Environmentalism in the Light of Menger and Mises

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I

The two essential claims of the environmentalists, which I take for granted are already well known, are (1) that continued economic progress is impossible because of the impending exhaustion of natural resources (it is from this notion that the slogan "reduce, reuse, recycle" comes), and (2) that continued economic progress, indeed, much of the economic progress that we have had up to now, is destructive of the environment and is therefore dangerous. The essential policy prescription of the environmentalists is the prohibition of self-interested individual action insofar as the byproduct of such action when performed on a mass basis is alleged damage to the environment. The leading concrete example of this policy prescription is the attempt now under way to force individuals to give up such things as their automobiles and air conditioners on the grounds that the byproduct of hundreds of millions or billions of people operating such devices is to cause global warming. And this same example, of course, is presently the leading example of the alleged dangers of economic progress.

The basis of my critique of the essential claims of the environmentalists is Carl Menger's theory of goods. The basis of my critique of their essential policy prescription is the spirit of individualism that runs throughout the writings of Ludwig von Mises.

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In his *Principles of Economics*, Menger (1950) develops two aspects of his theory of goods that are highly relevant to the critique of the environmentalists' two essential claims. The first aspect is his recognition that what makes what would otherwise be mere things into goods is not the intrinsic properties of the things *but a man-made relationship* between the physical properties of the things and the satisfaction of human needs or wants. Menger describes four prerequisites, all of which must be simultaneously present, in order for a thing to become a good, or, as he often puts it, have "goods-character."

He writes:

> If a thing is to become a good, or in other words, if it is to acquire goods-character, all four of the following prerequisites must be simultaneously present:
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> 1. A human need.
> 2. Such properties as render the thing capable of being brought into a causal connection with the satisfaction of this need.
> 3. Human knowledge of this causal connection.
> 4. Command of the thing sufficient to direct it to the satisfaction of the need. (p. 52)

The last two of these prerequisites, it must be stressed, are *man-made*. Human knowledge of the causal connection between external material things and the satisfaction of human needs must be discovered by man. And command over external material things sufficient to direct them to the satisfaction of human needs must be established by man. For the most part, it is established by means of a process of capital accumulation and a rising productivity of labor.

All this has immediate bearing on the subject of natural resources. It implies that the resources provided by nature, such as iron, aluminum, coal, petroleum and so on, are by no means automatically goods. Their goods-character must be created by man, by discovering knowledge of their respective properties that enable them to satisfy human needs, and then by establishing command over them sufficient to direct them to the satisfaction of human needs.

For example, iron, which has been present in the earth since the formation of the planet and throughout the entire presence of man on earth, did not become a good until well after the Stone Age had ended. Petroleum, which has been present in the ground for millions of years, did not become a good until the middle of the nineteenth century, when uses for it were discovered. Aluminum, radium, and uranium also became goods only within the last century or century and a half.

An example concerning goods-character being created only after the establishment of command sufficient to direct the resource provided by nature to the satisfaction of a human need would be the case of petroleum deposits lying deeper than existing drilling equipment could go. As drilling equipment improved, command was established over deposits lying at greater and greater

depths. Those deposits, to the extent that they were known, then became goods, which they had not been before. Similarly, for some years after the creation of the goods-character of petroleum, those petroleum deposits containing a significant sulfur content were unuseable for the production of petroleum products and were therefore not goods. Their goods-character was created only when Rockefeller and Standard Oil developed the process of cracking petroleum molecules, which then made sulfurous deposits useable.

The second aspect of Menger's theory of goods that is highly relevant to the critique of the environmentalists' essential claims is his principle that the starting point both of goods-character and of the value of goods is *within us*—within human beings–and radiates outward from us to external things, establishing the goods-character and value, first, of things that directly satisfy our needs, such as food and clothing, which category of goods Menger describes as "goods of the first order," and, second, of the means of producing goods of the first order, such as the flour to bake bread and the cloth to make clothing, which category of goods Menger describes as "goods of the second order." Goods-character and the value of goods then proceed from goods of the second order to goods of the third order, such as wheat, which is used to make the flour, and cotton yarn, which is used to make the cloth to make the clothing. From there they proceed to goods of the fourth order, such as the equipment and land used to produce the wheat, and the raw cotton from which the cotton yarn is made. Thus, goods-character and the value of goods, in Menger's view, radiate outward from human beings and their needs to external things more and more remote from the direct satisfaction of human needs.

In Menger's own words: "The goods-character of goods of higher order is derived from that of the corresponding goods of lower order" (p. 63). And: "the value of goods of higher order is always and without exception determined by the prospective value of the goods of lower order in whose production they serve" (p. 150). And as to the value of goods of the first order: "The value an economizing individual attributes to a good is equal to the importance of the particular satisfaction that depends on his command of the good" (p. 146). "The determining factor . . . is . . . the magnitude of importance of those satisfactions with respect to which we are conscious of being dependent on command of the good" (p. 147).

In Menger's view, it is clear that the process of production represents a progression from goods of higher order to goods of lower order, that is, from goods more remote from the satisfaction of human needs and the source of the value of all goods, to goods less remote from the satisfaction of human needs and the source of the value of all goods. The process of production unmistakably appears as one of continuous enhancement of utility, as it moves closer and closer to its ultimate end and purpose: the satisfaction of human needs.

To apply Menger's views to the critique of the essential claims of environmentalism, it is first necessary to stress the fact that in his account of things, nature's contribution to natural resources is implicitly much less than

is generally supposed. According to the prevailing view, what nature has provided are the natural resources that man exploits, that is, for example, all of the iron mines and coal mines, all of the oil fields and natural-gas wells, and so on. At the same time, according to the prevailing view, man's only connection to these allegedly all-nature-given natural resources is merely that he uses them up, with no means of replacing them. It is generally thought, for example, that while man produces such things as automobiles and refrigerators, his sole connection to the natural resources used in their production, such as iron ore, is merely to use them up, with no possibility of replacing them.

As I say, in Menger's view, nature's contribution to natural resources is much less than what is usually assumed. What nature has provided, according to Menger, is the material stuff and the physical properties of the deposits in these mines and wells, but it has not provided *the goods-character of any of them*. Indeed, there was a time when none of them were goods.

The goods-character of natural resources, according to Menger, is *created by man*, when he *discovers* the properties they possess that render them capable of satisfying human needs and when he *gains command over them* sufficient to direct them to the satisfaction of human needs.

All that needs to be added to Menger's view of the man-made creation of the goods-character of natural resources is a precise, explicit recognition of the *extent* of the *things* Menger refers to that nature has provided and which are not yet goods, but which, under the appropriate circumstances, might become goods, or, at least, from the domain of which things might be drawn to a greater extent to receive goods-character by virtue of man's contribution to the process. In other words, what precisely has nature provided with respect to which man might discover causal connections to the satisfaction of his needs and over greater portions of which he might gain command sufficient to direct such things to the satisfaction of his needs?

My answer to this question is that what nature has provided is *matter and energy*—matter in the form of all the chemical elements both known and as yet unknown, and energy, in all of its various forms. I call this contribution of nature "the natural resources provided by nature." Natural resources in the much narrower sense of "goods," as Menger uses the term, are drawn from this virtually infinite domain provided by nature. Natural resources that are goods in Menger's sense are natural resources provided by nature that man has made useable and accessible by virtue of discovering properties they possess that enable them to satisfy human needs and by virtue of gaining command over them sufficient to direct them to the satisfaction of human needs.

What is essential here is to grasp the distinction between the two senses of the expression "natural resources." First, there are natural resources as provided by nature. Such natural resources are matter, in all of its elemental forms, and energy, in all of its forms. And then, second, drawn from this domain, are natural resources to which man has given goods-character.

We are already familiar with the fact that an outstanding characteristic of natural resources in the first sense, that is, of natural resources as provided

by nature, is that none of them is an intrinsic good—that their achievement of goods-character awaits action by man. A further, equally important, characteristic of natural resources as provided by nature, and which now needs to be stressed as strongly as possible, is *the enormity of their quantity*. Indeed, for all practical purposes, *they are infinite*. Strictly speaking, *they are one and the same with all the matter and energy in the universe*. That is the full extent of the natural resources supplied by nature.

Thus, in one sense—the sense of useable, accessible natural resources, that is, of goods as Menger defines the term—the contribution of nature is *zero*. Practically nothing comes to us from nature that is ready-made as a useable, accessible natural resource—as a good in Menger's sense. In another sense, however, the natural resources that come from nature—the matter, in the form of all the chemical elements, known and as yet unknown, and energy in all of its forms—are virtually *infinite* in their extent. In this sense, nature's contribution is boundless.

Even if we limit our horizon exclusively to the planet Earth, which certainly need not be our ultimate limit, the magnitude of natural resources supplied by nature is mind-bogglingly huge. It is nothing less than the *entire mass of the earth* and all of the energy that goes with it, from thunderstorms in the atmosphere, a single one of which discharges more energy than all of mankind produces in an entire year, to the tremendous heat found at the earth's core in millions of cubic miles of molten iron and nickel. Yes, the natural resources provided by nature in the earth alone extend from the upper limits of the earth's atmosphere, four thousand miles straight down, to its center. This enormity consists of *solidly packed chemical elements*. There is not one cubic centimeter of the earth, either on its surface or anywhere below its surface, that is not some chemical element or other, or some combination of chemical elements. This is nature's contribution to the natural resources contained in this planet. It indicates *the incredibly enormous extent of what is out there awaiting transformation by man into natural resources possessing goods-character*.

And this brings me to what I consider to be the revolutionary view of natural resources that is implied in Menger's theory of goods. Namely, not only does man create the goods-character of natural resources—by obtaining knowledge of their useful properties and then creating their useability and accessibility by virtue of establishing the necessary command over them—but *he also has the ability to go on indefinitely increasing the supply of natural resources possessing goods-character*. He *enlarges* the supply of useable, accessible natural resources—that is, natural resources possessing goods-character—*as he expands his knowledge of and physical power over nature*.

The prevailing view, which dominates the thinking of the environmentalists and the conservationists, that there is a scarce, precious stock of natural resources that man's productive activity serves merely to deplete is wrong. Seen in its full context, *man's productive activity serves to enlarge the supply of useable, accessible natural resources by converting a larger, though still*

tiny, fraction of nature into natural resources possessing goods-character. The essential question concerning natural resources is *what fraction* of the virtual infinity that is nature does man possess sufficient knowledge concerning and sufficient physical command over to be able to direct it to the satisfaction of his needs. This fraction will always be very small indeed and will always be capable of vastly greater further enlargement.

The supply of useable, accessible natural resources expands as man expands his knowledge of and physical power over the world and universe. Up to now, although considerably expanded in comparison with what it was in previous centuries, man's physical power over the world has been essentially confined to the roughly 30 percent of the earth's surface that is not covered by sea water, and there it has been further confined to depths that are still measured in feet, not miles. Man is literally still just scratching the surface of the earth, and the far lesser part of its surface at that. And nowhere is he dealing with nature nearly as effectively or efficiently as he someday might.

In addition to the examples previously given with respect to iron, petroleum, aluminum, radium, and uranium, consider the implications for the supply of useable, accessible natural resources of man becoming able to mine at greater depths with less effort; to move greater masses of earth with less effort; to break down compounds previously beyond his power, or to do so with less effort; to gain access to regions of the earth previously inaccessible; or to improve his access to regions already accessible. All of these increase the supply of useable, accessible natural resources. They do so, of course, by virtue of creating what Menger describes as command over things sufficient to direct them to the satisfaction of human needs. All of them bestow the character of goods on what had before been mere things.[1]

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[1]As I wrote in my book *Capitalism: A Treatise on Economics* (1996):

> Today, as the result of such advances, the supply of economically useable natural resources is enormously greater than it was at the beginning of the Industrial Revolution, or even just one or two generations ago. Today, man can more easily mine at a depth of a thousand feet than he could in the past at a depth of ten feet, thanks to such advances as mechanical-powered drilling equipment, high explosives, steel structural supports for mine shafts, and modern pumps and engines. Today, a single worker operating a bulldozer or steam shovel can move far more earth than hundreds of workers in the past using hand shovels. Advances in reduction methods have made it possible to obtain pure ores from compounds previously either altogether impossible to work with or at least too costly to work with. Improvements in shipping, railroad building, and highway construction have made possible low-cost access to high-grade mineral deposits in regions previously inaccessible or too costly to exploit.

And, I added:

> There is no limit to the further advances that are possible. Reductions in the cost of extracting petroleum from shale and tar sands have the

The key point here is that, following Menger's insights into the nature of goods, the supply of economically useable, accessible natural resources is *expandable*. It is enlarged as part of the same process by which man increases the production and supply of all other goods, namely, scientific and technological progress and saving and capital accumulation.

The fundamental situation is this. Nature presents the earth as an immense solidly packed ball of chemical elements. It has also provided comparably incredible amounts of energy in connection with this mass of chemical elements. If, over and against this massive contribution from nature stands motivated human intelligence—the kind of motivated human intelligence that a free, capitalist society so greatly encourages, with its prospect of earning a substantial personal fortune as the result of almost every significant advance—there can be little doubt as to the outcome: Man will succeed *in progressively enlarging the fraction of nature's contribution that constitutes goods*; that is, he will succeed in progressively enlarging the supply of useable, accessible natural resources.

The likelihood of his success is greatly reinforced by two closely related facts: the progressive nature of human knowledge, and the progressive nature of capital accumulation in a capitalist society, which, of course, is also a *rational* as well as a free society. In such a society, the stock of scientific and technological knowledge grows from generation to generation, as each new generation begins with all of the accumulated knowledge acquired by previous generations and then makes its own, fresh contribution to knowledge. This fresh contribution enlarges the stock of knowledge transmitted to the next generation, which in turn then makes its own fresh contribution to knowledge, and so on, with no fixed limit to the accumulation of knowledge short of the attainment of omniscience.

Similarly, in such a society, the stock of capital goods grows from generation to generation. The larger stock of capital goods accumulated in any generation on the foundation of a sufficiently low degree of time preference and thus correspondingly high degree of saving and provision for the future, together with a continuing high productivity of capital goods based on the foundation of advancing scientific and technological knowledge, serves to

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> potential for expanding the supply of economically useable petroleum by a vast multiple of what it is today. Hydrogen, the most abundant element in the universe, may turn out to be an economical source of fuel in the future. Atomic and hydrogen explosives, lasers, satellite detection systems, and, indeed, even space travel itself, open up limitless new possibilities for increasing the supply of economically useable mineral supplies. Advances in mining technology that would make it possible to mine economically at a depth of, say, ten thousand feet, instead of the present much more limited depths, or to mine beneath the oceans, would so increase the portion of the earth's mass accessible to man that all previous supplies of accessible minerals would appear insignificant in comparison. (p. 64)

produce not only a larger and better supply of consumers' goods but also a comparably enlarged and better supply of capital goods. That larger and better supply of capital goods, continuing on the same foundation of low time preference and advancing scientific and technological knowledge, then serves to further enlarge and improve the supply not only of consumers' goods but also of capital goods. The result is continuing capital accumulation, on the basis of which, from generation to generation, man is able to confront nature in possession of growing powers of physical command over it.

On the basis of both progressively growing knowledge of nature and progressively growing physical power over nature, man progressively enlarges the fraction of nature that constitutes goods; that is, the supply of useable, accessible natural resources.

II

I turn now to the second aspect of Menger's theory of goods that relates to the critique of the essential tenets of environmentalism, namely, his view of the process of production as one of continuous enhancement of utility as it moves from goods of higher order to goods of lower order.

All that it is necessary to add to Menger's view is recognition once again of the fact that the earth is an immense ball of solidly packed chemical elements. Now these chemical elements constitute man's external material surroundings, that is, his *environment*. They are the external material conditions of human life.

When these facts are kept in mind, it becomes clear that the process of production, and the whole of economic activity, so far from constituting a danger to man's environment as the environmentalists claim, has the inherent tendency to *improve* his environment, indeed, that that is its essential purpose.

This becomes obvious as soon as one realizes that not only does the entire world physically consist of nothing but chemical elements, but also that these elements are never destroyed. They simply reappear in different combinations, in different proportions, in different places.[2]

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[2]As I wrote in *Capitalism*:

> Apart from what has been lost in a few rockets, the quantity of every chemical element in the world today is the same as it was before the Industrial Revolution. The only difference is that, because of the Industrial Revolution, instead of lying dormant, out of man's control, the chemical elements have been moved about, as never before, in such a way as to improve human life and well-being. For instance, some part of the world's iron and copper has been moved from the interior of the earth, where it was useless, to now constitute buildings, bridges, automobiles, and a million and one other things of benefit to human life. Some part of the world's carbon, oxygen, and hydrogen has been separated from certain compounds and recombined in others, in the

If anyone should ask how the environmentalists could miss the fact that precisely production and economic activity constitute the means whereby man improves his environment, the answer is that the environmentalists do not share Menger's (or Western Civilization's) starting point of value—namely, the value of human life and well-being. In their view, the starting point of value is the alleged "intrinsic value" of nature—that is, the alleged value of nature in and of itself, totally apart from any connection to human life and well-being. Such alleged intrinsic value is destroyed every time man changes anything whatever in the preexisting state of nature.

When the environmentalists speak of "harm to the environment" in connection with such things as clearing jungles, blasting rock formations, or the loss of this or that plant or animal species of no known or foreseeable value to man, what they actually mean in the last analysis is the loss of the alleged intrinsic values constituted by such things, and not any actual loss whatever to man. On the contrary, they are eager to sacrifice human life and well-being for the preservation of such alleged intrinsic values. To them, the "environment" is not the surroundings of man, deriving its value from its relationship to man, but nature in and of itself, deriving its value from itself—that is, allegedly possessing "intrinsic" value.

Of course, the environmentalists also frequently pose as supporters of human life and well-being, and at such times they direct their fire at various

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> process releasing energy to heat and light homes, power industrial machinery, automobiles, airplanes, ships, and railroad trains, and in countless other ways serve human life. It follows that insofar as man's environment consists of the chemical elements iron, copper, carbon, oxygen, and hydrogen, and his productive activity makes them useful to himself in these ways, his environment is correspondingly improved.
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> Consider further examples. To live, man needs to be able to move his person and his goods from place to place. If an untamed forest stands in his way, such movement is difficult or impossible. It represents an improvement in his environment, therefore, when man moves the chemical elements that constitute some of the trees of the forest somewhere else and lays down the chemical elements brought from somewhere else to constitute a road. It is an improvement in his environment when man builds bridges, digs canals, opens mines, clears land, constructs factories and houses, or does anything else that represents an improvement in the external, material conditions of his life. All of these things represent an improvement in man's material surroundings—his environment. All of them represent the rearrangement of nature's elements in a way that makes them stand in a more useful relationship to human life and well-being.
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> Thus, all of economic activity has as its sole purpose the improvement of the environment—it aims exclusively at the improvement of the external, material conditions of human life. Production and economic activity are precisely the means by which man adapts his environment to himself and thereby improves it. (p. 90)

comparatively minor negative byproducts of production and economic activity, such as local degradation of the quality of air or water, while totally neglecting the enormous positives, which, of course, are of overwhelmingly greater significance.

What guarantees that the positive benefits of production and economic activity incalculably outweigh any negatives associated with their byproducts is the principle of respect for individual rights. Although by no means always observed, this principle requires that one's production and economic activity not only benefit oneself but also that, insofar as any other people are involved in the process, the use of their labor and property must be obtained only by their voluntary consent. And, of course, to secure their voluntary consent, their cooperation must be made worth their while.

Thus, for example, if I wish to construct a building, not only will I benefit from it, but also all those who work for me in its construction and all those who supply me with materials and equipment for constructing it. So too will the building's purchaser or tenants—if I construct it for the purpose of sale or rent. In addition, no third party's property or person may be harmed by my action. For example, I risk serious legal penalty if I construct my building in a way that undermines a neighboring building's foundation or that makes my building unsafe for passersby.

The major complaints the environmentalists currently make concern the fact that I heat and air-condition my building—to be sure, not I as one isolated individual, but as one of many tens or hundreds of millions of individuals using fossil fuels or chlorofluorocarbons (CFCs). In so doing, mankind is allegedly guilty of the crime of increasing the level of carbon dioxide and other greenhouse gases, thereby causing "global warming," or of increasing the level of ozone-destroying molecules in the upper atmosphere, thereby causing higher rates of skin cancer. And because mankind is allegedly guilty in these ways, the environmentalists assume that I as one individual man must be restricted, if not prohibited altogether, in my use of fossil fuels and CFCs, even though I, as one individual, am utterly incapable of causing any of the effects alleged; and the same, of course, is true, *mutatis mutandis*, for each and every other individual.

III

Here I want to turn to the enormous spirit of individualism that is found in Ludwig von Mises.[3] Only individuals think and only individuals act, says Mises (1951, p. 113). It follows, of course, that it is only for his own actions that an individual should be held responsible. The son should not be punished for the sins of the father; one member of a race or nation or economic

[3]See, for example, two of works by Mises (1966, pp. 41-46, 145-53, 165-69; and 1951, pp. 63-68, 113, 297-99, 401-03).

class should not be held responsible for the deeds of any other members of that race, nation, or economic class.

And so too should it be in the case of any alleged environmental damage. If an individual, or an individual business enterprise, is incapable by himself of causing global warming or ozone depletion, or whatever, on a scale sufficient to cause harm to any other specific individual or individuals, then there is absolutely no proper basis on the individualistic philosophy of Mises for prohibiting his action.[4]

The individual should not be punished for consequences that can occur only as the result of the actions of the broader category or group of which he is a member, but that do not occur as the result of his own actions. Thus, even if it is true that the combined effect of the actions of several billion people really is to cause global warming or ozone depletion (neither of these claims has actually been proven—the claims of global warming have all the certainty of *a weather forecast*, extended out to the next 100 years!), but even *if*, as I say, the claims were true, it still would not follow that any proper basis existed for prohibiting any specific individual or individuals from acting in ways that, only when aggregated across billions of individuals, resulted in global warming or ozone depletion or whatever.

If global warming or ozone depletion or whatever really are consequences of the actions of the human race considered collectively, but not of the actions of any given individual, including any given individual private business firm, then the proper way to regard them is as the equivalent of *acts of nature*. Not being caused by the actions of *individual* human beings, they are equivalent to actions not *morally* caused by human beings *at all*, that is to say, to *acts of nature*.

Once we see matters in this light, it becomes clear what the appropriate response is to such environmental change, whether global warming and ozone depletion, or global cooling and ozone enrichment, or anything else nature may bring. It is the same as the appropriate response of man to nature in general. Namely, individual human beings must be free to deal with nature to their own maximum individual advantage, subject only to the limitation of not initiating the use of physical force against the person or property of other individual human beings. By following this principle, man will deal with any of the negative forces of nature resulting as byproducts of his own activity taken in the aggregate in precisely the same successful way that he regularly deals with the primary forces of nature.

We enjoy an incredibly marvelous industrial civilization, the nature of which is indicated by the fact that, because of it, vast numbers of human

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[4]As I say in *Capitalism*,

> To prohibit the action of an individual in such a case is to hold him responsible for something for which he is simply not in fact responsible. It is exactly the same in principle as punishing him for something he did not do. (p. 91)

beings can travel at breathtaking speeds for hundreds of miles at a stretch in their own personal automobiles, listening to symphony orchestras as they go—indeed, can fly over whole continents in a matter of hours in jet planes, while watching movies and drinking martinis; can walk into darkened rooms and flood them with light by the flick of a switch; can open a refrigerator door and enjoy delicious, healthful food brought from all over the world; can do all this and so much more. This is what we have. This, and much, much more, is what people everywhere could have if they were intelligent enough to establish economic freedom and capitalism.

But all this counts for virtually nothing as far as the environmentalists are concerned. They are ready to throw it all away because, they allege, it causes global warming and ozone depletion, that is, *bad weather*. And the best way, they say, for us to avoid such bad weather, and thus to control nature more to our advantage, is to abandon modern, industrial civilization and capitalism.

The appropriate answer to the environmentalists is that we will not sacrifice a hair of industrial civilization, and that if global warming and ozone depletion really are among its consequences, we will accept them and deal with them—by such reasonable means as employing more and better air conditioners and sun block, not by giving up our air conditioners, refrigerators, and automobiles.

More fundamentally, the answer to the environmentalists is that the appropriate response to environmental change, whether global warming or a new ice age, is *the economic freedom of a capitalist society*. Sooner or later, such environmental change will occur—if not in this new century or even in this new millennium, then certainly at some time in the more remote future. At that time, it will require vast changes in human economic activity. Some areas presently used for certain purposes will become unuseable for those purposes. Conceivably, they might even become uninhabitable. Other areas presently uninhabitable or barely habitable, will become much more desirable. Major changes in the comparative advantages of vast areas will take place, to which people must be free to respond.[5]

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[5]As I wrote in *Capitalism*:

> Even if global warming turned out to be a fact, the free citizens of an industrial civilization would have no great difficulty in coping with it—that is, of course, if their ability to use energy and to produce is not crippled by the environmental movement and by government controls otherwise inspired. The seeming difficulties of coping with global warming, or any other large-scale change, arise only when the problem is viewed from the perspective of government central planners.
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> It would be too great a problem for government bureaucrats to handle. . . . But it would certainly not be too great a problem for tens and hundreds of millions of free, thinking individuals living under capitalism to solve. It would be solved by means of each individual being free to decide how best to cope with the particular aspects of global warming that affected him.

A rational response to the possibility of large-scale environmental change is to establish *the economic freedom of individuals to deal with it*, if and when it comes. Capitalism and the free market are the essential means of doing this, not paralyzing government controls and "environmentalism." And both in the establishment of economic freedom and in every other major aspect of the response to environmentalism, the philosophy of Ludwig von Mises and Carl Menger must lead the way.

REFERENCES

Menger, Carl. 1950. *Principles of Economics*. Glencoe, Ill.: Free Press. Reprint. 1994. Grove City, Penn.: Libertarian Press.

Mises, Ludwig von. 1951. *Socialism: An Economic and Sociological Analysis*. London: Jonathan Cape. Repint. 1982. Indianapolis: Liberty Classics.

——. 1966. *Human Action: A Treatise on Economics*. 3rd rev. ed. Chicago: Henry Regnery.

Reisman, George. 1996. *Capitalism: A Treatise on Economics*. Ottawa, Ill.: Jameson Books.

> Individuals would decide, on the basis of profit-and-loss calculations, what changes they needed to make in their businesses and in their personal lives, in order best to adjust to the situation. They would decide where it was now relatively more desirable to own land, locate farms and businesses, and live and work, and where it was relatively less desirable, and what new comparative advantages each location had for the production of which goods. Factories, stores, and houses all need replacement sooner or later. In the face of a change in the relative desirability of different locations, the pattern of replacement would be different. Perhaps some replacements would have to be made sooner than otherwise. To be sure, some land values would fall and others would rise. Whatever happened individuals would respond in a way that minimized their losses and maximized their possible gains. The essential thing they would require is the freedom to serve their self-interests by buying land and moving their businesses to the areas rendered relatively more attractive, and the freedom to seek employment and buy or rent housing in those areas.
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> Given this freedom, the totality of the problem would be overcome. This is because, under capitalism, the actions of the individuals, and the thinking and planning behind those actions, are coordinated and harmonized by the price system (as many former central planners of Eastern Europe and the former Soviet Union have come to learn). As a result, the problem would be solved in exactly the same way that tens and hundreds of millions of free individuals have solved much greater problems, such as redesigning the economic system to deal with the replacement of the horse by the automobile, the settlement of the American West, and the release of the far greater part of the labor of the economic system from agriculture to industry. (pp. 88-89)