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## **International Trade and Sustainable Development**

### **1. Introduction**

From the whole complex of mechanisms for ensuring the realisation of ecological purposes, trade occupies a key position. Why is this so? Why are hopes of solving ecological problems now directed to trade after a number of unsuccessful attempts to achieve it by means of other administrative mechanisms? Why do incentives through trade frequently appear much more convincing, though they look much more laconic and easier than ardent appeals and the most severe administrative measures?

Analysis of social-economic premises of the influence of trade operations on the state of the environment facilitates the formulation of the basic principles of trade and their application in environmental management.

Trade is the motive of any market economies. "Market" means trade which is the basis of three main interconnected economic processes: "market of goods", "market of capital", "market of labour".

Small and large cycles of economic processes begin and come to an end in trade:

- Money - goods - money
- Exchange - manufacture - distribution - consumption - exchange
- Investment - science - creation of the enterprises (technologies) - manufacture of the goods - sale - investment.

Trade is, perhaps, the only one sector among all the sectors of international human contacts which have a common universal language comprehensible by all nations and strata of society of the Earth. From this point of view, trade is the most suitable means of international exchange.

Trade is the most democratic management instrument. It is based on volition and allows each citizen to participate in the decision making process by providing money for financing economic processes.

Trade is developed on the basis of objective public laws.

## 2. Function of trade in environmental management

The formulation of the basic ecological functions of trade in environmental management illustrated in Figure 1 are discussed below:

- Restrictive function: By supervising trade flows, it is possible to influence actively and to restrict ecologically adverse goods and services.
- Regulating function: Allows the determination of a reasonable degree of capacity in the application of the principles "polluter pays", "consumer pays", "society pays", and the establishment of rules and responsibility.
- Distributive function: Provides an opportunity to realise the principle of equivalence for the redistribution of profit and costs, including environmental costs and benefits.
- Compensatory function: Through trade, environmental taxes are levied and environmental costs are compensated.
- Incentive function: By means of trade, consumer's demand for environmentally friendly goods and services is determined.
- Supporting function: Due to trade, economic agents can support eco-balance and environmental health by using alternative energy sources, introduction of advanced technologies in cultivation of agricultural crops, and soil cultivation, etc.
- Information function: By means of trade, consumers can obtain correct information on the available selection of goods and their uses.

## 3. Trade operations in the context of environmental economics problem solving

Analysis carried out have allowed us to make classifications of trade operations in the context of environmental economic problem solving (Figure 2). Accordingly, the trade operations can be classified as follows.

1. Stages of selling objects of non-environmental purpose:
  - 1.1. *Natural resources.*
  - 1.2. *Raw material.*
  - 1.3. *Semi-finished products.*
  - 1.4. *Technologies.*
  - 1.5. *Finished products.*
  - 1.6. *Wastes.*

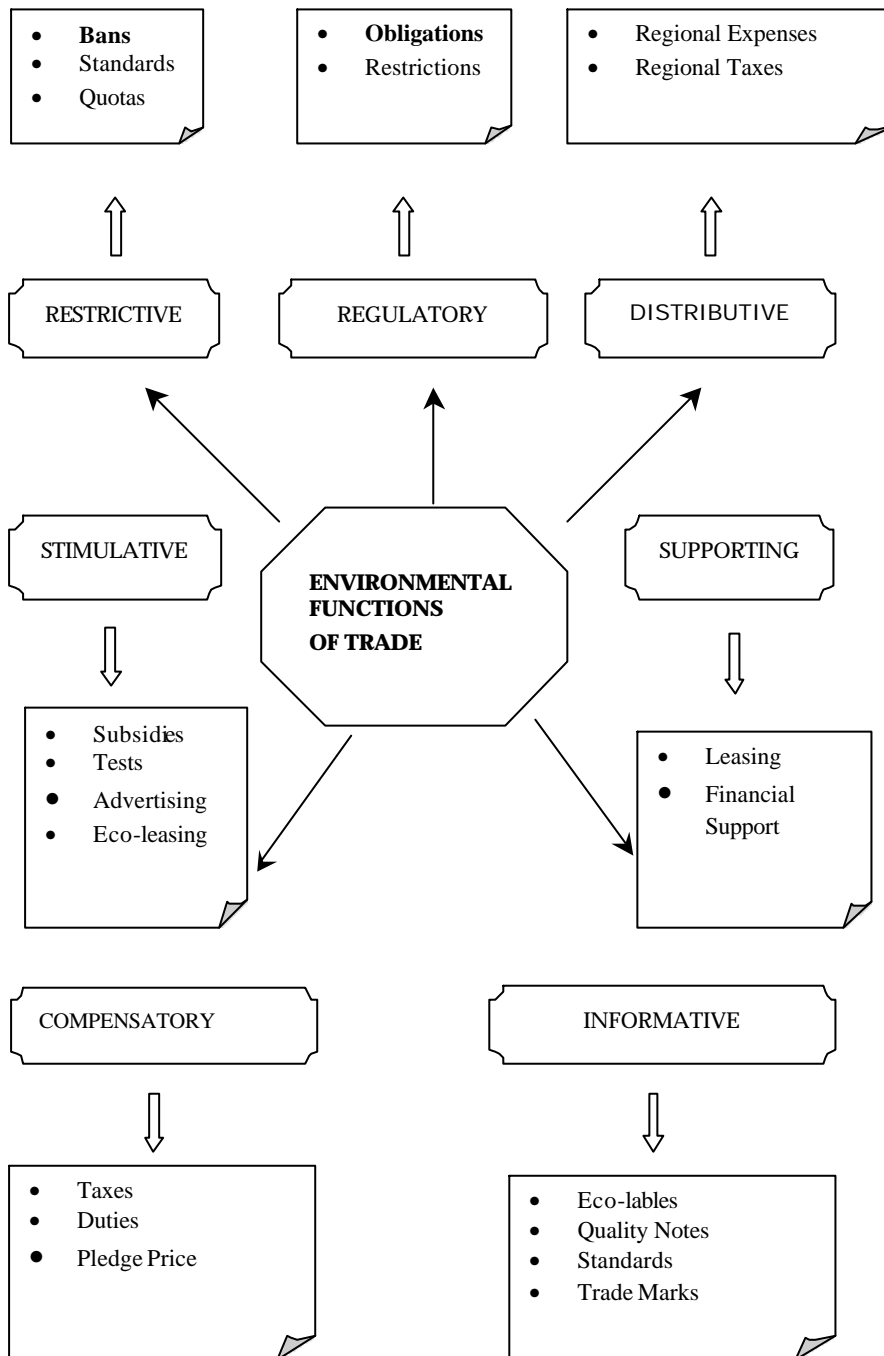


Figure 1: Classification of trade and environmental functions and instruments

2. Environmental functions of selling objects of environmental purpose:

- 2.1. Refine mountings, equipment.
- 2.2. Monitoring systems.
- 2.3. Natural objects.
- 2.4. Genetic information.
- 2.5. Systems increasing efficiency.
- 2.6. Informational and educational programmes.
- 2.7. Wastes.
- 2.8. Medical preparations.

3. From world-wide scale, the mentioned classification is from global to local. Following this, we can identify the following types of trade operations:
  - 3.1. *International (global) trade – all countries of the world are involved to some extent. A degree of integration depends on many factors: economic, political, geographical, cultural, etc.*
  - 3.2. *Trade between adjacent countries limits the range of trade partners up to a number of adjacent (neighboring) countries.*
  - 3.3. *Trade between intranational territorial formations means trade relations between separate regions of the country. For example, between areas, states, provinces, etc.*
  - 3.4. *Trade relations between separate sectors of a national economy characterise trade between intranational economic formations. Almost each state represents an economic union with a unified economic system (money, tax and social) and trade policy.*
  
4. According to the processes of environmental degradation, the determining factor for this classification is the eco-destructive factor of trade processes. Proceeding from it, it is possible to specify the following groups:
  - 4.1. **Absolutely environmentally destructive.** *For this group, it is necessary to attribute trade operations which ascribe environmental damage to both sides (for example, extraction and processing of raw materials). It is necessary to note that the size of environmental damage can be variable. Therefore, within a given group of classification, it is possible to identify the following subgroups of eco-destructive trade operations.*
  - 4.2. **Eco-destructive operations on the selling side.** *In this case, it is possible to speak about environmental damage only on the selling side (for example, natural and, in some cases, raw resources trade).*
  - 4.3. **Eco-destructive operations on the buying side.** *Buying (consumer) side involves energy, raw material, technologies, and toxic wastes, environmental costs. Out-of-date technologies and wastes processing results in serious infringements and changes to country eco-balance.*
  - 4.4. **Environmentally neutral.** *To this subgroup is attributed all trade operations which practically do not damage the environment. To the second group of classification it is necessary to attribute a subgroup of trade operations to achieve eco-destructive reduction.*
  - 4.5. **Reduction of eco-destruction on the selling side.** *Selling raw materials and semi-finished products involves is a transformation of a share of environmental damage associated with processes of products used at subsequent productive stages of the technological process.*
  - 4.6. **Reduction of eco-destruction on the buying side.** *Buying advanced technologies and equipment, the applications of which allow a reduction of environmental strain will enable consumers to protect themselves from environmental damage. The same can be told about a purchase of goods and semi-finished products which have been subjected to the most intensive stages of manufacture.*
  - 4.7. **Reduction of eco-destruction on both sides.** *The most effective type of trade operations, from the point of view of achieving trade ecologisation purposes is that both sides have environmental benefits (for example, trade in "environmentally pure industrial goods"). The volume of their sales totals us \$235,000,000 and an increase of 50 % is expected within the next 10 years. Industrially developed countries are producing about 90 % of world manufacture of such products. The basic exporters are Germany, Usa, and Japan. A huge growth in demand for these products is expected in the developing countries, especially in the rapidly developing countries of South-East Asia.*

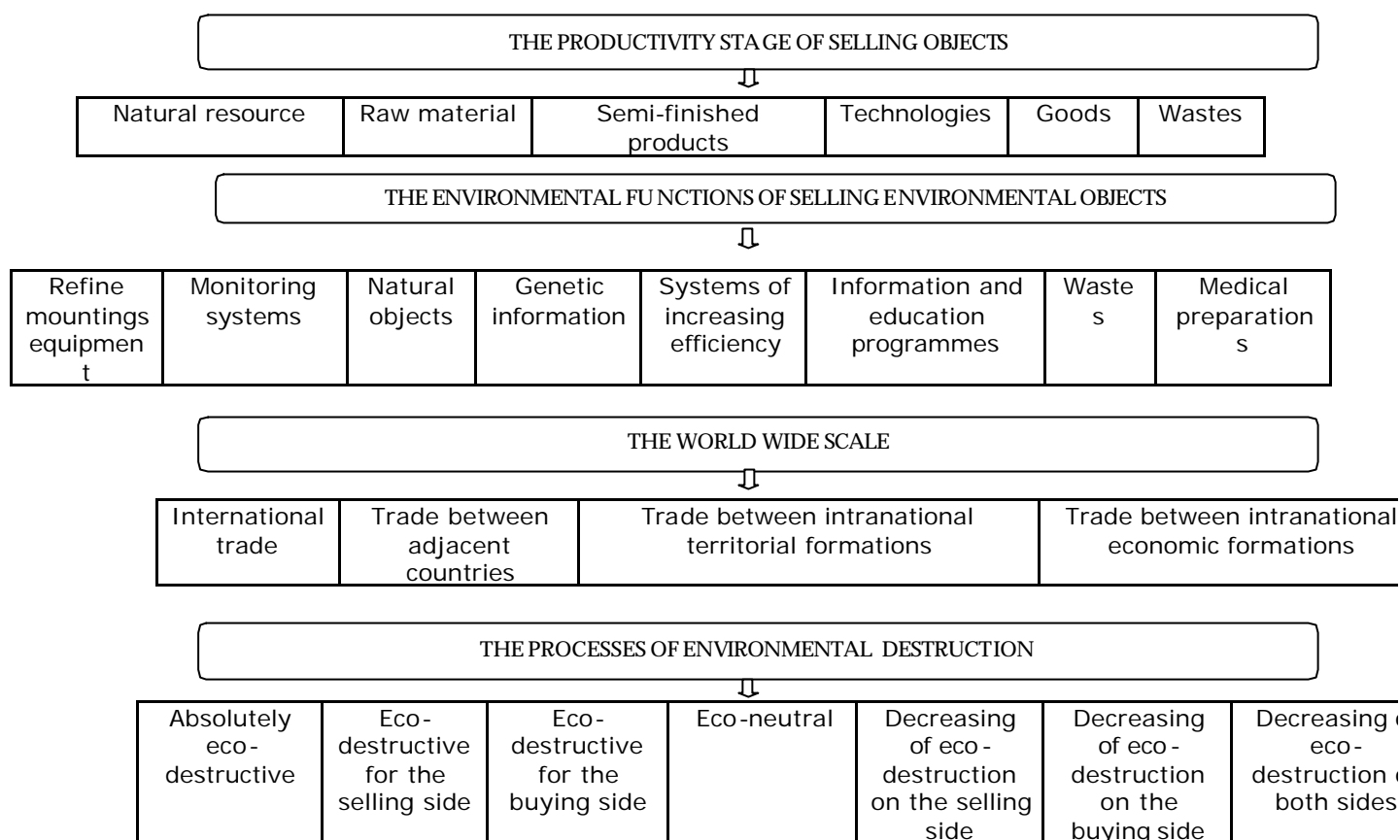


Figure 2: The classification of trade operations according to environmental and economic factors

The economic analysis of trade operations has allowed the allocation of the following groups of cost characteristics which influence the profitability of trade operations: profit mechanisms and costs distribution over the productive stages of technological processes (Figure 3).

#### 4. World experience in using ecological factors in trade

The questions of environmental protection often constitute a core element in international trade agreements. The initiators of this process are the USA and the developed countries of Europe. There is concern between international environmental organisations about the influence of trade agreements on the environment. These fears are based on the following assumptions:

- that economic growth promotes environmental degradation;
- that trade in agricultural products in developing countries results in the cutting down of forests and the exhaustion of other natural resources (agricultural expansion in the areas of cultivation aims to increase export volumes).

To solve these contradictions, environmental organisations seek for help from GATT (General Agreement on Tariffs and Trade). It is difficult for them to include the same environmental requirements in trade agreements to complement those that act for protectionism in trade (for example, farmer unions and so-called "green protectionism").

In both cases, the aspiration to restrict free trade is observed. The experts OECD (Organisation of Economic Cooperation and Development) predicted these situations in the

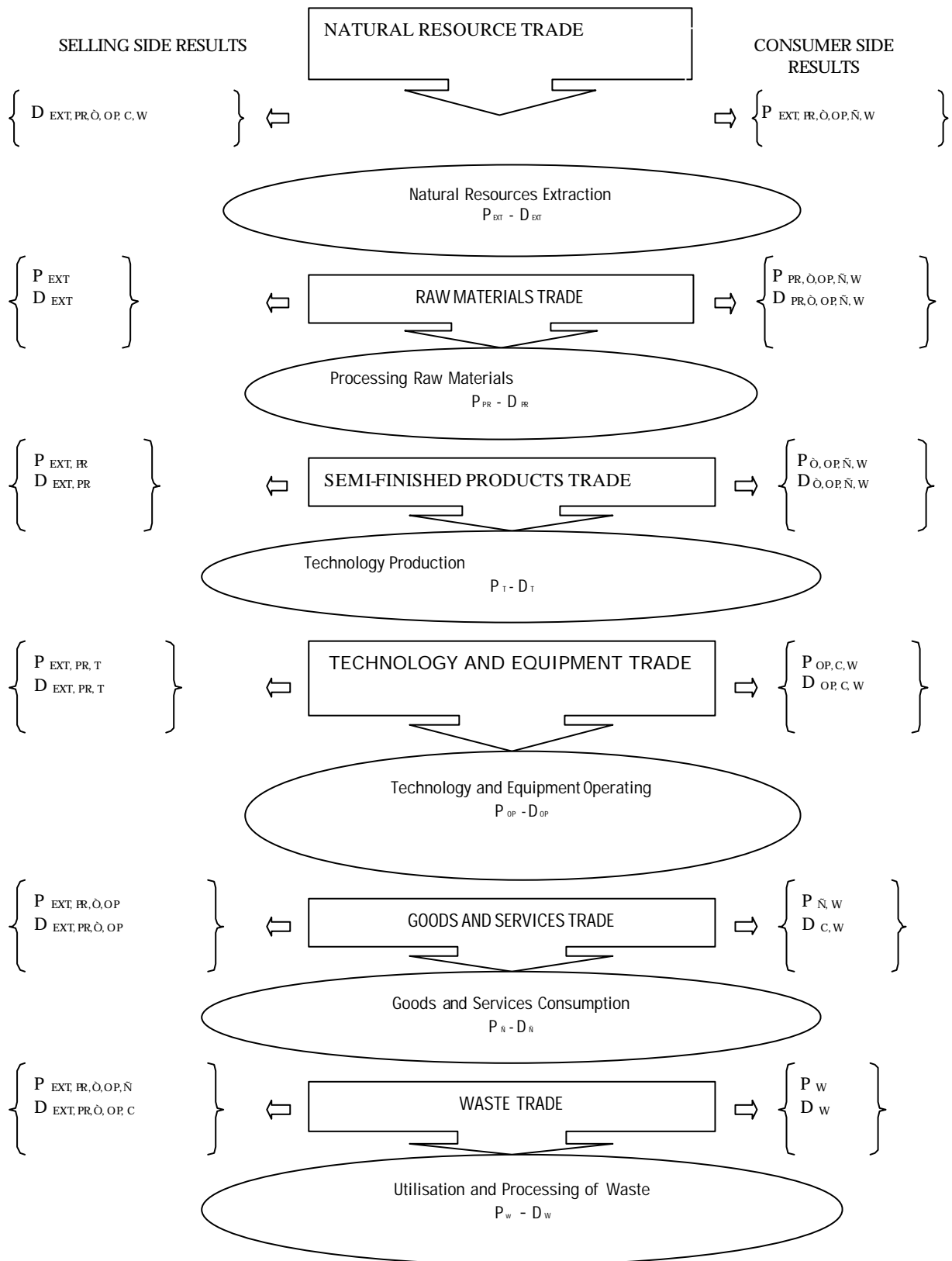
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middle of the 1980's: *"As the problems of environment and trade get international importance during the 1990's, the contradiction between them will become aggravated."*

There are four basic reasons why environmental experts act against the process of trade liberalisation without acceptance of the required environmental measures.

Liberalisation of trade often results in trade agreements about market exit, which can be used to bypass the severe internal environmental requirements.



**P** – profit of products use on a given productive stage; **D** – damage, associated with this productive stage.

Figure 3: Mechanism of profit and costs distribution over the stages of the productivity-consumption cycle.

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Agreements on environmental protection and restrictions on international trade include:

- International trade convention on disappearing animal and plant species.
- The Montreal Protocol on restricting ozone destroying emissions; all countries are obliged to stop trade in freons and other ozone destroying substances.
- Baseless Convention on border control of dangerous waste transportation and their liquidation directly forbids such transportation, according to certain conditions.
- International agreement of raw material trade in tropical woods protection is first and foremost. including principles of the environmental protection.

## 6. Conclusion

The majority of key economic factors which determine the character of economic relationships – price, cost, outlay, expenditure – are influent exchange of goods and services. The economic instruments which help to realise economic motivation in management include taxes, fees, charges, wage and dividends.

The influence of management turns out to be the strongest because it allows to control the most sensitive points of economic sectors (juridical or physical persons) of society – their pecuniary interests.

Trade is the peculiar "super conductor" which unites different stages of the economic processes, regions of a country, a nation and a state into one communication system using any kind of motivational impulses.

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