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THE IMPACT OF EUROPEAN UNION'S NEWLY-ADOPTED ENVIRONMENTAL STANDARDS ON ITS TRADING PARTNERS

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Abstract:

The adoption by the European Union of environmental and social standards seems to affect trade relations with countries from outside the Union. Most seriously hurt are a great number of developing countries that are highly dependent on the European market for their exports. Complying with the said regulations means higher production costs, which eat into the respective countries' international competitiveness. However, for all the widespread discontent, many developing countries are taking steps in order to adjust their production and export systems to the new rules. Unfortunately it will probably take a long time until full compliance is achieved. Meanwhile, in the short run, the frequent clashes between developing countries and their partners in the West in respect of environmental and social issues are disrupting the smooth functioning of international trade.

Key words: *environmental standards, environmental policy, climate change, non-tariff barriers*

1. Environment protection vs. competitiveness: a difficult trade-off

Despite the Earth being visibly under threat due to endless industrial expansion, no determined actions toward environment protection were undertaken until the 1970s. By then both the World Trade Organization (WTO)[1] and the European Union assumed a more resolute and effective manner of dealing with environmental and social issues, especially the ones deriving from international trade. Actually the relation between environmental policies and trade is highly contentious, involving a trade-off between nations' responsibility for the condition of the Planet, which responds

to a collective interest, on the one hand, and their struggle to be competitive, which meets their own, on the other hand. Each country, whether a member or non-member of the aforementioned organizations is supposed to take steps in order to conserve natural resources and environment; yet since protection is costly, such measures often fall beyond poor countries' financial possibilities. On the other hand, the latter are aware that their goods will stand ever less chances to be accepted on western countries' markets unless they upgrade their equipment so as to meet internationally endorsed protection codes. Thus notionally, the obligation to comply with protection codes acts like a trade barrier against developing countries' exports.

Economic growth has engendered huge environmental problems in the past decades. Previously, such problems had been all but ignored, namely there was little concern about the use and protection of natural resources and environment. The including by the EU of the environment protection item on the 1972 agenda eventually put an end to carelessness. Since then people has become ever more alert for the necessity of environment conservation and a lot of environment action programs have been devoted to that purpose. Even though all these actions stem from good intention, they apparently have negative effects on international trade, especially on developing countries' exports. Most of the latter have criticized the said actions, considering them as new non-tariff barriers.

In this paper we discuss the developing countries' attempts to become competitive under the social and environmental standards of the EU: in the second chapter, we outline the history of EU's environmental policy, stressing EU's valuable contribution to the global effort of protecting the environment; the third chapter is an appraisal of EU's contribution to environment protection on a global scale, particularly the Kyoto Protocol; in the fourth chapter, we discuss the ripple effect of EU's actions throughout the developed countries and the impact on third countries' exports onto the European market; in the fifth chapter, we deal with the reaction of developing countries to EU's environmental policies and the latter's concern about declining competitiveness; the sixth part is reserved for conclusions.

2. EU: a global leader in environment protection

Ever since the first industrial revolution two hundred years ago, economic activities have been exerting damaging effects upon the environment. The impact was compounded by the expansion of world trade, which augmented the bad consequences. Although the necessity of natural resources and environment conservation was not a clear-cut notion at the time of the industrial revolution, the awareness of economic activities' bad effects upon the environment is not recent. The European Union started dealing with the issue ever since the early 1970s. More precisely, the bases of EU's environment policy were laid at The Paris Summit of heads of state and government of the European Economic Community (EEC), held in October 1972. Later on, the first Environmental Action Program (EAP) was adopted

and presented at EEC's first environmental meeting, which took place in July 1973. Since 1972, the EEC (subsequently the EU) commission has also adopted several EAPs, with horizons extending as far ahead as 2020.

During the 1973-1982 period, imperatives such as the prevention, reduction and containment of environment damage, the conservation of an ecological equilibrium as well as the rational use of natural resources were determinedly furthered. The first EAP marked the kick-off of the present-day "Sustainable Development" process by setting the environmental quality objective. Research focused on a range of urgent matters e.g. the causes and harmful effects of pollutants, the protection of environmental media (water, air, soil etc.), with utmost attention paid to water protection and waste. (Hey, 2005) The second EAP, launched during 1977-1981, followed the first objective, laying greater emphasis on the protection of nature, mostly water and air. After 1980 the environmental standards issue enjoyed increasing importance on the environmental agenda. Concomitantly, the EU addressed other pressing problems e.g. the relation between the internal market and environmental policies. The third Environment Action Program, applied during 1982-1986 addressed air policies, noise and risk management for industrial sites. It is worth mentioning that throughout this period, legislation duly kept up with research: between 1972 and 1978, 118 major new pieces of environmental legislation were adopted, amounting to the early institutionalization of the policy field. (Lenschow, 2006)

The fourth EAP (1987-1992)'s underlying idea was the necessity that environmental protection targets should smoothly fit into the internal market as well as other basic objectives of the Community. This goal can only be achieved by overhauling the entire production process, with special focus on the impact of strategic economic sectors on the environment. It equally requires legislation improvement, regulation of basic environmental issues (e.g. the sources of pollution), better informing the public at large in respect of environmental issues and job creation.[2]

If the fourth EAP marked the commencement of strategic environmental policies in the EC, "sustainable development" gradually becoming the buzzword from the beginning of the 1990s onwards, the fifth EAP which started in the 1992-1995 scored but limited success, certain members exhibiting lesser enthusiasm in following the path set previously. The latter's reluctance was due to the awareness of the environment standards meaning higher production costs and hence a drag on their competitiveness. Besides, the general approach and strategy of the 5th EAP differed from previous programs in that it set longer term objectives and focused on a more global approach. In addition, EU's environmental policy became more open to third parties' participation, which had countervailing influence on the industrial lobby.

The sixth EAP (2002-2012) is focused on such issues as climate change, biodiversity, environment and health, and sustainable management of resources and wastes. One important regulation is the Registration, Evaluation, Restriction and Authorization of Chemicals REACH, aimed to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods

for the hazard assessment of substances in order to reduce the number of tests on animals. Quite importantly, REACH makes industry responsible for assessing and managing the risks posed by chemicals and providing appropriate safety information to their users.[3] To address the sustainable management of resources and wastes problem, two pieces of legislation have been put in place: the Directive on waste electrical and electronic equipment (WEEE Directive)[4] and the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive). The WEEE Directive is the directive on waste electrical and electronic equipment, the recycling and recovery targets for all types of electrical goods. The RoHS Directive is intended to reduce hazardous chemicals in electrical and electronic equipment such as lead, mercury, cadmium, hexavalent chromium etc.[5] Last but not least, in order to improve the energy efficiency of products and reduce energy and resource consumption, regulations on Eco-design and Eco-labeling were passed. Such norms, which make up the Integrated Product Policy (IPP), not only eliminate the least performing products from the market but prop up industrial competitiveness and innovation by promoting the better environmental performance of products throughout the Internal Market. The goal is to identify products and services that have a reduced environmental impact throughout their life cycle, from the extraction of raw material through to production, use and disposal.[6]

The seventh EAP rests on the necessity to secure further sound economic growth until 2020. This entails even more intense environment protection and rational resource employment, thereby reducing the factors that endanger human health and wellbeing. Actually, the ongoing EAP rests on a vision that exceeds the 2020 time horizon. According to EU Commission, "in 2050, we live well, within the planet's ecological limits". Thus, the 7th EAP identifies three key objectives: to protect, conserve and enhance the Union's natural capital; to turn the Union into a resource-efficient, green, and competitive low-carbon economy, to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing. The charge of implementing the program, which entered into force in January 2014, belongs to EU institutions and the member states.[7]

Yet, the political and societal challenges EU bodies must overcome in order to attain the 2050 greening goal are scathing. A major encumbrance resides in the overhauling of legislation. The new set of regulations must be build on the existing body of EU law, as many environmental and natural resource policies and requirements must be revised and strengthened toward meeting the 2050 sustainability goals. (Selin, Van Deveer, 2015)

3. The Kyoto Protocol: a lofty achievement on EU's tally

The EU policy in the field of environment protection is by no means parochial but it deals with issues that transcend its borders. Actually, ecological problems have

long exceeded the national framework, requiring global tackling. Apparently, pollution by any country's industry of the air, water or soil has repercussions on its neighboring countries' environment and not infrequently, on entire regions. One of the most serious such threats is the so-called "ozone depletion", which has generated the global warming phenomenon. The ozone depletion means the decline in the total amount of ozone in the Earth's stratosphere as a result of long standing exposure to ultraviolet rays. The main cause is the burning of fossil fuels and spewing of chemical substances that harm the ozone layer such as carbon tetrachloride, chlorofluorocarbons etc., into the atmosphere. The resulted accumulation of gas, especially carbon dioxide then gives rise to the so-called "greenhouse effect": it allows the solar radiation to pervade the air layer surrounding the Earth but keeps it from being partly pushed back to the outer space.[8]

Obviously, solving such problems as global warming is impossible failing collective action on an international level. The question is: how much scientific certainty is required for the people to be stirred into action? "Many of the world's biggest polluters have grounded inaction in reasons having to do with uncertainty in the science of climate change…Uncertainty might be the most common reason offered for doing little or nothing about climate change." (Garvey, 2008)

International cooperation on the purpose of combating climate change was initiated by the EEC in 1987, when 24 countries signed a protocol whereby they pledged to halve the quantities of chlorofluorocarbons used until 1998. In 1990, the protocol was reinforced by a new agreement, signed by 75 countries, providing complete elimination of chlorofluorocarbons from economic activity until the year 2000. For this purpose, 200 billion dollars were made available to developing countries for the latter should be able to apply the protocol by using substitutes. Finally, in 1997, the Kyoto Protocol (KP) was signed by 192 countries. The KP is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC) and is in accordance with the Climate Change objective of the 6th EAP. It was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005.[9] The stated objective was to reduce greenhouse gas emission by 8 percent by 2008-2012. However, for the joint commitment to diminish carbon dioxide emissions to be effective, nations must be able to bear the cost. This calls for a compensating scheme, whereby those with extra emissions should compensate those that are hurt.

Besides supporting the Kyoto Protocol, the EU has been taking legislative steps that are meant to protect EU member countries from harmful products imported from outside the Union. (We discussed the most important regulations of this kind in the previous chapter). Unfortunately, the EU's efforts were not matched by other large countries', notably the US and China, which did not ratify the KP in spite of ranking among the world's largest emitters of greenhouse gases. The US motivated their refusal to join KP signatories by the said treaty leaving aside a significant part of the world, including big economies like China and India. This uneven situation, claimed the US authorities, would seriously harm the US economy should the US enter into the

treaty. In addition, the White House invoked the scarcity of certified scientific information that should account for joint action. "We do not know, George W. Bush stated, how much effect natural fluctuations in climate may have had on warming. We do not know how much our climate could, or will change in the future. We do not know how fast change will occur, or even how some of our actions could impact it."[10]

Yet it is not only large economies that opted to stand aloof but also a great number of developing countries did, for fear that complying with the Protocol would mean additional costs that would dent their competitiveness. Yet this is not entirely discouraging: there is strong belief that developing countries "will be brought into the system of quantified commitments over time, in subsequent negotiation rounds, if and as the richer countries fulfill their first round commitments". (Grubb, 2003)

The KP was amended in 2012 at the 18th Conference of the Parties held in Doha, Qatar. Parties decided how to deal with the large surplus of Assigned Amount Units (AAUs) from the first KP commitment period (2008-2012) and how to prevent the accumulation of new surplus in the second commitment period (2013-2020).[10] Yet the decision does not limit the carry-over of surplus AAUs from the first commitment period but puts limits on their use in the second one, in which 37 countries, EU members included, have binding targets.

4. Developed countries' reactions to EU's environmental policy

EU's environmental regulations are having effects well beyond the borders of the EU, equally battering the trade with developing countries and the developed ones. Producers from outside the EU, whose products fail to comply with the said norms, risk facing severe penalties that include fines, impounding of merchandise, loss of the right to sell on the single European market etc. Member countries that can prove a product does not comply can levy fines against the vendor.[11] The RoHS law for instance, has been compelling manufacturing firms from outside the EU that export their goods onto the European market to replace the restricted materials with various substitutes – otherwise risking to be ousted – which obviously means higher production costs. The named Directive also requires that waste from machinery, electrical and electronic equipment must be recycled. A no lesser stumbling block is the task of drafting the RoHS Compliance Declaration, which implies finding and verifying data for thousands of parts from suppliers across the world. Obviously, reporting to various states, countries and legislative bodies requires multiple languages and formats. (Zhou et al., 2008) The good part is that companies that collect data from suppliers to show they are compliant with RoHS will be able to use much of that information for new environmental laws being passed by other countries. At the same time, the REACH norms aroused the same vehement reaction. A host of non-EU members have expressed concern about having to comply with them, namely to register safety information with the Helsinki body and - in extreme cases - to substitute dangerous

chemicals with safer alternatives.[12]Besides, a number of countries (Argentina, Canada, China, Chinese Taipei, India and Thailand) are decrying REACH's Hazard-Based Registration Requirement being overly complex, burdensome and costly, while others (China, India, Japan and The United States) claim that REACH's Monomer Registration Requirement is costly, burdensome and potentially discriminatory. (Kogan, 2012)

The implementation of the recent EU's environmental regulations caused deep acrimony across the Atlantic. US manufacturers, chiefly those in the electronics industries, are feeling particularly aggrieved by the imposition of RoHs norms, which oblige them to seek substitutes for the forbidden or restricted substances. There is clear evidence that failure to meet the RoHS Directive led to lost sales. Known examples are Palm Inc.[13]and Apple Computer Inc.[14] Yet despite widespread discontent producers in the US cannot afford to overlook the Directive. As Ahlen (2009) notes, "with the addition of Romania and Bulgaria, the EU now has a larger population and larger GDP than the U.S., making it essential for the electronics industry to comply with RoHS in order to maintain market share." In particular, the U.S. computer and electronics industry is "highly dependent on the EU market and is crucial to the U.S. economy…It is the U.S.'s third biggest export sector to the EU", concludes the cited author.

The enacting of the EU environmental laws has raised concerns not only in the US but all over the world, especially in South Asian exporting countries. "As things now stand, suggests Kiatpongsan (2011), although the EU currently encourages its member states to follow the IPP's main ideas and technical procedures on a voluntary basis only, it plans to implement this IPP through specific policies such as greening public procurement, product labeling, eco-design, the environment management system or legislations on waste and chemicals." As a consequence, Asian governments (China, South Korea, Vietnam and others) adopted expectable retaliatory measures in the form of similar regulations. (Michida, 2014) Yet in spite of the RoHS directive arguably having a pronounced protectionist character, very much like a "trade barrier to exporting to the EU market from outside the EU" as Honda (2012) put it, EU's trading partners are aware that they must follow suit and enact similar environmental laws in order to protect their environment and own citizens' health. Thus in addition to the EU, at least seven non-EU member countries: Canada (Province of Alberta), China, Japan, South Korea, Switzerland, Taiwan and the USA have proposed or have in-effect legislation addressing the disposal of electronic products. [15] Turkey also announced the implementation of RoHS legislation beginning with June 2009.[16] In a nutshell, EU's imposing of high environmental standards turned out to have had strong knock-on effects outside the Community, offering opportunities for other states and actors to voluntarily emulate new EU policies. (Selin, Van Deveer, 2015)

5. Developing countries' difficulties in complying

It is developing countries that are most affected by EU's current environmental policy. Apparently, compliance with the newly passed regulations entails the entire restructuring of the former's export industries. In fact, the environmental standards imposed by the EU seem to be shaking the developing countries' industrial base altogether. Adjustment obviously means extra costs many of them can hardly bear. Yet the developing world cannot afford to give up trying to cope with the novel regulatory framework, given their heavy dependence on foreign markets, the EU market in particular. Consequently, to prevent the decreasing level of trade and stay competitive, firms and governments in developing countries have to adjust their policies accordingly.

Unfortunately, the adjustment is not easy, aside from requiring time. Hence the necessity that EU and developing countries should meet half way. From this point of view, many countries e.g. Argentina, Chile, China, and Chinese Taipei are urging the EU to lend a hand by offering consultation in several forms, including guidance on classification of chemical substance-based products, just as it had done for EU member states.[17] EU responded to these grievances by committing itself to: 1) establish REACH Help Desks within EU-members states to serve as an access point for EU and non-EU manufacturers; 2) provide REACH regulatory guidance; 3) provide international funds for technical assistance and capacity building. (Kogan, 2012)

With or without EU assistance, developing countries are aware that ignoring the environment regulations imposed by the former is not an option the higher costs incurred notwithstanding. Compliance is critical and urgent irrespective of specific ways the matter is dealt with. Whether the emphasis is laid on cooperation with customers and suppliers along supply chains, or it falls on assistance from government and industrial organization, companies throughout the developing world are scrambling to stay in this race lest they be left behind. Governments surely have a great role to play by providing industries with information, guidance, and infrastructure in the field. Yet, by and large, results so far are not quite rosy. Although developing Asian countries have increased manufacturing capability, the capacity of firms to comply with technical regulations seems limited. (Michida, 2014)

On a more general plan, developing countries' outspoken difficulties, and not infrequently reluctance, in complying with the high environmental standards is viewed as "unfair competition", mainly by western multinationals. "In fact, notes Bhagwati (2005), the assertion is that if India chooses to adopt lower pollution tax rates in an industry than the United States does, then the resulting competition is 'unfair' to American producers in that industry…In fact a number of environmentalists have argued that such unfair competition amounts to 'social dumping' and must be countervailed through trade protection." The problem is that constraining trade will act as a double-edge sword: in the short run, it will counteract environment-unfriendly exports, yet in the long run, everybody will lose.

6. Conclusions

After two hundred years of industrial development, the world's nations have realized the pernicious effects unfettered mass production may have on the natural environment and implicitly on people's life. Big plants and factories are gobbling tremendous amounts of resources and dumping poisonous gases into the air and deadly chemicals into rivers and lakes. This wasteful, dangerous, irrational behavior must stop.

As it was to be expected, the industrialized countries are the flagships in the battle to save the environment. This is ethical enough in view of their having polluted the soil, the waters and the atmosphere for so long. In this context, the European Union has asserted itself as a champion. Over the past decades, it has enacted and put in force a good deal of environmental legislation, whereby the use of many toxic or hazardous substances has been restricted and the waste of such stuff severely regulated. The efforts have paid off: pollution has significantly dimmed, EU citizens enjoying better-quality air and water.

Yet, the downside of the environment protection campaign is that imposing tough regulations significantly impacts trade. Exported products that do not satisfy regulatory requirements cannot be placed in regulated markets, and firms might thus lose market access. This is all the more worrying as many countries outside the EU that currently export goods onto the European market are unable to comply with the said regulations. On the other hand, EU's policy turned out to have good effects as well: a host of non-EU countries, most of them WTO members, are endeavoring to follow suit, implementing similar regulations, in spite of the high cost they have to bear. Thus, the world stands better chances to become greener in the future.

Notes

1. By then the WTO had not yet come into existance. The world trade was governed by the GATT (General Agreement on Tariffs and Trade), created in 1948, which, althouth was not an international organization in the proper sense, acted like one.
2. "Business Support Programme for Bulgaria, Romania, Croatia and Turkey", *History of the Environmental EU Legislation*, BSP 2007/142-722, , available at: http://www.hiz.hr/icttrain/en/trainings/01/01.html
3. European Commission: EUR-Lex, Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency, available at http://ec.europa.eu/enterprise/sectors/chemicals/reach/index_en.htm
4. European Commission: EUR-Lex, *RoHS Directive 2002/96 EC*, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32002L0096
5. European Commission: EUR-Lex, *RoHS Directive 2002/95 EC*, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32002L0095
6. On 7th February 2001, the European Commission adopted a Green Paper on the Integrated Product Policy (IPP), which seeks to minimize environmental degradation by looking at all phases

of a products' life-cycle ("from cradle to grave") and taking action where it is most effective. The life-cycle of a product includes all the stages it goes through, from the extraction of natural resources, successively followed by design, manufacture, assembly, marketing, distribution, sale, use and finally, disposal as waste. The IPP's underlying idea is that environment protection must be enforced in all these phases. (EU Commission: Environment, Integrated Product Policy, http://ec.europa.eu/environment/ipp/home.htm; Ecodesign legislation, Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, available at: http://ec.europa.eu/growth/industry/sustainability/ecodesign/index_en.htm)

7. EU Commission: "Living well, within the limits of our planet, 7th EAP – The new general Union Environment Action Program to 2020", available at: http://ec.europa.eu/environment/pubs/pdf/factsheets/7eap/en.pdf
8. BC Air Quality, available at: http://www.bcairquality.ca/101/ozone-depletion-causes.html)
9. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012. (Kyoto Protocol, United Nations Conference on Climate Change, Newsroom, available at: http://unfccc.int/kyoto_protocol/items/2830.php
10. Garvey, James (2008): *The Ethics of Climate Change, right and wrong in a warming world*, Continuum International Publishing Group, p.90
11. AAUs are tradable emission permits under the Kyoto Protocol. One AAU allows a country to emit 1 metric tonne of CO2e. Kyoto Protocol rules allow countries to carry over all unused AAUs into the next commitment period. (Anja Kollmuss: Doha decisions on the Kyoto surplus explained, March 2013, available at: http://carbonmarketwatch.org/wp-content/uploads/2013/03/CarbonMarketWatch-CO18-Surplus_decisions_explained_4March20131.pdf
12. API technologies group: *Why Should I Care About RoHS and Lead-Free Initiatives? What is RoHS?*, http://apitech.com/product-classes/why-should-i-care-about-rohs-and-lead-free-initiatives
13. "EU' REACH chemicals law begins life in Helsinki", *EU Observer*, https://euobserver.com/economic/24169
14. The company recently announced that its extremely popular Treo 650 is no longer being shipped to Europe due to it not meeting RoHS requirements. (*API technologies group*, the cited newsletter)
15. A series of Apple Computer Inc. products, including the iSight Web camera, AirPort base station with modem, AirPort base station power-over-Ethernet and antenna, iPod Shuffle external battery pack, and all versions of the eMac all-in-one desktop computer were withdrawn by the company for sale in the European market due to them not being compliant with the RoHS law.
16. Within the United States, California's Electronic Waste Recycling Act imposes a fee on "covered electronic devices" currently being sold within the state. This fee is intended to cover the cost of properly disposing of the products when they become waste. Other U.S. states with regulations modeled after the EU RoHS directive that is proposed, pending or in effect include: Colorado, Connecticut, Florida, Hawaii, Illinois, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Montana, North Carolina, Nebraska, New Hampshire, New Jersey, New Mexico, Nevada, New York, Ohio, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Vermont, Washington, and Wisconsin. Japan, a leading producer of electronic components and printed circuit boards, has instituted Green Procurement Practices (referred to as JPSSI), which are said to be more restrictive than RoHS. The Korea Ministry of Environment restrictions (RoHS/WEEE/ELV) went into force on Jan. 1, 2008, with some key provisions having various grace periods. (*API technologies group*, the cited newsletter)
17. Intertek: Turkey announces RoHS legislation, http://www.intertek.com/news/2008/10-28-turkey-announces-rohs-legislation/
18. European Chemicals Agency, ECHA Helpdesk, http://www.echa.europa.eu/web/guest/support/helpdesks

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