FINANCIAL INNOVATIVE APPROACHES TO ENSURE ECONOMIC SUSTAINABILITY

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Abstract: *The problem of ensuring the conditions of sustainable development is one of the most frequently discussed theme at international summits and meetings at different levels. The international community has recognized the degree of responsibility for future generations and outlined the concept of further development, but there are still difficulties in its implementation. The lack of uniform methodological approaches for the transition to a new development path, the lack of development of financial mechanisms and models of cooperation between international organizations and local communities - all require generalizations of modern experience and practical actions on the path to sustainable development. In this regard, the authors analyzed innovative financial approaches used for economic sustainability.*

Key words: *Sustainable development, innovations, blended finance, green economy, Moldova.*
JEL Classification: *G02.*

1. Introduction

In recent decades, the problem of ensuring the conditions of sustainable development is one of the most frequently discussed theme at international summits and meetings at different levels. Especially often this topic and everything connected with the financing of new development goals appears on the agendas of intergovernmental discussions after the onset of natural disasters in the world. The international community has recognized the degree of responsibility for future generations and outlined the concept of further development, but there are still difficulties in its implementation. The concept of sustainable development (CSD) today is a kind of synonym for the well-being of life. However, the realization of this does not lead to effective measures. The lack of uniform methodological approaches for the transition to a new development path, the lack of development of financial mechanisms and models of cooperation between international organizations and local communities - all require generalizations of modern experience and practical actions on the path to sustainable development.

2. Interaction of the economy with the environment

2.1. Literature review

The fundamental principles of the interaction of the economy with the environment were laid for a long time by such world-famous scientists as D. Meadows, R. Hüting, M. Mesarovic, E. Pestel, J. Forrester, D. Gabor and others. Later, these problems were reflected in the works of such scholars as G. Daily, J. Bartholomew, P. Davis, and others. Works on financing sustainable development began to appear in the late twentieth century, their authors were J. Gembrell, D. Stiglitz, D. Makey, P. A. Victor, M. Friedman, S. Ketkar, L. Emerton, M. Porter, P. Rogers, and others. Of great scientific interest are studies conducted under the auspices of the UN, the World Bank and the World Wildlife Fund.

2.2. Research methodology

In present paper were used comparative analysis in defining and identifying innovative approaches to ensure economic sustainability.

2.3. Green economic development

Applying **green economic development** as a priority at the national level will help to attract investment in environmental protection, modernize the national economy and at the same time promote the country's image in the context of European integration, and at the regional and global levels to ensure practical application of the norms of the Association Agreement between the European Union and the Republic of Moldova.

The concept of a **"green economy"** does not replace sustainable development, but is increasingly recognizing the relationship between sustainability and a green economy. In this context, the growth of incomes and employment of the population are influenced by public-private investments and can create opportunities for increasing the scale of financing in order to stimulate the transition and strengthen the role of the financial sector as an agent of green economy changes.

Modern practice is characterized by the erosion of the goals of sustainable development, the unsystematic distribution of funds, the lack of clear motivation to help the underdeveloped countries, and extremely insufficient financial support. In practice, the solution of world problems, which are widely discussed during numerous summits, are postponed, and the deadlines for taking measures are stretched to uncertainty. Moreover, during the recession, when the financial crisis comes to the fore, countries are in no hurry to send money to solve problems related to sustainable development. For example, *the Sustainable Development Impact Summit 2018* (WEF) is a platform to fast-track solutions to the world's most complex problems. By focusing all sectors of society into working together and applying technological innovation we can achieve far-reaching, sustainable impact. The summit is spotlighting and scaling 100 alliances, coalitions and cross-sector initiatives for climate action and sustainable development on the 17 *UN Sustainable Development Goals* below to find out how each coalition is driving collective action. Most coalitions are working on multiple Goals. Also, the *Sustainable Development Investment Partnership (SDIP*) is a platform of public, private and philanthropic entities with shared ambitions to scale the use of blended finance in sustainable investments in developing countries. The initial focus of SDIP is on sustainable infrastructure investments, given their importance to closing the overall financing gap to the Sustainable Development Goals (SDGs). SDIP focuses on activities that facilitate transactions and scale and replicate models to enable broader systemic change for financing sustainable and climate-resilient infrastructure projects in developing countries. Since its inception in 2015, SDIP has put in place a solid foundation to mobilize and scale blended finance in sustainable investments in developing countries.

Scaling Blended Finance Mechanisms. SDIP identify, scale and replicate blended finance mechanisms and instruments that are effective in bringing projects to a financial close. SDIP has showcased 14 financing models, with efforts underway to replicate and scale the most effective of these. SDIP identifies blended finance mechanisms and instruments (i.e. guarantees, credit enhancements, and/or other structures) that can be scaled and replicated to catalyze more investments in sustainable development projects. Examples of *blended finance mechanisms and instruments* are:

1. **Local Currency Guarantees**: InfraCredit from Nigeria;
2. **Development Finance**: Sovereign portfolio risk transfer represented by Asian Development Bank; Synthetic securitization of non-sovereign loans represented by

African Development Bank; Managed Co-Lending Portfolio Program (MCPP) - International Finance Corporation;

3. **Green Financing Programmes**: Africa GreenCo; Scaling Solar; Sunref
4. **National Programmes / Funds**: Climate Investor One; Danish Climate Investment Fund; European Union External Investment Plan (EU EIP).

2.4. Regional Engagement on Blended Finance

Regional hubs. Through *regional hub* concept, SDIP is able to implement blended finance at the local level. Each hub is formed of an engaged community of local institutions (including local representatives of global institutions) able to provide specific insight into regional challenges, share best practices, and support governments on how to finance project pipelines effectively. SDIP regional hubs bring together a wide range of local institutions and representative offices of SDIP members to tackle financing challenges at the local level.

As international practice evidence, there is fragmentation and a lack of coordination across blended finance activities. In areas such as infrastructure, there is often duplication of efforts and funding from donors.

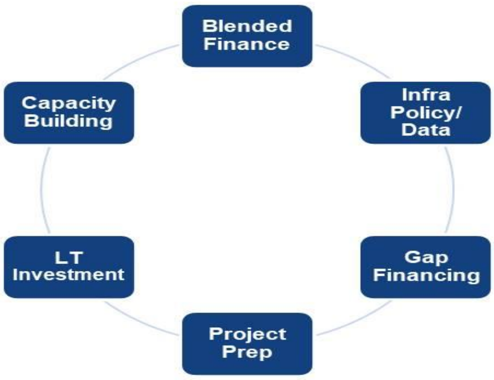

Figure 1. Coordination with other blended finance and infrastructure initiatives

In practice, the global crisis is expressed in the fact that natural resources are being depleted, the quality of habitat is deteriorating, and the level of investment in sustainable development in the world is declining. As access to international bank loans, bond issuance, as well as foreign investment is lost, the chances of implementing the CSD are reduced, threatening the political and economic stability of developing and developed countries.

Finding the best ways to finance CSD, achieving environmentally and socially sustainable economic growth is a key task for both the global economy and the national economies of various countries. The search for new ways of development is associated with the promotion of environmentally-oriented investments. It is believed that targeted investment policy can simultaneously contribute to the economic recovery and the creation of the necessary infrastructure for the long-term functioning model of sustainable development, socially and environmentally responsible business. In this context, the role of large financial institutions, state-owned banks, which must, first of all, meet the requirements of ensuring environmentally sustainable growth, is important. International financial institutions are called upon to become the main drivers in the implementation of the sustainable development process.

The failure of the modern model. The failure of the modern model to finance new development goals is associated with the lack of a unified financial policy for the provision of ODA and a well-directed funding strategy. As a result of an analysis of the practice of national strategies of countries in implementing the MDGs, it was noted that the financial mechanisms developed at various conferences and summits and adopted by most countries are still unimplemented. The largest international financial institutions - the World Bank, the GEF, the EBRD are the largest lenders of sustainable development goals, while not having clearly developed tools for allocating funds for development. The ODA standards agreed by all countries have not yet been reached - in the amount of 0.7% of GNP. An analysis of the official reports of these organizations on financing the development strategy, as well as the G8 and G20 programs shows that in achieving the goals of the sustainable development concept there is no coordination of funding priorities, the expenditure items for ODA are not supported by justifications from international financial institutions.

At the same time, the methodological approaches of independent private institutions are more adapted and developed to modern practice in the analysis of the system of sustainable development indicators; and the share of participation of private financial (commercial) structures in sustainable development exceeds the contribution of international financial institutions.

In order to improve the distribution of financial resources by major international financial institutions for new development goals, we consider it expedient to use methodological approaches (for example, equator principles, responsible investment principles, and other independent private institutions) to analyze the system of sustainable development indicators that are more developed and adapted to modern practice. Implementation of the CSD is possible only with the help of well-organized control by global independent financial corporations and the interest of the state (Moseikin, 2011) itself in this regard.

Moldovan banking system. The current level of development of the Moldovan banking system is clearly not in line with international trends in the transition to environmentally and socially responsible investments. MDG priorities are also not taken into account when selecting and analyzing projects. Under current conditions, active participation of state financial institutions is necessary. Since, having monetary resources, being leaders of the market, these organizations are able to form the conditions and mechanisms for the work of all participants. In accordance with the Environment Strategy for 2014-2023 (Strategia de mediu pentru anii 2014-2023), the cost of implementing the strategy will be about 9.1 billion lei, which is about 1% of annual GDP; most of the allocations are planned for the environmental infrastructure. Most of the costs of implementing the Strategy stem from the requirements of the Association Agreement and the Deep and Comprehensive Free Trade Area Agreement were in accordance with international best practices in economic analysis and cost-benefit analysis, taking into account the following components:

1) *The costs of the necessary investments* cover not only the investments necessary for the infrastructure, but also other non-recurring aspects that are not related to human resources. In this regard, external co-financing will be requested for capital investments. Recurring costs, for example, for maintaining and replacing assets by the end of their life span, will be funded from domestic sources.

2) *Costs associated with technical assistance* cover the cost of services of local and foreign consultants. Single quotas that are used for valuation are typical of financial intervention by the United Nations and the European Union.

3) *The time spent* by government officials is related to the provision of external financial assistance and is less than 1% of the total cost of applying the Strategy.

The size of the required capital investment is quite large, and therefore requires a substantial amount of external co-financing. At the same time, the allocation of state resources for maintaining and improving the environment in the Republic of Moldova should depend on a clear understanding of the environmental benefits that can be obtained as a result of investments, and not on monetary costs; there are needed at least 20% of capital investments in the short and medium term (about 1.8 billion lei) in conditions when the principles of environmental protection and sustainable development are not included in all sectorial policies and are not recognized as priorities, and *greening the economy is not perceived as a new engine of economic growth*.

Domestic financing can be provided both from the state budget and through other financial mechanisms. They may include the promotion of market economy instruments that take into account environmental aspects, the promotion of eco-innovations that may contribute to the creation of new business opportunities. Special funds, such as the National Ecological Fund, the National Fund for Regional Development, the Energy Efficiency Fund, etc., are an important tool not only for channeling internal cash flows to environmental investments, but also a means for combining external and internal financing.

In recent years, new financial technologies have emerged and become available, including to SMEs sector and new concepts corresponding to new financial instruments, for example:

• Blockchain: A digital, decentralized, shared and tamper-proof registry that stores and transfers information transparently, securely and autonomously, without a central authority or intermediary.

• Cryptocurrency: Virtual currency (such as bitcoin, etc) created from blockchain technology.

• Smart contract: A computer protocol that automatically executes certain actions defined in advance without the need for human intervention (according to the "if, then" principle).

• Token: Digital asset created on the blockchain and exchangeable on it. This tamper-proof token can be exchanged with another player without the intervention or authorization of a third party. A token is a smart contract (because it comes with conditions, including utilization).

• Tokenisation: Representing "real" assets (stocks, bonds, real estate units, precious stones, cars, etc) in the form of digital tokens.

The capital market is changing and offers opportunities previously unthinkable. These are aimed at (almost) all types of businesses and investors. New solutions have emerged and allow a real democratization of the capital market for companies, what energize the economic fabric and eco-innovation. These solutions are called Initial Coin Offering (ICO), Security Token Offering (STO) and Tokenization asset. These three approaches have a common basis: they rely on the block chain, which makes it possible to transfer digital assets without going through intermediaries.

These solutions are also matched by unknowns and risks. The universe of ICOs has also experienced setbacks after the period of euphoria late 2017-early 2018, which has cleaned up the market and now requires companies to submit offers stronger.

New technologies in the capital market are the following:

1. ICO et STO - a company that does an ICO aims to raise funds from a large number of people by issuing digital tokens, which it sells to investors for crypto currencies. In other words, it is crowd funding via the block chain.

There are two types of tokens most useful for businesses:

-Utility token - give access to a future use or service, like a presale. The company, thanks to the money collected, will be able to develop its product / service and the investors having acquired its tokens at the ICO will be able to benefit from its benefits in first-choice, in priority and / or at a reduced rate.

-Investment token / security token - a heritage value (e.g. share or participation bond). It is therefore "backed" by much more concrete assets and is subject to stricter regulations, which is why most experts are banking on a skyrocketing of this type of OIC, commonly known as STO, since they use "Security tokens".

The two types of tokens (utility and security) can be exchanged at the ICO for crypto currency or be resold later on a trading platform. Further, it is this listing on a secondary platform that gives the title its liquidity. The investor can then resell it to a third party and, as it is on the blockchain, in a completely traceable way.

2. Tokeniser 'existing products - the block chain makes it possible to "tokenize" existing products such as stocks or bonds. This approach has the merit of being clearly understandable and of interest to institutional investors. Indeed, the share of a start-up who wants to become a fully licensed bank is issued numerically on the block chain in the form of chips. Holders of these tokens are shareholders of the establishment and enjoy the right to vote and dividend rights, as a "traditional" shareholder.

These financial instruments allow companies to raise funds more flexibly than through an IPO or venture capital (which is not suitable for small companies). The fact of "tokenize" a part of its capital allows a company to have access to the capital market in a facilitated, inclusive way abroad. It becomes possible to encode in the underlying protocol of the token all information related to the transaction, facilitating reporting, auditing and compliance. Eventually, it could for example become possible to program and automate the payment of interest.

It also allows small investors to invest in a promising venture because the investment process is standardized. Finally, it offers an interesting visibility for the company. In short, STOs make it possible to democratize venture capital investment in companies, which is extremely positive for boosting the ecosystem of innovative companies (e.g. tokenization is likely to facilitate the financing of start-ups and SMEs).

There is no specific regulation for ICOs. The regulation will depend on the type of ICO and is based on the general law governing financial markets. An OIC using utility tokens is not subject to securities law, whereas a STO, which is based on investment tokens, so STOs are safer.

It can be mentioned that is further needed investigation of regulatory aspects of other countries, because there is a big disparity in this area. Thus, the United States considers all tokens as investment tokens and Asian countries have very heterogeneous legislation, ranging from the total ban of ICO to the active promotion of such projects.

It should be noted that traditional financial players and institutional investors are increasingly interested in this new asset class.

Investing in an ICO or STO certainly involves more risk than investing in a "blue chip". Companies are young, technologies are often in the making and legislation is weaker than for other asset classes (the STO is however subject to more rules than the ICO). The entrepreneurial risk associated with any young company is added to the highly volatile crypto currency and new technologies that few people still master.

3. Conclusions

The issue of ensuring the conditions of sustainable development is one of the most frequently discussed theme worldwide. Applying *green economic development* as a priority at the national level will help to attract investment in environmental protection, modernize the national economy and at the same time promote the country's image in the context of European integration, and at the regional and global level to ensure practical application of the norms of the Association Agreement between the European Union and the Republic of Moldova.

Author’s identified that *blended finance mechanisms and instruments* (Local Currency Guarantees, Development Finance, Green Financing Programmes, National Programmes/Funds) can catalyze more investments in sustainable development projects. Still, as international practice evidence, there is fragmentation and a lack of coordination across blended finance activities; in areas such as infrastructure, and there is often duplication of efforts and funding from donors.

Finding the best ways to finance CSD, achieving environmentally and socially sustainable economic growth is a key task for both the global and Moldova’s economy. The search for new ways of development is associated with the promotion of environmentally-oriented investments. In this context, international financial institutions are called upon to become the main drivers in the implementation of the sustainable development process, including in Moldova.

In order to maintain and improve the environment in the Republic of Moldova it should firstly understand clearly by all actors the environmental benefits that can be obtained as a result of investments. In this regard, state must support promotion of market economy instruments that take into account environmental aspects and promote eco-innovations that may contribute to the creation of new business opportunities; special funds, such as the National Ecological Fund, the National Fund for Regional Development, the Energy Efficiency Fund, etc. in Moldova are an important tool not only for channeling internal cash flows to environmental investments, but also a means for combining external and internal financing.

It is recommended for SMEs sector to use new concepts corresponding to new financial instruments that already become available and are able to boost additional development, such as: block chain, crypto currency, smart contract, token, tokenization; also new solutions and technologies that can allow eco-innovation and a real democratization of the capital market for SMEs are: initial coin offering, security token offering and others, that as result make possible to democratize venture capital investment, which are extremely positive for boosting the ecosystem of innovative SMEs. In the same time is further needed investigation of regulatory aspects in different countries, because at international level there is a big disparity in this area.

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