

IMPACTS OF AFFLUENCE AND OVEREXPLOITATION OF NATURAL RESOURCES

Yifan Ding

Institute of World Development, Development Research Center of State Council, People's Republic of China

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Summary

For a long time, humankind believed that resources endowed by nature were unlimited, as was the exploitation of natural resources by human activities. But with the rising of human productivity, more and more countries have become industrialized and people have begun to realize that there is a risk of overexploitation of natural resources, and it is threatening our very livelihood. Suddenly, the danger of overexploitation of natural resources has attracted public attention.

This article analyzes reasons why developing countries are the main actors in the overexploitation of natural resources, and why some behaviors neglecting environmental degradation or overexploiting natural resources happen at certain stages of economic development. Some economists preach privatization as means to solve the problem of overexploitation of natural resources, but other studies show that privatization is not a panacea and is unrealistic or unpractical in some regions and for some activities. In addition to the lack of capital and of knowledge, which renders countries incapable of properly managing the exploitation of natural resources, institutional weakness is also an important factor that leads to the overexploitation of natural resources.

After decades of development, industrialized countries have begun to regulate the

exploitation of natural resources and protection of the environment by economic instruments. Some of these economic instruments are also considered useful to developing countries, but there are some prerequisites. Several years ago, some developing countries richly endowed by nature took measures to ensure that large multinational corporations paid them for the right to exploit natural resources and these countries have been able to use these funds to preserve the environment and biodiversity. A very important aspect of the effort to prevent the overexploitation of natural resources is relieving poverty. Indeed, poor people are most dependent on the exploitation of raw materials, in other words, of natural resources. Giving them access to capital, to knowledge, and to opportunities of development is the most efficient way to avoid a global overexploitation of natural resources.

1. Introduction

Natural resources may be divided into regenerative resources such as land (arable and grazing land), air, ground water, forests, plants and animals, etc. on the one hand, and non-renewable resources such as oil, coal, natural gas, metals, minerals, etc. on the other hand. The exploitation of both regenerative resources and non-renewable resources is increasing, as more countries embark on industrialization and consume more resources. Pessimists say that our globe is running out of resources, because increasing population and rising standards of living require the consumption of more non-renewable resources. Optimists say that the world will never lack resources, even if non-renewable resources will by definition one day be exhausted, because humankind will discover other resources to as substitutes for existing resources. This debate may last for generations, but people will continue to exploit these resources anyway, because they want to raise their living standards. In any case, as the existing non-renewable resources are diminishing, so the non-renewable resource question should be focused on how to utilize existing resources more efficiently, in order to yield more wealth from fewer resources, whilst awaiting the discovery of new substitute resources.

The exploitation of regenerative resources has some more worrisome aspects. As regenerative resources may be reproduced and are in general cheap and abundant, people are tempted to exploit them carelessly. But although regenerative, overexploitation of these resources damages our environment irreparably. So here we will deal mainly with the problems of overexploitation of regenerative natural resources, such as deforestation, although the overexploitation of non-renewable resources often has the same or similar origins.

2. Human Activities and Loss of Biodiversity

Both regenerative and non-renewable resources have always been exploited by human activities for our livelihood. But until recently, the exploitation of natural resources has not been a significant concern for humankind, because the scale of exploitation has been moderate due to limited productive capacity, and the demand for natural resources was restricted by a low level of industrialization.

Since World War II, with rapid development of productive capacity in industrialized countries the demand for and consumption of raw materials has increased significantly.

After decolonization, many developing countries also embarked on industrialization, exerting an additional pressure on the raw materials market, so causing the prices of raw materials to rise. Attracted by alluring prices on international markets, some developing countries shifted from their traditional activities to more lucrative ones, giving rise not only to the overexploitation of natural resources, but also to irreparable destruction of the natural environment.

Environmental degradation used not to be a very widespread concern, until scientists revealed that the diverse biological species of our world influence each other and the degradation of some species may trigger off a chain reaction, jeopardizing our living surroundings. Public opinion began to realize that the variety of our ecosystem composed of diverse species is vital to our livelihood and that we have to protect this biodiversity for our survival while continuing to develop, so the raising of living standards continues to be one of the most important concerns for our leaders. Sustainable development has been put forward as a new concept of development that will maintain the rhythm of development in harmony with the natural environment's regenerative capability. The term biodiversity conceived by naturalists in the 1980s was adopted by a United Nations' convention on biological diversity at the Earth Summit in Rio de Janeiro in 1992.

Although biodiversity is vital to human existence, its impoverishment is mainly caused by human activities. For animals, destruction by people, overexploitation, and the introduction of new species have all played an equal role in the extinction of existing species. For plants, land transformation played the major part.

Deforestation is essentially caused by the expansion of agricultural activities, whether by small-scale farmers or by large agricultural concerns. With increasing population, successive initiatives to enlarge arable land have been undertaken, and more natural resources have been exploited, often at the expense of the natural environment. The seriousness of the problem is clear from statistics: from 1700 to 1980, almost 12 million km² of forest (20% of total forest) has made way for arable land, and forest depletion has been accelerating since 1980. Tropical rainforests are also diminishing rapidly.

Most natural resource exploitation likely to destroy the ecological balance is now occurring in developing countries, although industrialized countries have also contributed to environmental degradation by the overexploitation of natural resources. Only by suffering from serious environmental consequences have industrialized countries realized that development should be kept in harmony with the environment. Only then did the importance of environmental protection become a major topic of debate in developed countries and green movements become a non-negligible political force in many developed countries. Under pressure from green movements, nongovernmental organizations (NGOs), and public opinion, governments, local authorities, and firms in developed countries have to take into account environmental factors, and take measures to ensure sustainable exploitation of natural resources.

However, in many developing countries, environmental protection is far from being a significant popular concern, even though environmental degradation goes hand in hand with overexploitation of natural resources. Why then do developing countries not draw

useful lessons from the experiences of developed countries, and choose another way of development that avoids environmental degradation?

Poverty, lack of means, lack of knowledge, and institutional inefficiency may cause environmental degradation in developing countries. To some extent, the overexploitation of natural resources has similar origins, but it is a particularly significant phenomenon in developing countries, because in terms of international economic division, developing countries are in an unfavorable position; and from the point of view of development strategy, some developing countries that produce raw materials seem to have made certain mistakes that have contributed to the overexploitation of natural resources.

3. Destruction of Natural Resources in the Name of Development?

Many economists have shown that international trade is favorable to economic growth everywhere in the world. David Ricardo, a British economist, is considered an important theorist of international trade. According to him, if every country participates actively in international trade, focusing on its strengths, the full comparative advantages of every country will be achieved. And the outputs of all these countries will exceed the simple sum of each country's production. Countries with a high level of manufacturing capacity should export their manufactured products, those endowed with fertile land should produce grains, those with rich natural resources should export their raw materials, etc.

As most developing countries do not have the capital, the skilled labor, or the techniques to develop efficient manufacturing sectors, the only comparative advantage they can exploit is often the natural resources at their disposal. After decolonization in the 1950s and 1960s, many newly independent countries maintained their trade links with their former colonial overlords. But despite their efforts to take part in international trade, and to exploit their comparative advantages, the terms of trade were deteriorating. Some developing countries were facing serious problem of foreign debt and exchange rate crises. Thus, some development theorists began to call into question the traditional model of international trade as the engine of economic development. Rather, they considered that trade with former colonial powers was based on unequal terms, so most of the fruits of progress was being transferred from the periphery (developing countries) to the center (developed countries) through international trade. Arrighi Emmanuel, for example, a Greek economics professor living in France, criticized the unequal exchange in international trade. He tried to demonstrate, by using the Ricardian labor theory of value, that even under conditions of "perfect competition" and perfectly free trade, there is a trend for international prices to deteriorate against the periphery because producers of manufacturing goods always gain more from trade due to the center-periphery wage differential. Emmanuel's study was first published in 1969 in France under the title *l'Échange internationale*, then translated into English in 1972. It provoked a big debate and had an important influence in many Latin American countries.

In addition to this criticism of international trade, many developing countries conceived a development strategy aiming at promoting a national, or even nationalized, industrial

sector in order to produce manufactured goods and replace imported goods. This process is called import-substituting industrialization. Import substituting strategy aims to straighten out the uneven exchange situation between richer developed countries with manufacturing skills and poorer developing countries that lack manufacturing experience. But the development of a manufacturing sector in developing countries went through a painful period, the lack of capital, techniques, skilled labor, and other factors hampering this strategic sector. To support this sector, developing countries are often forced to resort to exporting more natural resources to obtain the necessary hard currency to import the manufacturing equipment and spare parts needed in production. Thus, paradoxically the pressure to exploit natural resources was increasing as these countries tried to develop their own industries and become less dependent on the export of natural resources.

This paradoxical situation worsened when some developing countries wanted to rush to produce more expensive raw materials for international markets to gain more revenue instead of better managing the exploitation of their traditional resources. Côte d'Ivoire, for instance, used to be covered with dense tropical forests. In the 1970s, the price of coffee and cacao grains were favorable on the international markets, Côte d'Ivoire undertook a vast campaign to promote the cultivation of coffee and cacao, and organized and unorganized activities destroyed the vast forests of Côte d'Ivoire. This situation typified some of the problems of natural resource overexploitation in developing countries. Overexploitation of natural resources, even destruction of environment, often occurs in the name of development.

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Biographical Sketch

Yifan Ding, deputy director of the Institute of World Development, Development Research Center under the State Council, People's Republic of China, graduated from Beijing Foreign Language Institute (now Beijing University for Foreign Studies). He was awarded a Ph.D. in political science from Bordeaux University in France before returning to teach at Beijing University for Foreign Studies as assistant and associate professor. He later moved into journalism, becoming editor of Xinhua News Agency, and was sent by *Guangming Daily* to Paris as bureau chief for more than five years. Returning once again to China, he was appointed to his present position.

Dr. Ding has published many articles in various magazines and newspapers, translated several books from English and French into Chinese, and written three books about globalization and the challenges facing China, the European single currency, and the knowledge-based economy.