© 2026 Ivanova and Slavova. This article follows the Open Access policy of CC BY NC under CC v 4.0.

Submitted: 19/01/2026 - Accepted: 16/02/2026 - Published: 29/03/2026

Ecological Transformation in Bulgaria – New Challenges to the Businesses and the Government

Vania Ivanova[1], **Irena Slavova**[1]

[1]Department of Marketing and Strategic Planning,
University of National and World Economy, Bulgaria

DOI: 10.26417/6vtgdq53

Abstract

The ecological transformation of the economy poses a number of challenges to the businesses and the government, whilst environmental responsibility in recent decades has been increasingly taken up by a growing number of companies, regardless of their size, business activities, or sector of operation. The objective of research is to analyse what incentive policies the government should set up to promote the ecological transformation of Bulgaria's economy and what environmental business practices and environmental management systems the firms operating in the Bulgarian market have in place. The analysis is based on an empirical study conducted with 200 business organisations. The results show that the low level and limited scope of the environmental responsibility applied in Bulgaria are associated with the absence of a clearly defined macroeconomic framework for encouraging investments in innovative sustainability and energy efficiency technologies. The conclusions indicate that in order to intensify ecological transformation, a targeted, systematic and rapid macropolicy reform is required (promoting development and deployment of innovative resource and eco-friendly technologies; changing the logics of eco-fiscal policy; ensuring more efficient funding of the ecological transition; activating the financial markets by introducing new instruments of public-private partnership, etc.).The added value of this paper is not only in the analytical examination of the new challenges, but also and above all, in outlining the direction and deriving recommendations for implementing future actions. The methodology employed is based on primary and secondary investigations, statistical and analytical methods of interpreting data, and identifying the major dependencies and issues.

Keywords*:* ecological transformation, eco-fiscal policy, eco-innovations, environmental responsibility. JEL: Q50, Q51, Q56, Q58

Introduction

Ecological transformation of the economy is a possible alternative for future development and dealing with crises in most countries around the world. There is potential for development of this type of economy in Bulgaria. It should become a priority axis. Not just because this transition is necessary, but also because it is part of the concept for a competitive, dynamic economy which meets European standards. Evolving towards a new, viable, resource-efficient and environmentally friendly development model is a prerequisite without which not only long-term but also the mid-term development of our economy would become more and more difficult. This makes the need for funding a new model of social and environmental development so pressing today. The challenge is mostly in the national context, but it is also part of our country's European and international commitments in this direction. This means using the restrictions related to environmentally friendly production as leverage for economic and social development on the one hand, and as a catalyst of the process related to income growth and reducing social inequality, on the other.

The green transformation of the economy is also a way to obtain future prerequisites for growth. The reason for this is that the transition from a production based on extraction and consumption to more complex development regimes would lead to long-term growth strategies. Future competitiveness will be a function of energy efficiency and resource management (Ivanova et al., 2016). Although to present date Bulgarian companies are under serious threat of growing costs and losing competitiveness relative to the rest of the world, undertaking stable environmental commitments represents a serious investment in the future (Gechev et al., 2013).

The environmental transition requires a change in the development model. It affects all sectors – from transport and energy to construction and industries. Environmentalization leads to the emergence of new technologies and new actors, changes the status quo of traditional industries and imposes deep changes in the legislative, fiscal and social framework. Last but not least, such a transformation requires unprecedented reallocation of investment flows towards sustainable projects which meet the new needs of future development.

Ecological transformation of the economy poses a number of challenges for the businesses and the government, and environmental responsibility in the last decades has been turning into a more and more widespread practice among a growing number of companies, regardless of their size, activity and the sector of operation.

The application of environmental practices and business decision-making regarding the forms of corporate environmental responsibility to be undertaken by companies are affected by the political measures for encouraging it. A number of empirical studies in academic literature show that the nature and type of corporate socially responsible practices can be interlinked with the national and regional policy

(Albareda, L. et al.2008, Steurer, R., 2011, Matten and Moon 2008, Slavova, I.2013) in the respective country where they are implemented.

The aim of the study is to analyze what environmental business practices and environmental management systems are applied by companies operating on the Bulgarian market, and what incentive policies should be applied by the government to encourage the ecological transformation of the Bulgarian economy.

Review of literature

Although serious interest towards this problem has emerged in the past fifteen years, it is not something new for the academic circles. In the 80s of the 20th c., many researchers focused on the tendency for technologization and economization of ecology (Lockie *et al.*, 2013; Charles *et al.*, 2014). While the analyses initially focused on studying public policies and company strategies (Mol *et al*., 2009), today the focus is more on the usual practices applied in production. In order to reduce the negative impact on the environment and the pollution effect related to the production activities of companies and household behaviour, public authorities traditionally use tools which regulate the activity of economic entities (Ivanova, 2013). They intervene directly on the market – through the price system(introducing taxes, fees, contributions) and the use of emission permits.

The most credible hypothesis regarding the ecological transformation of company behaviour holds that this gives rise to both economic and environmental advantages. From an economic perspective, such a transition provides companies with a number of opportunities (Boiral and Croteau, 2001; Lanoie and Tanguay, 1999). Prerequisites are created for reduction of part of the company costs, product diversification and better market positioning, as well as compliance with the high number of institutional requirements(Bansal and Roth, 2000; Preston and Sayin, 2000; King and Lenox, 2001). The application of circular economy principles related to waste management and reuse, for example, offers efficient alternatives to the problems deriving from the rapid increase of production-generated waste(Fricker, 2003; Boiral and Croteau, 2001). Environment-related issues are coming out of their belligerent and imperative phase, and are turning into *high tech ecology*, dominated by economic rationality (Harvey, 1996). Ecological transformation is to some extent provoked and implemented in parallel with market changes (Rudolf, 2013), which leads to the mutual benefit for both companies and the society.

The opinion that has been established in theory and practice for decades is that through the implemented CSR initiatives integrated in the company activities and linked with its strategic goals, they can create benefits for the businesses and the society (Husted and Allen, 2007; Porter and Kramer, 2006). Corporate environmental responsibility, as one of the subconstructs of "the responsibility of enterprises for their impact on society," according to the new definition of corporate social responsibility (CSR) of the EC (EC, 2011, p.6), has its own identity and defining role

for business sustainability and ecological transformation of the economy. The additional efforts of companies which integrate environmental considerations into their business operations and interactions with stakeholders (Williamson et al., 2006) can reduce the environmental consequences of implemented business activities, created products and used facilities. Among the various definitions of corporate environmental responsibility found in academic literature(Rahman, N., and Post, C., 2012), we take the view that it is "…a set of initiatives aimed at mitigating a firm's impact on the natural environment. The initiatives can include changes to the firm's products, processes, and policies, such as reducing energy consumption and waste generation, using ecological sustainable resources, and implementing an environment management system. The concept of corporate ecological responsiveness refers not to what a firm should do, but to the initiatives that reduced the firm's ecological footprint"(Bansal, P. and Roth, K. 2000, 717).

The various initiatives undertaken by committed companies in relation to environmental issues and integrating environmental considerations in their business operations can be summarized in three, not mutually exclusive, widely adopted approaches: (1) process-oriented approach, through which environmental considerations are embedded in company activities; (2) market, results-oriented approach, embedded approach; (3) community-oriented approach, non-embedded approach(Maon, F.et al. 2017).

Corporations which adopt the process-oriented approach direct their efforts towards the development and implementation of initiatives for measuring and limiting the negative environmental impact of their activities through technical improvements and innovations, risk mitigation programmes, pollution prevention schemes(Moon, J., 2007), accountability reports and codes of conduct for employees and suppliers This approach covers the processes related to mitigating environmental problems, which are integrated at different levels of the organization and aim mainly to reduce costs and risk(CarrollA.,and Shabana, K., 2010).

In the market-oriented approach, whereby companies integrate environmental considerations in their business activities, the focus is on results and not on processes. Corporate participants focus on the development of products and services with an explicit or implicit environmental responsibility dimension in order to meet the expectations and wishes of specific stakeholders, mainly consumers(Pivato, S. et al., 2008). The aim is to maintain continuous interactions with external stakeholders, as well as their trust in corporate activities, products and services. *(Venhoeven, A. et al. 2016).*

Companies allocate corporate resources for actions (supporting different environment-related causes) which aim to contribute to the local communities, improving the quality of living, promoting and improving human welfare and achieving environmental management. Environmental responsibility is directed towards the implementation of practices, mainly peripheral to the main business

processes and activities. Companies implement environmental initiatives through employee volunteer programmes, philanthropic donations or sponsorships supporting environment-related causes. Corporate environmental responsibility offers them a means for enhancing their corporate license to operate(Porter, M., and Kramer, M., 2006), and is not viewed as an opportunity to create or strengthen their business value in the long-term perspective.

Focusing on one community-oriented approach, where environmental responsibility as a subconstruct of CSR is not embedded in company activities and business operations, or the adoption of only two approaches (process and community-oriented) seems insufficient for overcoming the complex challenges which emerge in the interaction between the business, society and the environment(Maon, F. et al. 2017).

In order to achieve the ambitious goals of the EC underlying the updated CSR strategy for creating "shared value", sustainable growth(European Commission, 2011, p. 5) and ecological transformation in company behaviour, it is necessary to develop and implement innovative actions directed towards the processes embedded in companies' business activities, creating environment-friendly products and services, as well as environment-related causes. It is necessary to encourage the introduction of measures and policies which represent a solution of this type *win-win"* (Rumpala, 2003).

Methodology

The research tasks underlying the implementation of the aim of the study can be summarized as follows:

First, present the state of environmental responsibility implemented by business organizations operating on the Bulgarian market by uncovering the motives and obstacles for the implementation of various forms of environmental practices and environmental management systems;

Second, analyze the capacities of the government to encourage and facilitate the ecological transformation of the Bulgarian economy, through public resources, eco-fiscal measures and suitable incentive policies.

The following hypothesis and sub-hypotheses correspond to the research tasks:

Hypothesis: The ecological transformation of the Bulgarian economy requires the implementation of incentive policies by the government, which would encourage business participation in the implementation of environmental practices.

H 1.1 The environmental responsibility of the businesses in Bulgaria is characterized by a low degree of implementation and limited scope.

H 1.2 Changing companies' environment-related behaviour requires incentive public policies, which imposes the need for measures for their intensification.

Confirmation of the hypothesis thus formulated is based on the results of an empirical study of the CSR of 200 business organizations, the predominant part of which were small and medium-sized enterprises. Their structure in terms of number of employees is shown in Figure 1, using the EC classification of small, medium and large enterprises. The companies which took part in the study operate on the Bulgarian market in the industrial sector and services sector, and have different main subjects of activity:Production – 43%, Trade – 26 %, Services – 13%, Construction – 11%, other – 7%).

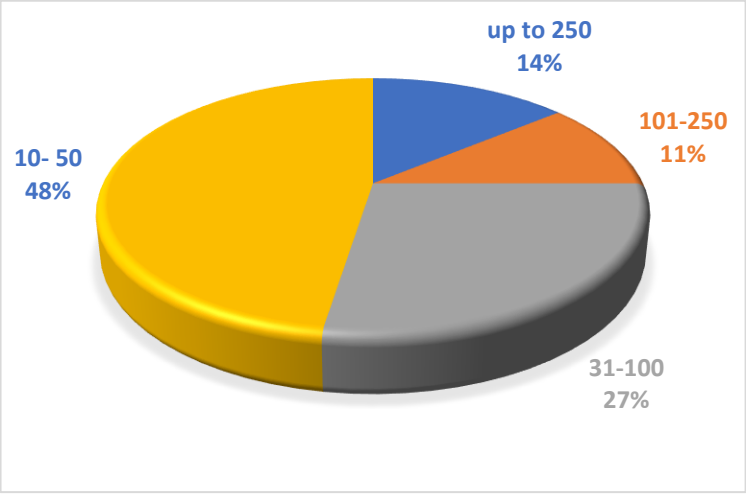


Figure 1. Number of employees in the companies which took part in the study

Only results related to one CSR subconstruct – environmental responsibility – are reviewed here. This part of the study comprises three main groups of questions: general information about the companies/ profile of studied companies(5 questions); the second group of questions relates to the attitudes towards environmental responsibility(8 questions). The questions related to the implementation of environment-related initiatives form the third group – a total of 10 questions. Since the answers are not mutually exclusive, the respondents could select the responses freely(often, more than one response).

The research method used is based on structured personal interviews with leaders from the respective companies, believed to be suitable for obtaining a deeper understanding in social studies. The respondents are at different positions in the hierarchical structure of the companies. The predominant part are leaders at the highest management level - managers(36.2%),owners(29.2 %), as well as human resources specialists(25.3 %) and other employees(9.3 %).

Analytical and statistical methods for data analysis were used, including descriptive statistics and correlation analysis, as well as a comparative method in the interpretation of the obtained results.

Results and Discussion

In order to obtain a better picture of the business behaviour, it is necessary to analyze the ways and reasons why companies assume environmental responsibility, on the one hand, and the degree, scope and characteristics of the types of implemented initiatives, on the other.

Table 1 shows, through indicators of descriptive statistics, how the companies participating in the study view the various aspects related to environmental responsibility.

Table 1 Attitudes towards corporate environmental responsibility

Attitudes towards corporate environmental responsibility	Number Respondents	Mean	Stnd. Dev.	Min	Max
Supporting environmental conservation initiatives /donations, voluntary work/	200	3.94	1.77	1	5
Attitudes towards additional environmental requirements to supplier	200	3.51	1.68	1	5
Attitudes for the use of environmental management systems (ISO 14 001, EMAS)	200	2.85	1.59	1	5
Attitudes for the application of environmentally responsible practices (energy efficiency, improving business processes, etc.)	200	4. 02	1.93	1	5

Source: Authors own work

Note: The Likert Rating Scale was used(5 – Very suitable; 4 – Somewhat Suitable; 3 – Somewhat unsuitable; 2 – very unsuitable; 1 – I cannot say).

The results show that companies rather approve the implementation of environmental responsibility. Assuming environmental responsibility is related to knowing the benefits, managers' motives in taking decisions for their implementation, as well as the obstacles before its implementation. The attitudes towards implementation of environmental practices related to improving business processes have the highest mean (4.02) and are derived from the beliefs of the businesses that activities related to improving processes for reducing environmental pollution,

enhancing energy efficiency, waste reduction and recycling, etc., will contribute to achieving long-term success for the business (47.5 % of respondents, with more than one response given). Managers' ethical considerations and values regarding the environment(51.5 % of respondents list care for the environment as a motive) form their positive attitude towards participating in initiatives supporting environmental conservation causes(mean - 3.94).The application of additional environmental requirements to the supplier (mean – 3.51) and implementing environmental management systems (mean - 2.85) are not largely approved by businesses in Bulgaria. According to 56 % of all companies participating in the study (112), it is appropriate to introduce additional environmental requirements to the supplier, and only 58 respondents(29 % of all companies) believe that it is appropriate to apply environmental management through certification under standards ISO 14 001 and / or EU Eco-Management and Audit Scheme (EMAS). To a certain extent, these two aspects are related, taking into account the existing tendency worldwide that it is mainly MNCs that set requirements for their suppliers, often related to being certified under international standards(Boeva, B., 2015). This tendency has not yet manifested as an established practice in Bulgaria.

Assuming environmental responsibility predetermines decision-making for its implementation and reflects on the degree and scope of implemented environmentally responsible initiatives. The state of corporate environmental responsibility of business organizations operating on the Bulgarian market is shown in a systematized way on the basis of the study (Table 2).

Table 2 State of corporate environmental responsibility

	Number of companies	%
Attitudes towards implementing environmental responsibility	170	85
Degree of implementation of environmental responsibility	140	70
Applied types of environmental responsibility (implemented environment-related initiatives)*		
Initiatives supporting environmental conservation (donations, voluntary work, etc.)	141	77,5
Reducing environmental pollution by improving production processes	43	21,5
Energy efficiency	86	43

Waste recycling and reduction (use of recycled materials)	45	22,5
Environmental products / environmentally friendly products and services	16	8
Degree of knowledge about environmental conservation systems (ISO 14 001, EMAS)	74	37
Degree of application of environmental management systems (ISO14 001)	34	17

Source: Authors own work

*Multiple choice

Table 2 shows that the degree of application of practices is not high. The most preferred type of initiatives carried out by the business organizations participating in the study is in support of environmental causes(educational initiatives), donations of funds, products, technical assistance in the event of disasters, and employee participation in voluntary programmes. These initiatives are usually one-time(65% of respondents), not related to the main activity of the company, which does not enable the integration of environmental considerations in the company's business activities.

Activities directed towards enhancing energy efficiency are among those most frequently implemented by companies(43 % of respondents, with more than one response given), knowing the benefits for the business and the environment. The determinant factor here is mainly the access provided to the business to funding for energy efficiency measures from EU funds under the Operational Programmes for the two Programming periods 2007-2013 and 2014- 2020.

Initiatives related to improvement or upgrade of production processes with view of efficient use of natural resources, waste reduction and recycling, etc., are implemented by a small number of companies participating in the study(21.5 % - with more than one response given). The most common obstacles listed are lack of resources (financial, human, technological) - 61% of respondents, with more than one response given; lack of government support - 42 %; lack of knowledge(13%).

The creation of products and services directly or indirectly related to environmental responsibility is not among the activities carried out by companies(only 8 % of all respondents, with more than one response given). Although the market for "green" products is expanding in Bulgaria, a number of social and economic factors do not have a favourable impact in this direction – consumers' requirements towards the products offered are not high (improving relations with customers is listed as a motive for implementing environmental responsibility by a small number of

companies – 28.5 % of respondents), their payment capacity, consumption culture and existence of a market, the lack of adequate incentives from the state.

Together with environmental practices, the implementation of environmental management systems, helping to regulate both the individual and the collective behaviour and achieve environmental goals, is widely applied with view of mitigating environmental impact (Kerwer, 2005; Seidl, 2007).

The application of the ISO14001 and EMAS standards(only these two standards are reviewed since they are believed to be the two most widely known in Bulgaria) related to environmental management contributes to the protection of local community rights by applying pollution control measures. The standards set out criteria for assessing the organization's environmental indicators, and the focus is on actions which should be undertaken in order to reduce the harmful impact the business organization might have on the environment.

The findings show that companies are not acquainted with the voluntary environmental management standards (37% of all respondents). This is especially characteristic of European voluntary mechanisms (EMAS and eco-labels). The degree of application of the ISO14001 standard is also low (17% of all companies), and even the companies that have implemented this standard do not intend to implement EMAS.

The analysis we carried out of the nature and type of environmental initiatives gives us grounds to conclude that they have a low degree of application and limited scope. From the point of view of the characteristics of implemented environmental initiatives, the conclusion is that corporate participants focus their environmental responsibility efforts on community development and practices for participation in supporting causes related to environmental conservation. The Bulgarian business organizations that participated in the study seem to be less inclined to integrate environmental problems in their business processes and daily activities related to the development of products and services with an explicit or implicit environmental dimension, which can be seen from the absence(with the exception of 16 companies) of corporate environmental responsibility.

The ecological transformation of businesses' behaviour can be carried out by the combined implementation of the three approaches studied. Integrating environmental considerations in the business activities and company strategy requires the implementation of process-oriented initiatives and market-oriented approach in the corporate environmental responsibility. This is not possible without active support from state policies and overcoming existing obstacles for environmental practices implementation(lack of government support, lack of financial and tax incentives, limited financial resources, insufficient knowledge and capacity for environmental innovations, especially among SMEs (Slavova, I., 2016).

These findings give us grounds to believe that sub-hypotheses 1.1 and 1.2 have been confirmed. This brings to the foreground the need for targeted actions by the government for encouraging companies in the process of their ecological transformation.

Macroeconomic policies supporting ecological transformation

In order to carry out the transition to a "green economy", it is necessary to have several basic preconditions in place. Some of them are:

National legislative framework – introducing a strict legislative framework in the field of the environment;

National policy directed towards a "green economy" – changes in the fiscal policy; increasing "green" public procurement;

Subsidies and other material incentives for the private sector – subsidies only for "green" sectors and avoiding funding of production which is harmful for the environment;

Private investments for "green economy" – encouraging the private sector to increase investments;

Appropriate infrastructure – creating conditions for quick, easy and environmentally friendly production;

Predictability of the policy in this field is extremely important for investors and represents a factor for the efficiency of their investments. One indisputable obstacle is the lack of security in institutional regulation, i.e. the consistency with which different governments in the country develop (and in the ideal situation – apply) legislative measures fostering the development of such sectors.

Several directions can be formed to mobilize resources for the implementation of such a transition and launching a new social and environmental development model.

1. Long-term transparency and predictability of the macroeconomic policy in the field of ecological transformation

Improving the predictability and guaranteeing consistency in the applied regulatory(normative) and economic measures is the first step towards the sustainability and effectiveness of such a policy. Since this is a long-term strategy that requires a long process of adaptation and behavioural change, the investment intents and capabilities of companies, the state's commitment with specific long-term goals will to a large extent facilitate companies and "hint" at sustainable and serious intentions.

In this sense, a long-term strategy relating to the priority sectors, commitments in the field of scientific research, innovations and support for companies with interests in the field of a green economy would be additional guarantees for the state's serious

ambitions in this direction. In this respect, the focus could be both on eco-fiscal measures(increasing already existing and introducing new green taxes) and restructuring public investments and creating a favourable economic environment for SMEs engaged in the process of transition towards green production.

2. Expanding the number of applied financial instruments

The mobilization of new private and public financial resources is of special importance in the process of coordinating efforts for redirecting this resource towards new products and technologies related to green production and environmentally friendly methods. This public private partnership can be realized both through already existing institutions (BDB) and the establishment of new ones. In addition to offering new alternatives for private investors(with higher guarantees), such instruments would facilitate access(at better conditions) to fresh financial resources for SMEs engaged in the transition to green economy.

A significant breakthrough in this direction could come from the development, promotion and fostering of socially responsible investments, including encouraging those through purely economic instruments on the financial markets.

3. Change in the information environment

The promotion of good practices, training experts in the field of impact assessment, risk identification and profitability of green investments, creation of fund management experts and financial intermediaries in the field of environmental investments would favour not just increasing interest, but also the effectiveness of the use of this resource.

The country has significant green potential. In order to master it, however, it needs to act strategically, systematically and on a large scale. This can lead to diversification of the export basket and emergence of new jobs in sustainable sectors.

The environmental approach and establishment of a green economy is a new paradigm which requires a number of changes. In order to assist this transformation, public authorities have a number of impact levers:

The eco-fiscal policy with the whole range of negative and positive instruments;

Allocating serious public resources for scientific development and innovations in order to increase the R&D capacity;

Assistance for the development of various financial products and instruments to mobilize private sector investments and facilitating small and medium-sized enterprises (SMEs) to get access to funding;

Improving information support in order to facilitate decisions of economic entities (investors, savers and consumers) – of decisive significance here are the declaration and commitment by the state, introduction of statistical indicators for assessment of

the green sectors' activity, lobbying for the concept of company environmental responsibility;

Promoting "green professions" and the skills for the needs of relevant sectors.

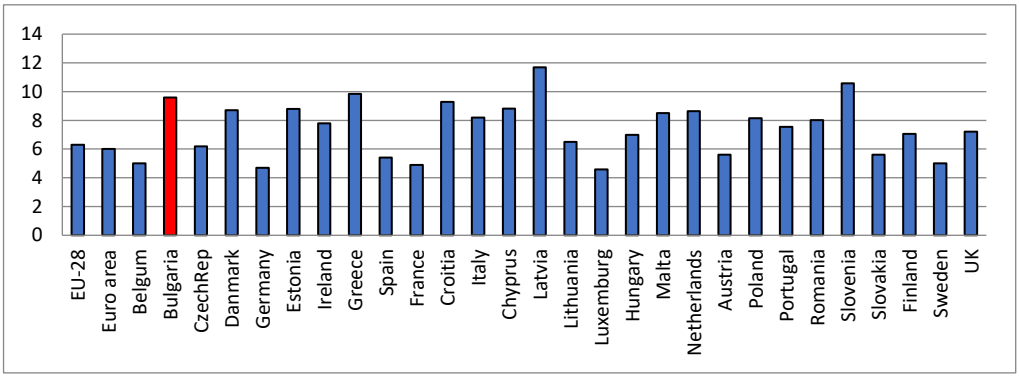
This paper focuses on the first three levers.

The eco-fiscal policy aims to make national production more rational from an environmental point of view, while encouraging technological innovations. Eco-taxes not only lead to less pollution, but also create an opportunity for encouraging innovations related to the introduction of new production methods or products, which, in turn, reduces the tax burden for companies. Such innovations lead to less damages to the environment and lower production costs.

Eco-fiscal policy

Bulgaria applies a set of tools for integrating the environmental policy in the sectoral and regional policies as the basis for sustainable development. For the time being, compliance with environmental standards is mainly achieved via control and prohibitory measures. In this sense, attention should be focused on a transition from the currently predominating negative measures(eco-taxes, eco-fees, penalties) towards an eco-fiscal policy that shapes and inspires responsible environmental behaviour.

The share of eco-taxes in the total tax revenues and social insurance instalments in the EU is growing, although not at the desired rate. Bulgaria is following this general tendency, and the percentage for the country is 9.57(2016), which ranks it among the countries with the highest share of eco-fiscal revenues as a percentage of the total revenues(Figure 2). The reason is the fuel excise tax and transport taxes, which rank high and are relatively easy to collect. These taxes, however, do not lead to an effective and permanent change in the company environmentally responsible behaviour or a serious motivation for change.



Source: Eurostat

Fig.2 Environmental tax revenues in EU(as % of total revenues from taxes and social contributions), 2016

Meanwhile, taxes on income from labour amount to 51 % of the total revenues from taxes. Redirecting taxes on income from labour to environmental taxes and taxation of unsustainable goods and services has significant potential for improving the state of the environment and natural resources preservation.

First in the implementation of such an eco-fiscal transformation comes the need to define, within each of the main directions of the environmental policy(climate change, resource consumption, countering pollution), those fields where the measures for "greening" the eco-fiscal policy can be a driver for change in the behaviour of economic entities. Thus, together with regulatory instruments and in close cooperation with local authorities, better results should be required.

Making the eco-fiscal policy more dynamic requires compliance with several conditions:

All eco-fiscal measures should be directed towards the implementation of clearly defined environmental goals

The eco-fiscal policy should be clear and comprehensible

It should closely integrate the economic interests of companies and the public interest

Eco-taxes should not be used as a tool for budget revenues

It would be useful if revenues from eco-taxes were allocated to a separate dedicated fund for financing environmental projects

Positive eco-fiscal policy is preferable to a negative one

The eco-fiscal policy measures should lead to visible and quantitatively measurable results

All of the above justify more general recommendations for an eco-fiscal reform directed and motivated by the need for environmental conservation. This reform should be based on several clear and simple principles:

1. The government should suspend subsidies (including through fiscal advantages of activities leading to environmental pollution(transport, energy sectors)

2. Eco-taxes encouraging behavioural change should be applied as a priority, i.e. high tax rates based on strictly defined specific tax base. Pollution should be reduced at the source("the polluter pays") rather than expanding tax revenues with a potential reallocation effect.

3. Eco-fiscal measures should promote the production of environmentally clean products, implementation of environmental technologies and the development of the eco-industry as a whole.

4. Restoration of the market principle that the price should accurately reflect incurred costs, and environmental effects should be internalized therein via eco-fiscal instruments

5. Progressive and gradual expansion of the tax base, including new types of activities subject to eco-taxation(water and soil contamination related to agricultural activities – application of pesticides, phosphates and other chemical fertilizers, air pollution).

6. A change in the overall philosophy of the fiscal policy and introduction of new laws binding the fiscal and the environmental policy more closely.One such example is the law for prevention and remedying of environmental damages, adopted in Bulgaria in 2008 in response to European laws on environmental responsibility.

It should be taken into account that the eco-fiscal policy is not separate from the fiscal policy as a whole, and even less – from the budget and social ones. It should be viewed as an integral part of the fiscal system whose main goal is the consistent and progressive reduction of social and environmental inequality.

Support for eco-innovations and "green" entrepreneurship

At the national level, any "green economy" strategy presupposes a review of the environmental conservation policies in the wider context of innovations and economic results. From this perspective, state policy plays a major role in the economy for encouraging and increasing eco-innovations and growth.

Undoubtedly, budget costs for R&D in the environmental field are a significant indicator of the degree of priority of the sustainable development policy. In Bulgaria, these costs are too low (under 1% of GDP), with a slight increase after 2014, but still far behind the target rate of 3%.

Data show that the costs for scientific research in the environmental field are still not of the required priority. In 2015, their share was 0.96%, the average EU indicator being 2.03%, and that of the Eurozone – 2.12%. Mechanisms for attracting more private investors in these projects and establishing adequate co-financing mechanisms are still not applied to the required degree. Implementation of these investments means allocating about 6% of the country's GDP for many years to come.

One possible and necessary direction of action on the part of the state is to reallocate existing national resources and allocate additional funds for national research and applied programmes related to the accelerated development of eco-technologies and technological upgrade of companies. Naturally, this takes place within the restrictive context of budget restrictions imposed by the Stability and Growth Pact. This is why it is important to focus on the promising and competitive sectors with export capacity, even though they are not necessarily those with the fastest and highest rate of return in the short-term and even in the mid-term perspective.

The transformation is still in its beginnings and the process is slow and cumbersome. Among the main obstacles are the following: insufficient awareness of the managers

and entrepreneurs; conservative attitude on the part of the businesses(fear of the new and unknown, wish to bet on what has been tried and tested); the lack of will for radical changes; insufficient resources for technological upgrade and application of new environmentally friendly and resource-saving technologies; insufficient motivation; lack of qualified staff.

The following table summarizes one possible set of measures aimed at encouraging eco-innovations.

Table 3 Macro policy supporting eco-innovations

Reason	Potential measures
Insufficient demand for eco-innovations	Application of "green taxes" and other market instruments for valuation of external effects and creating incentives for demand; Application of supply-related instruments, such as public benefits, norms, regulations, etc.
Lack of innovative capacity	Actions of a general nature aiming to strengthen the innovative capacity
Technological obstacles and absence of radical innovative ideas	Investments in research and development in the relevant fields, priority funding for research projects by the Scientific Research Fund; International technological exchange
Little interest from the research community towards eco-innovations	Support and incentives (including fiscal ones) for R&D; Financial support measures; Setting up awards for scientific achievements in the field of eco-innovations
Insufficient funding	Establishing dedicated co-financing funds; Public private partnership; Expanding the possibilities for European funding
Administrative obstacles and barriers to starting a new business	Simplification and facilitation of procedures; Using the competitive policy leverage in these fields
Lack of capacity in the small and medium-sized business for green investments	Access to funding;Information services and enhancement of competences; Integrating SMEs in technological parks(centers); Reduction of costs related to the process administration.

Encouraging environmentally effective innovations is obviously one possible activity which is beneficial for all participants and should be fully used with view of implementing the Europe 2020 goals. Innovations which contribute to reducing environmental pollution, deployment of products whose production consumes less

resources, and more efficient resource management, all contribute to and accelerate growth and increase employment, while also creating opportunities for overcoming the dependence of economic growth on resource consumption and pollution.

The measures related to restricting negative secondary effects, low carbon production and environmentally friendly activities are a social commitment, but are also new economic opportunities for the companies offering environmental goods and services. Support for the SMEs, through the creation of a favourable economic environment for development, funding and production of similar products, is of special significance.

Support for SMEs

Financial support for SMEs could be provided in three directions: innovations, guarantees and co-investment. There is a great diversity of incentive measures – preferential interest rates, simplified regime of granting loans for "green investments", financial support for innovative projects of environmental and social significance, support in export, etc.

These functions can be implemented with a certain provisionality from the Bulgarian Development Bank, or perhaps better, by a newly established special institution in close collaboration with the "Investments for the Future" Fund. This is the European practice in a number of countries. The support of such a state institution goes through a wide range of activities – project engineering, reimbursable advance payments or zero-interest loans, guarantees for loans from other financial institutions, co-financing with private banks, etc.

SMEs need:

Preferences and additional guarantees by a dedicated fund for "green" loans, as well as specialization of certain banks in such funding;

A step in the right direction would be mobilizing BSE to support smaller eco-industrial companies for which it would be difficult to enter stock exchange markets with small bond issues, since investors prefer big, ranked nominals. In this sense, potential grouping of the issues of several eco-innovative companies into a joint collective fund would be an alternative to the present practically blocked access to stock exchange markets. Thus SMEs would have another way, rather than turning to banks, to fund their eco-investments, and investors – a new form of diversifying their portfolio.

Mobilizing public private partnership to fund the "green economy" also provides good opportunities.

In order to encourage growth and improve the prospects for economic development while "environmentalizing" this growth, it is necessary to change the structure of investment flows in parallel with significant investments in suitable infrastructure, transport, energy and environment, in particular. To this end, the obstacles hindering and discouraging institutional investors (pension and insurance funds) to invest in

the infrastructure required for the development of a "green economy" should be identified and removed. These obstacles vary in nature – lack of traditions and experience in such investments, lack of sufficiently reliable statistics (on results, profitability, costs, risk) to allow clearer and stricter determination of the profitability and benefits from such an investment, lack of innovative financial instruments and products (including from the stock exchange) as an attractive alternative to traditional forms of investments.

Conclusion

Despite the numerous evidence of the priority significance and key role of green production for the future economic development, including those put forward by the European Commission in recent years, in Bulgaria the potential of the green economy is groundlessly underestimated and is still not fully recognized or utilized for achieving "eco-growth" and growth in employment rates.

The ecological transformation of the behaviour of businesses can be carried out by increasing the number of companies which implement corporate environmental responsibility, as well as their wider participation in the diverse range of environmental protection initiatives. Companies integrate environmental considerations in business operations and company strategy by applying a process-oriented and market results-oriented approach to corporate responsibility. The analysis showed that the business organizations operating on the Bulgarian market face a number of restrictions in their application, including inadequate support from the government. On the other hand, the Bulgarian government is not utilizing the potential of different instruments of macroeconomic policies to encourage environmental behaviour.

This leads to the conclusion that the main hypothesis put forward has been confirmed – the ecological transformation of the Bulgarian economy poses challenges for the government to undertake incentive policies for a more effective and large-scale approach to environmentally responsible behaviour of the businesses.

In order to intensify the ecological transformation, the following is required:

Targeted, systematic and expedient reform in macro policies (encouraging the development and implementation of innovative technologies – resource and environmentally friendly, changing the logic of the eco-fiscal policy, more efficient funding of the environmental transition, activating financial markets by introducing new instruments of public private partnership, etc.). The businesses want security and would invest more and more in technologies for sustainability and energy efficiency only if they have a common framework outlined in advance to foster this activity.

Large-scale and regular policy, not just campaigns, for raising awareness of the resulting benefits for society and the economic entities from green sectors

development, promoting good practices in the field and new opportunities for development of such production;

Better utilization of the opportunities offered by European Structural funds and the "Science and Education for Smart Growth" operational programme, in particular, for encouraging the development of environmental innovations on the one hand, and meeting the new educational needs of the businesses, on the other;

To look for new and improve the current forms of partnership between the public and private sector for funding the transformation of the current model. The European funds should not be the only sources of funding, the businesses and public-private partnerships need to become more active.

References

[1] Albareda, L., Josep M., Lozano, A.(2008), The changing role of governments in corporate social responsibility: drivers and responses; *Business Ethics: A European Review* Volume 17 Number 4, 347-363

[2] Bansal, P. and Roth, K.(2000), Why Companies Go Green: A Model of Ecological Responsiveness, *Academy of Management Journal,* Vol. 43, No. 4, p. 717-736

[3] Boeva, B.(2015), Corporate Governance and Global Supply Chains: How Self - regulation Replaces the Lack of Regulatory Initiatives or Do Regulatory Initiatives Add Value to Corporate Governance, *Economic Alternatives*, Issue 4, 2015, 5-19

[4] Boiral, O., Croteau, G.(2001), « Développement durable et synergie des sous-produits : quelques exemples au Québec », *Nouvelles tendances en management*, Vol. 3, No. 2, p. A1-A2.

[5] Charles L., Hellmuth L., Kalaora B., Rudolf F. (dir.),(2014), *Environnement et sciences sociales en France et Allemagne*, Paris, L'Harmattan.

[6] Carroll,A. and Shabana, K.(2010) The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice *International Journal of Management Reviews (2010), 85 -105*

[7] European Commission,(2011)A Renewed EU Strategy 2011-2011 for Corporate Social Responsibility, COM 2011 681 Final, http://ec.europa.eu/enterprise/policies/sustainable-business/corporate-social-responsibility/index_en.htm

[8] Fricker, A. (2003), « Waste Reduction in Focus », *Future*, Vol. 35, No. 5, p. 509-519.

[9] Gechev, R.et al.(2013) Sustainable Development and Competitiveness of the Bulgarian Economy, Sofia, EC-UNWE

[10] Harvey D.(1996), *Justice, Nature and the Geography of Difference*, Oxford, Blackwell.

[11] Husted, B., and Allen, D.(2007). Strategic corporate social responsibility and value creation among large firms: Lessons from the Spanish experience, *Long Range Planning*, 40, 594–610.

[12] Ivanova, V.(2013) Opportunities for the Green Economy in Bulgaria", *Economics alternatives*, I*ssue*.4/201335-44

[13] Jackson, K.(2008). Natural law, human rights and corporate reputational capital in global governance. *Corporate Governance*, *8*(4), 440-455.

[14] King, A., Lenox, M.(2001), Does It Really Pay to Be Green? An Empirical Study of Firm Environmental and Financial Performance, *Journal of Industrial Ecology,* Vol. 5, No. 1, p. 105-116.

[15] Kerwer, D. (2005) 'Rules that Many Use: Standards and Global Regulation', *Governance* 18(4): 611–32

[16] Maon, F.,Swaen V., Lindgreen, A.(2017)One Vision, Different Paths: An Investigation of Corporate Social Responsibility Initiatives in Europe,*Journal of Business Ethics*, Vol. 143, No. 2, 2017, p. 405–422.

[17] Matten, D., and Moon, J.(2008) 'Implicit' and 'Explicit' CSR: A conceptual framework for a comparative understanding of corporate social responsibility. Academy of Management Review, 33(2), 404–424

[18] Michelon, G. and Parbonetti, A.(2012) The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance*, 16(3), 477-509.

[19] Mol A.P.J.(2000)The Environmental Movement in an Era of Ecological Modernisation,*Geoforum*, vol. 31, n° 1,45-56.

[20] Mol A.P.J., Sonnenfeld D., Spaargaren G. (Eds.) (2009) *The Ecological Modernisation Reader, Environmental Reform in Theory and Practice*, Londres/New York, Routledge.

[21] Moon, J.(2007)The Contribution of Corporate Social Responsibility to Sustainable Development, *Sustainable Development,*15, 296–306

[22] Lanoie, P. and G.Tanguay (1999)Dix exemples de rentabilité financière liée à une saine gestion environnementale, *Gestion,* Vol. 24, No. 1, 30-38.

[23] Lockie D, Sonnenfeld D., Fischer F. (Eds.) (2013), *Handbook of Environmental Sociology*,Londres, Routledge.

[24] Pivato, S., Misani, N. and Tencati, A. (2008) The impact of corporate social responsibility on consumer trust: the case of organic food. *Business Ethics: A European Review*, 17, 3–12.

[25] Porter M, Kramer M,(2006)Strategy and Society. The Link between Competitive Advantage and Corporate Social Responsibility, *Harvard Business Review* 84**,** 78-92

[26] Preston, L. and Sayin, G. (2000), *Building Sustainable Businesses. A Handbook for General Managers*, Haas School of Business, University of California.

[27] Rahman, N., andPost, C.(2012)Measurement issues in environmental corporate social resposibility (ECSR): Toward a transparent, reliable and construct valid instrument *Journal of Business Ethic 105*, 307-319.

[28] Rogers, K. and Hudson, B.(2011) The triple bottom line: The synergies of transformative perceptions and practices for sustainability. *OD Practitioner*, *43*(4), 3-9.

[29] Rudolf, F.(2013)De la modernisation écologique à la résilience : un réformisme de plus?,*VertigO*, vol. 13, n° 3. URL : http://vertigo.revues.org/14558

[30] Rumpala, Y.(2003) *Régulation publique et environnement. Questions écologiques, réponses économiques*, Paris, L'Harmattan.

[31] Seidl, D.(2007) General strategy concepts and the ecology of strategy discourses: A systemic-discursive perspective,O*rganization Studies, 28*(2), 197-218.

[32] Slavova, I. (2016) Environmental Responsibility of Small and Medium-Sized Enterprises in Bulgaria in the Context of EU Member States, International Scientific Conference: Knowledge Based Sustainable Economic Development, Belgrade, June, 2016, 239-248

[33] Slavova, I.(2013) Corporate Social Responsibility and Public Policies: Focus and Trends in Bulgaria, *Economic and Social Alternatives*, 2,51-66

[34] Steurer, R.(2011)Soft instruments, few networks: How 'new governance' materialises in public policies on CSR across Europe., *Environmental Policy and Governance* , 21, 270–290

*[35] Venhoeven, A.,BolderdijkJ., andSteg L.,*Why Acting Environmentally-Friendly Feels Good: Exploringthe Role of Self-Image , *Frontiers in Psychology*,November 2016, Volume 7, 1-8

[36] Williamson, D., Lynch-Wood, G.,andRamsay, J.(2006)Drivers of environmental behaviour in manufacturing SMEs and the implications for CSR. *Journal of Business Ethics*, 67(3), 317–330