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V. HUNGER AND THE ENVIRONMENT

Feeding People versus Saving Nature?

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When we must choose between feeding the hungry and conserving nature, people ought to come first. A bumper sticker reads: Hungry loggers eat spotted owls. That pinpoints an ethical issue, pure and simple, and often one where the humanist protagonist, taking high moral ground, intends to put the environmentalist on the defensive. You wouldn't let the Ethiopians starve to save some butterfly, would you?

"Human beings are at the centre of concerns for sustainable development." So the *Rio Declaration* begins. Once this was to be an *Earth Charter*, but the developing nations were more interested in getting the needs of their poor met. The developed nations are wealthy enough to be concerned about saving nature. The developing nations want the anthropocentrism, loud and clear. These humans, they add, "are entitled to a healthy and productive life in harmony with nature/ but there too they seem as concerned with their entitlements as with any care for nature.¹ Can we fault them for it?

We have to be circumspect. To isolate so simple a trade-off as hungry people versus nature is perhaps artificial. If too far abstract-

ed from the complex circumstances of decision, we may not be facing any serious operational issue. When we have simplified the question, it may have become, minus its many qualifications, a different question. The gestalt configures the question, and the same question reconfigured can be different. So we must analyze the general matrix, and then confront the more particular people-versus-nature issue.

Humans win? Nature loses? After analysis, sometimes it turns out that humans are not really winning, if they are sacrificing the nature that is their life support system. Humans win by conserving nature—and these winners include the poor and the hungry. "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it."² After all, food has to be produced by growing it in some reasonably healthy natural system, and the clean water that the poor need is also good for fauna and flora. Extractive reserves give people an incentive to conserve. Tourism can often benefit both the local poor and the wildlife, as well as tourists. One ought to seek win-win solutions wherever one can. Pragmatically, these are often the only kind likely to succeed.

Yet there are times when nature is sacrificed for human development; most development is of this kind. By no means all is warranted, but that which gets people fed seems basic and urgent. Then nature should lose and people win. Or are there times when at least some humans should lose and some nature should win? We are here interested in these latter occasions. Can we ever say that we should save nature rather than feed people?

Feed People first? Do We? Ought We?

"Feed people first!" That has a ring of righteousness. The *Rio Declaration* insists, "All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement."³ In the biblical parable of the great judgment, the righteous had ministered to the needy, and Jesus welcomes them to their reward. "I was hungry and you gave me food, I was thirsty and you gave me drink." Those who refused to help are damned (Matthew 28:31-46). The vision of heaven is that "they shall hunger no more, neither thirst any more" (Revelation 7.16), and Jesus teaches his disciples to pray that this will of God be done on earth, as it is in heaven. "Give us this day our daily bread" (Matthew 5.11). These are such basic values, if there is to be any ethics at all, surely food comes first.

Or does it? If giving others their daily bread were always the first concern, the Christians would never have built an organ or a sanctuary with a stained glass window, but rather always given all to the poor. There is also the biblical story of the woman who washed Jesus* feet with expensive ointment. When the disciples complained that it should have been sold and given to the poor, Jesus replied, "you always have the poor with you. She has done a beautiful thing." (Matthew 26.10-11). While the poor are a continuing concern, with whom Jesus demonstrated ample solidarity, there are other commendable values in human life, "beautiful things," in Jesus' phrase. The poor are always there, and if we did nothing else of value until there were no more poor, we would do nothing else of value at all.

Eradicating poverty is an indispensable requirement! Yes, but set these ideals beside the plain fact that we all daily prefer other values. Every time we buy a Christmas gift for a wife or husband, or go to a symphony concert, or give a college education to a child, or drive a late model car home, or turn on the air conditioner, we spend money that might have helped to eradicate poverty. We mostly choose to do things we value more than feeding the hungry.

An ethicist may reply, yes, that is the fact of the matter. But no normative ought follows from the description of this behavior. We ought not to behave so. But such widespread behavior, engaged in almost universally by persons who regard themselves as being ethical, including readers of this article, is strong evidence that we in fact not only have these norms but think we ought to have them. To be sure, we also think that charity is appropriate, and we censure those who are wholly insensitive to the plight of others. But we place decisions here on a scale of degree, and we do not feel guilty about all these other values we pursue, while yet some people somewhere on earth are starving.

If one were to advocate always feeding the hungry first, doing nothing else until no one in the world is hungry, this would paralyze civilization. People would not have invented writing, or smelted iron, or written music, or invented airplanes. Plato would not have written his dialogues, or Aquinas the *Summa Theologica*, Edison would not have discovered the electric light bulb or Einstein the theory of relativity. We both do and ought to devote ourselves to various worthy causes, while yet persons in our own communities and elsewhere go hungry.

A few of these activities redound subsequently to help the poor, but the possible feedback to alleviating poverty cannot be the sole justification of advancing these multiple cultural values. Let us remember this when we ask whether saving natural values might sometimes take precedence. Our moral systems in fact do not teach

us to feed the poor first. The Ten Commandments do not say that; the Golden Rule does not; Kant did not say that; nor does the utilitarian greatest good for the greatest number imply that. Eradicating poverty may be indispensable but not always prior to all other cultural values. It may not always be prior to conserving natural values either.

Choosing for People to Die

But food is absolutely vital. Thou shalt not kill is one of the commandments. Next to the evil of taking life is taking the sustenance for life. Is not saving nature, thereby preventing hunting, harvesting, or development by those who need the produce of that land to put food in their mouths, almost like killing? Surely one ought not to choose for someone else to die, an innocent who is only trying to eat; everyone has a right to life. To fence out the hungry is choosing that people will die. That can't be right.

Or can it? In broader social policy we make many decisions that cause people to die. When in 1988 we increased the national speed limit on rural Interstate highways from 55 to 65 miles per hour, we chose for 400 persons to die each year.⁴ We decide against hiring more police, though if we did some murders would be avoided. The city council spends that money on a new art museum, or to give the schoolteachers a raise. Congress decides not to pass a national health care program that would subsidize medical insurance for some now uninsured, who cannot otherwise afford it; and some such persons will, in result, fail to get, timely medical care and die of preventable diseases.

We may decide to leave existing air pollution standards in place because it is expensive for industry to install new scrubbers, even though there is statistical evidence that a certain number of persons will contract diseases and die prematurely. All money budgeted for the National Endowment for the Humanities, and almost all that budgeted for the National Science Foundation, could be spent to prevent the deaths of babies that die from malnutrition. We do not know exactly who will die, but we know that some will; we often have reasonable estimates how many. The situation would be similar, should we choose to save nature rather than to feed people.

U.S. soldiers go abroad to stabilize an African nation, from which starving refugees are fleeing, and we feel good about it. All those unfortunate people cannot come here, but at least we can go there and help. All this masks, however, how we really choose to fight others rather than to feed them. The developed countries spend

as much on military power in a year as the poorest two billion people on Earth earn in total income. The developed countries in 1990 provided 56 billion dollars in economic aid to the poorer countries but they also sold 36 billion dollars worth of arms to them. At a cost of less than half their military expenditures, the developing countries could provide a package of basic health care services and clinical care that would save 10 million lives a year. World military spending in 1992 exceeded 600 billion dollars. U.S. military spending accounted for nearly half this amount, yet in the United States one person in seven lives below the poverty line and over 37 million people lack any form of health care coverage.⁵ These are choices that cause people to die, both abroad and at home.

But such spending, a moralist critic will object, is wrong. This only reports what people do decide, not what they ought to decide. Yes, but few are going to argue that we ought to spend nothing on military defense until all the poor are fed, clothed, and housed. We believe that many of the values achieved in the United States, which place us among the wealthier nations, are worth protecting, even while others starve. Europeans and others will give similar arguments. Say if you like that this only puts our self-interest over theirs, but in fact we all do act to protect what we value, even if this decision results in death for those beyond our borders. That seems to mean that a majority of citizens think such decisions are right.

Wealthy and poverty-stricken nations alike put up borders across which the poor are forbidden to pass. Rich nations will not let them in; their own governments will not let them out. We may have misgivings about this on both sides, but if we believe in immigration laws at all, we, on the richer side of the border, think that protecting our lifestyle counts more than their betterment, even if they just want to be better fed. If we let anyone who pleased enter the United States, and gave them free passage, hundreds of millions would come. Already 30 percent of our population growth is by immigration, legal and illegal. Sooner or later we must fence them out, or face the loss of prosperity that we value. We may not think this is always right, but when one faces the escalating numbers that would swamp the United States, it is hard not to conclude that it is sometimes right. Admitting refugees is humane, but it lets such persons flee their own national problems and does not contribute to any long-term solutions in the nations from which they emigrate. Meanwhile, people die as a result of such decisions.

Some of these choices address the question whether we ought to save nature if this causes people to die. Inside our U.S. boundaries, we have a welfare system, refusing to let anyone starve. Fortunately, we are wealthy enough to afford this as well as nature

conservation. But if it came to this, we would think it wrong-headed to put animals (or art, or well-paid teachers) over starving people. Does that not show that, as domestic policy, we take care of our own? We feed people first—or at least second, after military defence. Yet we let foreigners die, when we are not willing to open our five hundred wilderness areas, nearly 100 million acres, to Cubans and Ethiopians.

Hunger and Social Justice

The welfare concept introduces another possibility, that the wealthy should be taxed to feed the poor. We should do that first, rather than cut into much else that we treasure, possibly losing our wildlife, or wilderness areas, or giving up art, or underpaying the teachers. In fact, there is a way greatly to relieve this tragedy, could there be a just distribution of the goods of culture, now often so inequitably distributed. Few persons would need to go without enough if we could use the produce of the already domesticated landscape justly and charitably. It is better to try to fix this problem where it arises, within society, than to try to enlarge the sphere of society by the sacrifice of remnant natural values, by, say, opening up the wilderness areas to settlement. Indeed, the latter only postpones the problem.

Peoples in the South (a code word for the lesser developed countries, or the poor) complain about the overconsumption of peoples in the North (the industrial rich), often legitimately so. But Brazil has within its own boundaries the most skewed income distribution in the world. The U.S. ratio between personal income for the top 20 percent of people to the bottom 20 percent is 9 to 1; the ratio in Brazil is 26 to 1. Just one percent of Brazilians control 45 percent of the agricultural land. The biggest 20 landowners own more land between them than the 3.3 million smallest farmers. With the Amazon still largely undeveloped, there is already more arable land per person in Brazil than in the United States. Much land is held for speculation; 330 million hectares of farm land, an area larger than India, is *lying* idle. The top 10 percent of Brazilians spend 51 percent of the national income.⁶ This anthropocentric inequity ought to be put "at the center of concern" when we decide about saving nature versus feeding people.

Save the Amazon! No! The howler monkeys and toucans may delight tourists, but we ought not save them if people need to eat. Such either-or choices mask how marginalized peoples are forced onto marginal lands; and those lands become easily stressed, both because the lands are by nature marginal for agriculture, range, and

life support, and also because by human nature marginalized peoples find it difficult to plan for the long-range. They are caught up in meeting their immediate needs; their stress forces them to stress a fragile landscape.

Prime agricultural or residential lands can also be stressed to produce more, because there is a growing population to feed, or to grow an export crop, because there is an international debt to pay. Prime agricultural lands in southern Brazil, formerly used for growing food and worked by tenants who lived on these lands and ate their produce, as well as sent food into the cities, have been converted to growing coffee as an export crop, using mechanized farming, to help pay Brazil's massive debt, contracted by a military government since overthrown. Peoples forced off these lands were resettled in the Amazon basin, aided by development schemes fostered by the military government, resettled on lands really not suitable for agriculture. The integrity of the Amazon, to say nothing of the integrity of these peoples, is being sacrificed to cover for misguided loans. Meanwhile the wealthy in Brazil pay little or no income tax that might be used for such loan repayment.

The world is full enough of societies that have squandered their resources, inequitably distributed wealth, degraded their landscapes, and who will be tempted to jeopardize what natural values remain as an alternative to solving hard social problems. The decision about social welfare, poor people over nature, usually lies in the context of another decision, often a tacit one, to protect vested interests, wealthy people over poor people, wealthy people who have exploited nature already, ready to exploit anything they can. At this point in our logic, en route to any conclusion such as let-people-starve, we regularly reach an if-then, go-to decision point, where before we face the people-over-nature choice we have to reaffirm or let stand the wealthy-over-poor choice.

South Africa is seeking an ethic of ecojustice enabling five million privileged whites and twenty nine million exploited blacks (as well as several million underprivileged "Coloureds") to live in harmony on their marvelously rich but often fragile landscape.⁷ Whites earn nearly ten times the per capita income of blacks. White farmers, 50,000 of them, own 70 percent of farmland; 700,000 black farmers own 13 percent of the land (17% other). Black ownership of land was long severely restricted by law. Forced relocations of blacks and black birth rates have combined to give the homelands, small areas carved out within the South African nation, an extremely high-average population density. When ownership patterns in the homelands are combined with those in the rest of the nation, land ownership is as skewed as *anywhere* on Earth. Compounding the problem

is that the black population is growing, and is already more than ten times what it was before the Europeans came.

The land health is poor. South African farmers lose twenty tons of topsoil to produce one ton of crops. Water resources are running out; the limited wetlands in an essentially arid nation are exploited for development; water is polluted by unregulated industry. Natal, one of the nation's greenest and most glorious areas, is especially troubled with polluted winds. Everywhere, herbicides float downwind with adverse human, vegetative, and wildlife effects on nontarget organisms.

With an abundance of coal, South Africa generates 60 percent of the electricity on the African continent, sold at some of the cheapest rates in the world, although less than a third of South Africans have electricity. The Eskom coal-burning power plants in the Transvaal are the worst offenders in air pollution, leaving the high veld as polluted as was Eastern Germany, also threatening an area producing 50 percent of South Africa's timber industry and 50 percent of the nation's high potential agricultural soils. As a result of all this, many blacks go poorly nourished; some, in weakened condition, catch diseases and die.

What is the solution? South Africa also has some of the finest wildlife conservation reserves in Africa. Some are public; some are private. They are visited mostly by white tourists, often from abroad. One hears the cry that conserving elitist reserves, in which the wealthy enjoy watching lions and wildebeest, cannot be justified where poor blacks are starving. What South Africa needs is development, not conservation. In an industry-financed study, Brian Huntley, Roy Siegfried, and Clem Sunter conclude: "What is needed is a much larger cake, not a sudden change in the way it is cut."⁸ One way to get a bigger cake would be to take over the lands presently held as wildlife reserves.

But more cake, just as unequally cut, is not the right solution in a nation that already stresses the carrying capacity of its landscape. Laissez-faire capitalists propose growth so that every one can become more prosperous, oblivious to the obvious fact that even the present South African relationship to the landscape is neither sustainable nor healthy. They seem humane; they do not want anyone to starve. The rhetoric, and even the intent, is laudable. At the same time, they want growth because this will avoid redistribution of wealth. The result, under the rubric of feeding people versus saving nature, is in fact favoring the wealthy over the poor.

What is happening is that an unjust lack of sharing between whites and blacks is destroying the green. It would be foolish for all, even for white South Africans acting in their own self-interest, fur-

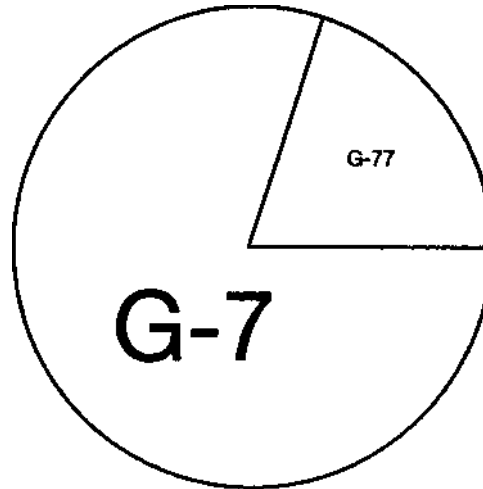


Figure 1 Proportionate Production and Consumption among Nations.

ther to jeopardize environmental health, rather than to look first and resolutely to solving their social problems. It would not really be right, if South Africans were to open their magnificent wildlife reserves, seemingly in the interests of the poor, while the cake remains as inequitably divided as ever. Fortunately, many South Africans have realized the deeper imperative, and the recent historic election there, and efforts toward a new constitution, promise deep social changes. This, in turn, will make possible a more intelligent conservation of natural values.⁹

In the more fortunate nations, we may distribute wealth more equitably, perhaps through taxes or minimum wage laws, or by labor unions, or educational opportunities, and we do have in place the welfare systems referred to earlier, refusing to let anyone starve. But lest we seem too righteous, we also recall that we have such policies only domestically. The international picture puts this in a different light. There are two major blocs, the G-7 nations (the Group of 7, the big nations of North America, Europe, and Japan, "the North"), and the G-77 nations, once 77 but now including some 128 lesser developed nations, often south of the industrial north. The G-7 nations hold about one fifth of the world's five billion persons, and they produce and consume about four fifths of all goods and services. The G-77 nations, with four fifths of the world's people, produce and consume one fifth. (See figure 1.) For every person added to the population of the North, twenty are added in the South. For every dollar of

economic growth per person in the South, 20 dollars accrue in the North.¹⁰

The distribution problem is complex. Earth's natural resources are unevenly distributed by nature. Diverse societies have often taken different directions of development; they have different governments, ideologies, and religions; they have made different social choices, valued material prosperity differently. Typically, where there is agricultural and industrial development, people think of this as an impressive achievement. Pies have to be produced before they can be divided, and who has produced this pie? Who deserves the pie? People ought to get what they earn. Fairness nowhere commands rewarding all parties equally; justice is giving each his or her due. We treat equals equally; we treat unequals equitably, and that typically means unequal treatment proportionately to merit. There is nothing evidently unfair in the pie diagram, not at least until we have inquired about earnings. Some distribution patterns reflect achievement. Not all of the asymmetrical distribution is a result of social injustice.

Meanwhile, it is difficult to look at a distribution chart and not think that something is unfair. Is some of the richness on one side related to the poverty on the other? Regularly, the poor come off poorly when they bargain with the rich; and wealth that originates as impressive achievement can further accumulate through exploitation. Certainly many of the hungry people have worked just as hard as many of the rich.

Some will say that what the poorer nations need to do is to imitate the productive people. Unproductive people need to learn how to make more pies. Then they can feed themselves. Those in the G-7 nations who emphasize the earnings model tend to recommend to the G-77 nations that they produce more, often offering to help them produce by investments which can also be productive for the G-7 nations. Those in the G-77 nations do indeed wish to produce, but they also see the exploitation and realize that the problem is sharing as well as producing. Meanwhile the growth graphs caution us that producing can be as much part of the problem as part of the solution. One way to think of the circular pie chart is that this is planet Earth, and we do not have any way of producing a bigger planet. We could, though, feed more people by sacrificing more nature.

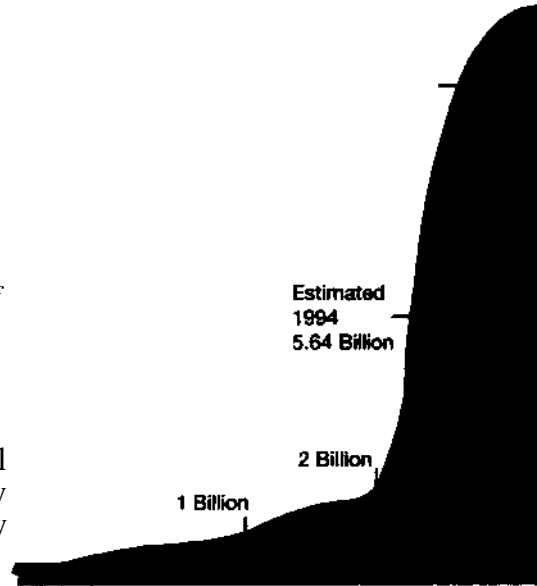
Meanwhile too, any such decisions take place inside this 1/5-gets-4/5ths, 4/5ths-gets-1/5 picture. So it is not just the Brazilians and the South Africans, but all of us in the United States, Europe, and Japan as well that have to face an if-then, go-to decision point, reaffirming and or letting stand the wealthy-over-poor division of the Earth's pie that we enjoy. This is what stings when we see the

A.D. 1

World Population Growth

Figure 2 Adapted from data In U.S. Bureau of the Census, *Statistical Abstract of the United States: 1994* (114th edition). Washington, DC, 1994. Page 850.

bumper sticker ethical injunction: "Live simply that others may simply live."



Escalating Human Populations

Consider human population growth. (See Figure 2.) Not only have the numbers of persons grown, their expectations have grown, so that we must superimpose one exploding curve on top of another. A superficial reading of such a graph is that humans really start winning big in the twentieth century. There are lots of them, and they want, and many get, lots of things. If one is a moral humanist, this can seem a good thing. Wouldn't it be marvelous if all could get what they want, and none hunger and thirst any more?

But when we come to our senses, we realize that this kind of winning, if it keeps on escalating, is really losing. Humans will lose, and nature will be destroyed as well. Cultures have become consumptive, with ever-escalating insatiable desires, overlaid on ever-escalating population growth. Culture does not know how to say "Enough!" and that is not satisfactory. Starkly put, the growth of cul-

ture has become cancerous. That is hardly a metaphor, for a cancer is essentially an explosion of unregulated growth. Feeding people always seems humane, but, when we face up to what is really going on, by just feeding people, without attention to the larger social results, we could be feeding a kind of cancer.

One can say that where there is a hungry mouth, one should do what it takes to get food into it. But when there are two mouths there the next day, and four the day after that, and sixteen the day after that, one needs a more complex answer. The population of Egypt was less than 3 million for over five millennia, fluctuating between 1.5 to 2.5 million, even when Napoleon went there in the early 1800s. Today the population of Egypt is about 55 million. Egypt has to import more than half its food. The effects on nature, both on land health and on wildlife, have been adversely proportional.

If, in this picture, we look at individual persons, caught up in this uncontrolled growth, and if we try to save nature, some persons will go hungry. Surely, that is a bad thing. Would anyone want to say that such persons ought not to sacrifice nature, if needs be, to alleviate such harm as best they can? From their perspective, they are only doing what humans have always done, making a resourceful use of nature to meet their own needs. Isn't that a good thing anymore? Such persons are doomed, unless they can capture natural values.

But here we face a time-bound truth, in which too much of a good thing becomes a bad thing. We have to figure in where such persons are located on the population curve, and realize that a good thing when human numbers are manageable is no longer a good thing when such a person is really another cell of cancerous growth. That sounds cruel, and it is tragic, but it does not cease to be true for these reasons. For a couple to have two children may be a blessing; but the tenth child is a tragedy. When the child comes, one has to be as humane as possible, but one will only be making the best of a tragic situation, and if the tenth child is reared, and has ten children in turn, that will only multiply the tragedy. The quality of human lives deteriorates; the poor get poorer. Natural resources are further stressed; ecosystem health and integrity degenerate; and this compounds the losses again—a lose-lose situation. In a social system misfitted to its landscape, one's wins can only be temporary in a losing human ecology.

Even if there were an equitable distribution of wealth, the human population cannot go on escalating without people becoming all equally poor. Of the 90 million new people who will come on board planet Earth this year, 85 million will appear in the Third World, the countries least able to support such population growth. At the same time, each North American will consume 200 times as much energy,

and many other resources. The 5 million new people in the industrial countries will put as much strain on the environment as the 85 million new poor. There are three problems: overpopulation, overconsumption, and underdistribution. Sacrificing nature for development does not solve any of these problems, none at all. It only brings further loss. The poor, after a meal for a day or two, perhaps a decade or two, are soon hungry all over again, only now poorer still because their natural wealth is also gone.

To say that we ought always to feed the poor first commits a good-better-best fallacy. If a little is good, more must be better, most is best. If feeding some humans is good, feeding more is better. And more. And more! Feeding all of them is best? That sounds right. We can hardly bring ourselves to say that anyone ought to starve. But we reach a point of diminishing returns, when the goods put at threat lead us to wonder.

Endangered Natural Values

Natural values are endangered at every scale: global, regional, and local, at levels of ecosystems, species, organisms, populations, fauna and flora, terrestrial and marine, charismatic megafauna down to mollusks and beetles. This is true in both developed and developing nations, though we have under discussion here places where poverty threatens biodiversity.

Humans now control 40 percent of the planet's land-based primary net productivity, that is, the basic plant growth that captures the energy on which everything else depends.¹¹ If the human population doubles again, the capture will rise to 60 to 80 percent, and little habitat will remain for natural forms of life that cannot be accommodated after we have put people first. Humans do not use the lands they have domesticated effectively. A World Bank study found that 35 percent of the Earth's land has now become degraded.¹² Daniel Hillel, in a soils study, concludes, "Present yields are extremely low in many of the developing countries, and as they can be boosted substantially and rapidly, there should be no need to reclaim new land and to encroach further upon natural habitats."¹³

Africa is a case in point, and Madagascar epitomizes Africa's future. Its fauna and flora evolved independently from the mainland continent; there are 30 primates, all lemurs; the reptiles and amphibians are 90 percent endemic, including two thirds of all the chameleons of the world, and 10,000 plant species, of which 80 percent are endemic, including a thousand kinds of orchids. Humans came there about 1,500 years ago and lived with the fauna and flora more or less intact until this century. Now an escalating population

of impoverished Malagasy people rely heavily on slash-and-burn agriculture, and the forest cover is one third of the original (27.6 million acres to 9.4 million acres), most of the loss occurring since 1950.¹⁴ Madagascar is the most eroded nation on Earth, and little or none of the fauna and flora is safely conserved. Population is expanding at 3.2 percent a year; remaining forest is shrinking at 3 percent, almost all to provide for the expanding population. Are we to say that none ought to be conserved until after no person is hungry?

Tigers are sliding toward extinction. Populations have declined 95 percent in this century; the two main factors are loss of habitat and a ferocious black market in bones and other body parts used in traditional medicine and folklore in China, Taiwan, and Korea, uses that are given no medical credence. Ranthambhore National Park in Rajasthan, India, is a tiger sanctuary; there were 40 tigers during the late 1980s, reduced in a few years by human pressures—illicit cattle grazing and poaching—to 20 to 25 tigers today. There are 200,000 Indians within three miles of the core of the park—more than double the population when the park was launched, 21 years ago. Most depend on wood from the 150 square miles of park to cook their food. They graze in and around the park some 150,000 head of scrawny cattle, buffalo, goats, and camels. The cattle impoverish habitat and carry diseases to the ungulates that are the tiger's prey, base. In May 1993, a young tigress gave birth to four cubs; that month 316 babies were born in the villages surrounding the park.¹⁵

The tigers may be doomed, but ought they to be? Consider, for instance, that there are minimal reforestation efforts, or that cattle dung can be used for fuel with much greater efficiency than is being done, or that, in an experimental herd of jersey and holstein cattle there, the yield of milk increased ten times that of the gaunt, free-ranging local cattle, and that a small group of dairy producers has increased milk production 1,000 percent in just 3 years. In some moods we may insist that people are more important than tigers. But in other moods these majestic animals seem the casualties of human inabilities to manage themselves and their resources intelligently, a tragic story that leaves us wondering whether the tigers should always lose and the people win.

When Nature Comes First

Ought we to save nature if this results in people going hungry? In people dying? Regrettably, sometimes, the answer is yes. In 20 years Africa's black rhinoceros population declined from 65,000 to 2,500, a loss of 97 percent; the species faces imminent extinction. Again, as

with the tigers, there has been loss of habitat caused by human population growth, an important and indirect cause; but the primary direct cause is poaching, this time for horns. People cannot eat horns; but they can buy food with the money from selling them. Zimbabwe has a hard-line shoot-to-kill policy for poachers, and over 150 poachers have been killed.¹⁶

So Zimbabweans do not always put people first; they are willing to kill some, and to let others to go hungry rather than sacrifice the rhino. If we always put people first, there will be no rhinos at all. Always too, we must guard against inhumanity, and take care, so far as we can, that poachers have other alternatives for overcoming their poverty. Still, if it comes to this, the Zimbabwean policy is right. Given the fact that rhinos have been so precipitously reduced, given that the Zimbabwean population is escalating (the average married woman there desires to have six children),¹⁷ one ought to put the black rhino as a species first, even if this costs human lives.

But the poachers are doing something illegal. What about ordinary people, who are not breaking any laws? The sensitive moralist may object that, even when the multiple causal factors are known, and lamented, when it comes to dealing with individual persons caught up in these social forces, we should factor out overpopulation, overconsumption, and maldistribution, none of which are the fault of the particular persons who may wish to develop their lands. ^U"I did not ask to be born; I am poor, not overconsuming; I am not the cause but rather the victim of the inequitable distribution of wealth." Surely there still remains for such an innocent person a right to use whatever natural resources one has available, as best one can, under the exigencies of one's particular life, set though this is in these unfortunate circumstances. "I only want enough to eat, is that not my right?"

Human rights must include, if anything at all, the right to subsistence. So even if particular persons are located at the wrong point on the global growth graph, even if they are willy-nilly part of a cancerous and consumptive society, even if there is some better social solution than the wrong one that is in fact happening, have they not a right that will override the conservation of natural value? Will it not just be a further wrong to them to deprive them of their right to what little they have? Can basic human rights ever be overridden by a society that wants to do better by conserving natural value?

This requires some weighing of the endangered natural values. Consider the tropical forests. There is more richness there than in other regions of the planet—half of all known species. In South America, for example, there are one fifth of the planet's species of terrestrial mammals (800 species); there are one third of the planet's

flowering plants.¹⁸ The peak of global plant diversity is in the three Andean countries of Columbia, Ecuador, and Peru, where over 40,000 species occur on just 2 percent of the world's land surface.¹⁹ But population growth in South America has been as high as anywhere in the world,²⁰ and people are flowing into the forests, often crowded off other lands.

What about these hungry people? Consider first people who are not now there but might move there. This is not good agricultural soil, and such would-be settlers are likely to find only a short-term bargain, a long-term loss. Consider the people who already live there. If they are indigenous peoples, and wish to continue to live as they have already for hundreds and even thousands of years, there will be no threat to the forest. If they are cabaclos (of mixed European and native races), they can also continue the lifestyles known for hundreds of years, without serious destruction of the forests. Such peoples may continue the opportunities that they have long had. Nothing is taken away from them. They have been reasonably well fed, though often poor.

Can these peoples modernize? Can they multiply? Ought there to be a policy of feeding first all the children they bear, sacrificing nature as we must to accomplish this goal? Modern medicine and technology have enabled them to multiply, curing childhood diseases and providing better nutrition, even if these peoples often remain at thresholds of poverty. Do not such people have the right to develop? A first answer is that they do, but with the qualification that all rights are not absolute, some are weaker, some stronger, and the exercise of any right has to be balanced against values destroyed in the exercise of that right.

The qualification brings a second answer. If one concludes that the natural values at stake are quite high, and that the opportunities for development are low, because the envisioned development is inadvisable, then a possible answer is: No, there will be no development of these reserved areas, even if people there remain in the relative poverty of many centuries, or even if, with escalating populations, they become more poor. We are not always obligated to cover human mistakes with the sacrifice of natural values.

Again, one ought to be as humane as possible. Perhaps there can be development elsewhere, to which persons in the escalating population can be facilitated to move, if they wish. Indeed, this often happens, as such persons flee to the cities, though they often only encounter further poverty there, owing to the inequitable distribution of resources which we have lamented. If they remain in these areas of high biological diversity, they must stay under the traditional lifestyles of their present and past circumstances.

Does this violate human rights? Anywhere that there is legal zoning, persons are told what they may and may not do, in order to protect various social and natural values. Land ownership is limited ("imperfect," as lawyers term it) when the rights of use conflict with the rights of other persons. One's rights are constrained by the harm one does to others, and we legislate to enforce this (under what lawyers call "police power"). Environmental policy may and ought to regulate the harms that people do on the lands on which they live ("policing"), and it is perfectly appropriate to set aside conservation reserves to protect the cultural, ecological, scientific, economic, historical, aesthetic, religious, and other values people have at stake here, as well as for values that the fauna and flora have intrinsically in themselves. Indeed, unless there is such reserving of natural areas, counterbalancing the high pressures for development, there will be almost no conservation at all. Every person on Earth is told that he or she cannot develop some areas.

Persons are not told that they must starve, but they are told that they cannot save themselves from starving by sacrificing the nature set aside in reserves—not at least beyond the traditional kinds of uses that did leave the biodiversity on the landscape. If one is already residing in a location where development is constrained, this may seem unfair, and the invitation to move elsewhere a forced relocation. Relocation may be difficult proportionately to how vigorously the prevailing inequitable distribution of wealth is enforced elsewhere.

Human rights to development, even by those who are poor, though they are to be taken quite seriously, are not everywhere absolute, but have to be weighed against the other values at stake. An individual sees at a local scale; the farmer wants only to plant crops on the now forested land. But environmental ethics sees that the actions of individuals cumulate and produce larger scale changes that go on over the heads of these individuals. This ethic will regularly be constraining individuals in the interest of some larger ecological and social goods. That will regularly seem cruel, unfair to the individual caught in such constraints. This is the tragedy of the commons; individuals cannot see far enough ahead, under the pressures of the moment, to operate at intelligent ecological scales. Social policy must be set synoptically. This invokes both ecology and ethics, and blends them, if we are to respect life at all relevant scales.

These poor may not have so much a right to develop in any way they please, as a right to a more equitable distribution of the goods of the Earth that we, the wealthy, think we absolutely own.

Our traditional focus on individuals, and their rights, can blind us to how the mistakes (as well as the wisdom) of the parents can curse (and bless) the children, as the Ten Commandments put it, how

"the iniquity of the fathers is visited upon the children to the third and fourth generation" (cf. Exodus 20.5). All this has a deeply tragic dimension, made worse by the coupling of human foibles with ecological realities. We have little reason to think that misguided compassion that puts food into every hungry mouth, be the consequences whatever they may, will relieve the tragedy. We also have no reason to think that the problem will be solved without wise compassion, balancing a love for persons and a love for nature.

Ought we to feed people first, and save nature last? We never face so simple a question. The practical question is more complex.

If persons widely demonstrate that they value many other worthwhile things over feeding the hungry (Christmas gifts, college educations, symphony concerts),
 and if developed countries, to protect what they value, post national boundaries across which the poor may not pass (immigration laws),
 and if there is unequal and unjust distribution of wealth, and if just redistribution to alleviate poverty is refused,
 and if charitable redistribution of justified unequal distribution of wealth is refused,
 and if one fifth of the world continues to consume four fifths of the production of goods and four fifths consumes one fifth,
 and if escalating birthrates continue so that there are no real gains in alleviating poverty, only larger numbers of poor in the next generation,
 and if low productivity on domesticated lands continues, and if the natural lands to be sacrificed are likely to be low in productivity,
 and if significant natural values are at stake, including extinctions of species,

then one ought not always to feed people first, but rather one ought sometimes to save nature.

Many of the "ands" in this conjunction can be replaced with "ors" and the statement will remain true, though we cannot say outside of particular contexts how many. The logic is not so much that of implication as of the weighing up of values and disvalues, natural and human, and of human rights and wrongs, past, present, and future.

Some will protest that this risks becoming misanthropic and morally callous. The Ten Commandments order us not to kill, and saving nature can never justify what amounts to killing people. Yes, but there is another kind of killing here, one not envisioned at Sinai, where humans are superkilling species. Extinction kills forms (species)—not just individuals; it kills collectively, not just distributively. Killing a natural kind is the death of birth, not just of an individual life. The historical lineage is stopped forever. Preceding the

Ten Commandments is the Noah myth, when nature was primordially put at peril as great as the actual threat today. There God seems more concerned about species than about the humans who had then gone so far astray. In the covenant re-established with humans on the promised Earth, the beasts are specifically included. "Keep them alive with you...according to their kinds" (Genesis 6.19-20). There is something ungodly about an ethic by which the late-coming *Homo sapiens* arrogantly regards the welfare of one's own species as absolute, with the welfare of all the other five million species sacrificed to that. The commandment not to kill is as old as Cain and Abel, but the most archaic commandment of all is the divine, "Let the earth bring forth" (Genesis 1). Stopping that genesis is the most destructive event possible, and we humans have no right to do that. Saving nature is not always morally naive; it can deepen our understanding of the human place in the scheme of things entire, and of our duties on this majestic home planet.

NOTES

1. *Rio Declaration on Environment and Development*, Principle 1, UNCED document A/CONF. 151/26, vol. I, ps. 15-25.
2. *Rio Declaration*, Principle 4.
3. *Rio Declaration*, Principle 5.
4. Insurance Institute for Highway Safety (Arlington, Virginia), *Status Report*, vol. 29 (no. 10, September 10, 1994):3.
5. Ruth Leger Sivard, *World Military and Social Expenditures*, 15th ed., Washington, DC: World Priorities, Inc., 1993.
6. Jonathan Power, 1992. "Despite Its Gifts, Brazil Is a Basket Case," *The Miami Herald*, June 22, p. 10A.
7. The empirical data below are in: Brian Huntley, Roy Siegfried, and Clem Sunter, *South African Environments into the 21st Century*, Cape Town: Human and Rousseau, Ltd, and Tafelberg Publishers Ltd., 1989; Rob Preston-Whyte and Graham House, eds., *Rotating the Cube: Environmental Strategies for the 1990s*, Durban: Department of Geographical and Environmental Sciences and Indicator Project South Africa, University of Natal, 1990; and Alan B. Durning, *Apartheid's Environmental Toll*, Washington, DC: WorldWatch Institute, 1990.
8. Huntley, Siegfried, and Sunter, p. 85.
9. Mamphela Ramphele, ed., *Restoring the Land: Environment and Change in Post-Apartheid South Africa*, London: Panos Publications, 1991.
10. The pie chart summarizes data in the *World Development Report 1991*, New York: Oxford University Press, 1991.

11. Peter M. Vitousek, Paul R. Ehrlich, Anne H. Ehrlich, and Pamela A. Matson, "Human Appropriation of the Products of Biosynthesis," *BioScience* 36(1986): 368-373.
12. Robert Goodland, "The Case That the World Has Reached Limits," ps. 3-22 in Robert Goodland, Herman E. Daly, and Salah El Serafy, eds., *Population, Technology, and Lifestyle*, Washington, DC: Island Press, 1992.
13. Daniel Hillel, *Out of the Earth*, New York: Free Press, Macmillan, 1991, p. 279.
14. E. O. Wilson, *The Diversity of Life*, Cambridge, MA: Harvard University Press, 1992, p. 267; Alison Jolly, *A World Like Our Own: Man and Nature in Madagascar*, New Haven: Yale University Press, 1980.
15. Geoffrey C. Ward, "The People and the Tiger," *Audubon* 96 (no. 4, July-August 1994):62-69.
16. Joel Berger and Carol Cunningham, "Active Intervention and Conservation: Africa's Pachyderm Problem," *Science* 263(1994): 1241-1242.
17. John Bongaarts, "Population Policy Options in the Developing World/ *Science* 263(1994):771-776.
18. Michael A. Mares, "Conservation in South America: Problems, Consequences, and Solutions," *Science* 233(1986):734-739.
19. Wilson, *The Diversity of Life*, p. 197.
20. Ansley J. Coale, "Recent Trends in Fertility in the Less Developed Countries," *Science* 221(1983):828-832.