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# Globalization's Effects on the Environment – Boon or Bane?

by Jo Kwong

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# Globalization's Effects on the Environment -- Boon or Bane?

Jo Kwong

## INTRODUCTION

In recent years, globalization has become a remarkably polarizing issue. In particular, discussions about globalization and its environmental impacts generate ferocious debate among policy analysts, environmental activists, economists and other opinion leaders. Is globalization a solution to serious economic and social problems of the world? Or is it a profit-motivated process that leads to oppression and exploitation of the world's less fortunate?

This paper examines alternative perspectives about globalization and the environment. It offers an explanation for the conflicting visions that are frequently expressed and suggests elements of an institutional framework that can align the benefits of globalization with the objective of enhanced environmental protection.

### **What Is “Globalization” And Why Are Some So Concerned About Its Impacts?**

Globalization, free of the emotional rhetoric, is simply about removing barriers so goods, services, people, and ideas, can freely move from place to place. At its most rudimentary level, globalization describes a process whereby people can make their own decisions about who their trading partners are and what opportunities they wish to pursue.<sup>1</sup>

While this may seem fairly innocuous, globalization certainly raises many concerns. In developed nations, some people worry about globalization's impacts on culture, traditional ways of living, and indigenous control in less developed parts of the world. They wonder, “What's to stop profit-motivated companies from developing some of the pristine environments and fragile natural resources found in the developing world?” These critics of open trade fear that residents of developing nations will be the losers in more ways than one — stripped of their land's natural resources and hopelessly in debt to exploitative developed countries. This group takes a rather paternalistic view of the problems facing the world's poor.

Others — free marketers — believe that the developed world can produce positive benefits by exporting knowledge and technology to the developing world. By avoiding mistakes made in the developed world, it is argued, developing countries

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can advance in manners that sidestep some of the errors that occurred in others' development processes. Third-world poverty is cited as an important reason to foster greater economic growth in the developing world. To proponents of globalization, trade is seen as a way to lift the third world from poverty and enable local people to help themselves.

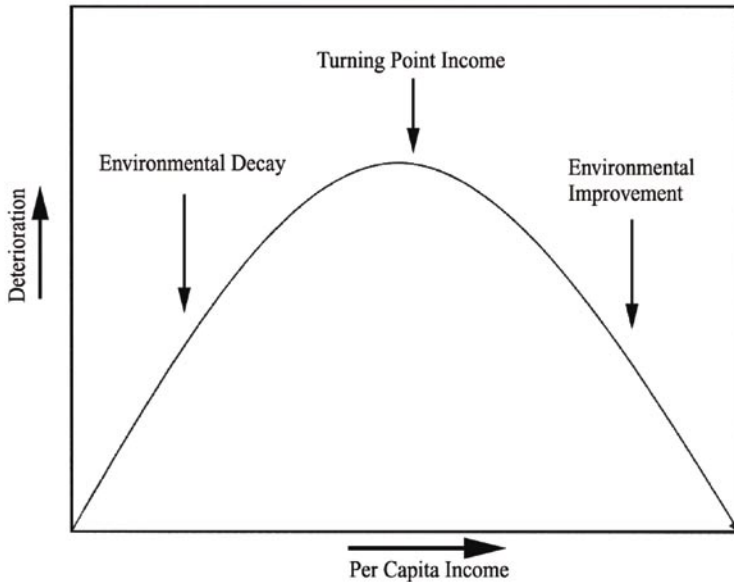
Moreover, there are divided views within the developing world. Some argue against so-called "eco-imperialism." "Why are others dictating whether or not we can develop our own resources? Who are these environmental activists that say billions of people in China shouldn't have cars because this will greatly accelerate global warming?" they ask. But others question, "Who are these corporations that come in and buy huge tracts of land in third-world interiors and develop large-scale forestry or oil developments, seemingly without concern about the impact on the local environment?"

In many ways, these alternative perspectives can be viewed as a "conflict of visions," to steal a phrase from Thomas Sowell.<sup>2</sup> Some people simply view the world fundamentally differently. In the globalization context, for example, one view values the protection of indigenous ways of life, even if that means living with greater poverty and fewer individual choices. Others believe economic efficiency is key — getting the most from our resources to provide the greatest amount of financial wealth and opportunity. Most likely, however, most people fall somewhere in between.

This discussion will offer an additional factor other than a "conflict of visions" that can help us understand the broad disparities in perspectives and understandings about the question, "Is globalization good for the environment?" In particular, it raises the possibility that perhaps we are not asking the right questions to address the set of concerns at hand.

## **IS GLOBALIZATION GOOD FOR THE ENVIRONMENT?**

In the 1990s, a number of economists sought to empirically answer the question of whether globalization helps or harms the environment.<sup>3</sup> Some of the most often-cited findings are those from economists Gene Grossman and Alan Krueger. Grossman and Krueger investigated the relationship between the scale of economic activity and environmental quality for a broad set of environmental indicators. They found that environmental degradation and income have an inverted U-shaped relationship, with pollution increasing with income at low levels of income and decreasing with income at high levels of income. The turning point at which economic growth and pollution emissions switch from a positive to a negative relationship depends on the particular emissions and air quality measure tracked. For NO<sub>x</sub>, SO<sub>x</sub> and biological oxygen demand (BOD), the turning point appears to be around \$5,000 per capita gross domestic product (GDP). This observation supports the view that countries can grow out of pollution problems with wealth.<sup>4</sup>



**Figure 1:** Environmental Kuznets Curve (Source: “The Environmental Kuznets Curve A Primer”, by Bruce Yandle, Maya Vijayaraghavan, and Madhusudan Bhattarai, Political Economy Research Center, PERC Research Study 02-1, May 2002.)

These findings were followed by further studies that examined this “Environmental Kuznets Curve,”<sup>5</sup> as this inverted U-shaped curve was labeled. (See Figure 1.) The research generated a new set of policy implications that supported the idea that trade can be good for the environment.<sup>6</sup> If economic growth is good for the environment, policies that stimulate growth (trade liberalization, economic restructuring, and free markets) should also be good for the environment.

The most basic description of how this inverted curve can occur is to think about the types of activities that countries experience as they develop. At the most rudimentary level, people are burning cow dung and other readily available materials for heat and cooking sources. No controls are in place; the pollutants are released directly into the air. As economic activity increases, the economy reaches a point at which people begin making investments — catalytic converters, furnaces, etc — pollution levels are reduced, and hence the inverted curve results.

In “Poverty, Wealth and Waste,” Barun Mitra compares patterns of waste distribution in India to those of the developed world.<sup>7</sup> He addresses the myth that poor countries have lower levels of pollution:

- The painstaking efforts to recycle materials do not mean that a poor country like India is pollution-free. Indeed, the low quantity of waste generated in an economy with little capital and technological backwardness keeps the waste industry from graduating above small-scale local initiatives. And higher pollution occurs because there isn’t the technology to capture highly dispersed

waste such as sulfur dioxide from smokestacks or heavy metals that flow into wastewater.

A number of possible explanations for this observed relationship between pollution and income were advanced:

- As local economies grow and develop, they will inevitably change the way they use resources, creating different types of impacts upon the environment. A simple example is the pollution trade-offs involved from our transition in transportation modes from horses to cars. Horses generated plenty of pollution in terms of manure, carcass disposal, etc. Cars, of course, generate an entirely different brand of pollution concerns. In other words, some environmental degradation along a country's development path is inevitable, especially during the take-off process of industrialization.<sup>8</sup>
- Growth is associated with an increasing share of services and high-technology production, both of which tend to be more environment-friendly than production processes in earlier stages of industrialization.<sup>9</sup>
- Knowledge and technology from the developed world can help ease this transition and lessen its duration, moving countries more quickly to the levels at which pollution will be decreasing. Free trade can promote a quicker diffusion of environment-friendly technologies and lead to a more efficient allocation of resources.
- The prosperity generated from economic activity will lead to more investments and higher standards of living that enable still greater investments in cleaner and newer technologies and processes. When a certain level of per capita income is reached, economic growth helps to undo the damage done in earlier years.<sup>10</sup> As free trade expands, each 1 percent increase in per capita income tends to drive pollution concentrations down by 1.25 to 1.5 percent because of the movement to cleaner techniques of production.<sup>11</sup>
- As individuals become richer they are willing to spend more on non-material goods, such as a cleaner environment.<sup>12</sup> This point is made by Indur M. Goklany, in his description of earlier stages of development:

Society [initially] places a much higher priority on acquiring basic public health and other services such as sewage treatment, water supply, and electricity than on environmental quality, which initially worsens. But as the original priorities are met, environmental problems become higher priorities. More resources are devoted to solving those problems. Environmental degradation is arrested and then reversed.<sup>13</sup>

These findings and explanations, unsurprisingly, generated an outpouring of negative response from environmental activists and anti-globalization proponents. "How can these economists be serious?" they, in effect, asked. "Do they really think it is wise to advocate policies that predictably increase pollution? Are we supposed to

believe pollution will eventually decrease if we continue with the polluting activities? How absolutely ludicrous!”

Typical responses to the “growth is good” thesis include:

- Globalization will result in a “race to the bottom” as polluting companies relocate to countries with lax environmental standards.
- Trading with countries that do not have suitable environmental laws will lower environmental standards for all countries.
- Multinationals will exploit pristine environments in the developing world, reaping the resources for short-term growth, and then pulling out to repeat the process elsewhere -- growth ruins the environment.
- Free trade provides a license to pollute — it is bad for the environment. Stronger environmental regulations at national and international levels are needed.

The Sierra Club<sup>14</sup> summarized the widespread critiques to the Grossman and Krueger studies, drawing from research studies produced by the World Wide Fund for Nature and others.<sup>15</sup> It argued that the findings were sufficiently over-generalized to dispense with any notion that they justify complacency about trade and the environment, pointing out that:

- The empirical estimates of where “turning points” occur for different pollutants vary so widely as to cast doubt on the validity of any one set of results. For instance, where Grossman and Krueger found turning points for certain air pollutants at less than \$5,000 per capita, others found turning points above \$8,000 per capita.
- For some air pollutants, Grossman and Krueger found that emissions levels don’t follow an inverted U-curve, but following an S-curve that starts to rise again as incomes rise. For instance, they found that sulphur dioxide emissions start to rise when income increases above \$14,000 per capita. The implication is that efficiency gains from improved technology at medium levels of per capita income are eventually overwhelmed by the growing size of the economy.
- Since most of the world’s population earns per capita incomes well below estimated turning points, global air pollution levels will continue to rise for nearly another century. By that time, emissions of some pollutants will be anywhere from two to four times higher than current levels.
- Even for the limited number of pollutants that Grossman and Krueger study, they only demonstrate a correlation between changing per capita income and changing levels of environmental quality. They do not demonstrate a causal connection. The positive relationships they describe could actually be caused by non-economic factors, such as the adoption of environmental legislation.

Both camps seem to have reasonable grounds for their views. Clearly there is a conflict of visions that is rooted in very different value systems. Can these two opposing perspectives be reconciled sufficiently to reach some type of consensus?

## THE WEALTH OF NATIONS AND THE ENVIRONMENT

As noted earlier, many studies have re-examined the Environmental Kuznets Curve since the publication of the Grossman and Krueger analysis in 1991, each attempting to prove or disprove the relationship between economic growth and environmental quality, or to isolate variables that may explain the observed relationships. In that same year, a fascinating monograph was published in London, called *The Wealth of Nations and the Environment*. Author Mikhail Bernstam set out to analyze the contention that economic growth negatively impacts the environment by examining how institutional structure impacts this relationship.

Bernstam examined and contrasted the impact of economic growth upon the environment in both capitalist and socialist countries. Interestingly, he found that the environmental Kuznets curve does in fact exist, but it does not apply to countries across the board. The Kuznets curve, he found, applies to market economies, but not to socialist ones. The difference, according to Bernstam, has its roots in the different structures of incentives and property rights of these two economic systems.

Under market economies with secure property rights and open trade, the pursuit of profits leads to the husbanding of resources. These capitalist economies use fewer resources to produce the equivalent level of output and hence do less damage to the environment. In contrast, in socialist countries, the managers of state enterprises operate under incentives that encourage them to maximize inputs, with little regard towards economic waste or damage to the environment.<sup>16</sup>

More recently, a 2001 study by economists Werner Antweiler, Brian R. Copeland, and M. Scott Taylor asked, “Is Free Trade Good for the Environment?”<sup>17</sup> They analyzed data on sulfur dioxide over the period 1971 to 1996, a time when trade barriers were coming down and international trade was expanding. They found that countries that opened up to trade generated faster economic growth. Although economic growth produced more pollution, the greater wealth and higher incomes also generated a demand for a cleaner environment.

To separate these effects, the Antweiler model looked at the negative environmental consequences of increases in economic activity (the scale effect), the positive environmental consequences of increases in income that lead to cleaner production methods (the technique effect), and the impact of trade-induced changes in the composition of output upon pollution concentrations (the composition effect). When the scale, technique and composition effects estimates were combined, the Antweiler et al. model yielded the conclusion that free trade is good for the environment. For example, when analyzing sulfur dioxide, the authors estimate that for each 1 percent increase in per capita income in a nation, pollution falls by 1 percent.

The critical explanatory factor is that wealthier countries value environmental amenities more highly and enhance their production by employing environmentally friendly technologies.<sup>18</sup> However, like Bernstam, these authors specified that it is important to distinguish between communist and non-communist countries. Communist countries provided the exception to their rule about globalization’s

positive impacts upon the environment.

The studies, which consider the impact of institutional structures, make an important contribution to our understanding of the “economics vs. environment” debates. They suggest we consider other factors in our analysis of the effects of globalization. It is true that we often do find examples of disastrous environmental conditions, particularly when we look at socialist countries. But it is misleading to attribute the disasters to globalization. Instead we need to examine the institutional arrangements in a particular country to see what role they play in economic development and environmental protection.

## POSITIVE GLOBALIZATION

As described earlier, at its most rudimentary level, globalization simply embodies a process of free and open trade, whereby people can make decisions about who their trading partners are and what opportunities they will choose to pursue.

But the cautions of the environmental activists are worthy of consideration. Free trade, in and of itself, will not guarantee positive outcomes. We also need guiding rules that essentially create the terms for fair and civil interaction.

In *Property Rights: A Practical Guide to Freedom & Prosperity*,<sup>19</sup> Terry Anderson and Laura Huggins describe the importance of institutional rules. They use the example of children playing together and inventing games. In essence, the children work together to form rules that are fair. When they cannot agree on rules, chaos typically results and their play breaks down. The same is true for civil society. Institutional rules, in the form of constitutions, common law, and so on, provide the structure for human activity.

The critical role of institutions in shaping human behavior gained international attention in 1993 when Douglass C. North received the Nobel Prize in economics. North’s groundbreaking research in economic history integrated economics, sociology, statistics and history to explain the role that institutions play in economic growth.

For several decades, North looked at the question, “Why do some countries become rich, while others remain poor?” In seeking answers to this query, he came to understand that institutions establish the formal and informal sets of rules that govern the behavior of human beings in a society. His research showed that, depending on their structure and enforcement, institutional arrangements can either foster or restrain economic development.<sup>20</sup>

For the past nine years, the *Index of Economic Freedom*, jointly published by the Wall Street Journal and the Heritage Foundation (Washington, DC), has provided fascinating empirical evidence of the relationship of various institutions to economic prosperity. The study analyzes and ranks the economic freedom of 161 countries according to 10 institutional factors (trade policy, property rights, regulation, and black market activities, for example) in an effort to trace the path to economic prosperity.

The key finding of the research, supported year after year, is that countries with

the most economic freedom enjoy higher rates of long-term economic growth and prosperity than those with less economic freedom. But, more relevant to this discussion, is the finding that economic freedom, which enables people to choose who and where their trading partners are, ultimately leads to more efficient resource use.

In another comparative index, *Economic Freedom of the World 2002*, published by the Fraser Institute in conjunction with public policy institutes around the world, Nobel laureate Milton Friedman describes the importance of private property and the rule of law as a basis for economic freedom. He spells out the three ingredients key to establishing economic freedom as follows:

First of all, and most important, the rule of law, which extends to the protection of property. Second, widespread private ownership of the means of production. Third, freedom to enter or to leave industries, freedom of competition, freedom of trade. Those are essentially the basic requirements.<sup>21</sup>

These same factors also provide a framework for positive environmental development.

In the 1980s, a team of economists affiliated with the Property and Environmental Research Center (PERC) in Bozeman, Montana, began developing a new paradigm for environmental policy. Their model, which eventually was coined “Free Market Environmentalism,” described how incentives are the key to environmental stewardship. Not surprisingly, people who face little or no consequences for environmentally destructive actions face no incentive to protect the environment. Alternatively, people who are rewarded for good stewardship are much more likely to invest in environmental protection. The key, according to economists John Baden, Richard Stroup and Terry Anderson, are the very same three elements that Milton Friedman mentioned for economic prosperity: free and open markets, clearly established property rights, and rule of law.<sup>22</sup>

**Free and Open Markets.** One of the most important benefits produced by a market economy is information, conveyed in the form of prices. Prices of natural and environmental resources provide clear signals about their availability. As a resource becomes more scarce, its price increases. And of course, the reverse is also true — when a resource becomes more abundant, the price decreases.

Many people fear that the profit motive leads to the depletion or degradation of environmental resources. As counterintuitive as it may sound, the profit motive actually works to the benefit of the environment.

Businesses face incentives to carefully consider the prices of the various natural resources that they use in their production processes. If a particular resource is in short supply, its price will be higher than others that are more readily available. It makes little sense for a producer to over utilize, or “waste,” a high-priced resource.

High prices also encourage the search for, and development of, appropriate substitutes or alternatives. As companies search for ways to reduce costs, they naturally tend

toward utilizing lower-priced, more abundant resources. Thus, the pursuit of profits is actually a driving force to conserve resources. In essence, under free market systems, entrepreneurs compete in developing low cost, efficient means to solve contemporary resource problems.

**Property Rights.** Clearly-established property rights generate another incentive for environmental stewardship. It makes no sense for private landowners, for example, to exploit and destroy their own property. Ownership creates a long-term perspective that leads to preserving and protecting property.

Careless destruction, however, does make sense for those who are only loosely held accountable for their actions. Politicians, bureaucrats, or others, who may be short-term managers, face the incentive to maximize immediate returns, even if this means long-term environmental damage. Even managers with longer tenures realize they can simply turn to the federal government for more funds to address the problems that shortsighted decision making may have created.<sup>23</sup>

**Rule of Law.** In many ways, the “rule of law” is the glue that holds market transactions and property rights together. Freedom to exchange is meaningless if individuals do not have secure rights to property, including the fruits of their labors. Failure of a country’s legal system to provide for the security of property rights, enforcement of contracts, and the mutually agreeable settlement of disputes will undermine the operation of a market-exchange system. If individuals and businesses lack confidence that contracts will be enforced and the returns from their productive activity protected, their incentive to engage in innovative activities will be eroded.<sup>24</sup>

With these elements in place, the economists’ explanations prevail — globalization will enable local cultures to pick and choose the development and environmental paths that they wish to traverse. But without these institutional arrangements, the likelihood of negative consequences increases.

In countries that lack property rights and rule of law and that promote barriers to trade, an institutional structure develops that fosters destruction of the environment.<sup>25</sup> For example, in Liberia, former President Charles Taylor rapidly sold off many of the nation’s natural resources in order to fund his dictatorship. In the lawless structure of that country, Taylor was able to exploit the environment and his people. In a country that has clear property rights and rule of law, such corrupt options are closed off. Neither can corporations force a village, or a state, or a country to destroy its natural resources against the will of the people.

We see this illustrated in an ongoing controversy in Peru.<sup>26</sup> In the 1990s, when then-bankrupt Peru opened its statist economy to foreign investment, the nation drew almost \$10 billion in mining capital. That sector now accounts for half of Peru’s \$8 billion in exports, and Peru has become one of the world’s largest gold producers. Yet, the opening economy does not necessarily mean that multi nationals can run rough shod over the locals. It all depends on the institutional arrangements that are in place.

In the small town of Tambogrande, Peru, a Canadian mining company holds the rights to tap into \$1 billion worth of copper and zinc beneath the town. To do so, however, requires demolishing many local homes. In a referendum held in 2002,

the town residents voted to turn down the mining company's offer to build new homes in a different location. If the country's laws hold firm to the property rights of the villagers, the mining company will not be allowed to develop the copper mine without local consent. But, if the rule of law and respect of property rights are not upheld, then the foreign firm can force its will on the indigenous people.

Property rights provide a powerful incentive for people to carefully assess their options — in this case, whether the loss of their existing houses and the village is compensated for by the new homes they would be receiving. The nature of the property rights institutions indeed affects the range of outcomes. If the local government owned the rights to the housing, rather than individuals, we would expect an entirely different outcome. Local politicians likely would gain by acquiescing to the mining firm's proposal because the villagers, not the politicians, would incur the costs.

Unfortunately, in many developing countries, corruption and back door deal making, enabled by weak rule of law and property rights, proliferates. The result is that a few leaders come out ahead and the locals get short changed. Local protests are reportedly stalling at least 10 mining-investment projects in Peru that are worth \$1.4 billion — and for good reason. The noted Peruvian economist, Hernando de Soto, author of the best-seller, *The Mystery of Capital*, comments that although the mines in some towns pay double the prevailing minimum wage, they do not compensate for “the loss of their sense of environmental and economic sovereignty.” Consequently, the National Society of Mining, Petroleum & Energy is urging the government to adopt reforms that immediately give at least 20 percent of the royalties to on-site communities instead of sending all these funds to Lima. Manhattan Minerals, one of the companies interested in Tambogrande, thinks local communities should receive an even bigger cut, making these towns, in effect, feel more like shareholders. In other words, they need to give the locals an interest — or property right — in the operations.

In the southern Andean town of Lircay, Huanavelica — Peru's poorest state — residents are concerned that the mine will threaten adjacent agricultural lands. To show their anger, they have resorted to street demonstrations and setting fire to government installations. Their actions seem less extreme in light of previous experiences. For decades, state-owned mining created many environmental problems that residents are rightly worried about. This cultural legacy is a key factor for private mining companies as they hammer out new relationships and try to move forward.

Fortunately, positive examples are evolving. The La Oroya copper smelter in the central Andes region was purchased by the Doe Run company — based in St. Louis. The Peruvian government gave the company 10 years to clean up the environmental mess that the government created. Doe Run has reportedly spent \$40 million so far, including money for a program to reduce high blood-lead levels in area children.

Peru needs to continue to open its doors to foreign investment — or what some would call globalization — to lift its people out of poverty. It must establish institutions — rule of law, property rights and open markets — that create a safe investment climate and allow corporations to prosper. Simultaneously, companies need to conduct business in a way that will benefit the local residents as well.

As another example of how incentives — and disincentives — can impact the environment, consider the case of India’s automobile industry. Disincentives generated by the government’s regulatory policies contributed to a stagnant, non-innovative industry which caused harm to the Indian economy and environment for decades.

Although Indian automobile manufacturers began producing cars in the 1930s, there was very little development and growth in that industry for over 50 years. Auto manufacturing was heavily regulated, licensed and protected. In addition, consumers faced high taxes and duties on imported automobiles and on gasoline. The upshot was that very little competition developed in India’s automobile industry — autos with low fuel efficiency and high air emissions became the norm.

In recent years, however, the automobile sector has been slowly liberalizing, allowing some major multi-national corporations to set up shop in India. As a result of the increased competition and relaxed barriers, more efficient and less-polluting automobiles are becoming available to Indian consumers. A free trade regime, from the outset, would have increased access to vehicles for consumers, lowered the cost of transportation, enabled the best technologies to be locally available, and improved air quality.<sup>27</sup>

In other words, incentives matter. And the structure of institutions plays a key role in the nature of incentives that are in effect.

## **INSTITUTIONAL REFORM FOR POSITIVE GLOBALIZATION**

Economists have raised interesting empirical questions by developing the Environmental Kuznets Curve, but, as the World Wide Fund for Nature (WWF) study and others suggest, there is no one curve that fits all pollutants for all places and times. Economist Bruce Yandle of Clemson University describes it this way, “There are families of relationships, and in many cases the inverted-U Environmental Kuznets Curve is the best way to approximate the link between environmental change and income growth.”<sup>28</sup>

Additionally, environmental activists are right in pointing out globalization’s potentially negative impacts upon the environment. Income growth alone is insufficient to reduce environmental harms and may even increase these harms if a core set of institutional features are not in place.

As the Antweiler model indicates, economic growth creates the conditions for environmental protection by raising the demand for improved environmental quality and by providing the resources needed for protection. Whether environmental quality improvements materialize or not, or when, or how they develop, depends critically on government policies, social institutions, and the strength of markets. Better policies, such as removing distorting subsidies, introducing more secure property rights over resources, and using market-like mechanisms to connect the costs of pollution to prices paid for pollution-producing goods will lower peak environmental harm (flatten the underlying Environmental Kuznets Curve). These improved policies may also bring about an earlier environmental transition.<sup>29</sup>

While it may seem to be an overwhelming challenge to accomplish the institutional

reforms described above, the good news is that it is happening in some very unlikely parts of the world. Consider, for example, exciting changes that have recently been occurring in Rwanda, Africa.

Lawrence Reed, the founder and president of the Mackinac Center for Public Policy in Midland, Michigan, recently toured eastern Africa, home to the remaining wild mountain gorillas left in the world. Here, approximately 670 gorillas live on a string of lush, rain-forested volcanoes along the Rwanda border with Uganda and the Congo.

To Reed's surprise, native-owned and locally staffed companies conduct all gorilla safaris. Part of the fee goes to the government for salaries for national park employees and for programs that protect gorilla habitat. (These programs also are substantially supplemented by the efforts of private, non-profits that get support from around the world.) Two Rwandan entrepreneurs started the firm, Primate Safaris, three years ago. With six employees, they provide everything a gorilla safari enthusiast could hope for — a competent guide with a four-wheel drive vehicle, good meals and comfortable accommodations.

In fact, Reed's experience with Private Safaris was only the tip of the iceberg. Rwanda, he learned, is engaged in the continent's most ambitious privatization campaign. After experiencing the kind of stifling, socialist rule that consigned virtually all of Africa to grinding poverty for decades, this nation is now embracing the private sector with deliberate policy and enormous enthusiasm.

Imagine Reed's surprise when, shortly after landing in Rwanda, he came across a sign at the airport outside the capital of Kigali which reads, "Privatization: A Loss? No Way." Further down the road, another sign says, "Privatization fights laziness, privatization fights poverty, privatization fights smuggling, and privatization fights unemployment."

Several of the country's privatization efforts have had direct positive impacts on the environment. For example, in 1999, Shell Oil bought a portion of the assets of Petrorwanda (the bankrupt state oil company) and completely renovated 14 of the defunct firm's decrepit and environmentally hazardous gasoline stations.<sup>30</sup>

An interesting development in Uganda suggests signs of similar institutional reforms. An English language, African-based band named "Afrigo" released a song entitled, "Today for Tomorrow," which celebrates the benefits of privatization. Here is a sample of the lyrics:<sup>31</sup>

Privatization, the surer route to economic emancipation/  
Yeah, businessmen run businesses/government govern the nation/  
You and I didn't create the situation/  
Let's unite/check the economy/ a better future for our children.

Apparently, citizens of Rwanda and Uganda are embracing private property rights and other economic and political changes to better their lives and those of the next generation. Environmental protection surely will fare better in this setting than in the failed socialist systems being replaced.

## CONCLUSION

Is globalization good for the environment? Viewing globalization as the destroyer or savior of the environment misses the point. The problem is not globalization *per se*. A lack of key institutions, rule of law, property rights, free and open markets, is the real villain in the tale. These institutions hold people accountable for their actions, and at the same time, reward them for positive behavior. They create conditions in which market competition rewards innovation and efficiency, and in which economic development and increased wealth can fuel improved environmental quality.

Globalization — free trade and multinational investments — can advance these institutional changes, leading to enhanced social and political stability. Concerns that multinational corporations might be engaged in a “race to the environmental bottom” seem unlikely in these circumstances. To the contrary, where these institutions are in place, the result can be a “race to the top,” as jurisdictions compete to improve the quality of life for their constituents.<sup>32</sup>

Globalization can be a means to accelerate learning about the importance of market institutions to economic growth. Environmental protection can be one of many important benefits resulting from such a transition.

Getting back to my earlier comment about “a conflict of visions,” I certainly hold a contrasting view from opponents of globalization. Critics believe globalization underlies many of the problems that plague the developing world. On the other hand, I see globalization as a basic part of the solution to these problems. Greater movement of goods, services, people and ideas can lead to economic prosperity, improved environmental protection, and a host of other social benefits.

## END NOTES

<sup>1</sup> For an excellent discussion about globalization, see Johan Norberg, In Defence of Global Capitalism, Timbro, Sweden, 2001, or Lindsey, Brink and John Wiley & Sons, Against the Dead Hand: The Uncertain Struggle for Global Capitalism; 1 edition (December 21, 2001).

<sup>2</sup> Sowell, Thomas, A Conflict of Visions: Ideological Origins of Political Struggle, New York: William Morrow and Co., 1987.

<sup>3</sup> Grossman, G.M. and A.B. Krueger (1995). “Environmental Impacts of a North American Free Trade Agreement.” National Bureau of Economic Research Working Paper No. 3914, November; also Grossman and Krueger (1993) “Environmental Impacts of a North American Free Trade Agreement,” in P. Garder (ed), The U.S.-Mexico Free Trade Agreement. MIT Press: Cambridge, Mass.; and Grossman and Krueger (1995). “Economic Growth and the Environment.” Quarterly Journal of Economics. Vol. 110(2). G.M. Grossman and A.B. Krueger (1995). “Environmental Impacts of a North American Free Trade Agreement.”

<sup>4</sup> Vaughan, Scott and Greg Block, “Free Trade and the Environment: The Picture Becomes Clearer,” Commission for Environmental Cooperation of North America, 2002, Montréal, Canada, p. 2.

<sup>5</sup> Simon Kuznets was awarded the 1971 Nobel Laureate in Economics for his empirically founded interpretation of economic growth. His analysis of the empirical characteristics of developing countries led to his discovery of what has become known as the Kuznets curve -- the inverted U-shaped relation between income inequality and economic growth.

<sup>6</sup> Yandle, Bruce, Maya Vijayaraghavan, and Madhusudan Bhattacharai, The Environmental Kuznets Curve: A Primer by, Property and Environmental Research Center, PERC Research Study 02-1, March 2002 provides a good overview of the development of the environmental Kuznets theory.

<sup>7</sup> Mitra, Barun, "Poverty, Wealth and Waste," PERC Reports, March 2000, p. 3.

<sup>8</sup> Dixie Lee Ray, who was in her seventies when she wrote *Trashing the Planet* (Regnery Gateway, Washington, DC, 1990), provides a colorful description of how the world has changed since her early years. See, for example, pages 14-18 in which she tells about the era of "the horse and buggy, the outhouse, and dirt."

<sup>9</sup> Estonia poses a fascinating example of both "spillover effects" from globalization and transitions into cleaner technologies. The development of the Information Technology (IT) sector in Estonia has benefited immeasurably from positive spillover effects from telecommunications and IT innovations nurtured in the Nordic countries across the Baltic. Estonia remains well placed to continue a process of growth that has seen it progress within a decade from low-level component assembly to the indigenous production of sophisticated niche software. The first wave of companies concentrating primarily on IT was founded in 1990-91 on little more than intellectual capital. A second wave of smaller, more focused enterprises with an added appreciation of entrepreneurship began to appear in 1996-97 as the extent of government support for the sector became apparent. This year [2002] has seen a third distinct round of company starts-ups, this time devoted to developing value-added services for use in mobile communications. (Presentation at the annual Microsoft Government Leaders' Conference in Seattle, Washington, April 16, 2002. See also Mart Larr, *Little Country that Could*, Centre for Research into Post-Communist Countries, London, 2002.)

<sup>10</sup> In "Globalization, Free Trade, and Environmental Quality" (in Terry L. Anderson (ed), *You Have to Admit It's Getting Better--the Environment that Is*, Hoover Institution Press, forthcoming), Del Gardner describes a study by Don Coursey (The Demand for Environmental Quality, John M. Olin School of Business, Washington University, St. Louis. 1992) which pooled time-series and cross-sectional data from Organization for Economic Cooperation and Development countries and used expenditures by government for environmental goods as a proxy for the quantity of these goods. Coursey estimated the income elasticity of demand to be 2.5 (a 10 percent increase in income is associated with a 25 percent increase in expenditures), suggesting that higher incomes lead to technologies and policies that produce a higher quality environment.

<sup>11</sup> Benjamin, Daniel K., "Tangents," PERC Reports, March 2002, p. 16.

<sup>12</sup> This point is made by Indur M. Goklany, in his description of earlier stages of development: "society places a much higher priority on acquiring basic public health and other services such as sewage treatment, water supply, and electricity than on environmental quality, which initially worsens. But as the original priorities are met, environmental problems become higher priorities. More resources are devoted to solving those problems. Environmental degradation is arrested and then reversed." See Indur M. Goklany, "The Environmental Transition to Air Quality," *Regulation*, Vol. 21, No. 4, 1998, p. 36.

<sup>13</sup> Goklany, Indur M., "The Environmental Transition to Air Quality," *Regulation*, Vol. 21, No. 4, 1998, p. 36.

<sup>14</sup> Sierra Club, *Broken Promises: How the Clinton Administration is Trading Away Our Environment*, <http://www.sierraclub.org/trade/articles/brokenpromises/promise3.asp>, no date.

<sup>15</sup> "Dangerous Curves: Does the Environment Improve with Economic Growth?" WWF International Research Report, commissioned from the New Economics Foundation, 1996; and "Emerging Issues at the Interface of Domestic and International Policy: Agricultural Trade and the Environment," WWF International Working Paper, October 1998.

<sup>16</sup> Bernstam, Mikhail, *The Wealth of Nations and the Environment*, Institute of Economic Affairs, London, 1991, p. 7.

<sup>17</sup> Antweiler, Werner, Brian R. Copeland, and M. Scott Taylor, "Is Free Trade Good for the Environment?" *American Economic Review*, 91 (4) September, 2001, 877-908.

<sup>18</sup> Gardner, Del, "Globalization, Free Trade, and Environmental Quality" in Terry L. Anderson (ed), *You Have to Admit It's Getting Better--the Environment that Is*, Hoover Institution Press, forthcoming.

<sup>19</sup> Terry Anderson and Laura Huggins, *Property Rights: A Practical Guide to Freedom & Prosperity* Hoover Institution Press, Stanford, California, 2003, p. 6.

<sup>20</sup> North is one of the pioneers of "the new institutional economics" which attempts to incorporate a theory of institutions into economics. See for example, North, Douglass C., *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, November 1990.

<sup>21</sup> Gwartney, James and Robert Lawson, *Economic Freedom of the World*, 2002 Annual Report, The

Fraser Institute, Vancouver, Canada, 2002, p. xviii.

<sup>22</sup> Baden, John and Richard L. Stroup, *Bureaucracy vs. Environment*, Ann Arbor, Michigan: The University of Michigan Press, 1981; Anderson, Terry, and Donald R. Leal, *Free Market Environmentalism*: Revised edition, Palgrave Press, NY, 2001.

<sup>23</sup> Consider the example of forestry management. The private forester who cuts at an unsustainable rate will eventually go out of business. Being unable to produce competitive products at a competitive price, the market will automatically extend its invisible hand and weed out the inferior producers. Through these interactions, private property owners are held accountable for their actions. Good stewardship yields maximum returns and preserves property values. Bad stewardship leads to eroding property values and fewer returns. In contrast, there are no such tangible signs of good and bad management with government stewards. Programs that fail are assumed to be underfunded. Consequently, we often end up with the perverse situation under regulatory control in which the worst managers are often given the greatest budgets.

<sup>24</sup> *Economic Freedom of the World 2003 Annual Report*, The Fraser Institute, Vancouver, Canada, 2003, p. 7.

<sup>25</sup> Environmental degradation is just one consequence of weak institutions. Several econometric models show how economic freedom correlates with these and other institutional factors. See the annual indices *Economic Freedom of the World* (Fraser Institute, Vancouver, Canada) and the *Economic Freedom Index* (Heritage Foundation, Washington, DC).

<sup>26</sup> Wilson, Scott, "A life worth more than gold," *The Washington Post*, June 8, 2002.

<sup>27</sup> Example provided by Barun Mitra, Liberty Institute, New Delhi, 2003.

<sup>28</sup> Yandle, Bruce, Maya Vijayaraghavan, and Madhusudan Bhattarai, *The Environmental Kuznets Curve: A Primer*, Property and Environmental Research Center, PERC Research Study 02-1, March 2002, p. 17.

<sup>29</sup> A study by Panayotou (1997) further sheds light on these relationships. In his study of the Kuznets curve relationship for sulfur dioxide in 30 developed and developing countries for the period 1982–94, Panayotou found that faster economic growth and higher population density do increase moderately the environmental price of economic growth. But better policies can offset these effects and make economic growth more environmentally friendly and sustainable. The policy variables used in the Panayotou study are proxies for the quality of institutions. The author experimented with a set of five indicators of the quality of institutions in general: respect/enforcement of contracts, efficiency of the bureaucracy, the efficacy of the rule of law, the extent of government corruption, and the risk of appropriation. Panayotou's main finding is that the quality of policies and institutions in a country can significantly reduce environmental degradation at low-income levels and speed up improvements at higher-income levels. See Yandle, Vijayaraghavan, and Bhattarai, 2002, p. 13)

<sup>30</sup> Reed, Lawrence W., *A Privatization Revolution-In a Most Unlikely Place*, Ideas on Liberty, Foundation for Economic Education, Irvington, New York, June 2002.

<sup>31</sup> LaFaive, Michael, *Singing the Praises of Privatization*, Michigan Privatization Report, Mackinac Center of Public Policy, September 9, 2002.

<sup>32</sup> Jagdish Bhagwati (*Free Trade Today*, Princeton University Press, 2002, p. 58-59) argues that while the race-to-the-bottom argument may be theoretically valid, it fails on empirical grounds. Little evidence exists that governments actually play the competitive game by offering to cut standards, or that multinational corporations are seduced by such concessions. See Gardner, forthcoming, p. 14.

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