# Development of a green economy and environmentally friendly business in Russia

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**Abstract.** The issues of the environmentally friendly business development in Russia are considered in the paper. The authors research the concept of green production and market, management tools for corporate environmental responsibility. The paper examines the environmental innovations as changes in the socio-economic development of the society, which, together with a positive effect, improve the state of the environment or significantly reduce the negative impact on it. In the conclusion, the authors state that the greening of the enterprise's relations with consumers implies, on the one hand, encouraging the supply of environmental goods and services, and on the other, creating a consumers' good taste - economic needs and interests oriented to high eco standards. In the paper, the necessity of the green business guidelines implementation in Russia is justified. It helps to form and improve the entrepreneurial culture and a responsible attitude towards society and nature, as well as to promote principles of green economy.

#### 1 Introduction

Ecological and economic needs appear to be the objective indicators of human dependence on the environment. As they become aware, environmental and economic needs begin to take the form of ecological and economic interests that motivate human behaviour. Ecological and economic interests arise on the basis of needs, but are not reduced to them. The relationship between need and interests is the relationship between concepts of a different order. This is the relationship between essence and appearance. The need expresses the need, the interest - the attitude to the need. Ecological interest can be defined as an active attitude to environmental needs, caused by an awareness of its vital significance. Ecological and economic interests are formed under the influence of the awareness of the need to achieve economic conditions for environmental management, which would ensure the development of social production while maintaining viable properties of the environment. As an economic category, ecological-economic interests manifest themselves in the system of economic relations and relations that contribute to the realization of ecological-economic needs.

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Compared with industrialized countries, Russia is at the beginning of the path to becoming a green economy. The country is forming a core of environmentally responsible business, which has practice in the production of eco-friendly products, their certification and competent marketing. Different participants in the economy are interested in eco-standards: the government, which can use eco-standards through a system of green public procurement, can choose eco-friendly products and stimulate the development of this market segment, manufacturers who increase their production efficiency and acquire competitive environmental advantages, retail that acts as a green market regulator, and consumers voting for environmentally preferable goods and services.

# 2 Environmentally friendly business development: a worldwide tendency

Eco-labelling is one of the serious, having a wide range of assessment and at the same time understandable by the value of tools (eco-certification by life cycle criteria "from the extraction of raw materials to recycling"). It is actively used by both producers and consumers. Also tested a number of industry eco standards. For example, in construction these are LEED and BREEAM standards [1]. Standards that are functional for the B2B market are applied - the product environmental declaration (EPD) [2].

In the European Union, a variety of products are certified: from building and finishing materials to shampoos. In Russia, there is also an internationally approved tool for assessing the environmental safety of production and product properties - this is the only voluntary eco-certification program in Russia for the life cycle of the international level "Vitality Leaf" [3]. International research suggests that among the 10 demand trends that will be relevant until 2020, there are two important for us. This is the ecological knowledge of consumers and the popularity of a healthy lifestyle. This fashion came to Russia only in the 2000s. The demand for such products is growing steadily.

In order for Russia to move towards a green economy, it is necessary to develop an environmentally oriented business that could produce clean green products. Environmentally friendly production is not just a business strategy, but a concept for the development of society as a whole, which is based on the production of goods and services with minimal negative impact on the environment. Accordingly, the use of this strategy at the state level assumes the formation of a demand for environmental goods and services and contributes to the sustainable development of the country as a whole.

The use of this strategy by enterprises means not only a gradual qualitative transformation of the entire economic system, it directly leads to the formation of a new type of economic activity, segments and new markets proper, previously subsystems of more general market segments, or did not exist at all. The ecological market and the market for environmental goods and services are almost identical categories, so the eco-industry is its component and the basis of its formation and development. Eco-industry products are sold on the market, thus forming an offer on it. All traditional economic entities - financial and non-financial enterprises, the state, foreign residents, and households - participate in shaping the demand for products. These subjects interact on the ecological market of environmentally safe goods and services with their counterparties - manufacturers, representatives of the eco-industry, within the information and market environment.

Environmentally responsible services are another important segment of responsible consumption. For example, in Singapore, around 100 offices are certified annually as part of a national program [4]. For Russia, eco-office is a new trend it is mainly adhered to by large international companies working in the country as well as state-owned companies. New responsible offices continue to appear. However, innovations in Russia are developing

at a slow pace, and the share of enterprises that implement environmental innovations remains insignificant in this structure, fig.1:

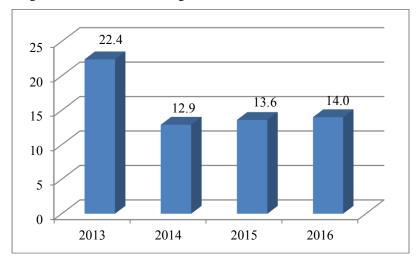


Fig. 1. The share of enterprises that implement environmental innovations in total share of enterprises implementing innovations in Russia [5].

Ecological market - defined as a component of the overall market environment, which is characterized by a competitive exchange of all that is aimed at the preservation, restoration and rational use of the environment, improving the quality of life of people and their environmental insurance [6].

The following areas of economic and social activities of the society fall into the scope of environmental business:

Human reproduction	
Resource-saving technologies and equipment	
Measuring and control equipment	
Recreation	
Environmental planning and reproduction	
Recycling	
Demographic regulation	
Environmental education	
Resource-saving technologies and equipment	

Fig. 2. Scope of environmental business.

The ecological market is the market of ecological technologies, works, industrial goods, services, knowledge and ecological information. According to this definition, we can talk about the allocation of a separate subsystem of market relations, whose development is determined by the internal trends of the eco-industry. A special place in the structure of the ecological market is occupied by the actual market infrastructure, represented by a special type of enterprises - environmentally-oriented enterprises. In addition, the specificity of this

market is determined by a number of international regulatory documents and its development is influenced by the activities of supranational and international organizations.

Within each of these activities, an independent market environment of ideas, patents, resources, goods, services, labour and capital arises. Advertising is important in the environmental services market. It is advisable to impose sanctions for unfair advertising. The market for environmental work and services is formed with the advent of consulting, engineering and innovation firms, licensing of environmental protection activities, the development of a network of paid works and environmental protection services, and the involvement of foreign firms in environmental work and services.

The daily life of people is the main source of ecological footprint. According to the WWF, 68% of the footprint is the result of household consumption. Socio-economic factors, income levels, food products, consumed goods and services, as well as the resulting waste - all this becomes part of the country's ecological footprint [7]. The ecological footprint is the area of the biologically productive territory and water area necessary for the production of human resources and the absorption of waste.

The amount of human impact on the planet depends on how much energy and water we spend, how much garbage we throw out, what kind of food (and in which package) we eat, what kind of furniture and clothes we choose. Without changing the habits and behavior of people, no standards, prohibitions and laws will help people stop the destruction of the environment and achieve harmony with nature.

The annual turnover of capital in the market of environmental technology and technology, according to literary data, is about \$ 200 billion. In the environmental technology market, companies from the USA, Japan and Germany are particularly successful [8]. The market in the environmental field has its own characteristics due to the specificity of the product and the ownership of the objects of nature. Environmental protection activities do not provide a materialized product. The result of such activities are specific services in the form of prevented damage or in the form of improving the quality of the human environment. The effect of environmental activities is received free of charge by other enterprises and the population of a certain territory. In other words, environmental "goods" are typical public goods, but this does not mean that in the environmental sphere there are no economic bases for commodity relations.

The market is possible only if the manufacturer (seller) is the owner of the produced, and the buyer - the purchased product of labor. However, not all objects of nature can be the property of producers, as some of them represent the common human wealth or the wealth of the peoples living in a given territory. The social product is precisely the fact that in relation to it there is the possibility of collective use and at the same time competing users of nature cannot be excluded from the consumption process. As a result, there is competition for such products, the relative possibility of their use. At the same time, it is necessary to look for methods, ways of involving into the relations of sale and those elements of the environment and even their properties that are not amenable to alienation, relying on the multi-subject property of natural objects, relations between social and economic entities.

There is disagreement in determining the category of "environmentally friendly products". Most authors consider this concept primarily from the point of view of environmental safety. For example, I. Potravny considers the environmentally friendly product as the product that is safe for both humans and the environment [9]. Some economists by environmental goods understand various types of natural resources. Others consider them on the examples of clean air, water, soil, and health. Also ecologically clean products are products and services, the production and consumption of which contributes to a decrease in the integral environmental impact per unit of total social product. Under the environmentally friendly products refers to everything that can satisfy the ecological need

or its lack. It could be offered to the market in order to attract attention, purchase, use or consumption.

There is the concept of environmental innovation as changes in the socio-economic development of the society, which, together with a positive effect, improve the state of the environment or significantly reduce the negative impact on it. There is also the concept of "environmental entrepreneurship", which refers to activities for the production and sale of goods, carrying out works and services aimed at preventing harm to the environment and public health. It is possible to use the term "environmentally friendly product" from the point of view of five criteria: toxicity, irreversibility, uncontrollability, level or size of the influence of a product (process), burdening an ecological system with a product.

Recently, more and more ecologically pure food products appear on the world market. In the West and in America, exclusively natural food began to enjoy special demand. Experts note that over the past ten years, the volume of the environmental goods market has increased tenfold and reached a milestone of 308 billion dollars. Among the world leaders in the production of environmentally friendly products can distinguish the United States, France, Canada, Japan, Germany. Now in the world market segment you can find a huge amount of goods produced from environmentally friendly raw materials. These products include food products, laundry detergents and blends, detergents, stretch mark cream for pregnant women and other pharmacological agents. Ecological products owe much of their popularity to huge advertising campaigns that have shaped a consumer culture. As for EU the green market has been actively developing all past years. The employment in the EGSS increased by 38 % in the 2003-2015 period and reached 4.1 million full time equivalent employees in 2015, Fig.3.

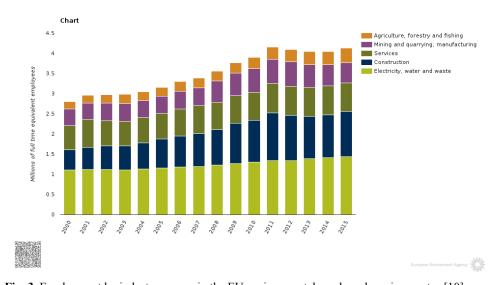


Fig. 3. Employment by industry groups in the EU environmental goods and services sector [10].

Every year the number of types of environmental goods increases. It should also pay attention to the manufacturers of this type of product. As a rule, the presence of the words ECO or BIO on the label does not mean that this product is environmentally friendly. The environmental friendliness of the product lies in its properties, and the impact, both on the environment and on the human body. As an example, you can bring mushrooms. They must be grown under natural conditions and with the use of natural fertilizers, and any chemical treatment should be excluded from the production process. Following theses requirements

the product can be considered as environmentally friendly. Also it is necessary to include the properties of the degree of disposal of the goods after its use.

### 3 Management tools for green business development

Since the beginning of the 90s XX century, a system has emerged in Europe for monitoring and certification of environmentally friendly products. Products that have passed certification are marked, and only after that the product is environmentally friendly. This is their safety for the environment, the possibility of using this product and packaging elements as waste.

- 1. The strategically important areas of environmental business (eco-business) are:
- 2. The production of alternative energy (solar panels, windmills, etc.).
- 3. The use of environmentally safe production methods, the implementation of measures to overcome pollution of the environment as a result of production.
- 4. The implementation of resource conservation practices.
- 5. The initiation and implementation of environmental protection measures, for example, monitoring the level of environmental pollution.
- 6. The organization of cooperation with civil society, including, in particular, the patronization of urban water supply and heating systems, waste and disposal of green plantings by business.
- 7. The organization of charitable activities in order to overcome the problems in the field of ecology.

The greening of the enterprise's relations with consumers implies on the one hand, encouraging the supply of environmental goods and services, on the other, creating a consumers' good taste — economic needs and interests oriented on high eco standards. Eco-business is a form of socially-oriented business, because: firstly, it is beneficial to solve the problems of the environment; secondly, it creates new jobs; thirdly, it performs the function of a taxpayer, and finally, acts as a factor guarantor of the sustainable development of both individual regions and the world as a whole.

Among the factors contributing to the development of environmental entrepreneurship, the following should be highlighted:

- the tightening of international and national environmental standards;
- the development of environmental markets for goods and services;
- increased consumer interest in obtaining environmental goods and services, and manufacturers in the production of competitive products, taking into account the environmental component;
- improvement of state regulation of environmental entrepreneurship in the region.

The ultimate goal of the eco-business is to create a sustainable system, in which not only the operational costs associated with the current performance of work, the provision of services are covered, but also the possibility of investing in resource and energy saving projects. Accordingly, when implementing the state strategy of greening regional development, one of the most important tasks is to give a civilized character to the credit and financial system and harmonize it with an effective regulatory and legal mechanism. The increase in demand for goods and services of eco-business is associated with the investment of environmental projects, the implementation of which is aimed at preventing (minimizing) the negative environmental impact.

The Charter "Business and the Environment" formulated the principles of ecological entrepreneurship, which were recommended to be guided by. They provide businesses around the world with a framework for environmental management. The Charter provides for the following 16 principles [11]:

- 1) Corporate priority. Recognition of the environment as one of the highest corporate priorities, a key factor for sustainable development; developing policies, programs and practices for conducting operations in an environmentally sound manner.
- 2) Integrated management. Integration of strategies, programs and practices of integrated management in the business as an essential element of management in all its functions.
- 3) The process of improvement. Continuing to improve corporate policies, programs and environmental performance, taking into account technical developments, scientific knowledge, consumer needs and public expectations. The law in this case serves as a starting point.
- 4) Education staff. Educating, training and motivating employees to carry out their activities in an environmentally responsible manner.
- 5) Preliminary assessment. An environmental impact assessment prior to the commencement of a new activity or project, and prior to the decommissioning of the facility.
- 6) Goods and services. Developing and providing products or services that do not have an unjustified environmental impact and are safe. These products and services are efficient in their use of energy and natural resources, and which can be recycled, reused or safely disposed of.
- 7) Consultation. Advising and, if necessary, educating customers, distributors and the public on the safe use, transportation, storage and disposal of products.
- 8) Services and activities. Development, design and operation of facilities and activities taking into account the efficient use of energy and materials, the sustainable use of renewable resources, minimizing adverse effects on the environment and waste.
- 9) Research. Conduct or support research in the field of environmental impact of products, raw materials, emissions and waste, processes that are associated with the enterprise, as well as in the field of means to minimize such negative effects.
- 10) Precautionary principle. Changes in the production, marketing or use of products or services or the implementation of activities in accordance with scientific and technical knowledge to prevent serious or irreversible environmental degradation.
- 11) Suppliers and contractors. Promote the adoption of these principles by contractors acting on behalf of the enterprise.
  - 12) Emergency preparedness.
- 13) Technology transfer. The transfer of environmentally friendly technologies and management practices of the entire industry to the public sector.
- 14) Contribution to the common cause. Contribute to the development of public policy and business, government and intergovernmental programs and educational initiatives, which will increase environmental awareness and protection.
- 15) Openness. Promoting openness and dialogue with employees and the public, predicting and responding to concerns about the potential hazards and consequences of operations, products, waste or services.
- 16) Compliance reporting. Measuring environmental performance; regular environmental auditing.

These principles allow business to clearly build a business strategy based on environmental friendliness and social responsibility. It is necessary to implement guidelines in Russia for the formation and improvement of entrepreneurial culture and a responsible attitude towards society and nature as well as to promote principles of green economy. Foreign experience is replete with examples of regulating environmental entrepreneurship. It should be noted that this regulation is necessary for the normal functioning of both business activities and the preservation of the environment.

In modern conditions, any kind of entrepreneurial activity should strive for maximum environmental friendliness. The emergence of environmentally friendly entrepreneurship, in our opinion, can become one of the main elements of supporting the country towards a sustainable economy, a favorable social environment and environmental security.

#### 4 Conclusion

Thus, today in Russia, the core of an environmentally responsible business is being formed, which has practice in the production of eco-friendly products, their certification and competent marketing. It is necessary to increase the number of environmentally responsible companies and to form sustainable environmentally sound consumption. A community of such companies and professional environmental organizations is able to multiply technology and information in this area. The necessary tools for this - an eco-standard system of international standards - already exists in Russia. At the same time, it is important to unite efforts to promote programs for creating eco-oriented demand and improving environmental awareness of consumers - from "more and cheaper" to "better and environmentally safer". The fast-growing and advanced development of the environmental criterion base is needed - the development of high-quality green standards. Legislative initiatives are needed to limit the process of green-waving in Russia. Ultimately, as a result of the widespread introduction of green standards in the business environment and the consumer community, an ecologically-economically self-regulating economy will emerge. The production of environmentally safe products will be beneficial for businesses, consumers, and the state so it will contribute to the preservation of the biosphere.

## Acknowledgment

The paper was prepared by the financial support of the grant of the President of the Russian Federation for state support of young Russian scientists – doctors MD-402.2019.6.

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