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MANAGING THE SOCIO-ECONOMIC DEVELOPMENT OF SMALL FORMS OF GREEN TOURISM

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Abstract: *This paper considers the economic and social aspects of organizing the functioning of small forms of green tourism. The importance of developing this type of recreational business as a form of self-realization of peasant farms has been proven. The role of rural entrepreneurship as a factor of regional development has been substantiated. The paper proposes the means to improve the procedure of estimating the efficiency of small forms of entrepreneurial activity. It has been recommended to use indicators that imply an alternative form of estimating the costs of labor by the members of a peasant farm. This paper has proposed a model of a green farm as a form of alternative self-actualization of peasant farms. The positive impact on the level of income of peasants in the case of its practical implementation has been substantiated. The need has been indicated to create a system of appropriate information support for subjects of green tourism at the regional level.*

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1. Introduction

Under current conditions, there is an increased socio-economic significance of small business entities, including those based on the family-type form of business.

During crises, they demonstrate the flexibility and ability to quickly change the sectoral and specialization vector of their activities.

This is the key to preserving itself as a business entity. One should also note the important role of a given component of the national economy as a means of reducing social tension, especially in the system of rural territories.

Peasant farms in Ukraine now represent the basic form of self-employment of the rural population, providing their members with an acceptable level of income [8].

At the same time, it should be noted that the main problem of effective functioning of a given segment of the agrarian production is the low level of productivity in most cases, the inactive involvement of automation means in the technological process.

There are also concerns about the possible negative consequences of land reform in Ukraine.

It is predicted that the result of the market liberalization of agricultural lands could lead to the fact that the sizes of land plots that are controlled by villagers would reduce considerably [7].

This, in turn, will have a negative impact on the overall income level, as well as it will accelerate the processes of depopulation in villages.

In this aspect, of special significance are those issues that are related to the reorientation of peasant farms from agricultural production to another direction of self-fulfillment [10].

One of them is tourist activity, specifically, green tourism. This area has much in common with the family way of agrarian production and does not require drastic changes in the principles of organization of economic activity.

Thus, encouraging the revitalization of green tourism based on peasant farms would contribute not only to boosting entrepreneurial activity in villages but could also slow down the negative social processes.

These circumstances have predetermined the relevance of the selected topic.

2. Literature Review

Theoretical, methodical, practical aspects of ensuring the effective functioning of small forms of management in the field of green tourism have been reflected in the works by foreign and Ukrainian scientists.

The issues related to the socio-economic importance of green tourism were considered in papers [1], [6], [13].

So, in [6], Grynchuk and Romaniuk investigated the specificity of ensuring effective rural green tourism development at the regional level.

Specifically, they substantiated the need to expand the range of recreational services, to optimize the forms and methods of using the existing environment potential.

The paper [13] considered a model of the comprehensive indicator of tourist

service appreciation, which integrates such components as an emigrant satisfaction index model, an index model of the resulting satisfaction of tourists, a model of satisfaction of Lithuanian tourists with the index of European leisure vacations, a model of tourist satisfaction index, as well as a model of the index of satisfaction of rural tourists.

Andryeyeva and Nezdoyminov [1] reviewed the specificity of environmental risks in the process of forming the regional tourist network.

The need was emphasized to adhere to a balanced approach to the use of environmental potential in accordance with the principles of sustainable socio-economic development.

Theoretical and methodological aspects of evaluating the activity of small forms of peasant farms were addressed in studies [2, 3],[9], [16].

Specifically, in [2], Chayanov investigated the socio-economic nature of family forms of agrarian production and formulated the concept of a "family-labor economy" by defining its basic principles of functioning.

Chayanov [2] noted significant differences in the organization of economic activities and in the assessment of their effectiveness between a peasant farm and the classic subject of entrepreneurial activity.

This, in its turn, necessitates the use of other methodical tools to analyze the effectiveness of family forms of small businesses. So, in [11], Kalchenko et al. developed a methodology for evaluating the results of peasant farms' activities, taking into consideration the actual absence of a system of formal labor relations in the family, based on job responsibilities and appropriate monetary compensation.

Kalchenko et al. [11] proposed an alternative assessment of the volume of physical labor by the members of a peasant household, as well as relevant indicators of the overall efficiency of the farm.

The paper [16], Simanaviciene et al. pointed to the presence of a close interdependence between the level of energy consumption and the degree of social and economic activity of the households in Lithuania.

In this case [16], it was noted that their economic behavior is largely predetermined by psychophysiological factors, specifically, the use of the resource base, including human resources.

Special features in managing the tourism sector development were considered in papers [12], [17], [19], [21].

In particular, in [19], Szyia considered features of the state policy ensuring the effective development of "green economy" sectors within the national economic system.

The paper [17] addressed the impact of global non-economic factors (including international terrorism) on the development of international tourism in Europe and the Russian Federation.

Stankova et al. [17] studied the results of their manifestation regarding the formation of sovereign states' budgets at the national and regional levels. Separately addressed were the directions of the state policy to prevent negative consequences.

In particular, research [14] investigated the prospects for the development of the green economy based on the family forms of agrarian production.

Remeikienė and Gasparėnienė [14] proved the presence of economic and

social obstacles hindering the process of a growing number of green farms in Lithuania.

The research result is the substantiated need to form a system of non-financial support to a given segment of the agrarian production. Authors indicated the special role of information support as a factor promoting the competitive functioning of green farms.

3. The Study Materials and Methods

The theoretical and methodical base of the current study is the provisions of the concept of a family-labor household, articulated in [2, 3].

According to Chayanov [2] and Chelyntsev [3], the economic activity of business entities that use mainly their own labor and property resources is predetermined not so much by the market situation as by the needs of the members of a given household.

This situation is clearly evident in the area of agricultural production, where products can be utilized to meet their own food needs or used in the barter operations between members of the rural community.

In [2] the basic "classical" principles of functioning of a peasant farm based on the resource potential of a rural household have been identified.

These include the model of "basic equilibrium" as a means of evaluating the effectiveness of activities by comparing the effects and cost of work; labor balance as a basic factor on the basis of which the level of welfare of a farm as a socio-economic formation is estimated and a strategy of its further development is defined; the biological nature of changes in the overall productivity of a peasant farm, caused by changes in the number of household members and their physical abilities.

These circumstances have predetermined the need to use an alternative procedure for evaluating family households effectiveness.

Specifically, the following indicators were used:

$$GI = GR - PC \quad (1)$$

$$CNI = GI - CI \quad (2)$$

where:

GI is the gross income (income from activities received by the household);

GR – the gross revenue from sales of products, works, and services;

PC – the production costs;

CNI – the contingent net income of the household;

CI – the labor cash income of the household, which includes labor remuneration, income from entrepreneurship and self-employment, income from sales of agricultural products and other cash income, without cash pensions, stipends, social benefits and cash support from relatives.

Based on these indicators, contingent profitability is calculated:

$$P_r = \frac{CNI}{PC + CI} \cdot 100 \quad (3)$$

where *Pr* is the contingent net income profitability [9].

An important aspect of assessing the effectiveness of peasant farm operation is the level of effectiveness of the physical labor costs of its members.

Taking into consideration the principles of building a model of "basic equilibrium", as well as the position of the theory of labor balance, we have applied the indicators of nominal labor intensity and nominal profitability of labor costs.

The following formulas were used to calculate them:

$$LI = \frac{CI}{GI} \tag{4}$$

$$P_{rlc} = \frac{CNI}{CI} \tag{5}$$

where:

LI is the contingent labor intensity;

Prlc – the contingent profitability of labor costs.

It should also be noted that one of the peculiarities of peasant farms is the seasonal nature of the economic activity.

Regarding this aspect, in the course of this study, we propose, in order to justify the greater attractiveness of the proposed form of self-fulfillment, the calculation of the amount of nominal average monthly income per one working member of the household employed in a given activity.

The corresponding formula is the following:

$$AMI = \frac{CNI}{12n} \tag{6}$$

where:

AMI is the contingent average monthly income per 1 person;

n – the number of household members involved in the relevant type of business.

One of the important criteria that determine the degree of efficiency of economic activity in all forms of management is, in our opinion, the level of diversification.

The existence of alternative areas of entrepreneurial activity makes a farm more competitive and provides it with the possibility to freely choose the field of its functioning.

During the analysis, the coefficient of diversification was calculated according to the *Herfindahl-Hirschman Index*:

$$DI = 1 - \sum P_i^2 \tag{7}$$

where:

DI is the diversification index;

P_i – the share of a household's production in the *i*-th industry relative to its aggregate production [15].

For studying the effectiveness of the proposed recommendations, a scenario analysis was applied.

Specifically, we considered options for organizing economic activities of a farm, based on optimistic, realistic, and pessimistic scenarios.

The information basis of the calculations were the results of surveys of regional associations of rural tourism regarding the level of demand for recreational services in recent years.

4. Results and Discussion

According to the world ranking of quality of life, which provided data for 2019, Ukraine has significant positive opportunities as a country that could accept foreign tourists.

Specifically, as regards the value for a cost of living index, lower rates are shown only by Kosovo and North Macedonia.

According to the whole number of other indicators (food index, the purchasing power index, as well as the lease of housing), those values characterize the relevant aspects of the development of the national economy rank [4].

Thus, Ukraine's regions demonstrate a significant potential as objects of different forms of tourist activity, specifically those that imply the use of natural and cultural resources of rural areas (ecological tourism, ethnic tourism, gastronomic tourism etc.).

The existing practice of obtaining recreational services only in the resort zone during the beach season gradually loses its dominant position. The demand for a "weekend" rest of the farmsteads type is growing. In this aspect, of special significance is the issue of using land resources in the system of peasant farms as a basic factor of economic activity.

Analyzing the dynamics of land use in the system of farms in Ukraine, the following circumstances should be noted.

The stability of the average dimensions of farmland and clear differentiation between small and large peasant farms that use the land resources are typical.

Thus, specifically, the average size of a rented land plot by large farms (3.1 hectares) is about 80% of the total agricultural land volumes used by them in the process of economic activity (4.1 hectares) (Figure 1).

At the same time, the fluctuations in the land area changes in all categories of households during the examined period relative to the average value are from 3 to 5%. This gives grounds to argue about the sustainable nature of the farms in Ukraine.

At the same time, it should be noted that the proportion of large farms is only about 15% of the total number of members of a given component of agrarian production.

For small farmers under modern conditions, the task of maintaining their own well-being at an acceptable level is quite acute.

This situation implies the need to search for more effective forms of use of existing labor and land resources, one of which is self-fulfillment in the area of rural tourism.

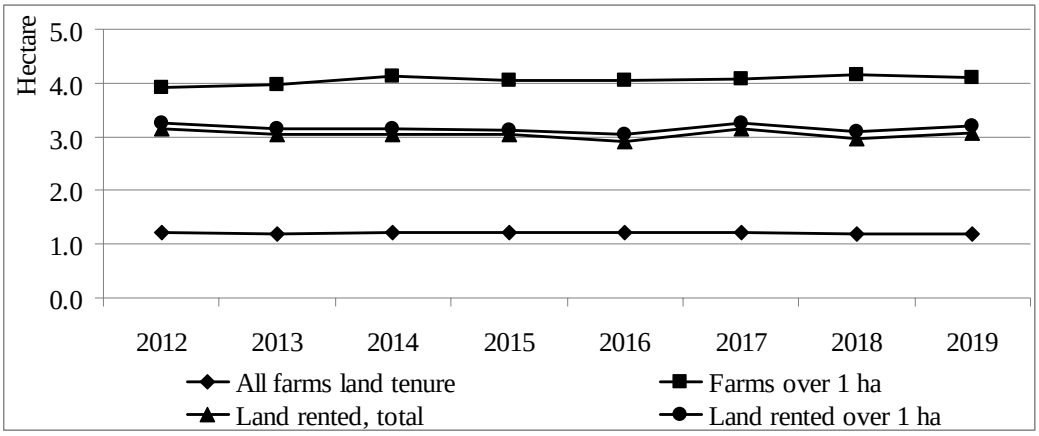

Fig. 1. *Dynamics in the average size of land use by Ukrainian farms, hectares (Source: data provided by the State Statistics Service of Ukraine [18])*

A relatively small amount of necessary land resources, minimum material and technical means, the possibility of using existing residential and commercial facilities are favorable factors for the development of green tourism in the system of peasant farms.

This is especially important for the representatives of domestic farming, as they mainly use farmland for the cultivation of grain and industrial crops, demonstrating a small entrepreneurial activity in livestock industries.

Analyzing the level of diversification and the overall efficiency of economic activity in different forms of agrarian production of Ukraine, it is necessary to mark the existence of a clear interdependence (Table 1).

The highest indicators are demonstrated by a family-labor type of farms. They are characterized by both the use of their own material and labor resources in the economic activity and a wide range of industry directions (crop production, livestock, processing, service sector etc.).

Table 1

*The dynamics in the indicators of diversification and economic efficiency of agricultural production in Ukraine's farms (Source: *data provided by the State Statistics Service of Ukraine, **results of anonymous polling)*

Indicator	**Year**						**2019 to 2014, +–**
	2014	2015	2016	2017	2018	2019	
Agricultural enterprises*							
Diversification coefficient	0.65	0.65	0.67	0.65	0.66	0.67	0.02
Income per 1 man-hour [Euro]	1.40	1.40	1.70	1.60	1.50	1.55	0.15
Farm enterprises*							
Diversification coefficient	0.52	0.53	0.52	0.51	0.51	0.53	0.01
Income per 1 man-hour [Euro]	0.64	0.66	0.64	0.51	0.45	0.50	-0.14
Households							
Diversification coefficient*	0.78	0.78	0.75	0.78	0.76	0.77	-0.01
Contingent income per 1 man-hour [Euro]**	2.90	2.80	2.50	2.90	2.60	2.70	-0.20

In turn, the farms of Ukraine are mostly mono-specialized and concentrate their entrepreneurial activity in several sectors of crop production (cultivation of crops and industrial crops). This leads to a larger seasonal load compared to other agricultural operators, as well as less efficient use of existing workforce.

Another feature in the functioning of the agrarian production in Ukraine is a gradual reduction in the income level of small forms of farms. They cannot compete with representatives of large agricultural businesses; this issue has only exacerbated lately.

It should also be taken into consideration that, as a result of the liberalization of land relations in Ukraine, small agrarian formations in most cases may lose the ability to use the involved agricultural lands in their economic activity.

These circumstances caused the need to

develop alternative forms of self-fulfillment for the representatives of the rural entrepreneurial community.

Based on the study results, a model for organizing green tourism has been proposed, based on a specific peasant farm.

The total size of the land area is 0.4 hectares, of which 0.35 accounts for agricultural land. The main activities of the peasant farm are gardening and horticulture.

The disadvantages of the existing model of economic activity include, specifically, seasonal income generation, which increases the risk level.

It is proposed to diversify entrepreneurial activity in the following directions: agri-tourism, ecotourism, ethnic tourism, gastronomic tourism. This could increase the number of customers, as well as reduce the level of seasonality.

As a result, economic activities may be carried out over 10 months annually.

The household development scenario project envisages that the total investment will be Euro 1,550, incl. re-equipment of the house – 610 Euro, purchase of a gazebo – 180 Euro, a canopy – 450 Euro, installation of additional buildings – 310 Euro. Investments are made within a month before starting the economic activity.

This green tourism facility is designed to accommodate from 40 to 80 customers. The total cost of services is Euro 5.5 per client.

The pessimistic scenario assumes a low level of demand for tourist services and minimal sales of souvenirs (3% of the total revenue). Thus, with a total number of visits of six times per month and an average number of 50 customers, the revenue from the provision of services will be Euro 1,650. Another 51.62 Euro per month is expected to be received from the sale of souvenirs and additional services.

The implementation of the realistic scenario involves the introduction of a marketing strategy aimed at attracting customers who previously traveled abroad, and now, due to the pandemic, remain in Ukraine and focus on domestic tourism. Taking into account that in 2019 the number of outbound tourists in the South-East of Ukraine was 215,722 people [20], the potential of this segment of the recreational services market is quite significant. As souvenirs are in greater demand among this category of customers, it is expected not only to increase the amount of cash receipts (by 7%), but also to increase the share of souvenirs in total revenues up to 8%.

The optimistic scenario envisages a strengthening of cooperation with clients from the regions of South-Eastern Ukraine, expanding the range of animation services, providing opportunities to participate in thematic animation events, which in turn has a positive effect on cash inflows. Accordingly, the average monthly gross revenue is projected at Euro 1,981.62, and the contingent net income would amount to Euro 1,241.44.

In order to ensure the organization of animation activities, it is predicted that the agricultural land area within the farm should decrease by 0.05 hectares.

The calculation results indicate that, even according to the pessimistic scenario, the level of efficiency of the use of workforce is significantly improved, as well as the performance indicators of economic activity. Specifically, contingent net income increases by more than 2 times, contingent net income profitability – by more than 11 points. Investments pay off in 2 months (Table 2).

When assessing the prospects of the massive development of green tourism in the regions of Ukraine, the following should be noted.

The relatively minor initial costs, together with a stable income for almost an entire year, make this kind of activity attractive to the entrepreneurial active proportion of rural people.

Table 2

*Organizing green tourism model based on a peasant farm (Source: *data provided by the State Statistics Service of Ukraine [5], **compiled by authors)*

Indicator	**Actual data for 2019***	**Scenarios****		
		Pessimistic	**Realistic**	**Optimistic**
Total area [ha]	0.40	0.40	0.40	0.40
incl. agric. Land [ha]	0.35	0.30	0.30	0.30
Average number of rural household members, *n* [persons]	2.67	3.00	3.00	3.00
Gross revenue, *GR* [Euro/month]	662.67	1,701.62	1,821.62	1,981.62
Production costs, *PC* [Euro/month]	69.05	393.05	393.05	393.05
Investment [Euro]	×	1,550.00	1,550.00	1,550.00
Labor cash income, *CI* [Euro/month] EUR/month (*CI*)	230.16	337.92	344.06	347.14
Diversification index, *DI*	0.68	0.74	0.78	0.84
Gross income, *GI* [Euro/month]	593,62	1,308.57	1,428.57	1,588.57
Contingent net income, *CNI* [Euro/month] EUR/month (*CNI*)	363,46	970.65	1,084.51	1,241.43
Contingent labor intensity, *LI*	0,33	0.26	0.24	0.22
Contingent profitability of labor costs*, Prlc*	1,58	2.87	3.15	3.58
Contingent average monthly income per 1 person, *AMI* [Euro]	11,34	26.96	30.13	34.48
Investment payback period [months]	×	1.60	1.43	1.25
Contingent net income profitability, *Pr* [%]	121.5	132.8	147.1	167.7

Moreover, the need for natural agricultural raw materials to render the appropriate services creates preconditions for the development of the appropriate infrastructure based on a single settlement.

At the same time, it should be noted that the key to the successful implementation of a given project is the availability of proper information and qualification support for individuals who are ready for this form of self-fulfillment.

One should also note the importance of adherence to the systematic nature of the tourism sector, establishing interaction among all the components of this type of recreational business.

These circumstances predetermine the need to form a state-wide policy to govern the development of the tourism industry, which should include incentives for both hotel and restaurant businesses and the network of green estates in the regions of Ukraine.

5. Conclusions

Based on our study results, the importance of green tourism development has been substantiated, based on peasant farms as a direction to improve the socio-economic climate in the system of rural territories and to increase the level of entrepreneurial activity in villages.

The importance of improving the methodological toolset has been justified with regard to the analysis of the effectiveness of family-type farms.

We have substantiated the necessity to devise practical measures for managing the development of the tourism industry in the system of rural territories.

A green manor model has been suggested as a form of rendering tourist services, based on a peasant farm. It implies expanding the range of entrepreneurial activity, thereby increasing the level of use of existing workforce.

It has been proven that the results of the practical implementation of the proposed measures help in achieving a significant increase in the indicators of the economic efficiency of a peasant farm. The practical implementation of the model of green tourism organization on the basis of a peasant household allows increasing the level of a social and economic efficiency of its functioning. In particular, the level of contingent net income profitability increases by 11.3 points in the pessimistic scenario, by 25.7 points in the realistic scenario, and by 46.2 points in the optimistic scenario. The value of contingent net income per 1 household member increases by 237.7, 265.6 and 304.0% respectively.

It has been established that the key to the successful implementation of a project to develop a network of gardening tourism is the existence of the State institutions' management system.

Measures to promote the effective functioning of tourism businesses based on peasant farms should include the construction of a system of organizational and information support.

References

1. Andryeyeva N., Nezdoyminov O., 2018. Green infrastructure of the economy of recreational nature use. Baltic Journal of Economic Studies, vol. 4, pp. 6-13.
2. Chayanov A., 2007. Peasant farming (in Russian). Direct-Media Publishing House, Moscow, Russia.
3. Chelyntsev A., 1919. Theoretical basis

for the organization of a peasant economy (in Russian). Folio Publishing House, Kharkiv, Ukraine.
4. Europe, 2020. Cost of living index by country 2020. Available at: https://www.numbeo.com/cost-of-living/rankings_by_country.jsp?title=2020&region=150. Accessed on: 16 July, 2020.
5. Expenditure and Resources of Households of Ukraine in 2019 year, 2020. Available at: http://ukrstat.gov.ua/druk/publicat/kat_u/2020/zb/06/zb_vrd_19_ue.pdf. Accessed on: 16 July, 2020.
6. Grynchuk J., Romaniuk I., 2018. Development of rural green tourism in the regions of Ukraine on the basis of European integration. In: Baltic Journal of Economic Studies, vol. 4(4), pp. 100-105.
7. Hutorov A., Lupenko Y., Yermolenko O. et al., 2018. Strategic management of the agrarian sector of economy based on the analysis of value chains. In: Bulletin of the Transilvania University of Brasov, Series II: Forestry, Wood Industry, Agricultural food Engineering, vol. 11(60), no. 2, pp. 101-114.
8. Hutorov A., Lupenko Y., Zakharchuk O. et al., 2020. Inclusive development of the Ukrainian economy. In: TEM Journal, vol. 9(1), pp. 296-303.
9. Kalchenko S., 2013. Current development prospects of farm households. In: Actual Problems of Economics, vol. 12(150), pp. 147-152.
10. Kalchenko S., Kolokolchykova I., Legeza D. et al., 2020. Stimulation of consumer cooperation development in small forms of fruits and vegetables production. In: TEM Journal, vol. 9(2), pp. 578-589.
11. Kalchenko S., Yeremenko D., Hrybova D., 2018. Features of the use of resource potential in peasant farms. In: Baltic Journal of Economic Studies, vol. 4(4), pp. 140-144.
12. Mishenin Y., Valentynov V., Maslak O. et al., 2017. Modern transformation in small-scale agricultural commodity production in Ukraine. In: Marketing and Management of Innovation, vol. 3(4), pp.358–366.
13. Pilelienė L., Grigaliūnaitė V., 2019. Elaboration of holistic tourist satisfaction index model for Lithuania. In: Baltic Journal of Economic Studies, vol. 5(4), pp. 17-24.
14. Remeikienė R., Gasparėnienė L., 2017. Green farming development opportunities: The case of Lithuania. In: Oeconomia Copernicana, vol. 8(3), pp. 401-416.
15. Scherer F., Ross D., 1990. Industrial Market Structure and Economic Performance. Houghton Mifflin Publishing House, Boston, U.S.A.
16. Simanaviciene Z., Virgilijus D., Simanavicius A., 2017. Psychological factors influence on energy efficiency in households. In: Oeconomia Copernicana, vol. 8(4), pp. 671-684.
17. Stankova M., Tsvetkov T., Ivanova L., 2019. Tourist development between security and terrorism: empirical evidence from Europe and the United States. In: Oeconomia Copernicana, vol. 10(2), pp. 219-237.
18. State Statistics Service of Ukraine, 2020. Main agricultural characteristics of households in rural area. Available at: http://ukrstat.gov.ua/operativ/operativ2018/sg/opsgd/arch_oschd_e.htm. Accessed on: 16 July, 2020.
19. Szyja P., 2016. The role of the state in

creating green economy. In: Oeconomia Copernicana, vol. 7(2), pp. 207-222.
20. Tourist activity in Ukraine, 2019. Available at: http://ukrstat.gov.ua/operativ/operativ2020/tyr/tyr_dil/tur_d_19_u.xlsx. Accessed on: 16 July, 2020.
21. Varchenko O., Svynous I., Grynchuk Y., 2018. The strategy of developing agricultural supply chain in terms of food security in Ukraine. In: International Journal of Supply Chain Management, vol. 7(5), pp. 657-666.