontation; difficulties in achieving sustainability; and increasing failures in social justice and democracy internationally. He argued that in order to deal more effectively with the first constraint, governments have had to become more efficient and more targeted in their programs and policies. In particular, he noted a shift in regulations, now less oppressive and more stimulative, reflecting a search for more elegant solutions that combine self-interest and altruism, such as more self-policing.

Owen saw a cynicism arising from the perception that political systems are no longer representative of individual or community needs. Digging a bit deeper might reveal the suspicion that a government's power is now being directed toward ends that serve a particular vested interest rather than that of the common good. In response to this alienation, governments are increasingly relying on polls to assess electorate wants, an approach that Owen referred to as "rearview mirror leadership". Additionally, there are calls for greater use of referendums to resolve major policy questions, another approach that caused him concern. "Referendums" he warned, "are anonymous decisions, not open and reasoned debates. As a consequence there is a missing element of responsibility." The cynicism also spills over into the courts which, he argued, are being seen as increasingly irrelevant to most people and are

having increasing difficulties in dealing with issues arising from competing interests. Meanwhile, within the large government bureaucracies, insensitivities to issues result when people are caught up within hierarchical systems which force them to look up and inside rather than out to those they really serve.

Much of the cynicism has been generated by unsatisfactorily resolved conflicts, the third constraint. Part of the problem here, Owen contended, is a general inability to accept some conflict as good, in that it can stimulate and focus discussion. Nevertheless, he quickly added: "We can no longer afford the costs of confrontation. Instead we need to be striving for consensus. It results in better decisions in that they are more stable and flexible".

On the depletion of the biosphere and the search for sustainability, he saw governments playing a critical role through their policies of encouraging sustainable practices and discouraging those that are not. "Governments are learning to be more sensitive to changing societal values in this regard" he commented.

On the last point, Owen remarked that there hasn't been very much success with the improvement of human rights and peace internationally. Too many governments still put all their eggs into one basket – the military. As a result, the global situation is less stable and more threatening perhaps than ever before. The globalization of the economy has not helped either. In too many cases it has stripped people in developing countries of their self-sufficiency, a situation that Owen felt must be reversed. Unfortunately the West is all too ready to overlook human rights infractions in the interest of economics. If there is any hope, then perhaps it lies in the growing awareness of the urgency of environmental issues. "Hopefully this growing realization of the true interconnectedness of the world can spread to the areas of peace and human rights."

In response to a question concerning the mounting cynicism in British Columbia regarding the possibility of achieving true consensus in land use conflicts, Owen commented:

Government decision making processes are becoming increasingly dysfunctional. They have got to start passing even more power over to public participation processes and trusting them.

SECTION VI
CONCLUSIONS AND RECOMMENDATIONS

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Conclusions and Recommendations

“We have come to Whistler to ask whether the world may yet be saved.” With these words, Kenneth Hare had framed the essential question of the 1993 International Summer Institute – a question which encapsulated all of our individual concerns, thereby uniting us in the common cause of finding a positive response to it. What follows are the conclusions, recommendations, and guiding principles derived from the Summer Institute. They are offered in the hope that they may encourage and inform immediate action directed towards saving the planet and humanity from an impending disaster.

Preamble

Humanity is inseparable from the ecosphere, which it shares with all life. Conserving that ecosphere is vital. Exponential resource consumption and population growth are rapidly destroying the interconnected web of life. The scope and scale of this current crisis are without precedent.

It is urgent that we identify, understand, and rectify material, intellectual, psychological, emotional, and spiritual causes and conditions which give rise to excessive consumption and human reproduction.

We human beings have a moral obligation to recognize that we are responsible for the degradation of the ecosphere and that we are called to redress the damage.

An unprecedented crisis demands an unparalleled creative response. We must search out relevant resources from ancient wisdom traditions, and from current arts, sciences, and technologies, in our quest for radical personal and communal transformation.

Actions must be informed by and inclusive of diverse ways of knowing.

Responsibility for action rests with all of us, individually and collectively.

The Summer Institute's Recommendations for Each Sector

1. INDIVIDUALS

Conclusion

A solution to the problems of excessive population growth and consumption calls for a transformation of our social attitudes and behaviours towards the ecosphere from one of domination and exploitation to one of preservation and conservation. Such a transformation begins with the individual.

Recommendations

We recommend that individuals in all parts of the world:

- consider the needs of other creatures which share the ecosphere and the needs of future generations;
- reflect on the inability of humankind to satisfy its spiritual desires through material means, whether that be through consuming more goods or through bearing more and more children;
- examine the uneven distribution and misuse of our resources and the implications that follow from these situations and take action to reduce consumption and waste, and redirect resources to those in need;
- direct their convictions towards making social policy more ecologically responsible.

2. EDUCATORS

Conclusions

Through example and through teaching, educators and academics hold the key to the future, because they influence both current and future generations.

There is a significant gap between religious understanding and scientific discovery. There is much to be learned from both disciplines and each side should work toward an integrative wisdom.

Recommendations

We recommend that educators at all levels:

- reflect on existing symbols in the curricula regarding the human relationship with nature and how they influence human reproductive and consumer behaviour; as well, where needed, to explore and to integrate new symbols into the curricula that demonstrate ecologically responsible relationships with nature. Some useful symbols and knowledge can be found in the

disciplines of ecology, natural history, and the world's ethical systems.

3. RELIGIOUS LEADERS

Conclusions

Religious leaders should address the urgent problems of population growth and overconsumption, which are almost entirely spiritual or ethical at root.

Recommendations

We recommend that religious leaders:

- seriously reflect upon their traditions and the ethical implications that follow, and consider what obstacles might be removed or principles emphasized or re-interpreted so as to address the pressing problems of excessive consumption and overpopulation. This will entail putting environmental ethics at the forefront of their thinking and messages;
- set an example of how ethical beliefs about the ecosphere can be translated into action;
- identify and mobilize social and economic resources to address the interconnected problems of environmental degradation, consumption and population growth.

4. BUSINESS LEADERS

Conclusion

Large public and private corporations in all countries have a profound impact on ecological sustainability and social equity. As people and their governments become more environmentally aware, it is prudent as well as ethical for corporations to demonstrate their commitment to social equity and environmental sustainability.

Recommendations

We recommend that business leaders:

- recognize their responsibility not to promote forms of consumerism that negatively affect the ecosphere, but rather work with each other and consumers to eliminate harmful forms of consumption, marketing, and advertising;
- explore new models of behaviour which are more socially and environmentally responsible. Initiatives taken by enlightened corporations already provide good models of behaviour; Structured dialogue with business leaders, community representatives, ethicists and environmental experts can help the

business community produce workable ethical guidelines for their operations that have widespread public support;

- make every effort to make their operations, marketing, and lobbying consistent with their publicly stated commitments to social and environmental goals and standards;
- support research and development on sound and appropriate technology. Such technology would embody respect for principles of efficiency and of ecologically sensitive and meaningful work.

5. GOVERNMENT

Conclusions

Governments are responsible and accountable for ensuring the welfare of their people and the ecosystems on which they and other living beings depend. Ecological sustainability must be an immediate and overriding goal of government policy.

Government actions or inactions in such areas as trade, aid, international cooperation, and military programs have caused significant damage to the natural environment and social systems.

Recommendations

We urge that governments:

Management/Decentralization

- promote and adopt environmental obligations at the macro, meso, and micro levels of government, assigning greater responsibility and accountability for stewardship at the local level;
- develop better ways of accounting for and incorporating the costs of resource consumption into price systems and national accounts.

Population/Fertility

- recognize the importance of women's rights to control their own fertility;
- take immediate action to meet all requests for family planning, including methods for men.

Poverty/Inequity

- take serious steps to alleviate gross national and international inequities. Highest priority should be given to the needs of the poorest of the poor, especially women and children. Particular attention should also be paid to enhancing the self-sufficiency of the poor. Helping them regain and repair their land base or improve their access to resources is an essential step in accomplishing this.

Military

- curtail combative military expenditures and redirect these resources towards peacekeeping programs and programs that promote social equity and ecological sustainability. An environmental corps, trained to mitigate or restore environmental degradation, is one example.

Aboriginal Rights

- respect and support the rights of the world's Aboriginal peoples and facilitate the preservation of their unique traditional wisdom.

Trade

- develop and adopt a globally equitable trading system, which provides fair prices for Southern as well as Northern producers. This will entail eliminating certain subsidies instituted by the North and opening markets to Southern products. The trading system would also aim at the development of common environmental and social standards for traded products.

International Cooperation/Aid

- participate actively in the promotion of global strategies for ecological wellbeing and social justice (e.g. UNCED). Governments should ensure that their people participate in these discussions through public education and consultation;
- develop aid programs which balance the immediate and long-term needs of recipients with environmental sustainability. This will require that recipients, especially women, be involved in the design and implementation of aid programs, and that environmental standards be integrated into aid programs, where relevant;
- support existing international organizations involved in non-violent conflict resolution. These organizations are to provide opportunities for resolving disputes peacefully, thus avoiding the human and environmental disasters of war.

6. NON-GOVERNMENTAL ORGANIZATIONS

Conclusion

Non-Governmental Organizations are close to various segments of the population and so can play an important role in helping to resolve the problems of consumption and population growth.

Population Growth,
Resource Consumption,
and the Environment:
Seeking a Common Vision
for a Troubled World

Rick Searle



Recommendations

We recommend that Non-Governmental Organizations:

- address the problems of overpopulation and excessive consumption in ways already discussed above where governments cannot or will not act;
- cooperate with governmental and other non-governmental partners whenever possible;
- ensure the accountability of governmental and non-governmental decision makers for their actions or inactions affecting growth in consumption and population.