IN his best-selling book, *Earth in the Balance*, Vice President-elect Albert Gore, Jr., argues that "only a radical rethinking of our relationship with nature can save the Earth's ecology for future generations." Vice President-elect Gore, who is president of GLOBE International (an organization of legislators from the United States, the European Community, and Japan who have a strong interest in environmental issues), suggests that to save the Earth we need a "Global Marshall Plan." The integrating goal of the plan would be "the establishment—especially in the developing world—of the social and political conditions most conducive to the emergence of sustainable societies" and would be patterned after the plan that revitalized the economy of western Europe after World War II by promoting European integration and joint action.

After participating in the Earth Summit, held last June, then-Senator Gore said that he had had the sense of "very large wheels turning slowly... of momentum beginning to grow... [and that] we must change our deeply embedded patterns of thinking and acting."

In the following excerpt from his book, Vice President-elect Gore describes what he believes should be components of the U.S. role in this "Global Marshall Plan"—a "new global economics." Then he describes what happened at the Earth Summit and where we all go from here.
As the world's leading exemplar of free market economics, the United States has a special obligation to discover effective ways of using the power of market forces to help save the global environment. Yet even as we correctly point out the dismal failures of communism, and even as we push the underdeveloped world—appropriately, in my view—to adopt a market-based approach to economics, we have been reluctant to admit our failure to bring environmental values into our economic decisions. Further, the Bush administration has shown little interest in changing the government policies that presently distort the principles of market economics in ways that encourage the destruction of the environment.

Many U.S. policymakers seem content to leave the environmental consequences of our economic choices in the large wastebasket of economic theory labeled externalities. Anything that economists wish to forget about is called an externality and then banished from serious thought. For example, consider this analysis by President Bush's Council of Economic Advisers of the impact of global warming on agriculture: The costs of today's agricultural policies are estimated to be more important in economic terms than even pessimistic estimates of the effects of global warming, largely because the former must be borne in the present and the latter may occur, if at all, in the relatively distant future.

That's it. As far as the council is concerned, global warming need be given no further thought. Since it has been discounted into insignificance, they figure we can just forget about it. And meanwhile we go on preaching to the rest of the world that our brand of market economics takes increase in the amount of interest companies show in improving the efficiency of their processes in order to reduce the pollution they cause.

To most of us, the principle sounds unassailable: let the polluter pay. But what about when it applies to each of us instead of to a nameless, faceless, corporation? For example, rather than require homeowners to pay higher property taxes to cover the cost of garbage collection, why not lower property taxes and then charge for garbage collection directly—by the pound? Those responsible for creating more garbage would pay more; those who found ways to cut down would pay less. The interest in recycling might rise dramatically. And when choosing between products at the store, people might even start avoiding unnecessary and bulky packaging if they knew it was going to end up in their garbage. There is an economic rule of thumb: whatever we tax, we tend to get less of; whatever we subsidize, we tend to get more of. Currently, we tax work and we subsidize the depletion of natural resources—and both policies have contributed to high unemployment and the waste of natural resources. What if we lowered the tax on work and simultaneously raised it on the burning of fossil fuels? It is entirely possible to change the tax code in a way that keeps the total amount of taxes at the same level, avoids unfairness and " regressivity," but discourages the constant creation of massive amounts of pollution.
The United Nations Conference on Environment and Development was a turning point for a world trying to confront an unprecedented global ecological crisis. The Earth Summit laid the groundwork for meaningful changes in policies in every nation to stop the destruction of the Earth. Leaders around the world are now thinking about the same challenge at the same time in a new way.

At the Earth Summit, there was the realization that this crisis is visible around the globe: the disappearance of the Aral Sea, the burning of the rain forests, the disappearance of living species at a rate one thousand times faster than the natural extinction rate, the tragedy of Love Canal, the garbage crisis, the oil spill in Alaska, the dead dolphins in the Gulf of Mexico, the dead seals in the North Sea and the dead starfish in the White Sea, and the 37,000 children who die each day from preventable disease and malnutrition.

A number of dramatic changes made it possible for the Earth Summit to take place. For instance, people all over the world are beginning to feel that they are part of a single global civilization. We are a community of separate nations and we shall remain so, but we face a global environmental crisis that demands an international response. We must construct a common agenda for solving those problems.

Most of the world now agrees that freedom is a prerequisite for solving the global environmental crisis. As people who care about the future of our world, we must make a compact with one another to struggle against the enemies of freedom. Dictatorship is an enemy of freedom. Communism is an enemy of freedom. Ignorance is an enemy of freedom. Corruption is an enemy of freedom. Racism and sexism, exploitation and oppression are enemies of freedom, and everywhere we look in the world today, wherever the human spirit is crushed, wherever individuals feel powerless and live out their lives in fear that they have no meaning or purpose, human beings and the environment suffer.

We have an obligation to link around the world the democracy movement and the environmental movement.

We also have an obligation to redefine the relationship between civilization and the Earth. Through the scientific and technological revolutions in particular, we have fundamentally changed the way in which we interact with our environment.

Technology has separated us from the natural world that sustains us and has blinded us to the harmful environmental impact of our current patterns of development.

International agreements such as the Montreal Protocol, which limits the amount of chlorofluorocarbons (or CFCs) that can be released into the atmosphere, give us cause for hope. And, at the Earth Summit, an agreement was reached that lays the groundwork for achieving reduced emissions of greenhouse gases. We must build on these successes by making a commitment to research and develop new technologies that allow and foster economic progress without environmental destruction.

Moving these programs and initiatives from the bottom of the list of priorities to the top means investing in the future and in a growing economy that will produce new jobs and increase productivity. It means new business and increasing profits. By protecting our natural resources, we preserve the foundation for economic progress.

Environmental efficiency helps businesses become more competitive. After all, pollution really is waste—what’s left over from the production of goods. Reducing pollution—economic waste—increases profits and makes our industries more competitive.

Japan and Germany have already recognized and started to take advantage of this new way of thinking. Both of these competitors openly proclaim that the biggest new market in the history of world
THE EARTH SUMMIT

business is the market for the new products and processes that will foster economic progress without environmental destruction.

In fact, the global market for environmental technologies is currently at about $270 billion a year and is growing at 7 percent a year. Meanwhile, we now import many of the environmental technologies we once pioneered. For example, we import 70 percent of our pollution-control technologies and we are net importers of solar and wind-energy technologies.

The companies with the best environmental strategies will lead business in the twenty-first century. They are among the most competitive and profitable. Here in the United States, for example, the 3M Corporation saves millions of dollars each year through its “Pollution Prevention Pays” program.

At the heart of these business and government, individual and collective, state and global initiatives to foster economic growth without harming the environment is a shared understanding reached by all who participated in the Earth Summit: we must reevaluate and repair our relationship with the world that sustains us. We must work to create a better world for the generations to come.

The Earth Summit showed us that we can achieve our goals, both individually as sovereign nations and as a global community. We are one world. We have common commitments. And we share a common hope for the future of this Earth—Albert Gore, Jr.

Accordingly, I propose:

1. That we create an Environmental Security Trust Fund, with payments into the fund based on the amount of CO₂ put into the atmosphere. Production of gasoline, heating oil and other oil-based fuels, coal, natural gas, and electricity generated from fossil fuels would trigger incremental payments of the CO₂ tax according to the carbon content of the fuels produced. These payments would be reserved in a trust fund, which would be used to subsidize the purchase by consumers of environmentally benign technologies—such as low-energy light bulbs or high-mileage automobiles. A corresponding reduction in the amount of taxes paid on incomes and payrolls in the same year would ensure that the trust fund plan does not raise taxes but leaves them as they are—while having sufficient flexibility to ensure progressivity and to deal equitably with special hardships encountered in the transition to renewable energy sources (such as those faced by someone with no immediate alternative to the purchase of large quantities of heating oil, gasoline, or the like). I am convinced that a CO₂ tax which is completely offset by decreases in other taxes is rapidly becoming politically feasible.

But CO₂ taxes will not be enough to stop the profligate waste of virtually all other natural resources, and as a result I also propose:

2. That a Virgin Materials Fee be imposed on products at the point of manufacture or importation based on the quantity of nonrenewable, virgin materials built into the product. For example, paper mills would be charged a materials fee on the basis of the percentage of their paper made from freshly cut trees as opposed to recycled pulp and paper. Fee payers would qualify for tax credits toward purchasing recycling equipment and collecting recyclables.
In addition to these two broad proposals, I also recommend several other specific changes in U.S. policy that would rewrite our economic rules of the road for the sake of the environment:

3. The government should adopt a policy of purchasing environmentally appropriate substitutes wherever they are competitive—taking into account full life-cycle costs—with older, less responsible technology. For example, it should replace every light bulb (when it wears out) with one of the new long-life bulbs that consume only a fraction as much electricity to produce the same amount of light. The government should also be required to purchase recycled paper in amounts that each year represent a larger percentage of its total needs until virtually all the paper it uses is recycled. If the government—with its substantial needs—can lead by example, it can make a tremendous difference to the ability of the new product manufacturers to achieve economies of scale and become viable enough to break into the market.

4. The government must establish higher mileage requirements for all cars and trucks sold in the United States. Although the carbon taxes and corresponding subsidies of the Environmental Security Trust Fund will be far more effective in accelerating the transition to more efficient vehicles, mandated improvements in the average fuel economy can be an important supplementary measure. With two of the largest automobile manufacturing plants in the world located in my own state, I have faced an awkward political problem in supporting tougher mileage requirements, and I do recognize some of the very real practical difficulties with the proposed legislation. Nevertheless, the amount of CO\textsubscript{2} emissions in the United States is so great that I think even imperfect measures to force remedial action are better than none at all.

5. Efficiency standards throughout the economy—for buildings, for industrial motors and engines, and for appliances—must also be strengthened. With tougher standards, there is less temptation for manufacturers to compete by cutting corners. The Bush administration—inexplicably—has fought hard against such standards.

6. Utility rate reform must encourage full use of conservation and efficiency measures. At present, some state governments are moving aggressively on this front, but federal policy has lagged far behind. All utilities must encourage conservation rather than build new generating capacity; helping to finance conservation has proved remarkably effective. Finally, utilities should be encouraged to plant forests to offset some portion of the CO\textsubscript{2} they generate.

7. Tree-planting programs—with carefully selected seedlings appropriate to the areas being planted and careful follow-up to ensure tree survival—should be part of workfare programs in communities where work requirements are attached to welfare payments. Similarly, tree-planting projects should be given higher priority in summer jobs programs for teenagers.

8. Accelerated phaseout of all ozone-destroying chemicals. We should also subsidize the development of truly benign substitutes.

There are, of course, many other problems that must be attended to if the government is going to play the key, constructive role necessary for it to lead the world environmental movement. We need to pay careful attention to the deep social and attitudinal causes of America's relative economic decline, some of which also contribute to the environmental crisis:

- The neglect of our human resources and falling levels of proficiency in literacy, numeracy, geography, and basic reasoning skills.
- Our unwillingness to make decisions with an eye to their long-term effects, coupled with our insistence on basing strategy on short-term time horizons: for example, the practice of rewarding business leaders on the basis of quarterly earnings, the willingness of investors to allocate capital on the basis of short-term profits instead of the quality of the goods produced, jobs provided, and long-term market share gained; the tendency of political leaders to base important decisions on the perception of their impact on the next election or even on the next public opinion polls.
- Our complacent pursuit of outdated strategies that used to work in the postwar markets, when we were the only strong economy left in the free world, but that have long since been surpassed by more streamlined and effective strategies.
- Our tolerance of government and industry working at cross purposes and failing to plan together or find ways to resolve persistent conflicts, not according to the Japanese model, but according to an original and innovative American model of a kind that existed in past national efforts such as the Apollo Program.
- Our inability to translate new discoveries in the laboratory into new advantages for American companies and workers.

All of these problems are deeply interrelated and all, I believe, can be solved with the same shift in thinking and a focused national effort represented by the Strategic Environment Initiative and the Global Marshall Plan.