The Masses and the Economy

"Anyone who believes exponential growth can go on forever in a finite world is either a madman or an economist." Kenneth Boulding

Or perhaps both. One of the primary considerations of an economic system is that its proponents be pragmatic about assuring its continuation into the future. An economic system based on continual expansion is expedient, but not pragmatic. As noted in the preceding chapter on the vagaries of the capitalist system, a system which must rely on continued expansion is destined to fail. Many of the problems we face today are reflections of that incontrovertible fact. Most people are uneasily aware that the economy is out of their control, and suspect that it may be generally out of control. The economy is perceived as a machine which can be fine-tuned to operate properly by means of raising or lowering interest rates, expanding or contracting the supply of money, fiddling with tax rates or any number of mechanisms which will "heat up" or "cool down" the economic engine. But the problems we face are too great to solve by mere fine-tuning in economic philosophy. We argue about the time frame which will force us to acknowledge the limits--will oil run out in 2037 or in 2089, for instance--but we seem to deny as best we can the fact that we cannot continue "business as usual" in the near future. We try to prop up our economic schemes in the same haphazard fashion that we use in avoiding most of our problems: deny, compromise and hope for the best. We look to coal and nuclear energy to run the economy of the future, softpedaling the environmental problems with each. We make our financial plans for the future, using money managers to increase our gains. We refuse to accept the reality of our limitations.

In the last chapter we focused on capitalism and its limitations, but we have no confidence in the ability of other existing economic systems to provide effective alternatives that would compensate for the shortcomings of an unrestrained free market. Environmentally, communist countries are often in worse shape than capitalist countries, not only because they have been playing catch-up in industrialization but also because their policies have not been subject to public scrutiny or criticism. Rapid industrialization and militarization has led to environmental problems that are equal to, or far beyond, those of the West. Expanding the scope of free-wheeling capitalist enterprise to include the less developed nations of the world and nations previously operating with more centralized and inefficient economies can only serve to accelerate international resource exploitation. This situation will create a tremendous resource drain (an already serious problem) which will further diminish resource availability while sharply escalating costs. As people become aware of the value of their countries' resources, exploitation of those resources for inadequate compensation becomes more difficult. No one is willing to sell Manhattan Island or its equivalent for $24 in today's economy. It would be nice if we could say that exploitation is on the wane because we are aware of its inherent immorality, but that is not the case. Rather, international cartels staffed by economically sophisticated leaders are formed to take advantage of the markets open to them. Though we in the industrialized nations moan and grumble at these cartels and their manipulation of prices, it is their method of getting into the economic game we have controlled for so long. It is ironic that we subsidize cartels through our continued runaway consumption, and that without the assurance of our constant need, they falter. But our constant need persists, both through overconsumption and the addition of more and more potential consumers.

Speculation depends on this superfluity of people competing for the same goods and services.

The great numbers of people on Earth are seen by business interests as markets to be primed by advertising which creates demand for products and services. Even the poorest of people may be able to buy a product of minimal value and cost if advertising creates a desire for the product, and the small bit of money from each of a great number of poor people adds up to a tidy profit when compounded. The greater demand for a product allows for increases in its price, so that even if customers are lost on the lower levels of the economic spectrum, higher profits are made on those who can afford the product. Speculation allows that a buyer may hoard a product and wait for the price to rise, knowing that there is a market for the product and that those able to pay will make the wait worthwhile. And, of course, speculation is not limited to products. Speculation in land is supported by the large numbers of people who are seeking land. Adding more people creates a greater demand for land, and land which was considered marginal becomes prime property. As we increase the number of consumers by increasing our population, we allow unlimited opportunities for speculation, and more and more people are unable to participate in the economy, except marginally.

Speculation does not provide a great number of jobs, nor does it improve our economy. It can make fortunes for a few people who then are able to live a luxurious lifestyle. It is of benefit to few people; it is a detriment to most of us. As more middlemen become involved in processing a product, especially those who have nothing to do with producing or distributing the product, the price of the product increases, though it is not made more valuable. Thus, speculation is an occupation which, though profitable, is unproductive. So who is supporting this valueless economic strategy? Obviously, those who are making money through speculation are interested in continuing a system which allows it, but much less obviously each of us increases the competition which allows speculation by maintaining and adding to our huge population. A large scale population creates opportunities for large-scale speculation. The producer makes a reasonable living in good economic cycles, but in economic recession the farmer, laborer or small businessperson feels the effect of declining prices. Speculators use their money to buy the failing business or stock at a low price, knowing that the future will make it profitable. Speculators still make money during these hard times though producers get less for their products. The price of the product to the consumer is seldom reduced. The producer loses money; the consumer pays more for the product; the only person to make money is the speculator or middleman. It is a paradox that we lionize those speculators who become rich in this parasitic game. Many see them as models worthy of emulation, yet we are highly indignant when one of their companies gouges us by fixing prices or by taking advantage of a drought or oil spill prior to the time when such disasters could have any possible effect.

A system allowing speculation is not new, and population reduction will not make speculation disappear, but we are cutting our own throats by supplying more people, thus increasing competition and providing greater opportunity for speculation, exploitation and other abuses. We ensure our exploitation in this manner. The economic systems that we have throughout the world can be more balanced. However, it is unlikely that any economic system can continuously provide for the number of people that we have produced. Debate rages about this topic, with its keystone being that the speculators and profiteers must change to a more humanitarian philosophy, and they should. Little is said, however, about the fact that we spur this ability to make money from misery by our indiscriminate reproduction.

The relation of population growth to economic insufficiency is becoming more and more obvious. The World Bank released a report in 1984 that indicated a "slow strangling of resources

and continuing impoverishment of the Third World " if population problems are not corrected by public policy. (32) The industrialized nations are not unaffected by this phenomenon as their markets in other countries contract, and immigration to the more developed nations increases. Some elements of this future are already with us. Countries with highly visible population problems are not attracting development capital, and are plunged into debt with little foreseeable ability to repay the interest on their outstanding loans, much less the principal. Automation reduces the need for human labor in many manufacturing and clerical tasks. Specialized skills require better education which is difficult to achieve in countries with populations which are struggling for sustenance. Those who have wealth can afford to consume goods and services, and thus the world economy as a whole benefits from having a mass market, but the mass market creates mass pollution which must be taken into account. The costs of attempting to restore the environment to a pre-pollution state are high, and so in many cases it is not restored. In some cases it cannot be restored at any cost. Economic theorists and practitioners have traditionally ignored the environmental costs of doing business because the system inexorably grinds on until faced with the collapse of environmental support systems. Current indications of environmental deterioration which will undoubtedly interrupt business as usual are only beginning to make an impact on the business community.

Of course, the expansionist economic system has not ground to a halt, but its proponents are being forced to change traditional methods of doing business. One important change is the amount paid for raw resources. As more is required for payment in acquiring resource materials, the cost of goods and services rises. Consumers become unwilling or unable to buy products as casually as in the past. Planned obsolescence fades as a marketing strategy. More discriminating consumers demand products of better quality. Automation ensures more quality and requires fewer laborers. To survive in the "new economy", businesses cut back, and labor is trimmed first, as it is usually the largest expense. Such trends as these presage a future in which population reduction is not only a reasonable course but a means of self-preservation as important as population expansion has been in the past.

Better education is touted as a solution to unemployment, but education is not a cheap commodity. Literacy rates worldwide are appalling, even in some of those countries which offer free education for all up to the university level. But concerns about literacy miss the point. Even if all were to receive the best possible education, the global competition for jobs grows with the increase in population. What is absent in the interminable debate about the economy is the fact that there are limits to the ability of an economy to employ people, especially when the world economic trend is to streamline business by cutting the most costly part of doing business--labor. Automation has been reducing the need for labor and will continue to do so, at least as long as the energy to drive the automation holds out. Propaganda that says automation increases the need for workers is illogical from the outset. If automation was not a labor-saving device it would be of no value to those who implement it.

We are rapidly outstripping the ability of the global economy to provide jobs for people. The United States has official government estimates indicating that anywhere from 6-12 million people are out of work at any given time, but those figures are only of the people who are currently receiving unemployment benefits--they do not cover those who are no longer on the unemployment rolls or those who are underemployed. Any national employment numbers pale in comparison to the number of people that are not able to participate in the economy worldwide, however. A simple example from one small part of the world illustrates the impossibility of providing jobs for growing populations. According to Robert Fox, reporting in National Geographic: "To accommodate rising

populations in Mexico and Central America, some 1.2 million new jobs are needed each year. During the 1970s the U.S. created an average of two million jobs annually with an economy 15 times greater than the combined economies of those regions." (33) Even a vaguely realistic assessment of the future must include this grim certainty that we are overrunning the limits of a closed system.

Certainly it can be argued that businesses could employ people if they were concentrating on the welfare of the people involved, but those businesses that do are the exception. Some societies provide jobs for their people by use of labor-intensive practices rather than more mechanized industry. The rule, however, is automation, and increasing competition among businesses brings more and more automation on line. The trend of the past and the predicted trends of the future do not indicate that we will need more people to work as laborers. Yet we have a growing number of people whose skills allow them to do little else, and so they do not prosper.

The changes in our economy today are rapid and devastating to those who fall behind. Modern multinational corporations are able to control the best land to grow select foods for export to those who can afford them. The local populace is left with marginal land or no land upon which to grow food. (34) Land use is based upon the most profitable rather than the best use. An economic "scorch and burn" philosophy is practiced by those seeking profits, growing a single crop on the land. Once again, expediency reigns over pragmatism and, in the short term, profits are realized. In the long term, however, damage to the soil renders it less fertile and profitable. There is no recognition that the soil is a complex ecosystem--that substances essential to life move in cycles from plants to animals to soil bacteria and back again to plants. The natural balance of these cycles depends on the fuel of solar energy, a narrow pH range and the integrity of the interrelationships between the organisms in the cycle.

Current economic practices indicate our lack of concern with sustaining this cycle over time. Corporate farming encourages monocropping which leads to soil depletion. Soil depletion requires nutrient restoration in the form of synthetic fertilizers. Application of such fertilizers and pesticides application increases chemical runoff into streams and eventually, estuaries and the ocean. Modern corporate farming methods result in increased erosion. Conservation practices such as mixed cropping and leaving land fallow are ignored by large landowners because crops that return nutrients to the soil are often not profitable, and less efficient practices do not immediately decrease the profit margins of large landowners. Due to their size, large agribusiness concerns are favored economically, at times even receiving foreign assistance allocated to promote agricultural reform, while smallholders are forced out of the picture.

The prevailing view of progress holds that bigger is better, and that a large corporation will be more efficient in growing food than a small farmer, so it is hard to believe that such a concept is not borne out by analysis. Large scale farming requiring energy from petrochemicals consistently uses more energy to obtain a calorie of food value in comparison to the smallholder. Small farmers throughout the world are usually forced by circumstance to be more efficient in raising food than larger concerns. They use more conservationist soil practices because they cannot abuse the smaller amounts of land they control. Although this is not true in some cases of tenant farmers, it does not disprove the contention because tenant farmers are not sharing in the wealth by improving their owners' land. They, like most of us, are not so altruistic as to give something for nothing.

Such examples of inequality in the system would seem to indicate that we do not have to decrease the population as much as we have to reform present economic systems, when those systems do not feed people or give them a reasonable chance of participation. But one thing that is

implicit in the current economic systems of the world is the fact that there is always a surplus of laborers to keep labor costs at a minimum, and a surplus of consumers to fuel the growth of business. As individuals, we ensure that the system continues to have more than enough people for any economic opportunity that should come available, more than enough people to form an elite consumer market which can afford luxuries that create profits, and more than enough people to maintain the industries which are created and supported by speculation. When we examine the world as it is rather than as it should be, it is obvious that the first and last priority of the corporate world is profitability, and the larger the market, the greater the profitability. We facilitate institutionalized greed by providing an abundance of consumers who form mass markets to be exploited. We are all a part of this entrenched system due to our collective reproductive behavior.

More equitable distribution of resources is accelerated by an economy in which there are not enough people to fill the jobs available. The average employer is not going to pay higher wages in a situation where the supply of labor exceeds the demand. **By providing an oversupply of laborers through our reproductive excess, we remove the incentive for the employer to raise wages in order that jobs may be filled.** We increase the competition for all positions no matter what the skill level, and ensure the inequitable distribution of resources. We allow the employer the luxury of having several candidates for each job. We remove the necessity for the employer to train or retrain workers, because there will be candidates who have all the training necessary in the huge labor pool we have so graciously provided. We make it possible for employers to ignore the larger social problems around them.

But would reducing the population of the world really provide more opportunity for those people who are born in the future? The benefits of reducing the population would be balanced to some extent by the reduction in the demand for goods and services. While acknowledging that this balancing act would naturally take place, we still must accept the inevitable necessity of reducing population. We cannot expect our economic systems to grow infinitely to support our needs. We will not eliminate poverty through population reduction alone, but we have seen in history the effects of population reduction. Those who survived the plagues in Europe found an economic climate that needed their labor. Wars have brought economic opportunity to those who are left behind to produce goods and services. These are unpleasant examples of negative population reduction, but the point is still valid. The labor market is out of balance due to the fact that we have satiated the market. We do our part reproductively to make it " a jungle out there."

Many people feel that we do not benefit by increasing the competition between individuals for economic opportunity or between nations for economic resources. Their solution is to create a less competitive society. That is certainly a possibility for the future, but it does not seem likely when we are producing more people, more pollution, more friction and a less secure outlook on the world. Speculation is fueled by the idea that someone who makes the right gamble will have more than others in the future. Equal opportunity is a goal that is scorned as unrealistic by many. That is not surprising when any gains in the direction of equality are overbalanced by the system overload of people seeking food, shelter, employment and pleasant conditions in which to live. Yet all people, whether they are rich or poor seem to be allowed one inalienable right---the right to reproduce at will. No one is willing to remove that right from us, though its collective results may deprive us of the "right" to live. We must realize that there is no "right to life" recognized by nature. If we exceed the ability of natural systems to support us, we die. This is occurring right now in poor populations in all countries.

In speaking of population control, social activists sometimes see it as a smoke screen put forth to

avoid facing the inequalities in the distribution of wealth. While there is no debating the fact that there are inequalities in the distribution of wealth, population growth worldwide widens the gap between rich and poor. In terms of percentages, the rich get richer and fewer, while the poor get poorer. The only thing that increases for the poor people is the number of poor people. This is inevitable, because a reasonable ratio of people to resources will never be achieved by uncontrolled population growth. It will work against a fully-integrated work force and continually make more and more people surplus to the needs of the economic system. An additional concern of social activists is that the idea of reducing the number of humans has in the past led to theories of "sacrificial nations." These "lifeboat" theories stress that we cannot afford to feed the people in those nations whose population increases are completely out of control. Therefore, according to the "lifeboat" theories, certain nations would have to be written off.

It is a pity that, in rejecting these theories, the larger issues of population reduction are not addressed. Equitable solutions will only follow a greater awareness of the ramifications of the population problem. The world population problem is a problem of all nations. No one is exempt. Any movement to control the population will have to be tempered by common sense and compassion. There is little sense in promoting theories of "sacrificial" nations, because we are all in this "lifeboat" together. Obviously sparsely populated nations and disappearing ethnic minorities should be excluded from population reduction goals. But few of the world's five billion fall into those categories.

It is clear that we have not addressed the foremost element of conservation---reducing the number of people that we have to support---when we are destroying, through development, areas such as rain forests that are crucial to the ecological balance of the planet. Our economies must be based upon healthy ecological systems. We should be aware of the scope of the population problem as it effects us on the individual, regional, national and international levels. While we concern ourselves with other matters and console ourselves with the idea that our modern industrial societies do not seem overpopulated, the population of the world and the United States continues to grow. The mid-1980s famines that were predicted in the late 1960s are happening today, through food policies that stress food as a commodity for profit and as a weapon to force compliance, rather than a medium of sustenance. Changing such policies would feed people who are now barely sustaining themselves, but there is ample evidence that any gains are rapidly absorbed by growing populations. In large, poor and rapidly growing populations such as in Africa, India, Asia and Latin America there are people who are continually living in hunger or starving. In contrast, Western Europe, an area which has little or no population growth, has recently moved to a position of exporting grain after many years of either importing grain, or using its own surplus to feed other members of the European Community.

We are still operating on the basis that there is more land to exploit for agricultural purposes, but we have actually achieved what was once referred to as "manifest destiny." As noted by Paul and Anne Ehrlich:

"While populations are still expanding nearly everywhere, the availability of new land is not. Very little land suitable for crops remains uncultivated, and that new land will barely replace land being lost to desertification and soil erosion. Thus the global ratio of people to arable land is steadily rising. In 1955, the average hectare (2.25 acres) supported just over two people; by 1980, it supported three. By 2000, each hectare of cropland will have to support four people." (36)

Even if the best possible agricultural practices were immediately instituted worldwide, we still could not balance the demands of the present world population on the land for long.

There seems to be a consensus that some people can "afford" to have children and therefore should, while others on the lower rungs of the economic ladder should desist. One of the basic tenets of economics often goes unseen in the population controversy, however. Individual wealth or economic well-being is only functional if it is backed by resources: timber, land, minerals, oil, crops, etc. Therefore it should be sobering that our global economic policies are at present doing major damage to renewable resources as rapidly as they are depleting non-renewable resources. For example, irrigation of arid land once promised a garden of Eden in desert areas and a great deal of investment capital has gone toward making such areas fertile. In the short term, people have overcome the great obstacles of making these lands produce a variety of crops. The dream of turning deserts into gardens has become a momentary reality. The term momentary must be used because this task requires an extraordinary amount of expensive technology. And as with all other development of technology, there is no "free lunch." There is a point of no return past which demands cannot be made of the land beyond its natural carrying capacity. Such irrigation makes salt deposits in the soil rise to the surface, rendering the soil infertile. Flooding the land flushes the salt, but the cycle is not broken, merely interrupted. The arid land becomes too costly to farm, and the dream of food production from the desert returns to being a dream. In some cases the marginal lands cannot be restored to their former capacity, and have been sealed off as poisoned areas.

In a world with a reasonable ratio of people to resources we would not be in such a frenzy to develop marginal lands. We would not be taking these last few bits of property from those species which we have continually evicted from the "prime" properties. Given this example, one of many, it is hard to believe that anyone can "afford" to have several children if the economic base is examined as a whole in relation to the ecological support system.

The economic and ecological bases of our production are intertwined, but in the scramble for profitability the ecological base is suffering. As we carry on our "business as usual" philosophy we lose sight of the fact that without a healthy ecological base there is no economic base. At present, ecological concerns are promoted by conservationists, a word that is not associated in many minds with fiscal prudence. The philosophy of conservatives and conservationists seems to contrast in our day, though conservatives originally were those who conserved what they had and saved for the future, living in a moderate manner. There is a growing awareness that we cannot live wastefully in the present and expect to sustain that type of lifestyle into the future--we need to conserve for future generations. Thus a conservative and a conservationist should be in agreement. A huge national debt does not serve present or future generations. Neither does a huge environmental debt. Economic deterioration is now tied to ecological deterioration in many Third World nations in obvious ways, such as deforestation, which depletes wood supplies for fuel and warmth, and desertification, which removes once fertile land that fed people and other species. This tie between economic and ecological deterioration will be the major issue of the future, superseding transitory economic trends. We are beginning to see that we cannot ignore the ecological impact of our reproductive behavior and/or our non-conservationist behavior.

Our economic views have been molded by social misinterpretation of the evolutionary theory proposed by Charles Darwin. "Survival of the fittest" is the most often quoted idea to excuse aggressive economic behavior that leaves others at a disadvantage. To take Darwin out of context and apply his concepts to economics misses the point entirely. One of the most trenchant observations on evolution made by Darwin is the fact that species cooperate in their natural habitat

in order that they may continue to exist. Those species which produce more offspring than the habitat will support are at a disadvantage and do not thrive. The natural balance is maintained in the face of excessive reproduction by means of external predators, disease or starvation. We humans believe, however, that we have overridden the laws of nature through our cleverness in medicine. Our life spans are long in comparison to the life spans of primitive societies. Our economic successes are chronicled in the empires that we have built, the standard of living that the lesser part of our population enjoys, and the juggernaut of "progress" that takes precedence over any other achievement by which we might gauge success. But our economic successes are decaying our chances of evolutionary success. We are blinded by our own abilities to seemingly defy natural law. The long term view of evolutionary success tells us that we can only do so temporarily.

Though economists measure fiscal health and attempt to predict future fiscal health, most of them continue to be unaware of the impact of environmental damage except as it relates to futures trading. In 1975, E.F. Schumacher stated that we were no longer living off the interest of our environmental "capital," but instead were using the capital itself. (37) At that time he suggested that economists be cross-trained in ecological issues so that their forecasting ability would be meaningful in relation to something other than the stock market. The need for such cross-training is even more acute today in all nations of the world. Environmental issues are not at the forefront of economic forecasts, but people are slowly beginning to realize that we cannot continue our economic well-being while ignoring environmental damage. Some nations are already seeing the price of ecological abuse: rising imports and production costs, falling land and labor productivity, falling tax revenues and exports.

Long-term economic analysis must take into account our rapid use of resources that are not replaceable, such as fossil fuels, and our damage to renewable resources. We have not done much long-term economic analysis, or paid much attention to those that have been done. We have developed no comprehensive response to inevitable future shortages. We refuse to recognize that as population increases, the demand for all resources also increases. It is interesting to note that scientists who were predicting the hazards of our population explosion 20 years ago are not renouncing their conclusions today. Scientific evidence is continually corroborating their warnings. Being correct in their assessments is certainly no consolation. Likewise, the economic effects of our unlimited growth policy in the United States were predicted years ago. John P. Holdren said in 1973 "That the United States is in for a period of relative resource scarcity and balance-of-payment problems is hard to doubt, regardless of how one views the likelihood of a major diversion of resource consumption from rich countries to poor ones." (38)

We have not come to terms with our population problems and their natural consequences. We lie to our children by omission when we indicate that all will be well with their lives if only they work hard and get a good education. Advertisements create the impression that we can provide for the future by purchasing insurance, by saving money or by getting the right retirement plan, as though money were a source of security in itself which can override a lack of actual resources. This view of money divorces us from reality. If you have the money, you can buy anything you wish--food, clothing, shelter--"money makes the world go round." **But the economic truth is that resources make the world go round, and without them, money is worthless.**

The major reason why we remain in ignorance of the population dilemma is that we are working within a system which is a part of our consciousness, a system which is only now breaking apart and which has powerful adherents who cannot see its inadequacy in the world of the future. There is no international discussion, agreement or policy concerning what the population size should be. The

Global 2000 report, issued in 1980, said that "If present trends continue, the world in the year 2000 will be more crowded, more polluted, less stable ecologically, and more vulnerable to disruption than the world we live in now." James Buckley, the head of the Reagan administration's U.S. delegation to the United Nations Conference on Population Control, said that the administration rejected the view of the Global 2000 study. The delegation argued that free market economies are the best way to care for a growing population. (39) Rejecting the view of the study will not, however, make it go away or prove it to be untrue. Even countries which were favoring development as a population reduction strategy at the Bucharest Population Conference in 1974 have come to recognize that traditional free market economies are not the solution to their population problems. They are slowly but surely recognizing that their countries are becoming more crowded, more polluted, less stable ecologically and more vulnerable to disruption than the world in which they were living in 1974. This holds true for the industrialized nations as well. A free market economy in the industrialized nations creates expensive pollution problems which require large expenditures to correct. If these pollution problems are ignored in order that we might refrain from squelching unlimited free enterprise, then they eventually grow to the point where the cleanup costs are greater than the profits made. As other countries come to recognize the costs of such industrialization, they are less encouraged to follow the modern free market model of success.

The surface solutions espoused by our political leaders to our economic problems are in the press daily. According to our present economic and political leaders, we must "stimulate the private sector, compete with Japan (or Korea or Taiwan), develop trade with the Pacific Rim countries, develop service industries, welcome the information age." All of these facile solutions have beneficial aspects in the short term. They may help us to prosper for a year or two, or 10. But manipulating our present economic policies without including the need to reduce population will avail us nothing. In the United States, our trade deficits and budget deficits have been correctly identified as situations which cannot be ignored if we are to have any economic stability. Other nations are putting pressure on those of us in the United States to stop living beyond our means. But like some of the nations in Africa which have been forced by drought to eat their crops and leave no seed for the following season, we continue to eat our seed capital. Our political leaders do not wish to emphasize this point because it will require hard decisions and sacrifice to correct. It makes the budget crisis minimal by comparison. We cannot continue to ignore environmental encroachment and damage any more than we can ignore the dangers of nuclear weapons.

Overpopulation is an economic problem, and we must recognize it as such. Our economic planning is unsound in an economy driven by increasing population. Rather than making choices determined by the availability of resources, we make choices based on the technology we hope to have in order that we might miraculously increase the carrying capacity of the planet. We make choices based on the economy we hope to have, while we ensure that we can only have diminishing returns as our demands increase and our resource base decreases. Our non-renewable resource base decreases due to both our growing population and our insatiable demand for goods and services. Our renewable resource base decreases, both from a lack of time for replenishment and from contamination by pollution, a continuing and increasingly vicious cycle. Population growth and increased consumption ensure that our renewable resources will not have the time necessary to replenish themselves. Growing resource consumption per capita and growing population work together to multiply the rate of resource use. Thus, as our population doubles and our average resource consumption triples, our rate of resource consumption increases six times. Our demands on the environment increase six times. This exponential increase is certain to be a short-lived

phenomenon. It is obvious that population growth is no longer a spur to economic growth. If it were, India and China would be the richest countries in the world. To the contrary, in the immediate and long-term future, economic prosperity will be tied to population reduction.

We must deal with overpopulation as an economic problem. The opposite of deficit is surplus. At one point in our history, long ago, there was an abundance of life-sustaining resources, a surplus. There was a small population of humans and they lived within their means. They had reverence for all life because they were aware that their lives depended on the life all about them. The concept of waste was not a part of their lives, perhaps because they did not know the bounty or the extent of the planet they occupied, but perhaps because they were aware of their connection to the earth. They had many difficulties, but the concept of obliterating their resources was unknown to them. They would die, but they knew they had something to pass on to their descendants. There was no reason why the rich life that they had would not be there for their children or their grandchildren. There is no reason why we cannot have a surplus in the future, in all senses of the word. But we cannot have a surplus if we live wastefully, spending all of our resources with no view to the future. Our economic and national security is being determined now by the manner in which we protect our ecological support systems. We must conserve in a comprehensive manner if we wish to survive. The forefront of conservation must be in our human numbers.