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**European Union Environmental Policy and Foreign Trade in
Environmental Products in Central and Eastern Europe
with Special Reference to Poland**

Abstract

The aim of the paper is to present some theoretical and empirical results of the relationship between the EU environmental policy instruments and requirements and the effects in foreign trade of environmental products in some Eastern European countries in Central and Eastern Europe.

Research results confirm the pro-ecological emphasis of transition economies' restructuring efforts, particularly when read together with the significant increase in their foreign trade in environmental goods and services.

1. Theoretical framework- foreign trade and the environment

International trade becomes a significant contributing factor in effecting strategies of stable development among participating countries when raw material resources are effectively utilized in production and when the cross-border movement of environment-friendly products and technology is encouraged. Trade and free trade policies regarding the movement of goods have a significant impact on the environment and should be closely connected with the basic standards of environmental protection policies. In countries with high environmental protection standards, losses resulting from environmental destruction have been assessed at 1-2% of the GNP, while in countries with much lower standards of protection, these losses have been known to reach 3-5% of the GNP (Repetto, 1993).

Applicable regulations regarding environmental protection standards may encompass both the protection of indigenous natural resources as well as bans on the import of goods that may be harmful to the environment (such as large vehicles with excessive emissions that pollute the air, products containing heavy metal compounds such as lead, very noisy vehicles or machines and devices or fuels that may be harmful to the environment (Lucas, 1992).

The effects of raising environmental protection standards in a given country's foreign trade practices become especially visible in the following sectors of the economy: agriculture, forestry, fishing, transport, as well as in „heavy” industry sectors such as mining, metallurgy and „heavy” chemical production. These effects are usually two-sided; on the one hand the trade of goods harmful to the environment is limited (these goods usually belong to the above-mentioned industrial sectors and are known as „raw material absorbent” - they have a negative impact on the flow of imports and exports taking place between a country and its foreign trade partners), while on the other hand the raising of standards can cause a trend towards cleaner technological production through the reallocation of production resources, which will be closer to meeting international standards (which in turn will translate into more effective competition on foreign markets and an improvement in competition among enterprises in foreign as well as domestic markets, and will in the long run stimulate a rise in exports). Goods which may also have a significant impact on the changing face of foreign trade are those which encourage the improvement of the state of the environment, mainly goods and services related to the measurement, prevention and/or moderation of water and air pollution, as well as those that aid in the resolution of problems regarding waste, noise pollution and ecosystems. These encompass cleaning technologies, goods and services that limit environmental risk and lessen the pollution and exhaustion of natural resources, recycling, as well as waste disposal plant, tools and technology (OECD, 1999).

From a review of studies published concerning the relationship between trade and environmental protection, it can be concluded that the effects of this relationship may be either positive and negative. Some authors (Ekins et al., 1994) believe that the accelerated deregulation and liberalization of trade is a factor of major importance in this regard. Generally speaking, two distinct opinions can be portrayed. The traditional approach is that environmental standards limit the competitiveness of companies, which are forced to adopt these standards and as a result limit their export potential. The more contemporary opinion is that the implementation of appropriate environmental standards has long-term benefits which should improve the competitive position of complying companies in the long run (Alpay 1999).

In examining the relationship between foreign trade and the transfer of pollutants, it is useful to distinguish between overt and covert transfers. Overt transfer occurs when pollutants are emitted across borders through the air, water or land as a result of natural causes (wind, oceanic or river currents) as well as human transport of pollutants (waste and other harmful products) onto other countries' territories. Covert transfer occurs through the import of goods and services which degrade the environment in the country of origin – the importing country, while usually avoiding the direct effects, nevertheless is a covert contributor thereto.

Empirical studies on the impact of foreign trade on the environment are scarce in the existing scientific literature. Nevertheless, an interesting analysis of this issue was presented by Antweiler, who created an index (the Pollution Terms of Trade Index - PTTI) that represents the quantity of pollutants emitted as a result of the production of exportable goods worth one US Dollar, as compared to imported goods of the same value (the index is multiplied by 100). This is a *terms of trade* index, which means that the prices are replaced by the amount of pollutants. If the index is higher than 100 and if a given country conducts zero-balance foreign trade, then this exchange results in an increase in pollutants on this country's territory (Antweiler et al.1988).

A number of publications analyzing foreign trade with respect to environmental protection factors are available (Xinpeng Xu & Liang Song, 2000). One of the most complex of these analyses regarding the interdependence of competitiveness and environmental protection standards is that of the World Bank, in which Sorsa develops determinants in the trade of environmentally-sensitive materials, as categorized in level 3 SITC, whereby changes in the structure of trade volume were analyzed during the period 1970-1990 (Sorsa, 1994).

One can conclude from the European Commission's analysis that even though it may be very expensive to achieve positive results within the scope of environmental protection, there are also benefits to be had related to the improvement of the productivity of utilized resources, increased competitiveness, and a positive effect on employment levels (EC, 1996). These studies also show that although there is no direct correlation between economic growth and environmental protection, it would be very difficult to achieve a continuous improvement in the state of the environment without economic growth (EC, 1994). Economic growth is capable of generating additional resources that may be utilized in limiting pollution and protecting the environment. Positive effects can be strengthened even more by appropriate economic policies, including trade policy.

The relationship between trade policy and environmental protection raises two main issues. The first is based on answering the following question, “what type of trade policy should be adopted from the environmental protection point of view?” - in other words, what trade restrictions should be enforced if we are dealing with cross-border environmental protection issues as well as with common global resources? The second problem is related to the variation of environmental protection standards among nations and how these standards relate to competitiveness. Here, the question posed is, “do lower environmental protection standards have an effect on “unfair” trade advantages?. This includes the problem of using these lower standards as non-tariff barriers .

2. The EU environmental policy

The environmental policy is one of the most fundamental and complex common policies of the EU during the recent 25 years. Main aims and tasks of the common environmental policy in the EU area are defined within the Action Programmes. The first of them began in the year 1973. After 20 years the Fifth Environmental Policy Action Programme: *Towards Sustainability* has been proposed by the European Commission as the involvement to the global strategy of sustainable development. The main aim of this Programme was the presentation of the new Community strategy on the environment and the measures to be taken towards sustainable development for the period 1992-2000 (Fifth European Community Programme-1998).

Priorities and objectives of the EU environmental policy up to 2010 and beyond are defined within the Sixth Environment Action Programme-*Environment 2010: Our Future, our Choice* (COM 2001, 31, p.31). The main aim of this Programme is to help implement the European Union's sustainable development strategy (COM/2001/0264 final *, p.10). The European Commission proposes five priority avenues of strategic action: improving the implementation of existing legislation; integrating environmental concerns into other policies (with special reference to energy,- agriculture- , transport,-regional policy), empowering people as private citizens and helping them to change behaviour; and taking account of the environment in land-use planning and management decisions.

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL¹) seems to be the most important tool to achieve

¹ <http://www.europa.eu.int/comm/environment/impel/>

the improvement of the legislation. The innovative and important tasks in the 6th Programme are as follows:

- the integration of priorities of the environmental protection into other policies of the EU by the further development of indicators to monitor this process;
- the development of the partnership with business, that will base on the encouraging a wider uptake of the Community's Eco-Management and Audit Scheme (EMAS) and stimulate companies to comply with environmental requirements;
- the development of active partnership for sustainable tourism;
- the promotion of the use and evaluating the effectiveness of the eco-label scheme;
- the promotion of green procurement;
- the adoption of legislation on environmental liability;
- the improvement of the quality of information on the environment.

The Sixth Environment Action Programme focuses on four priority areas for action:

- climate change;
- biodiversity;
- environment and health;
- sustainable management of resources and wastes².

The objective in the **first area (climate change)** is to achieve the objectives of the Kyoto Protocol i.e. to reduce greenhouse gas emissions by 8% by 2008-2012 compared to 1990 levels. In the longer term, by 2020 it will be necessary to reduce these emissions by 20 to 40% by means of an effective international agreement³.

In order to meet the challenges of climate change it will be required:

- the integration of climate change objectives into various Community policies, in particular energy policy and transport policy;
- the reduction of greenhouse gases by means of specific measures to improve energy efficiency, to make increased use of renewable energy sources, to promote agreements with industry and to make energy savings;
- the establishment of an EU-wide emissions trading scheme;
- improved research on climate change;

² *Sixth Environment Action Programme...*, op.cit.

³ *Greenhouse gas emissions trading and climatic change programme*, <http://www.europa.eu.int/scadplus/leg/en/lvb/l28109.htm>.

- the improvement of information given to citizens on climate change;
- a review of energy subsidies and their compatibility with climate change objectives;
- preparing society for the impact of climate change.

In order to achieve the aim of **biodiversity** it is proposed:

- the implementation of environmental legislation, in particular in the areas of water and air;
- examination of the need to protect plants and animals from ionising radiation;
- protection, conservation and restoration of landscapes;
- protection and promotion of the sustainable development of forests;
- establishment of a Community strategy for the protection of the soil;
- reinforcement of controls on labelling, monitoring and traceability of GMOs;
- the integration of nature conservation and biodiversity into commercial and development cooperation policies;
- the creation of programmes for gathering information on nature conservation and biodiversity;
- support for research in the field of nature conservation.

The third objective of the Programme oriented on **Environment and health** is to achieve a quality of the environment which does not give rise to significant impacts on, or risks to, human health.

The Communication proposes:

- identifying the risks to human health, including children and the elderly, and setting standards accordingly;
- introducing environment and health priorities into other policies and standards on water, air, waste and soil;
- strengthening research on health and the environment;
- developing a new more effective system for the evaluation and the risk management of new chemicals;
- banning or limiting the use of the most hazardous pesticides and ensuring that best practice is applied;
- ensuring the implementation of legislation on water;
- ensuring the application of air quality standards and defining a strategy on air pollution;
- adopting and implementing the Directive of noise.

The fourth objective - **Management of natural resources and waste**, is to ensure that the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment and to achieve a decoupling of resource use from economic growth through significantly improved resource efficiency and the reduction of waste. With regard to waste, the specific target is to reduce the quantity going to final disposal by 20% by 2010 and 50% by 2050.

Main tools to achieve this goals are as follows:

- the development of a strategy for the sustainable management of resources by laying down priorities and reducing consumption;
- the taxation of resource use;
- the removal of subsidies that encourage the overuse of resources;
- the integration of resource efficiency considerations into integrated product policy, eco-labelling schemes, environmental assessment schemes, etc.;
- establishing a strategy for the recycling of waste;
- the improvement of existing waste management schemes and investment in quantitative and qualitative prevention;
- the integration of waste prevention into the integrated product policy and the Community strategy on chemicals.

The Sixth Programme proposes a new approach to the development of a broad dialogue and the participation of industry, NGOs and the public authorities. The programme will be increasingly based on scientific and economic analyses and on environmental indicators. For this purpose, the Commission will work in close cooperation with the European Environmental Agency.

In addition to the instruments which have generally been used with regard to the environment, the Fifth and Sixth Programmes provide for the development of a broader mix of regulatory, financial and horizontal instruments:

- regulatory instruments: fixing new minimum levels of protection, implementing international agreements and establishing rules and standards with a view to the internal market;
- financial instruments: incentives for producers and consumers to protect the environment and use natural resources in a responsible manner (economic, fiscal and civil responsibility measures- taxes in accordance to main rules of environmental policy such as prevention, and "polluter pays") and "price corrections" to ensure that products and services which respect the environment are not penalized in terms of cost;
- horizontal measures: improving information and environmental statistics (preparation of comparable nomenclature, standards, criteria and

methodologies), promoting scientific research and technological development⁴, improving sectoral and spatial planning, public information (development of databases) and professional training;

- Financial support mechanisms: Structural Funds, Cohesion Fund, EIB loans; LIFE programme.

The environmental policy in the “old” Member States has achieved till now the very high level of harmonization within the EU and also the relatively high level of adaptation to global ecological norms and standards taking into consideration the harmonization the EN 9000 with ISO 9000.

The EU made also a big effort to meet its Kyoto commitment. However, Kyoto is but a first step. Thereafter, the EU should aim to reduce atmospheric greenhouse gas emissions by an average of 1% per year over 1990 levels up to 2020 (COM 2001, 264 final).

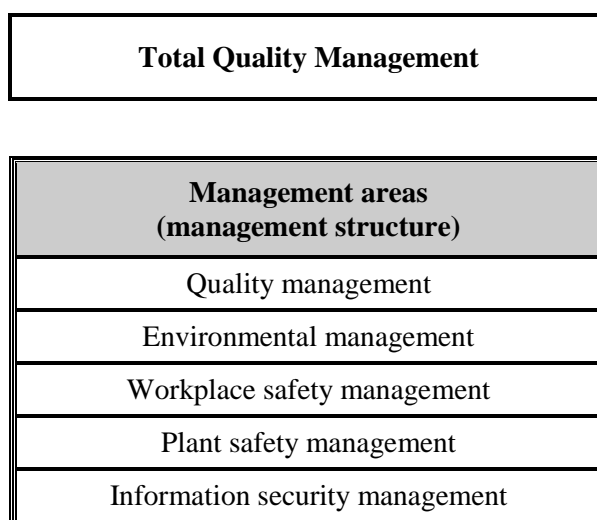
The Union will insist that the other major industrialized countries comply with their Kyoto targets. This is an indispensable step in ensuring the broader international effort needed to limit global warming and adapt to its effects.

3. International environmental protection’s standards and the activities of firms in Central and Eastern Europe.

The countries of Central and Eastern Europe seeking membership in the European Union have undertaken a number of efforts aimed at application of EEC regulation nr 1836/93 of the European Union. This regulation concerns the voluntary participation of industrial enterprises in a common system of environmental protection and environmental control of workplaces as well as implementation of the ISO series 14000 norms, which are the basis for establishing a specific system of environmental management for a given organization. Each specific system is aimed at eliminating waste by the application of a system of closed operations designed to re-use all re-usable products and materials as well as to plan, control, supervise and improve all activities of the firm and its employees which have an environmental impact. The ISO norms are designed to make environmental policies an integral part of the overall management of an enterprise.

⁴ Sustainable development and global change is one of the most important priorities in the 6th EU's Framework Programme for Research and Technological Development. The total budget to support this priority in the years 2003-2006 amounts to €2 120 million.

Environmental management should thus be broadly understood as a part of the overall system of Total Quality Management (TQM), the outlines of which are presented in the chart below.



Based on: *Total Quality Management*, D. Butterbrodt, U. Trammler, *A System of environmental management*, Spectrum, Warszawa, 2000, p. 9.

The concept of an environmental management system according to ISO 14001 is based on the fundamental elements of the TQM idea (European Vision of Quality, 2000, p.24).

ISO norm 14001 defines a system of environmental management as follows:

“part of an overall management system which encompasses the organizational structure, planning, responsibility, procedural principles, procedures, processes and the means necessary to elaborate, implement, realize, review and maintain an environmental policy” (Pochyluk, Grudowski, Szymański 1999, p.33-34).

EEC Council Regulation No 1836/93 of June 29, 1993 allowed for the voluntary participation by companies in the industrial sector in a Community ECO-MANAGEMENT and AUDIT SCHEME (Official Journal 1993). Despite the fact that the EMAS system is not a collection of environmental norms in the strict sense of the word, the requirements it imposes in the field of environmental management set standards very close to the ISO 14001 norms (Arszylowicz 2001).

The EMAS system constitutes a core instrument in the implementation of European Union environmental policy. While in its essence the EMAS requirements are in accord with the ISO 14001 norms, the fact that it provides for control mechanisms give companies with EMAS certification greater environmental credibility. In addition the EMAS system also fulfills an additional requirement of European Union environmental policy: the postulate that the public should be fully informed about the tasks and efforts connected with environmental protection. This is accomplished by the requirement that environmental audits must be prepared (Problems of Environmental Audits, 2001).

While industrial enterprises in Poland, not being located in EU territory, are not permitted to officially register in the EMAS system, they are allowed to prepare EMAS audits and, in the event they are in compliance with the EMAS requirements, to have their audits formally approved by an EMAS certifier. Such pre-approved audits will then be automatically accepted when Polish enterprises are officially permitted to register in the EMAS system. In addition Polish draft legislation concerning environmental protection contains provisions ensuring implementation of the EMAS system in Poland. This legislation, if passed, will create a Polish EMAS “infrastructure” - a competence unit, and accreditation unit, and a verification unit – which will already be in place when Poland officially joins the European Union.

4. Empirical aspects of the relationship between foreign trade and the environment in the CEE countries

In this part of the paper, changes in the structure of foreign trade of Poland, the Czech Republic, and Hungary will be discussed with special regard to goods and products deemed environmentally harmful as well as to goods and products designed to aid in environmental protection. The analysis will be based on the classification system proposed by supranational organizations in the 1990's.

The within analysis covers two types of goods and products: 1) those deemed environmentally harmful; and 2) those designed to aid in environmental protection. Both groups of goods were classified based on the HS (Harmonized System) nomenclature and were analyzed with regard to the dynamics of import and export thereof during 1992-2000.

The definition of goods and products **designed to aid in environmental protection** is given by the OECD/Eurostat Informal Group as follows:

“Goods, products and services protecting the environment, including activities which create such goods and products or offer services concerning the measurement, prevention, limitation, minimization, or correction of air, water, or sunshine pollution, or address problems of waste management, noise pollution, and eco-system management.”

The above definition encompasses waste treatment and prevention technologies and goods, products, and services aimed at reducing risks to the natural environment or minimizing pollution and the depletion of natural resources.

I. OECD/EUROSTAT lists three groups of goods and products designed to aid in environmental protection (OECD/EUROSTAT, WTO 1999)⁵.

- a) goods and products designed to aid in environmental management: includes goods and services created exclusively with the aim of environmental protection and having a significant impact on pollution reduction and the identification and collection of statistical data;
- b) cleaning products and technologies: includes goods and services which reduce or eliminate environmental harm. These are sometime used for other purposes as well, and their identification and classification in relevant statistical data is difficult, expensive, and open to controversy;
- c) management and avoidance: this group includes goods, products, and services which may have significant positive environmental effects but which are designed and implemented for other purposes (such as energy saving technologies, creation of alternative energy sources, etc.). This category may be considered optionally and its classification and analysis depends to a great extent on existing environmental policies as well as access to statistical data.

II. Goods and products harmful to the environment include mainly those produced by the following industries: mining, metallurgy, chemical, paper and cellulose, energy, construction materials, and means of transportation⁶.

⁵ Based on the definition of the environmental protection industry set forth in the OECD/Eurostat Informal Group: “Goods and services protecting the environment include the manufacturing of products and the development of services regarding the measurement, prevention, minimalization, elimination, or correction of water and air pollution and solar system pollution, as well as addressing the problems of waste disposal, noise pollution, and eco-system maintainance.

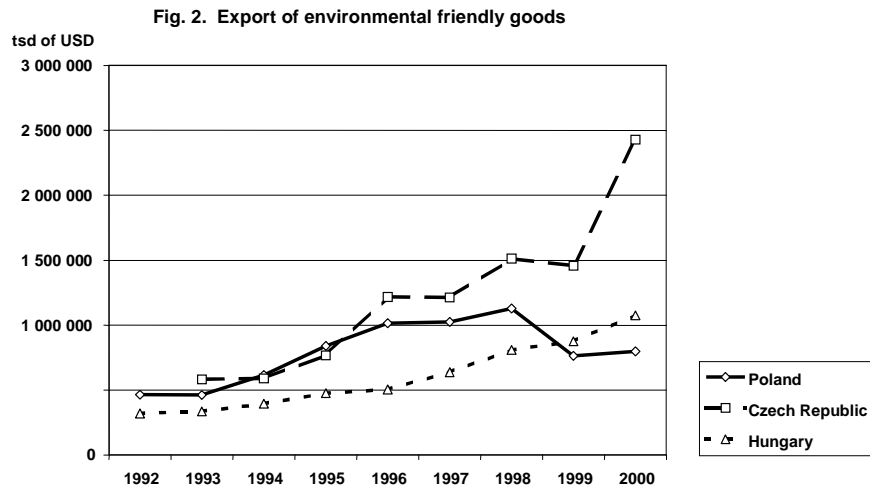
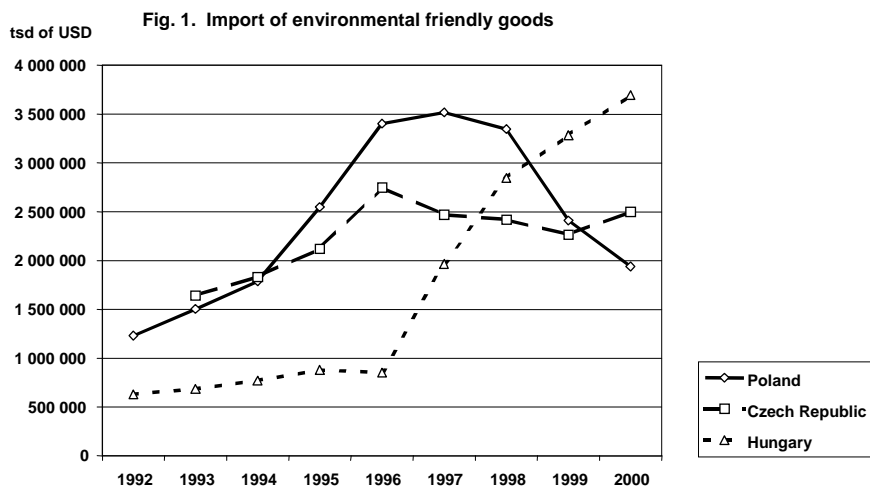
⁶ The analysis which follows is based on the author’s own research, taking into consideration the earlier-presented analyses in the theoretical part of this presentation.

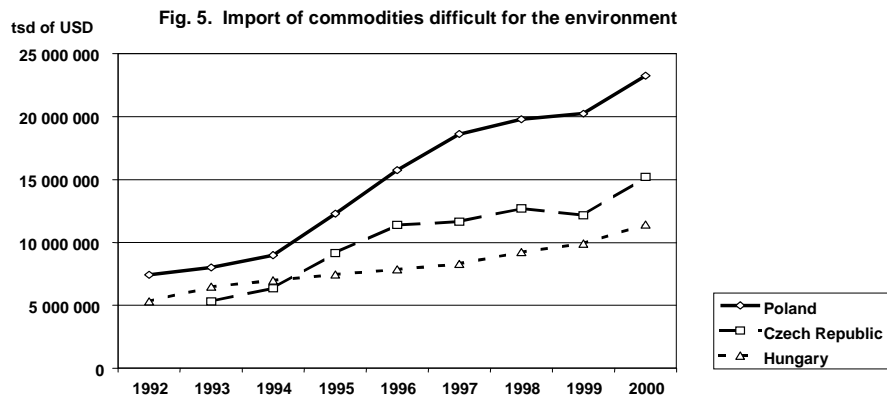
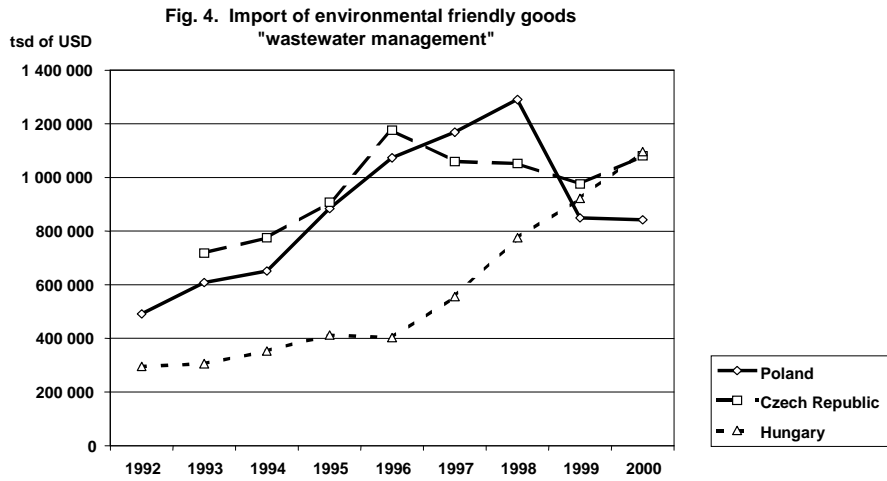
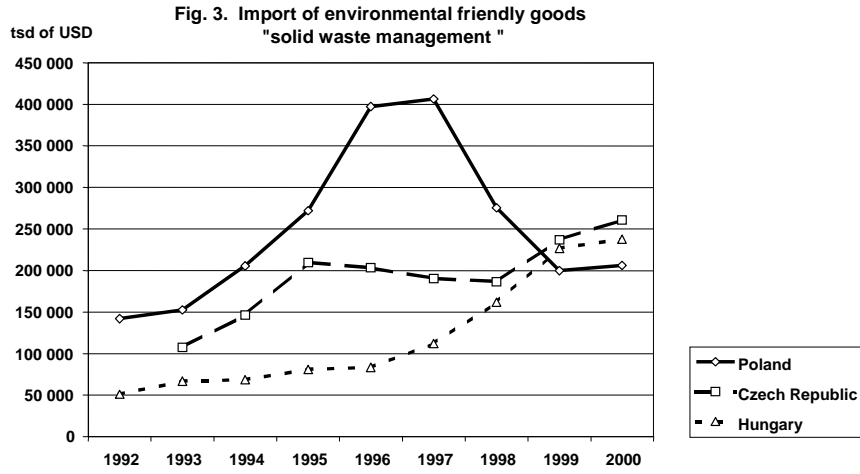
An empirical analysis of import and export of the above goods in Poland, The Czech Republic, and Hungary, based on the aggregate reports presented in Figures 1-8, leads to the following general conclusions:

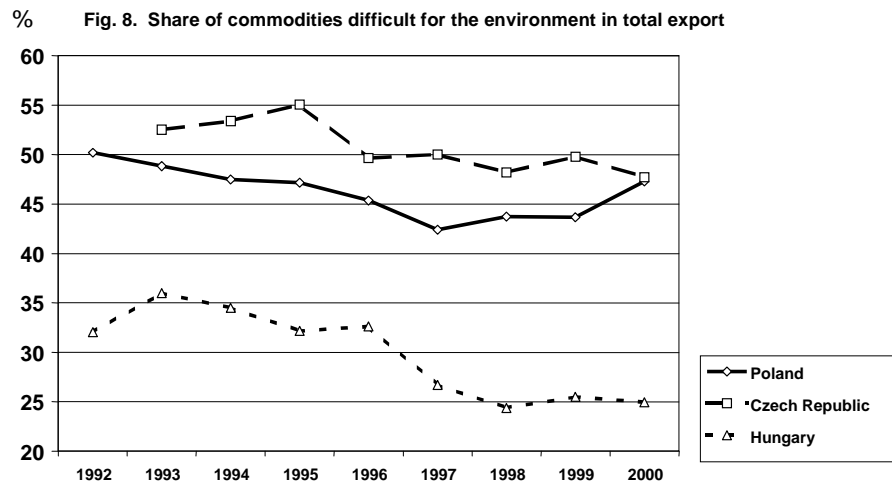
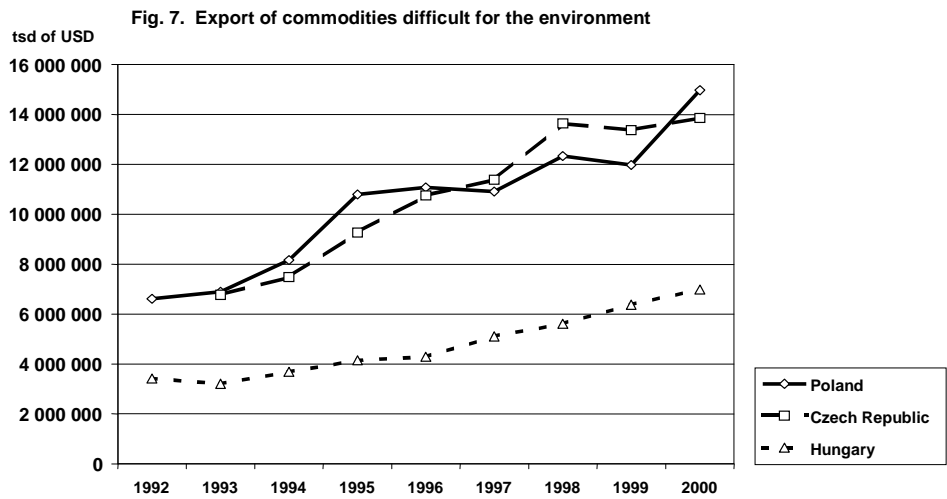
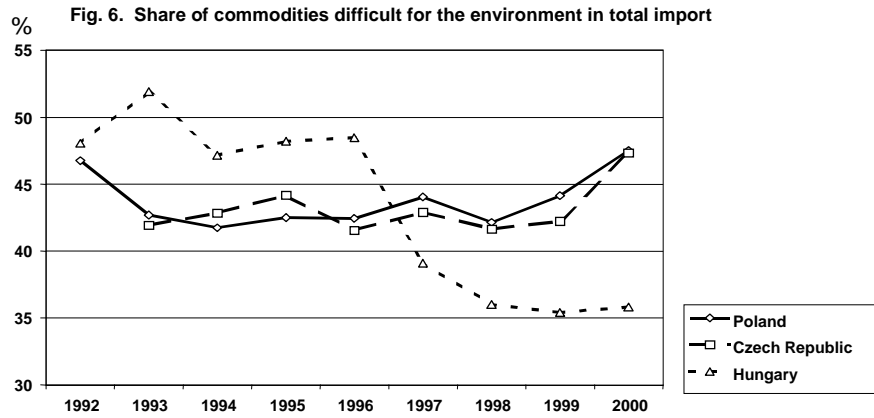
- 1) In all three of the analyzed countries one can observe significant increases during 1992-2000 in the import of goods designed to aid in environmental protection. This trend is particularly observable in absolute terms based on values expressed in USD. In the case of Hungary, a period of relatively low investment in the first half of the 1990's was followed by a dynamic increase in the second half of the decade, spurred by a particularly intensive import of goods and products relating to waste-water management and solid-waste management. In Poland a period of significant growth in imports was observable between 1994-1996, followed by a declining trend between 1997-2000, particularly in goods and products relating to solid waste management (in the second half of 1996 and 1997), followed in 1998 by a decline in imports of goods and services relating to wastewater management. A similar trend of initial increases in imports followed by a decline is observable in the Czech Republic, although the changes there are less intense than in the case of Poland. The most stable and gradually increasing trend in the import of the three groups of goods and products relating to environmental protection, that is *air pollution control, waste-water management, and solid waste management*, took place in Hungary throughout the period in question (See Figures 1;3;4).
- 2) Exports of goods designed to aid in environmental protection in the three CEFTA countries examined during the time period in question rose at a significantly slower level than imports. Nevertheless one can observe that greatest increase in exports in the 1990's took place in the Czech Republic, while in Poland a significant growth in exports collapsed in the 1998-2000 period. A stable growth trend, albeit at a lower absolute level, is observable for Hungary during this period (See Figure 2).
- 3) On the other hand import of goods deemed harmful to the environment was characterized by a growth trend in all three analyzed countries throughout the 1990's. In absolute terms the growth trend was lowest in Hungary, and somewhat higher in the Czech Republic, particularly in the latter half of the decade. The largest increase in the import of goods deemed harmful to the environment was noted in Poland in the second half of the decade,

where such imports were 2 to 2.5 times greater than in the other analyzed countries (See Figure 5; 6).

- 4) The export of goods deemed harmful to the environment was also characterized by a growth trend in all three analyzed countries throughout the 1990's, although once again the absolute growth trend was lowest in Hungary, while in Poland and the Czech Republic the export of goods deemed harmful to the environment increased more than two- and three-fold during the period analyzed (see Figure 7; 8).







5. Environmental norms and standards and the activities of Polish enterprises in light of the research survey results

The aim of the research survey questionnaire was to conduct an analysis of the changes in the competitive positions of Polish enterprises as a result of applying the environmental norms and standards of the European Union, WTO, and OECD. The survey questionnaire contained 28 questions and was sent to 2138 firms. Replies were received from 286 firms, constituting about 14% of the survey sample⁷.

An analysis of the structure of the respondents, based on the European Classification of Activities (NACE) system, showed that 14% of the surveyed firms were engaged in the production of ready-made metal products, with the exception of machinery; 12% were engaged in the construction industry; 9% were engaged in the production of otherwise unclassified machinery and equipment; 8% were engaged in the production of chemical products and artificial textiles; 7% were engaged in the production of rubber-products and artificial creations as well as in producing radio, television, and communications equipment and machinery; 6% were engaged in metal production; and 5% were engaged in the production of products from non-metallic natural resources as well as in the productions of foodstuffs and beverages.

18.9% of the respondents were in the public sector and approximately 71% in the private sector. Polish domestic firms dominated the private sector respondents, constituting 84.2% of the surveyed firms, while approximate 7% were foreign firms and 9% contained a mixture of Polish and foreign ownership. German, French, and Swiss firms dominated among the foreign firms.

In response to questions concerning the import of clean technologies and environmental products, approximately 34% of the respondents confirmed the import of such products and technologies, while 61% stated that they did not engage in such import. Approximately 5% of the surveyed firms failed to provide a response to this question.

More positive were the responses of the surveyed firms to questions concerning the environmental strategies they employed. Almost 78% of the respondents stated that they employed a strategy of avoiding environmental harm from the beginning of the production process, while only 36% of respondents stated that they applied the “end of the pipe” strategy.

⁷ 57 survey questionnaires were returned without delivery owing to incorrect address information.

54% of the surveyed firms confirmed that they have implemented ecological norms in recent years, while only 16% stated that they have not engaged in such activities in recent years. 30% of the surveyed firms, however, failed to respond to this question. Among the firms implementing ecological norms nearly 37% confirmed that they are in compliance with the ecological norms of the European Union; 31%, on the other hand, stated that they were not in compliance therewith. Only 30% of the respondents indicating that they were complying with ecological norms confirmed compliance with international ecological norms of the type ISO 14000, while 70% confirmed that they did not apply such norms to their activities.

The most common barriers listed by the respondent firms to the implementation of ecological norms were primarily the following:

- lack of legal and financial solutions, in particular the lack of means to finance such investments;
- lack of financial aid programs and funds earmarked for ecological purposes, as well as the high costs of expertise in the area of implementing new technologies;
- frequent and inconsistent changes in the legal regulations and unclear interpretations of environmental regulations;
- instability in national environmental regulation;
- a poorly developed system of waste segregation;
- a complicated system of assessing fines and clean-up charges for environmental damage;
- organizational difficulties with implementation of a system of outside consultation within a firm;
- technical obstacles, including the lack of a network for collecting industrial wastes and a poorly organized market for waste control;
- lack of information, including information about firms engaged in utilization of waste products;
- bureaucratic and administrative barriers.

Among the firms responding to the survey only about 12% noted a positive relationship between the implementation of ecological norms and growth in domestic sales, while 15% confirmed the existence of such a relationship as regards sales in the foreign markets. 14% of respondent firms stated that they had more opportunities to cooperate with international firms operating in Poland as a result of their compliance with ecological norms, while 16% of respondents felt that they had more opportunities to cooperate with foreign firms abroad as a result of their compliance with ecological norms.

One quarter of the respondent firms indicated that they feel that their compliance with ecological norms and standards and their participation in Integrated Programs of Environmental Management will result in increased sales on the domestic market upon Poland's accession to the European Union, while 12% consider that the same will have no effect on their position on the domestic market and 5% consider that the effect, if any, will be minimal. About 35% of the surveyed firms failed to respond to this question.

The respondent firms' assessment was more positive however as regards increased sales on the single European market upon Poland's accession to the European Union, where 29% of respondents indicated that they feel that their compliance with ecological norms and standards will have a positive effect on export sales. 22% of respondent firms, on the other hand, feel that their compliance with ecological norms and standards will have either little effect on export sales or none at all, and 37% of respondents once again failed to respond to this question.

6. CONCLUSION

Market of environmental friendly goods is one of the most expanding markets during the 1995-2001. It achieved roughly the same size as the pharmaceuticals and information technology markets.

Barriers to trade understood as bound tariffs on many capital goods used to provide pollution-management services are low in all developed countries, but in most developing countries these tariffs remain relatively high. Technical regulations affect the type of environmental goods used to meet environmental requirements. On the other hand, trade in niche products seeking to enter new markets may be hindered by the lack of appropriate standards and certificates for such products. Imported environmental technologies need to be tested and certified by local authorities in individual markets.

CEE countries analyzed in the paper undertook significant steps in the 1990's to improve their natural environments, increasing their imports of goods designed to aid in environmental protection and technologies to implement "clean production" of export goods. These steps should improve the competitiveness of Polish, Czech, and Hungarian goods and products in the future on both the European and global markets.

Research results confirm the pro-ecological emphasis of transition economies' efforts in restructurization, particularly when read together with the significant increase in their foreign trade in pro-ecological goods and services.

An analysis of the results shows that most foreign investors do take environmental protection issues into account in making their decisions, but they do not consider them to constitute a major investment factor. A majority of the respondents favour centralizing strategies. This strategy seems advantageous for recipient countries. Firms with foreign capital frequently introduce environmental protection norms and take part in an environmental protection program.

REFERENCES

- Alpay S. (1999), *The Trade and Environment Nexus*, [in:] E. Ortiz, A. Cabello (eds.), *Economic Issues and Globalization: Theory and Evidence*, ISINI.
- Antweiler W. B. Copeland & M. Taylor (1988), *Is Free Trade Good for the Environment?*, NBER Working Paper Series, 1988, No. 6707.
- Butterbrodt D., Trammner U. (2000), *Total Quality Management, A System of environmental management*, Spectrum, Warszawa.
- EC (1994), *Communication on Economic Growth and Environment*, COM(94)465 Final, Brussels, 1994.
- EC (1996), *Communication to the Council and the Parliament on Trade and Environment*, Brussels, 28.02.96.COM (96) 54, Final.
- Ekins P. C., Folke C. & Costanza R. (1994), *Trade, Environment and Development: The Issues in Perspective*, "Ecological Economics" 9(1).
- European Union's sustainable development strategy*, Brussels 2001, (COM/2001/0264 final).
- Gentry (ed.) (1998), *Private Capital Flows and the Environment. Lessons from Latin America*, Cheltenham, Northampton.
- Greenhouse gas emissions trading and climatic change programme*, <http://www.europa.eu.int/scadplus/leg/en/lvb/l28109.htm>.
- Implications of WTO Agreements for International Trade in Environmental Industries*, ITC 1999, [in:] *Trade and Environment Review 2003*, United Nations, Geneva, New York, 2004.
- Lucas R. E. B. (1992), *Economic Development, Environmental Regulation and International Mitigation of Toxic Industrial Pollution: 1960-1998*, [in:] P. Low (ed.) *International Trade and the Environment*, Discussion Paper 159, Washington, DC, World Bank.
- OECD (1999), *Environmental Goods and Services Industry - Manual for Data Collection and Analysis*, OECD-EUROSTAT, WTO, Paris.

OECD (2001), *Environmental Goods and Services, The Benefits of Further Global Trade Liberalisation*, Paris.

Repetto R. (1993), *Trade and Environment Policies: Achieving Complementarities and Avoiding Conflicts*, Washington, DC: World Resources Institute.

Sixth Environment Action Programme - Environment 2010: Our Future, our Choice (COM 2001, 31).

Sorsa P. (1994), *Competitiveness and Environmental Standards*, The World Bank Research Working Papers, February.

Xinpeng Xu, Liang Song (2000), *Regional Cooperation and the Environment: Do "Dirty" Industries Migrate?*, *Weltwirtschaftliches Archiv*, Band 136.