

## Brief for GSDR 2015

# Sustainable Development and World Trade: The Contribution of International Environmental Regulations to Trade

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### Introduction

“Sustainable Development and open trade go hand in hand and the multilateral trading system helps to create the enabling environment for countries to realise the sustainable development and green economy vision. (World Trade Organisation 2011).

Sustainable Development manifests itself into economic, social and environmental issues to be solved by the countries by the following international environmental regulations. Trade and Sustainable Development is interlinked. Rio+20 (2012) conference seeks to promote it through open and equitable rule-based multilateral trading system which is non-discriminatory and predictable and benefits all countries in the pursuit of Sustainable Development.

The objective of this brief is twofold:-

(i) to report the finding of the empirical research on World Trade and international environmental regulations in terms of Pollution Haven Hypothesis (PHH) and Porter’s Hypothesis (PH) in developing countries as well as in case of China and India;

(ii) to highlight the point that “Sustainability” could also be achieved through regional economic groupings like EU, ASEAN, NAFTA, IORA etc.

After the Brundtland Commission Report (1987) the 1992 Rio Conference on Environment and Development

was held in Rio de Janeiro in which a set of principles in the Rio Declaration on Environment and Development and a comprehensive Plan of Action, Agenda 21 was adopted to be implemented globally, nationally and locally. The world economy has to be just, equitable and inclusive. The production and consumption patterns need to be sustainable. The emerging growth patterns have to take into account the 21 principles of Blue Economy mentioned on Blue Economy by Guruter Pauli (April 2010). The idea has been supported by Executive Director of the UN Environment Program and many others including senior governments officials and academicians in universities.

Bernard- Sinclair Desgagne (2010) in their comment on “Porter Hypothesis (PH)” which states that well-crafted environmental regulation will foster innovation which can benefit not only the environment but also (sometimes) polluting firms thereby enhancing overall productivity .” In their comment they say that some environmental regulations might succeed in stimulating innovation, competitiveness and productivity as happened during the period 1990-2002 at global level.

Further, that the innovation process triggered by environmental regulation has largely been a Smithian one.”, Stefan Ambed, Mark A. Cohen, Stewart and Paul Lanoie (2011) in their Paper, the Porter Hypothesis at 20, Can Environmental Regulations Enhance Innovation and competitiveness?”, States the traditional view of environmental regulation held by virtually all economists until that time was that requiring firms to reduce an externality like pollution necessarily restricted their options and thus by definition reduced their profits. After all, if profitable opportunities

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existed to reduce pollution, profit maximizing firms would already be taking advantage of those opportunities. Over the past 20 years much has been written about what has been since known simply as the Porter Hypothesis (PH).

#### International Environmental Regulations And World Trade

In the light of the above, we feel that the hypothesis is still misundnerstandable; and that more empirical research is needed to make it clear and understandable. Hence, in the following paras, we intend to present a brief summary of empirical findings of our research in references to two contradictory Hypothesis i.e. pollution Hawen Hypothesis (PHH) and Porter Hypothesis (PH).

The study reveals that the share of developing countries in the World Trade of polluting products at aggregate level has gone up over the period (1990-2010). The Study reveals higher growth in polluting exports (270.04%) compared to polluting imports (148.46%), whereas the share of Developed countries has decreased in both exports (-20.19%) and imports (-24.37%) of polluting products. The change in exports of developed to developing countries suggests a delocalization of polluting activities from developed to developing countries. Further, that the pollution intensive industries are moving towards the developing countries but not in large proportion. At the aggregate SITC level the study confirms the presence of some elements of Pollution Haven Hypothesis (PHH). In case of Non Ferrous Metals, the Pollution Haven Hypothesis (PHH) in developing countries is being supported by the analysis; but there is little evidenced of its presence Only in case of Non-Metallic Minerals (SITC 66), there exists strong evidence in favour of Pollution Haven Hypothesis(PHH)..

The study reveals that international trade and environmental regulations are interlinked; but they may be positive or negative depending on theirs impact on polluting products as per SITC. In some cases, the pollution Haven Hypothesis is supported and in others (in majority products) it is indeterminate or having little evidence. It is concluded that with few exceptions,

developing countries do not specialize in highly polluting industries. Rather they import more pollution-intensive goods than they export while the opposite is true for developed countries.

The tendency shows that developed countries have better position in polluting industries which suggests that classical factors of comparative advantage pre-dominate over differential environmental standards. This is not surprising since polluting industries tend to be very capital intensive and since abatement costs , even in countries with the most stringent regulations represent only a small percentage of production costs, therefore developing countries should tighten their environmental standards. In case of trade in agriculture sector the developing countries have mixed effects – particularly in maize and wheat products, environmental regulations have positive effect. The environmental sustainability will lead to increase in exports. The Porter’s Hypothesis is supported in case of agriculture sector that stricter environmental regulations can be compensated by the subsidies given by the governments on the agricultural products.

#### **POLLUTION HAVEN HYPOTHESIS (PHH) IN CHINA AND INDIA**

The Study reveals that China and India are two of the largest Carbon Emitters in the world. To control pollution, China and India have to improve energy efficiency and promote changes in energy consumption patterns and economic structure so as to adopt an environment friendly development model. In both the countries, current trade structures in polluting products at aggregate level do not have evidence of Pollution Haven Hypothesis (PHH). In case of Iron and Steel Industry (SITC 67) Pollution Haven Hypothesis (PHH) is supported in China and India but it is not supported in case of Non Ferrous Metals (SITC 68). These appears some evidence for pollution Haven Pollution Haven Hypothesis (PHH)in China in case of Non- Metallic minerals (SITC 66). In both the countries, in case of Industrial Chemicals (SITC 51, 52, 56 and 59) the Pollution Haven Hypothesis (PHH) is not supported. Therefore, the Study reveals that Porter’s Hypothesis (PH) as well as Pollution Haven Hypothesis (PHH) in case of developing countries and also in case of China

and India are supported (weak) which suggests that international environmental regulations may lead to Sustainable Development through sustainable trade.

## **SUSTAINABILITY AND REGIONAL ECONOMIC GROUPINGS**

Now, we come to the second point where “Sustainability” could be better achieved by regional groupings such as EU, ASEAN, NAFTA and IORA, etc., by incorporating environmental regulations. Bernard Sinclair-Desgagné (2010) states that due to environmental regulations, EU in 2005 has been greatly benefitted in terms of employment and growth in terms of trade in environmental goods.

IORA organized, “First IORA Tourism Ministerial Meeting”, Savoy Resort & Spa, Beau Vallon, Seychelles (20 -21 November 2014) in which Australia, Bangladesh, Union of Comoros, India, Indonesia, Madagascar, Malaysia, Mauritius, Mozambique, Sultanate of Oman, Seychelles, South Africa, Sri Lanka, Tanzania and Thailand participated. The Dialogue Partner States: France and United Kingdom also attended the meeting. The Member States of IORA adopted 16 resolutions in terms of “Seychelles Declaration” emphasizing the tourism via a sustainable way (different types of tourism); development of Indian Ocean tourism to generate entrepreneurship opportunities and contribute to poverty alleviation, especially among women.

Thus, we find that empirical research does support that adoption of international environmental regulation on effect of the trade-flows in some cases positively and lead to sustainable trade and a Green Economy. The regional economic groupings also play a significant role in achieving sustainable development.

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