

ENVIRONMENT AND OPEN TRADE, A COMPARATIVE STUDY WITH IRAN REGULATIONS

Dr. Roohollah Akhouni Roshanavand
Attorney at Law and Faculty Member
Payamnoor University, Neyshabour, Iran
Email: Roh_akhouni@yahoo.com

Mahboobeh Hazratpour
Payamnoor University, Neyshabour, Iran
Email: M.hazratpur@gmail.com

ABSTRACT

Environmental matters and trade are complicated and have different aspects. During the recent decades the relationship between open trades, economic growth and environmental observation has been paid attention by economy and environmental researchers. Subjects such as global warming and sudden climate change have caused lots of concerns all over the world. On the other hand, countries activities, specially developing and underdeveloped countries activities toward economic growth have made a lot of irreparable damages to natural environment and this subject has also added new concerns. Reality is that with the policies toward open trade, lots of potential conflicts between environment and open trade have been made apparent. Many of international open trade supporters believe that attention too much toward environment is unreal and it has negative effect on international trade. On the other hand, environmentalists and their supporters think that freedom of international trade in the present form and generally open trade is a potential threat to the environment. In this article we try to discuss the relationship between environment, open trade and economic growth in relation with Iran's regulations.

Key Words: Environment, Open Trade, Economic Growth, Sustainable Development, limiting Rules.

Introduction

Recent changes which occurred on earth during past decades led to prominent growth on environmental matters on human existence and as a result has affected economic structure considerably. Increasing international concerns on world environment is a delayed answer to this fact that the main components of the earth such as atmosphere, oceans, soil, climatic systems, and animal and plant species have been subjected to extinction because of massive exploitation of natural resources by human beings in the last century. Side effects of economic growth (use of petrol, distribution of chemicals to damage the Ozone layer, sulfur and nitrogen oxides, toxic and wastage production and their entry to atmosphere, soil and water, deforestation, etc) have stressed the nature and as a result physical and economic health have been put at risk. Cost of these activities for the posterity would be much more than what the world population is currently experiencing either in industrial or developing countries. Economic growth is the main economical policy of governments. However, fast economic growth usually causes serious damages to the nature. On the other hand, it is believed that for accessing a better and healthier environment and uprooting the poverty, this growth is necessary. So a potential opposition exists between economic growth policies and natural environment. Therefore, environmental insecurities as a result of economical activities have been a controversial subject these days. For this reason during the previous decades some environmentalists and their supporters disagreed of free trade and economic growth for the sake of nature damage.

Environmental International Law Approaches

Environmental International Law is a collection of rules and regulations which is derived from classic international law and its resources. Nowadays, these rules are written in the form of conventions and treaties which has been accepted globally and many countries have gone with it.

By paying attention to this fact that the components of the nature such as oceans and atmosphere do not have any physical borders and the destruction effects like air pollution and toxics are developing rapidly all over the world, the main goal of Environmental International Law is safe keeping of the nature for today's people and the future generations. This commandment is mentioned in the second manifest of Stockholm in 1972 (Stockholm Declaration):

‘Natural resources on earth like atmosphere, water, plants and animals especially natural ecosystem designative has to be kept for the future generations with care and accurate management.’

This point of view which was based on anthropocentric did not have any innate value for the nature, but it was the beginning point for subsequent actions like 1979 convention in Bern about maintenance of wildlife and European natural habitat in which

we are told in its introduction, plants and animals have been recognized as a common heritage for the human being; a heritage with innate value with special importance for the mankind. Nature for Charter World says ‘All forms of life are unique and apart from their value, they should be respected.’ Acceptance of this theory in which all the elements have interactive relation will result in the fact that upkeep of natural environment is the safe keeping of mutual human benefit in which the most important is human’s own life. Therefore, we should consider not only the present generation but the posterity.

One of the most important ways in order to save the nature is the international multilateral treaties. The international community has accentuated on these treaties since 1972 after the Stockholm conference. Right now there are more than 180 environmental letters of agreement and in some of them free trade is limited. Among these treaties we can call 1987 Montreal protocol about destructive material of ozone layer, 1972 convention about animal species at risk of extinction (CITES), 1989 convention about control of transboundary movement of hazardous waste and their discharge, and 1990 Wellington convention about prohibition of fishing nets in the South Pacific ocean.

Free Trade Approaches

Free trade approaches which exist in World Trade Organization (WTO) regulations can be mentioned in one short sentence: Remove all obstacles on the way of free trade. Due to the multiplicity of the barriers, in this research we just name the tools that countries use to protect the environment and study some of the materials from GATT that aim to remove the barriers.

There are environmental trade measures used by the governments: taxes and duties, standards relating to products and manufacturing processes, subsidy, sanctions, and restrictions on imports and exports. These measures are used with different purposes. For example, with restrictions on imports and exports, a country protects its internal resources and environment. Public health and safety issues are also protected through the enforcement of these measures. Other objectives of environmental business practices are environmental performance standards in international agreements such as CITES and Montreal protocol. Such measures may also be used in order to promote poor countries environmental standards. Thus, there are different reasons for countries to impose measures for environmental practices. Problems from the perspective of GATT are taking advantage of these measures with supportive purposes. Relevant GATT articles in this issue are articles I, II, XI which involves respectively most favored nation principles, national treatment standard and general prohibition of quantitative restrictions. Paragraph 1 of Article “I” says: In the case of customs duties and any other amounts that are imposed on the imports or exports, any advantage, privilege or exemption where a contracting party considers to the origin or destination of the goods of another country, immediately and without exception is awarded to the origin and destination of the goods to all territories of the other contracting countries.

National treatment standards, as contained in paragraph 4 of Article “III” say: Goods produced in the territory of a contracting country to enter the territory of the other contracting country, in respect of all laws, regulations and requirements of internal sale, offer for sale, purchase, transportation, distribution, or use them influence of the treatment effect is similar to domestic goods.

Finally, the general prohibition of quantitative restrictions, set forth in paragraph 1 of Article XI, says: Other than duties, taxes or other sums of any prohibition or restriction, whether in the form of quotas (QUOTA): import or export licenses or other forms, by one of the contracting parties to the importation of goods into the territory of any other contracting party, or the issuance of or sale for export of any product destined for the territory that is applied to each of the other contracting parties, cannot be enforced. Thus, for this example, the criteria may apply on certain items comply with GATT rules, should apply equally to domestic and imported goods and do not have supportive purposes.

Therefore, the purpose of the laws and generally free trade approaches in GATT is competition and the use of all means of production in order to have a final low cost and available in all international markets. It is assumed that all countries including developing countries economic growth and good economic benefits will be achieved this way. GATT does not anywhere directly take into account environmental considerations and only in Article “XX” and paragraph 2 of Article “XI” indirectly points to the environmental protection (We discuss about it in the next section).

Also the free trade from various channels affect on green national products, including:

1. International trade can lead to increased production of intermediate and capital goods, which can enhance the efficiency and use of resources, effective. The goods (intermediate and capital) can be complementarily to each other.
2. International trade creates a communication channel that trains production methods and decisions, organizational procedures and characteristics and market conditions. Each of these factors together help to improve the efficiency of their internal resources or make different products that have more value added per capita.
3. International calls in a country may copy and transfer technology, and modify it according to the needs of domestic needs. Following these matters in the economic growth of countries such as Japan and the new industrialized countries in Asia has played a major role.
4. International trade can increase every country’s productivity and develop them with new and foreign technologies and therefore can directly affect their productivity and domestic economy.

Free Trade And The Environment

Discussion about the effects of trade on the environment focuses on two different approaches. One view claims that increasing and liberation of trade will have detrimental effects on the environment. The first concern of this view is that free trade in situations of the countries that reduce the cost of environmental regulation to deregulation might reduce international environmental standards. Under these conditions less stringent environmental regulations in one country disrupts the relative costs of production among other partners and in production of pollutants create an advantage in the export of goods that could be specialized. Another concern is transferring polluting industries to countries where environmental policies are easy. Hypothesis of transfer argues that environmental regulations may have dynamic effects on capital flows and encourage polluting industries to countries with easy environmental regulations. This approach relies on exports for economic growth that is the result of free trade agreements encourages the rapid and unsustainable extraction of natural resources. Also increase in production and trade, increases the use of energy in transportation of goods. On the other hand, the optimistic approach of the relationship between trade and the environment believes that increased trade promotes environmental quality in developing countries. Proponents of this view believe that free trade through the efficient allocation and use of resources permits countries in production of goods and services which they have advantage, be specialized and hence, increase production rate based on specified levels of energy and material. This argument on the capability of free trade on the increase of available financial resources for environmental protection can be achieved by providing incentives to raise production capacities and it is proposed as an explanation for the environmental Kuznets curve hypothesis. According to this assumption, the more the critical income per capita is, the more environmental quality increases. Also, due to the beneficial effects of trade liberalization on productivity, adoption and use of better technology and investment development as a driver of economic growth has been proposed.

Thus, the most critical point which is always given to liberalization is related to environmental problems. In other words, the liberalization of international markets affects the level of air pollution more in developing countries than in developed ones. Mete et al (2006), Antweiler et al (2001), Krueger Grossman (1993), and Lopez (1994) presented a clear remark on the effects of economic growth, trade liberalization and direct foreign investment on environment. The results showed that effects of trade measures on environment are negative. Antweiler et al (2001) drew a conclusion that international trade liberalization creates a relatively low change on sulphur dioxide concentration. Chua (1999) studied the effects of different types of trade liberalization on pollution and concluded that based on level and intensity of liberalization, the effect on pollution can be positive or negative. Anderson Strutt (2000) made the patterns of trade effects on different pollutants in Indonesia and reached to the conclusion that general impact of liberalization on the nature is positive. Madrid (1998) in his study inferred that relation between trade liberalization and pollution in Mexico and California in US is positive. Thus, trade liberalization is harmful for the environment. Poitier and Beghin (1995) in their research found that trade measures on nature have positive effects, while not only trade techniques and composition but also general liberalization effect on the environment is negative. Therefore, liberalization has useful effects on nature. Krueger Grossman (1993) understood that impacts of trade composition and measures on the environment in Canada, the USA and Mexico are negative. Singh (1985) declare that effects of free trade for many developing countries are limited because most of their production resources were not used with the purpose of maximum efficiency. Rose and Frankel (2005) studied the trade effects and found out that trade causes more production and as a result more pollution. Moradhasel and Pajoyan (2007) on a study on 67 selective countries with high, average and low income concluded that globalization for these countries leads to less pollution for them.

Generally in the first stage of economic growth, knowledge about environmental problems is low, and compatible technologies with the nature are not available. So by the rise of income to the threshold level, decline of environmental quality increases but then with upturns of income per capita it grows better. As a result, economical development process can be traced from economy dependent to clean agriculture to polluting industrial economy and finally clean service economy.

An Observation To Iran Condition

In Iran, between all types of pollutants such as CO₂, CO, NO_x, SO₂, SO₃, CH₄, proportion of CO₂ is about 98% and after that CO has the maximum proportion among all the others. The study of all these pollutants shows that their trends have been increasing during the time, for instance, CO₂ trend which has the maximum among all the toxic gases shows that it has been raising during the time.

Results display that in case of trade liberalization which is the result of globalization, environmental pollution will decrease. It is expected that through free trade and globalization, markets go out from being local and national conditions and become globalized. As a result of this action international rules and regulations would be adjusted and countries compete on production qualities. One of the features of competitive goods is reducing emissions from production and consumption of goods.

As the results show an increase in GDP has a positive effect on pollution. This means that for every one percent increase in GDP of 46% of the level of contamination increases. This factor shows the fact that economic growth mainly increases pollution when it is achieved with resources. In Iran, the more production is possible with the use of inputs available and one of these inputs is energy. Many other pollutants resulting from fossil fuel consumption, in which they allocate a large proportion of the inputs. The statistics show that the ratio of capital to labor has a positive effect on pollution.

The results of the impact of trade liberalization on environmental indicators show that globalization or the degree of openness has a negative impact on pollution. In other words, the degree of openness reduces pollution. So that together with the opening up of trade in a competitive environment, goods are traded which have lower costs. Less use of energy and fossil fuels

used in the production of low efficiency goods leads to reduced product costs. So we can conclude that globalization will reduce pollution. The results also show that GDP and ratio of capital to labor have positive effects on pollution, which means they cause increased pollution. Capital reflects factors such as machinery, equipment and energy in the production process. The results show that the performance of these inputs by increasing environmental pollution has increased.

After identifying the impact of liberalization on pollution, long-run effect of trade liberalization on pollution is analyzed. The results of the impact of trade liberalization on pollution show that in the long term it has negative effect on pollution, that is, it reduces pollution in the long-run. GDP and the ratio of capital to labor in the long term have positive effect on emission and causes increased pollution. Given the range of per capita income, the obtained figure almost shows half of an environmental Kuznets curve. As you can see, this curve shows an increasing trend, that is, the country is increasing pollution. According to the results, trade liberalization as one of the requirements of globalization can help to reduce pollution of the environment in Iran.

Conclusion

Globalization is a fact that, either positive or negative, progressing rapidly. In this case, it is the responsibility of the country to be ready to use the advantages and avoid the disadvantages. One of the most crucial roles globalization plays in relation to the economy is the relation to the environment of a country. Therefore in this study by using a model of autoregressive with extensive lag, economic effects of trade liberalization on the environment in Iran in the short and long term were studied. Study results suggest that trade liberalization as a result of globalization, in the short and long term reduces the environmental pollution in Iran. With the increasing development of the agricultural sector, as part of the service of the environment, sustainability and green manufacturing, reducing pollution in the country - in the process of trade liberalization - can be a great help. Since heavy industries in Iran did not improve due to lack of investment, knowledge and technology, and since agriculture consists of small industries and they are less polluting, by increasing the relative advantages to agriculture, pollution can be controlled significantly. Invest a portion of the revenue for reconstructing environmental degradation due to production growth, will reduce industry emissions. The results showed that GDP and ratio of investment to production is one of the technological indicators and has positive effect on emission and cause increased pollution. More advanced technology means more machinery, heavy industry and pollutants and in turn they increase productivity and therefore GDP and finally it means increased pollution. Identifying the impact of liberalization on environmental pollution in Iran can also help prevent possible adverse effects, and lead to more effective policies. Attention to economic growth with environmental protection will be most compatible with the concept of sustainable development.

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