

Chapter 1

Trade and Environment Nexus: A Theoretical Appraisal

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ABSTRACT

One major concern that has emerged in the post-globalization period is climate change. Given that pollution and environmental degradation is a public bad, the adverse change in the climate of one region will have ubiquitous effect and therefore will hamper the process of sustainable development across the globe. There are substantial links between international trade and environmental issues – one being that of the perverted comparative advantage which evolves mainly out of the neglect of environmental damage caused by productive activities. In this chapter, an attempt has been made to build a theoretical framework related to intra-industry trade with production differentiation based on the environmental quality of the goods and price to address how liberalization of trade happens to affect the environment of the trading nations. The study shows a steep decline in the environmental quality of the good that was relatively cleaner under autarky while a meagre improvement in the environmental quality of the relatively dirtier good. Hence, it is revealed hereby how trade alters the nature of international inequality in the environmental quality of the productive activities.

INTRODUCTION

The growth of world economy over the last century has been unprecedented. Particularly over the second half of the twentieth century, the global economy has consolidated into a more integrated entity than ever before. This has been made possible by advancements in communication and information technologies and reduced barriers to trade and foreign investment. The increasing scale of production

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and manufacturing to sustain a world population that has expanded at a staggering rate is bound to have multiple long-lasting consequences. The major brunt of gigantic scale of economic activities has been borne by the world environment. Problems range from deforestation, loss of bio-diversity, natural resource depletion, and air pollution to ozone layer depletion, global warming, discharge of plastics in oceans and more. Slow progress in introduction of adequate measures to protect the environment on the part of various national and international players has been blamed for the persistent environmental degradation that has been crippling our planet. The environmental community is fearful that international trade will magnify the effects of poor environmental policies around the world. Regardless to say, the very existence of the ecological deterioration is welfare reducing for every individual, irrespective of the source of the problem.

After the end of the Second World War, the priority was reconstruction of the world trading system and global environment and its potential degradation was largely ignored. In fact, prior to the initiation of the North American Free Trade Agreement (NAFTA) and the Uruguay Round of GATT, environmental issues had not been an important factor in trade negotiations. The environmental issues took centre stage in the 1990s with the tuna-dolphin dispute between the US and Mexico. Since then, provisions for environment have been included in the subsequent agreements and negotiations concerning international trade, but they have hardly been controversy free. Some argue that the two issues – trade and environment – are interrelated while others believe that they should be kept separated. The former are of the view that the interrelations will assure that free trade will triumph and environment will suffer while the latter endorse the idea that trade promotes development which in turn can implement better methodology to improve the environment. It is therefore important to understand why and for what reasons trade enters the sustainable development discourse. To what extent international trade has harmful effects on environment and what possible benefits of trade exist to counter that is still under debate. In this backdrop the current chapter is intended for examining the consequence of trade liberalization for environment and thereby its implication for attainment of sustainable development.

LITERATURE REVIEW

With increased integration of the global economy, it has now become difficult to ignore the consequences of domestic environmental policy on the global environment. Research on trade and environment is nothing new. Since 1970s, several issues relating to trade and its impact on environment have been debated. These researches, which became more intense during 1990s, have suggested that commitment to free trade may create incentive to distort environment.

Two contradictory views emerged around that time namely, pollution haven hypothesis and Porter hypothesis. The *pollution haven hypothesis* postulated by Copeland and Taylor (1994) illustrates between two countries, the higher income country with stronger environmental protection will specialize in relatively clean goods while the lower income country with lax environmental laws will become a safe haven for pollution intensive industries. In this context, Copeland and Taylor (1994, 2004) have isolated three broad effects of trade on environment, viz. scale, technique and composition effects. Scale effect refers to increased pollution and environmental deterioration due to increased economic activity. Technique effect is due to the move towards cleaner production methods which is made possible by greater wealth arising out of expanded trade and better access to advanced technology. Composition effect captures the change in the share of dirty goods in national income due to trade. Among various works trying to give

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