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FORMATION OF AN EFFECTIVE POLICY OF «GREEN»  
INVESTMENT AS A PRIORITY DIRECTION OF SUSTAINABLE  
DEVELOPMENT OF NATIONAL ECONOMY

ФОРМУВАННЯ ЕФЕКТИВНОЇ ПОЛІТИКИ  
«ЗЕЛЕНОГО» ІНВЕСТУВАННЯ ЯК ПРИОРИТЕТНОГО НАПРЯМУ  
СТАЛОГО РОЗВИТКУ НАЦІОНАЛЬНОЇ ЕКОНОМІКИ

**ANNOTATION**

The article analyzes the current state of green investing in the world in general and in Ukraine, in particular. It was found that strengthening of global economic ties, expansion of integration processes, deepening of the international

division of labor and industrial cooperation, gradual liberalization of investment activity, intensification of functioning of TNCs, technological progress, intensification of competition and the desire of companies to enter the international market serve as the driving forces to intensify international investment processes.

It is emphasized that, on the one hand, the arrival of a foreign investor is one of the ways of technological structural transformation in the host country. Foreign direct investment is considered suitable for increasing domestic capital, creating jobs while increasing income levels, attracting technology and transferring management skills and knowledge needed to stimulate economic development.

On the other hand, FDI can have negative effects, such as «crowding out» of domestic (national) investors, intensifying unfair competition, which can lead to «theft in the market». The environmental impact can be negative, especially when moving polluting industries from one host country to another one, or when FDI in the form of technology is old and unusable (more).

The conclusion shows that the development of «green» investment requires the adoption of strategic documents, the formation of a special policy and its consistent implementation, which will encourage market participants to contribute to the «greening» of the financial sector and the transition to a «green» economy. In order to remove existing obstacles to the development of green financing in Ukraine, it is necessary to apply a systematic and coordinated approach in the areas of regulatory support and institutional support.

**Keywords:** development, investments, green investments, sustainable development, modernization, reform, competitiveness.

## **АНОТАЦІЯ**

В статті проаналізовано сучасний стан «зеленого» інвестування в світі та в Україні, зокрема. З'ясовано, що зміцнення глобальних економічних зв'язків, розширення інтеграційних процесів, поглиблення міжнародного поділу праці та виробничої кооперації, поступова лібералізація інвестиційної діяльності, активізація функціонування ТНК, технологічний прогрес,

посилення конкуренції та бажання компаній виходити на міжнародні ринки були рушіями останнього десятиліття. активізувати міжнародні інвестиційні процеси.

Виокремлено, що з одного боку, приїзд іноземного інвестора є одним із способів технологічної структурної трансформації в країні, що приймає. Прямі іноземні інвестиції вважаються придатними для збільшення внутрішнього капіталу, створення робочих місць при збільшенні рівня доходу, залучення технологій та передачі управлінських навичок та знань, необхідних для стимулювання економічного розвитку.

З іншого, ПІІ можуть мати негативні наслідки, такі як: «витіснення» внутрішніх (національних) інвесторів, посилення недобросовісної конкуренції, що може призвести до «крадіжок на ринку». Вплив на навколишнє середовище може бути негативним, особливо при переміщенні забруднюючих галузей від країни, що приймає, до країни, що приймає, або коли ПІІ у вигляді технології є старим і непридатним (більше).

У висновку підсумовано, що розвиток «зеленого» інвестування вимагає прийняття стратегічних документів, формування спеціальної політики і її послідовної реалізації, що стимулюватиме учасників ринку сприяти «озелененню» фінансового сектору і переходу до «зеленої» економіки. З метою усунення існуючих перешкод для розвитку «зеленого» фінансування в Україні, необхідним є застосування системного, узгодженого та скоординованого підходу за такими напрямками: нормативно-правове забезпечення та інституційне забезпечення.

**Ключові слова:** розвиток, інвестиції, «зелені» інвестиції, сталий розвиток, модернізація, реформування, конкурентоспроможність.

## **АННОТАЦІЯ**

В статті проаналізовані сучасне становище «зеленого» інвестування в світі та в Україні зокрема. Виявлено, що зміцнення глобальних економічних зв'язів, розширення інтеграційних процесів,

углубление международного разделения труда и производственной кооперации, постепенная либерализация инвестиционной деятельности, активизация функционирования ТНК, технологический прогресс, усиление конкуренции и желания компаний выходить на международные рынки были двигателями последнего десятилетия с целью активизации международных инвестиционных процессов.

С одной стороны, приезд иностранного инвестора является одним из способов технологической структурной трансформации в принимающей стране. Прямые иностранные инвестиции считаются пригодными для увеличения внутреннего капитала, создание рабочих мест при увеличении уровня дохода, привлечения технологий и передачи управленческих навыков и знаний, необходимых для стимулирования экономического развития.

С другой стороны, ПИИ могут иметь негативные последствия, такие как «вытеснение» внутренних (национальных) инвесторов, усиление недобросовестной конкуренции, что может привести к «краже на рынке». Воздействие на окружающую среду может быть отрицательным, особенно при перемещении загрязняющих отраслей от одной принимающей страны к другой принимающей стране, или когда ПИИ в виде технологии является старым и непригодным (больше).

В заключительной части исследования говорится о том, что развитие «зеленого» инвестирования требует принятия стратегических документов, формирование специальной политики и ее последовательной реализации, что, в свою очередь, будет стимулировать участников рынка способствовать «озеленению» финансового сектора и перехода к «зеленой» экономики. С целью устранения существующих препятствий для развития «зеленого» финансирования в Украине, необходимо применение системного, согласованного и скоординированного подхода по следующим направлениям: нормативно-правовое обеспечение и институциональное обеспечение.

**Ключевые слова:** развитие, инвестиции, «зеленые» инвестиции, устойчивое развитие, модернизация, реформирование, конкурентоспособность.

**Formulation of the problem** in general and its relation to important scientific or practical tasks. All countries strive for development, stability and security. Sustainable development means balancing and maintaining a competitive level of economic, social and ecological environment in the country. A major problem that most countries cannot solve today is that most states cannot create effective mechanisms for developing national well-being and develop efficient and rational use of their own economic and natural resources. It should be noted that only 1 out of 8 billion of the world's population is satisfied with their standard of living. This means that the economy of almost every country now requires a comprehensive transformation. The principles of a green economy and attracting and using «green» investment are an effective mechanism for implementing sustainable development strategies for countries of all types of political systems and levels of economic development. The green economy is the basis for realizing the concept of sustainable development on the basis of more efficient resource and energy consumption, reducing the environmental impact and developing a socially integrated society. But “greening” the economy requires reformatting current and future investments to maximize positive and long-term effects.

**Analysis of recent studies and publications** is the part of our research in which the disclosures of the basic provisions of the «green» vector of development of the national economy are covered in the works of many famous domestic and foreign scientists. Particularly noteworthy are such authors as Burkinskiy. B., Aliyev M., Galushkina T. [1], who reveal the prerequisites, principles and mechanisms of formation of a «green» economy in their research. Musina L. [8] in his works sheds light on ways to solve problems of interaction between the economy and the environment. She successfully and clearly defines the concepts of green economy and green growth, reveals and explains the content of national and

strategic documents in this field and compares them with international experience. Nikolaev Y. [9] investigates the concept of sustainable eco-innovation development taking into account the integration processes. His works are devoted to the analysis of macroeconomic indicators of stability of the national economy, which are directly dependent on the ecological environment in the country. He focuses on the problem and importance of the interaction between the economic sector and the natural potential of the state. Potapenko V. [11] in his monograph considered the theoretical, methodological, legal and institutional principles of economic security and sustainable development taking into account the ecological transformation of society. This research has a significant contribution as the author looks at the national security of the country through the lens of a green economy.

Among foreign researchers, it is important to single out the works of J.A. Puppim de Oliveira, C. N. H Doll, O. Balaban [6], who in their works reveal the importance of providing investment environment for attracting foreign funds and introducing environmental trends into the national sustainable development goals of the country «Green» economy. Eaton D. [3] investigates innovative approaches to the development of the national economy, which were based on the preservation of the environment and the aim of the rational use of the country's natural resources to obtain the long-term economic effects of economic growth of the state.

The aim (**goal setting**) of this article is to investigate the effectiveness of green investment policy as a priority direction for the sustainable development of the national economy.

**Outline of the main research material.** Strengthening of the world economic ties, expansion of integration processes, deepening of the international division of labor and industrial cooperation, gradual liberalization of investment activity, intensification of functioning of TNCs, technological progress, growing competition and the desire of enterprises to enter the international markets became the driving forces to intensify international investment processes. And the «weakness» of national capital and the scarcity of domestic investment resources

in most countries have increased countries' interest in attracting foreign capital (mainly FDI). These processes, in the light of scientific achievements and practical experience, have influenced the course of discussion by the expert environment of the role and place of FDI in the recipient countries.

On the one hand, the arrival of a foreign investor is one way of technological structural transformation in the recipient country. FDIs are seen as conducive to boosting domestic capital, creating new jobs while raising income levels, attracting technology and transferring management skills and know-how that are essential to stimulate economic development. As a rule, enterprises with foreign capital provide technical assistance to the recipient country, which improves product quality and increases the technological level of the production process itself (reducing the technological gap). FDI can also play an important role in the promotion of environmentally friendly goods and services.

FDI, on the other hand, can lead to negative consequences, such as «crowding out» domestic (national) investors, enhancing unfair competition, which can lead to the «market stealing effect». The environmental impact may be negative, in particular by moving environmentally dirty industries from the basic country to the recipient country, or if the FDI coming in the form of technology is old and unusable (in more detail later).

Until recently, little attention has been paid to the role of FDI in sustainable development and its impact on green growth. One of the explanations for the limited attention to the contribution of FDI to sustainable development is the lack of a well-defined definition of «green» FDI, as well as sectoral statistics on the flow of «green» FDI across countries. The impact of FDI on the environment - both potentially positive and negative - has increased interest in the concept of green FDI. International Economic and Financial Organizations - UNCTAD, OECD, UNEP - and the specialized fDi Intelligence and Bloomberg news agencies have taken steps to identify green FDIs, calculate their flows and totals, and evaluate funding gaps that need to be addressed with due consideration of global CDG. Thanks to the above-mentioned analysis and definition of the conceptual

apparatus of this definition, we can build our own research and analyze the state of green investment in Ukraine. It is important to note that one of the indicators that shows the effectiveness of the green economy in the country is international rankings. One of the most significant indices is The Global Green Economy Index, GGEI, which ranks 130 countries in the green economy development program under the National Economic Sustainability Program. Accordingly, we consider it advisable to analyze some of the positions in this rating and to identify where Ukraine is in this rating.

Based on available data, we formalize our analysis in the form of a table (Table 1).

Table 1

**The Global Green Economy Index, 2018 p.**

| Рейтинг | Country     | Indicator |
|---------|-------------|-----------|
| 1       | Sweden      | 0,7608    |
| 2       | Switzerland | 0,7594    |
| 3       | Iceland     | 0,7129    |
| 4       | Norway      | 0,7031    |
| 5       | Finland     | 0,6997    |
| 6       | Germany     | 0,6890    |
| 7       | Denmark     | 0,6800    |
| 8       | Taiwan      | 0,6669    |
| 9       | Austria     | 0,6479    |
| 10      | France      | 0,6405    |
| 120     | Ukraine     | 0,3813    |

*Source: generated by authors [5]*

Thus, according to Table 1 we can state that the level of development of the «green» economy is too low, and Ukraine takes 120th place out of 130. The leading positions are occupied by the developed economies and countries that pay considerable attention to the use of «green» economy.

Another important indicator, in our view, is the Environmental Performance Index (ERI), a comprehensive indicator of assessing the environmental policy of the state and its individual entities. The index is calculated on 24 performance



indicators across ten categories covering health, environment and ecosystem viability. These indicators make it possible to assess the extent to which countries have achieved the set environmental policy goals (Table 2).

Table 2

**Environmental Performance Index, 2018 p.**

| Рейтинг | Country     | Environment protection | Environmental health | Ecosystem viability |
|---------|-------------|------------------------|----------------------|---------------------|
| 1       | Switzerland | 87,42                  | 93,57                | 83,32               |
| 2       | France      | 83,95                  | 95,71                | 76,11               |
| 3       | Denmark     | 81,60                  | 98,20                | 70,53               |
| 4       | Malta       | 80,90                  | 93,80                | 72,30               |
| 5       | Sweden      | 80,51                  | 94,41                | 71,24               |
| 109     | Ukraine     | 52,87                  | 64,44                | 45,16               |

*Source: Authored by authors [4]*

For many years, Switzerland has remained the leader, a country that has been improving its performance every year (in particular, in 2012, the figure was 76.2%). Ukraine in 2018. took 109th place among 132 countries with 52,87%. Low indicators show the great need to intensify the efforts of the state to ensure sustainable development on a number of factors, such as biodiversity protection, GHG emission reductions, etc. (Table «Environmental Performance Index»).

So, identifying Ukraine's place in the system of world leaders in the field of «green» economy, let's find out the current state of «controversial» investment in Ukraine and ways of its development in the future.

In recent years, certain elements of the green investment mechanism have emerged and become widespread in Ukraine. And this happened not primarily as a result of a consistent, strategically oriented policy, but as a result of finding answers to acute current problems of economic development and under the influence of a number of accepted international commitments. In particular, there should be some positive developments in a financial instrument such as green bonds. Under the influence of the high level of interest of both Ukrainian and

foreign investors to invest in green bonds, today the question of creating a market of green bonds in Ukraine is very popular among the parliamentarians and experts.

Currently, a number of investment incentives is being used to help solve energy-saving and construction problems of modern power generation facilities, including using RES.

Also, one of the instruments to stimulate the development of green economics in Ukraine was the establishment of a green feed-in tariff, produced from alternative sources. Due to its introduction (since 2009), the construction of wind farms, hydroelectric power plants, small hydropower plants and other stations operating on alternative sources has been intensified. However, the country has not yet been able to achieve its electricity generation from RES according to state strategy papers.

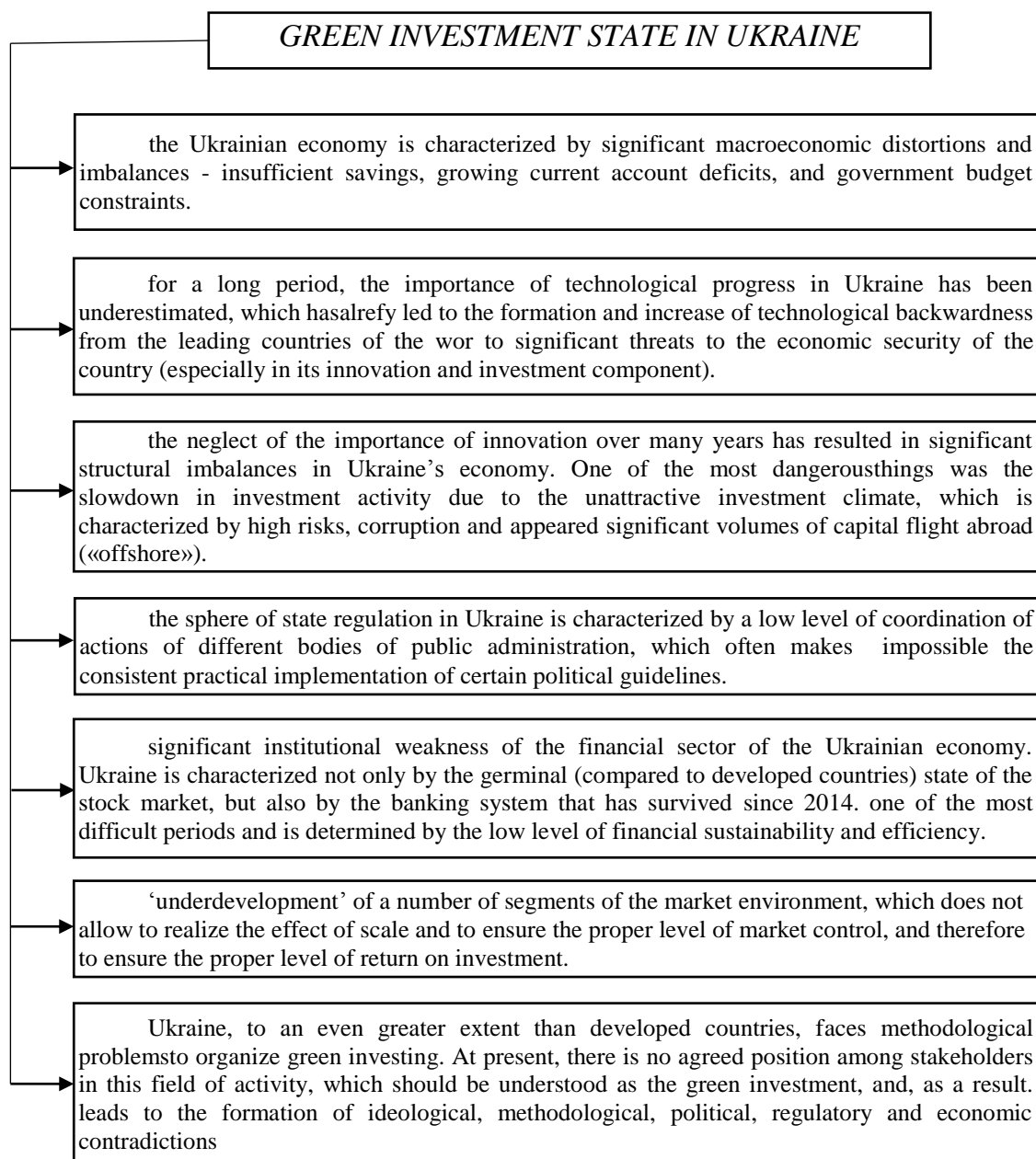
Carrying out a number of reforms and introducing regulatory changes in recent years such as the implementation of the provisions of the Association Agreement with the EU, led to a certain improvement of the investment climate in Ukraine (despite the unfavorable security and geopolitical factors for Ukraine). In particular, this can be proved by the country's position in the World Bank's Doing Business ranking in recent years. Thus, in the Doing Business-2020 rating, Ukraine has taken 64th place, improving its position, compared to Doing Business-2019, by seven points [2]. The biggest progress was made on the indicators of «protection of minority shareholders», which managed to improve the positions by 27 points and «obtaining a building permit» - by 10 points.

At the same time, the introduction of the green investment model and the transition to a full-fledged environmental policy in Ukraine are significantly constrained by the lack of clarity in the formulation of an active environmental policy by the authorities, which is largely influenced by the international community and the domestic public (environmental movements) and organizations.

In addition, it should be noted that the state policy in the sphere of regulating the transition of national business to a green economy is unclear and fragmented.

The mirror image of this situation is the lack of a unified position of the national business in the development of the green economy. This is significantly facilitated by the informational closeness of state agencies responsible for solving the problems of greening the economy, investing public funds in specific decisions in the area of sustainable economic development. Therefore, in accordance with all facts mentioned above, we formalize the current situation of green investments in Ukraine in the form of a scheme (Fig. 1).

In Ukraine, there is no systematic vision for the green growth financing model: its formation has not been completed yet. However, there is still no clear understanding of the role of national financial institutions in the implementation of this course. Initially, green investments were considered as a general economic feasibility of investing in order to prevent and finance environmental pollution, mainly at the expense of international financial institutions. And only today the position has been going to emerge according to which the country should develop its own strategy for financing sustainable development, and this strategy should take into account all sources of funds (public and private, domestic and international).



**Fig. 1 The state of green investment in Ukraine**

Source: Authored by authors [7]

Thus, in accordance with the facts mentioned above about the current situation of «green» investment activity, it should be noted that such positions are incompatible with the goals of «green» investment, which requires attracting and efficient accumulation of additional financial resources. Interest rates in the economy are still too high (since October 25, 2019 the NBU discount rate is at the level of 15.5% [10]), and the inflation rate remains significant. This, in turn, increases the value of the national currency and private sector borrowing facilities

in the national currency. High interest rates reduce the ability of borrowers to invest in «green» programs, including energy efficiency and renewable energy. Ukraine is characterized by a low level of diversification of marketable financial instruments, limited sources of capital mobilization and relatively low rates of financial innovation.

In general, it should be noteworthy that in Ukraine, the topic of green investing is attracting increasing attention from both politicians, experts, scientists, and the public. However, in the absence of clear political signals and a single focal point for pursuing such policies, much of the effort made in this area remains fragmented and does not contribute to the consistent development of green finance in Ukraine. Although the importance of developing green funding is well understood, the specific actions that would contribute to it are still under discussion or not implemented very quickly.

In view of the above-mentioned analysis of the current situation of green investments in Ukraine, there is a need to create a mechanism for attracting and using green investments.

In Ukraine, sustainable economic policy approaches need to be implemented through broad coordination of government actions (such as the Ministry of Economic Development, Trade and Agriculture, the Ministry of Energy and the Environment, the Ministry of Finance, and the NBU in terms of adapting monetary policy to sustainable goals economic development) and private entities, including the Ukrainian Stock Exchange, commercial banks and investment companies and other institutional investors, with a view to agreeing (and in the case of needs and joint) decisions on mobilization, support and capacity building for the development of green markets and environmentally friendly businesses.

The development of green investment requires the adoption of strategic documents, the formation of a special policy and its consistent implementation, which will stimulate market participants to contribute to the greening of the financial sector and the transition to a green economy. In order to remove existing obstacles to the development of green financing in Ukraine, it is necessary to apply

a systematic and coordinated approach in the following areas: regulatory support and institutional support. Let's take a closer look at each of them.

Legal support:

- define clearly the concept of green investment and legally establish the main priorities of green investment as an important component of the more general concept of green economy, as well as the parameters of its regulation. This is a prerequisite for creating the foundations for effective governance and regulation in this area.

- raise consistently environmental and environmental quality standards and the amount of sanctions for breaches by all businesses.

- review the environmental commitments of Ukraine in the face of the worsening climate change problem, which will also lead to a revision of environmental targets both in the country and by industry. In this context, the needs for green investment in the primary, secondary and tertiary sectors of the economy should be assessed (highlighting activities in areas such as green building and modernization of buildings, clean transport, renewable energy and waste management , sustainable agriculture and others).

- develop and adopt a Green Investment Roadmap, which will identify: (1) the main goals and priorities that faces Ukraine in attracting green investment; (2) major obstacles to green investment; (3) tools and mechanisms for activating green investing; (4) step-by-step instructions (tasks) for attracting green investments with the respect of national interests; (5) the directions of state policy in terms of preventing or minimizing the possible outflow of «green» investments under the influence of adverse factors of the market and political environment.

- ensure the stability of the regulatory framework and tax policy, define a portfolio of green projects, and introduce a transparent public procurement procedure with clearly defined environmental sustainability criteria.

- ensure the enhancement of the effectiveness of the intellectual property rights protection system, which in the long run will be crucial for attracting investment and creating incentives for innovation, significantly enhancing the

incentives to invest in the research and development of products, technologies, «green» including.

Institutional support:

- designate a national agency responsible for green investing and set up a coordination center to ensure interaction and coordination between green project initiators, investors and regulators.

- incorporate a green agenda into the mandates of public development institutes and public procurement procedures.

- take steps towards finding a balance and combining the interests of all participants in the investment process. Implementation of the public-private partnership approach in the field of green investments.

- establish a specialized institution to carry out the expertise of green projects that can be a potential investment object.

In accordance with the characteristics of approaches to improve and introduce innovative elements to the existing green investment system, it is advisable to formulate a mechanism for public private sector incentives for green investment when the following initiatives are visible:

- direct budget financing (subsidizing) of investment measures aimed at creating a modern environmentally friendly infrastructure, especially in the context of the latest technologies of the Fourth Industrial Revolution. Such funding may be provided through public investment programs and priority national projects.

- promoting green innovation by significantly increasing government support for research and development work in low carbon and climate change technologies, which should reduce the cost to private investors and encourage them to invest in new clean technologies.

- supporting private «green» financing through a system of state guarantees (in the case of major high-risk projects), implementation of new market standards and instruments. In particular, the provision of government guarantees for individual issues of green bonds, depending on the level of their social and

environmental importance and compliance with the principles and standards established for state-level green bonds.

- developing a risk insurance system for green investment, including the possibility of state insurance for particularly large socially and environmentally significant green projects.

- stimulating the demand for new «green» technologies and creating markets for new «green» products through government demand («green» public procurement). As an intermediate step in this direction, legislative proposals can be made to integrate environmental and energy efficiency requirements into existing public procurement mechanisms.

- providing the preferential access to publicly owned infrastructure and public services.

- establishing the state-owned banks for green investments or green infrastructure funds to support investments in green infrastructure. A state-owned green bank can overcome the risks that private banks cannot cope with today, thus acting as a catalyst for further private sector investment.

- strengthening of mechanisms of stimulation of “green” investments by increasing the pressure of payments for inefficient and environmentally harmful use of economic resources. First of all, we are talking about carbon pricing schemes and rents for the exploitation of natural resources.

Therefore, in line with the above mentioned points of the mechanism of attracting green investments, we should not note that its implementation and practical application and achievement of the goals of sustainable development of national economy will allow to obtain long-term and positive economic effects for all branches of activity of economic entities.

**Conclusions.** The analysis of the individual impacts of FDI on the components of sustainable development makes it possible to conclude that FDI is an important source of funding for transmission and technology, as well as know-how between countries. However, the impact of green FDI is extremely difficult to assess accurately, since the net benefits of such investments are not automatic and



do not increase equally in each country, sector or region, and their volume varies depending on the foreign investor. Also, little is known about the amount of FDI contribution to green growth. The limited understanding of the role of FDI in promoting green growth targets, as noted above, can be explained by the lack of an internationally agreed definition of green FDI and a lack of data on them. Green FDI is believed to be emerging in areas where their environmental impact (energy efficiency, pollution control and reduction, household waste management) is the largest.

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