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RESEARCH ARTICLE / ARASTIRMA MAKALESİ

FINANCING THE SUSTAINABLE DEVELOPMENT PROJECTS OF FAMILY FIRMS ON THE BASIS OF PRIVATE-PUBLIC PARTNERSHIP

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Abstract

The research objective of the article is substantiation of methodological and applied recommendations for improving the system of financing the sustainable development projects in Ukraine in view of Sustainable Development Strategy realization. The study object is financing the family firms in framework of reforming the Ukrainian legislation aimed at establishing of a mechanism of funding the sustainable development projects. During the research there were used such methods as: dialectical method and methods of analysis and synthesis – to study the features of forming the national programs of the state development, the characteristics of private-public cooperation in the implementation of sustainable development projects; statistical method – to analyze the family firms' expenditures by their content and direction, for empirical determining the costs, which can be potentially directed on sustainable development measures of Lviv region; structural and logical analysis – to develop theoretical and methodological principles of forming an effective Program of the regional competition of sustainable development projects for family firms in Ukraine. The need to increase incomes of Lviv region family firms was established. This will facilitate the development of small and medium businesses in the country. There were characterized supporting programs and projects for sustainable development for the purpose to encourage households to make the appropriate changes, providing assistance through common financing.

Keywords: Sustainable development projects, family firms, private-public partnership, the programs of region development, regional funding.

JEL Classification: Q56, R28, R58, K32.

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1. Introduction

Nowadays, the ecological situation in Ukraine and world requires decisive actions related to warning and prevention the new challenges, the society is faced with. Countries transition to the sustainable development model long ago became the priority task in the whole world, since we have been already seeing the consequences of the massive energy consumption and greenhouse gasses permanent emission. And though Ukraine is one of the signatories of international agreements on climate change, the process of the economy transition to the sustainable development requires overcoming lots of problems and avoiding the range of risks. However, the urgency of these actions is obvious considering the ecology situation in Ukraine and world, as well as the increase in the fossil fuel cost.

It is generally recognized that in order to ensure the fulfillment of country's tasks and to improve the environmental situation in Ukraine and world as a whole, a new Energy Strategy and the Strategy of Low-Carbon Development must be based on the promotion of such directions as, in particular, defining the responsibility for the ecological state of a country, of a separate region, a united commune, private production etc. in the context of public-private partnership. Taking into account Ukraine's participation in the international treaties on climate change and ratification of the Paris Agreement within the United Nations Framework Convention on Climate Change, the Strategy of Sustainable Development "Ukraine-2020" has been confirmed. (Sustainable Development Strategy "Ukraine2020"). In particular, an action plan for implementing the Strategy provisions developed the vectors of movement for realizing the reforms and development programs of the state, including the Small and Medium Business Development Program, the Financial Sector Reform, the Natural Environment Conservation Program and others.

2. Forming the Programs for Financing the Sustainable Development Projects for Family Firms

In view of the development and ratification the Sustainable Development Strategy in Ukraine, there is an obvious need to define the clear action plan regarding the country transition to the use of renewable energy sources. Such kind of programs development is the logical start for the established action plan implementation in the context of movement vectors for reforms realization. It is fundamental for country to adopt the appropriate development programs regarding the natural environment conservation and small and medium business development.

A necessary step in forming the national programs of the state development is elaborating programs of this type at regional and local levels. This would enable activating the sustainable transformations in the country through natural environment conservation and transition to renewable energy sources at the level of individual territorial units.

The importance of ensuring the sustainable development of the territories is analysed in the research papers of A. Demyanyuk, who in particular outlines the necessity of coordinated development of plans for the development of economic, ecological and social spheres of life at the local level based on balancing the powers and responsibilities of local authorities to stimulate the effective use of the

potential of these territories. In particular, the author notes that in the future, implementation of these measures will promote the level of competitiveness of territories, development of human resources and resource potential of territories, ensuring interregional cooperation, creating conditions for the development and implementation of the strategy of socio-economic development of territories. (Demyanyuk, 2017).

The Resolution of the Verkhovna Rada of Ukraine "On the Concept of Sustainable Development of Human Settlements" identified regional priorities of sustainable development ¹: ensuring balanced development of regions and cities on the basis of preserving their regional structural features, natural resources, economic and environmental capacity; balanced development of the territory within the ecological space of the region, as well as coordination of actions with the development of other regions of Ukraine.

T. Kozhukhova's research proves the importance of developing a strategic approach to financing sustainable development, defining the functions of international and national financing for sustainable development, measures for the effective use of financial resources for sustainable development. Thus, the author in her papers confirms that the needs for financing sustainable development are very large. But the current models of financing and investment will not be able to provide sustainable development. (Kozhukhova, 2014).

Expected returns from sustainable development investments are often less attractive than other opportunities, especially in the short term. At the same time, there are many divergent demands for public resources, and governments are not able to mobilize proper public funding to make the necessary investments which investors who seek profit abstain from. A closer alignment of private incentives with state objectives and the creation of a policy framework that will stimulate profit-oriented investments in these sectors are necessary, along with the mobilization of public resources for compulsory activities in the field of sustainable development. (Kozhukhova, 2017).

A. Zhuchenko notes that one of the key problems of regional management is to ensure long-term sustainable socio-economic development of the region. This problem is relevant not only for Ukraine, but also for other post-Soviet countries. (Zhuchenko, 2016).

Analysing the international experience of providing state support to economic entities, we can distinguish the provision of state guarantees for targeted redistribution of loan capital for financial support of enterprises; financing (co-financing) of large strategic projects in sectors that can accelerate economic development (infrastructure, energy, transport, telecommunications, housing construction); development of small and medium enterprises, incl. innovative. (Karapetian, 2016).

Taking into account the experience of the EU countries, we see that the provision of state support is widespread in the European Union. The main directions of their application include support for priority projects of state development, based on the scale, branch or territorial affiliation;

Source: On the Concept of Sustainable Development of Human Settlements. Resolution of the Verkhovna Rada of Ukraine on December 24, 1999 No. 1359-XIV. Retrieved from https://zakon.rada.gov.ua/laws/show/1359-14

development of small and medium entrepreneurship; interaction within the framework of public-private partnership. (Liutyi & Londar, 2016).

In the context of implementing the sustainable transformations at the regional and local levels, it is important to activate interest and motivation of population, family firms, small and medium business in the direction of using the alternative energy sources, of increasing the energy efficiency, the compliance with standards of ecological safety and preservation of the environment, of applying the nonpolluting equipment and service delivery processes, etc. Family firms' activities could be particularly important for the implementation of sustainable development programs.

The absence of the holistic complex program of sustainable development in regions is the most often compensated by the development of several programs that may be considered as the parts of the single program. This situation can be explained by the absence of necessary financial resources for the complex program implementation.

In particular, as of 2018 in Lviv region, there are 30 development programs, which are being funded from the regional budget. Within their list, we may single out, for example, the Energy Saving Program for Budgetary Sphere of Lviv Region for 2016-2020, the Energy Saving Program for the Population of Lviv Region for 2017-2020, the Program of the Regional Competition of Local Development Projects for 2016-2020, the Environment Protection Program for 2016-2020 (Table 1). Nevertheless, it is worth to be noted that there are no programs, directly concerning the implementation of sustainable development projects. That is, there are no programs of general regional development as the programs of involving the measures of sustainable development of medium and small companies, family firms.

Table 1: Regional Target Programs, Funded From the Budget of Lviv Region In 2018

Program's name	From the regional budget, thousand UAH	Funding as of 08/10/2018, thousand UAH
the Program of the Regional Competition of Local Development Projects for 2016-2020	123 000.00	36 547
the Energy Saving Program for Budgetary Sphere of Lviv Region for 2016-2020 $$	35 300.00	12 788
the Energy Saving Program for the Population of Lviv Region for 2017-2020 $$	18 000.00	9 700
the Environment Protection Program for 2016-2020	69 447.40	19 645

Source: Lviv Regional Council: http://www.oblrada.lviv.ua/oblprog2018.

Considering the above mentioned, it is necessary to implement the programs of region development in the context of realizing the Sustainable Development Strategy "Ukraine-2020". These programs should be directed, first of all, at family firms regarding environmental initiatives and sustainable development projects that would be implemented within their activities. In addition, such programs should also consider the possibility of participation of united territorial communities, cities, villages, settlements with the aim of increasing the environmental responsibility of the population and their participation in setting up sustainable development processes in the region, in particular, and the

country as a whole. So, sustainable development programs will be realized on the basis of the private-public partnership, ensuring the integrated and systematic nature of their implementation.

Establishing the cooperation of this type requires regulatory and legal framework for the mechanism that would provide for conditions and criteria in terms of sustainable development projects elaboration.

The mechanism of funding the sustainable development projects should unite all the implementation parties of these projects in order to accelerate the state's transition to the model of sustainable development.

The recipient of the budgetary funding for the sustainable development projects under the umbrella of the proposed Program of the Regional Competition of Sustainable Development Projects for family firms is family firms, and they elaborate the project envisaged by the Sustainable Development Strategy "Ukraine-2020" and by the State Strategy of Regional Development for the period up to 2020. (On Approval of the State Strategy for Regional Development for the period up to 2020). Consequently, it is necessary to develop the normative documents for family enterprises regarding the implementation of sustainable development projects for submitting a competitive application for funding under the terms of the proposed Program.

Financing the sustainable development projects for family firms would be carried out by the provision of subvention funds of the regional budget under conditions of proportional co-financing from the budgets of cities, villages, settlements, united territorial communities and from its own resources.

Of course, substantiating feasibility, as well as determining some guarantees according projects implementation from regional budget, one of the key participants of the co-financing, requires the certain stability confirmation of this budget participation in previous programs and projects. A retrospective analysis can provide evidence on sufficient quality of regional authorities' activities regarding the regional programs funding. We would like to present the following data on regional programs implementation for 2014-2018 (Table 2).

	Table 2: Trends in Costs of Implementing Regional Programs of Lviv Region for 2014-2018					
Years	Regional programs delivery volume, million UAH					
2014	159.8					
2015	426.1					
2016	863.8					
2017	1075.4					

1588.0

4113.1

2018 (plan)

Totally in 5 years

Table 2: Trends in Costs of Implementing Regional Programs of Lviv Region for 2014-2018

Source: Regional target programs funded from the regional budget in 2018. Lviv Regional Council. Access mode: http://www.oblrada.lviv.ua/oblprog2018.

The presented data points to continuous increase of Lviv region budget costs on implementing regional programs. That is, regional authorities focus on applying measures, which are of a great

importance for citizens, business, including in some case but partially, for providing sustainable development of the region.

At the same time, it is necessary to analyze the family firms' readiness to participate in programs and projects of sustainable development. Since private-public cooperation provides for bilateral partnership. The issues of financing the family firms are studied by such scientists as Pernsteiner & Węcławski. In particular, in their papers authors consider the possibility of supporting family enterprises by private equity investors in solving problems of succession. This is one of the possible ways of investing in family business that provide the opportunities for accelerating its development. (Pernsteiner & Węcławski, 2016).

The analysis of family firms' expenditures shows that they include the following articles: foodstuffs and non-alcoholic drinks; alcohol; tobacco; clothes and shoes; housing, water, electricity, gas and other types of fuel; furniture, household items, household appliances, and daily house servicing; health care; transport; communication; rest and culture; education; restaurants and hotels; various costs and services. No expenditures on measures directly related to the implementation of sustainable development projects or programs are provided by the households of Lviv region. At least, statistic data demonstrate this. The same situation is typical for other regions of Ukraine.

3. Data Analysis of the Family Firms' Expenditures by their Content and Direction

While analyzing some costs of the family firms, we can make the following conclusion: these costs could be aimed at ensuring the sustainable development, although it was not directly mentioned. They include: costs for the private ancillary holdings; overhaul; constructing houses and other buildings; purchase of stocks, certificates, foreign currency, deposits in banks. The mentioned costs by their content and direction could be focused on implementing measures within the sustainable development programs and projects. The feature of such focus of these measures and costs is a usage of innovative technologies, materials etc. In other words, the content of the named articles of costs can be directed on energy saving, usage within family firms such technologies that provides for minimum utilization of fossil resources, maximum usage of wastewater treating technologies, utilization of exhaust gases, avoiding environment pollution.

Analysis of statistical data on expenditures per family firm provides an idea of the scale of expenditures for those items that can be potentially considered in the context of the implementing measures on sustainable development programs (Table 3).

Table 3: Costs, Which Can Be Potentially Directed on Sustainable Development Measures, per Family Firm

Indicators	Values of indicators by years					
indicators		2010	2011	2012	2013	2014
Costs for private ancillary holdings, UAH	48.38	57.07	68.59	72.67	75.27	75.44
Real estate purchase, UAH	-	-	21.73	-	-	-
Overhaul, constructing houses and other buildings, UAH.	27.17	16.58	19.64	3.24	11.86	16.05
Purchasing stocks, certificates, foreign currency, deposits in banks, UAH	26.29	21.96	25.27	51.77	43.75	53.25
Total value of costs, which can be potentially directed on the sustainable development measures, UAH per month	101.84	95.61	135.23	127.68	130.88	144.74
Total value of costs, which can be potentially directed on the sustainable development measures, UAH per year (12 months)		1147.32	1622.76	1532.16	1570.56	1736.88
Number of family firms surveyed, units	594	590	617	608	601	508

Source: Generalized and calculated by the authors in accordance with: Family Firms of Lviv Region. Statistical Compendium (2016). State Statistics Service of Ukraine. Main Statistical Office in Lviv Region.

Of course, it is necessary to argue what is meant when we talk about the potential possibility of these or other expenses to influence sustainable development through the measures for which they are spent. Thus, the costs for private ancillary holdings are considered mainly as the acquisition of new technologies, technical equipment, consumables for implementing the production. At the same time, if new technologies are not just updating old methods of work based on the used earlier old facilities, equipment, instruments, tools, but are innovative technical tools that consider the environmental safety requirements, then it is clear that these costs correspond to the needs of sustainable development. In addition, innovative facilities and equipment, as a rule, use environmentally friendly (for this stage of technological development) consumables. This also applies to hoisting-and-transport machines and mechanisms, vehicles, which are necessary for practically every family firm.

As for the real estate purchase, this can also be a contribution to sustainable development. For this property must meet certain environmental requirements. The closest example to these requirements is smart homes, which are already well known. On the other hand, such a property can be not only residential, but also for economic, industrial purposes.

Overhaul, construction of housing and other buildings can also be viewed through the prism of environmental requirements, sustainable development. In this area, the question can be very broad: from the production of building materials, building machines and mechanisms to the technologies of an immediate construction process. It is well known, how much the construction is a factor in environmental pollution. After all, construction work is carried out on construction sites. Houses overhaul provide for a partial change of individual structural elements of buildings. All this affects the pollution of the surrounding areas. However, modern methods of organizing construction work can decrease pollination, reduce exhaust emissions from machinery and mechanisms, and reduce noise pressure on the environment.

The purchase of stocks, certificates, foreign currencies, deposits in banks only at first glance may seem such that are not associated with sustainable development at the family firms' level. Thus, the owner of the invested funds may not take into account the direction of their use. But, if he has an interest in developing the infrastructure of the region, or the territory of a particular community, then he will invest in the securities, or in banks, which are associated with the relevant programs and projects. The infrastructure development can have a fairly large impact on sustainable development. In this regard, we should talk about the construction of roads, railways, airports, sea and river ports. Arrangement of adjoining territories, closing of open ground by plants and so on are directly related to these objects.

The mentioned aspects give some indication that the statistics provided do not fully answer the questions posed on the relationship between the investigated expenditures with programs or projects of sustainable development. Statistical indicators (except for special surveys) do not always successfully reflect the actual state of affairs. After all, without special indicators it is impossible to see the actual direction of cash flows.

Indeed, the statistics are generated in such a way that they do not allow to identify environmentally focused measures in the mentioned costs. But, if certain fluctuations are obvious in the direction of decreasing the expenses studied in 2010 compared with 2009, in 2012 compared with 2011, then in the subsequent years of 2013 and 2014, expenses increase in annual terms. The general trend in these costs dynamics is upward. At the same time, there is a tendency of reducing the number of family firms from 617 to 508 in the period from 2011 to 2014.

An important characteristic of the participation significance in sustainable development programs may be the share of costs on relevant measures in the total amount of family firms expenditures. The analysis of the cost structure answers this question (Table 4).

Table 4: Structure of Costs, which can be Potentially Directed on Sustainable Development Measures

Indicators		Value of indicators by years, %					
		2010	2011	2012	2013	2014	
Costs for private ancillary holdings	1.9	2.0	2.2	2.1	2.0	1.9	
Real estate purchase	-	-	0.7	-	-	-	
Overhaul, constructing houses and other buildings	1.1	0.6	0.6	0.1	0.3	0.4	
Purchasing stocks, certificates, foreign currency, deposits in banks	1.0	0.8	0.8	1.5	1.2	1.3	
Total value of costs, which can be potentially directed on the sustainable development measures	4.0	3.4	4.3	3.7	3.5	3.7	

Source: Generalized and calculated by the authors in accordance with: Family Firms of Lviv Region. Statistical Compendium (2016). State Statistics Service of Ukraine. Main Statistical Office in Lviv Region.

We have chosen and summed up the shares of those family firms' expenditures, which could be, as it was argued above, directed, among other things, to activities related to sustainable development. From the data analyzed it can be seen that the share of these costs in the total expenditures of family firms is not growing. Dynamics is of fluctuating nature and the maximum total share of costs does not exceed 4.3% in 2011.

There is interesting data on the amount of costs per family firm as average values for all regions of Ukraine (Table 5).

Table 5: Average Monthly Costs Per One Family Firm That Can Be Potentially Directed On Sustainable Development Measures in All Regions of Ukraine

Indicators	Value of indicators by years			
	2011	2012	2013	2014
Costs for private ancillary holdings, UAH	64.70	66.06	68.79	80.19
Real estate purchase, UAH	22.49	6.02	28.51	1.20
Overhaul, constructing houses and other buildings, UAH.	23.09	21.83	21.99	19.66
Purchasing stocks, certificates, foreign currency, deposits in banks, UAH	101.67	104.31	115.60	110.85
Total value of costs, which can be potentially directed on the sustainable development measures, UAH per month	211.95	198.22	234.89	211.90
Total value of costs, which can be potentially directed on the sustainable development measures, UAH per year (12 months)	2543.40	2378.64	2818.68	2542.80
Number of family firms surveyed, units	17022.7	16984.1	16958.7	14455.5

Source: Generalized and calculated by the authors in accordance with: Family Firms of Lviv Region. Statistical Compendium (2016). State Statistics Service of Ukraine. Main Statistical Office in Lviv Region.

While comparing trends of family firms' expenses in Lviv region with all-Ukrainian indicators, we can observe the results as follows in Table 6.

Table 6: The Comparative Figures Regarding Amount of Costs, Which Can Be Potentially Directed On Sustainable Development Measures of Lviv Region, And of the Average Amount of Costs in All Regions Of Ukraine, Per One Family Firm In A Year

Indicators	Value of indicators by years				
	2011	2012	2013	2014	
The total costs that can be potentially directed on sustainable development measures in Lviv region, UAH per one family firm in a year		1532.16	1570.56	1736.88	
The total costs that can be potentially directed on sustainable development measures in all regions of Ukraine, UAH per one family firm in a year		2378.64	2818.68	2542.80	
The share of costs, which can be potentially directed on the sustainable development measures in Lviv region, in the analogical costs of all regions of Ukraine, % per year		64.41	55.72	68.31	

Source: Generalized and calculated by the authors in accordance with: Family Firms of Lviv Region. Statistical Compendium (2016). State Statistics Service of Ukraine. Main Statistical Office in Lviv Region.

The authors' calculations show that the costs that could potentially be spent on sustainable development measures per family firm in the Lviv region, compared with the average values of similar costs in all regions of Ukraine per year, are at least 55.72% in 2013, and the maximum value, 68.31%, is noted in 2014. Despite the growth trend of this indicator, which demonstrates that family

firms' expenditures of Lviv region are approaching average values in the country, the gap of almost 40% is quite large.

This situation is undoubtedly associated with lower incomes of family firms in the Lviv region in comparison with other regions of Ukraine, which is a well-known fact, and it is not the aim of investigation in the presented publication.

4. Conclusion

Accordingly, the proposed tripartite private-public cooperation in the implementation of sustainable development projects will ensure the maximum responsibility of the parties regarding the eligibility of the project to the selection criteria for participation in the program, and the decision-making transparency to provide regional funding for the sustainable development projects implementation. On the other hand, the proposed mechanism provides funding for projects that have successfully passed the selection in accordance with all criteria.

Adoption and realization of the proposed measures will ensure the achievement of key coefficients and strategic indicators assessing the implementation of reforms and programs within the Sustainable Development Strategy "Ukraine-2020". In addition, the proposed recommendation will make it possible to define clearly the mechanism for financing sustainable development projects from local budgets in the context of the responsibility areas of government, business and civil society developed by the Strategy.

In general, the conducted study allows to draw the following conclusions. Firstly, it is necessary to increase incomes of Lviv region family firms. This can be done through the revitalization of economic activity. Secondly, in the process of public-private cooperation, it is necessary to pay attention to the direction family firms' funds spending, with the intention of supporting programs and projects for sustainable development. To this end, it is important to encourage households to make the appropriate changes, providing assistance through common financing.

As prospects for future research there can be distinguished the following: defining the conditions for bank ecological responsibility development, their role in achieving the sustainable development aims in 2016-2030, stated by the United Nations Summit. It is also worth researching the development of the methodological basis for the environmental risks management in the lending sphere; including the regulation of banks participation in the implementation of the system of environment safety measures by the evaluation of their credit portfolio; review of all projects, which are subject to lending, for compliance with standards of ecological safety and environmental protection; as well as refusal to consider applications for loans to projects that have potential danger for the environment and businesses dealing with environmentally hazardous activities.

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