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The role of small-scale farming for local economic development and family incomes: The case of Land-Source of Income program, Plovdiv, Bulgaria

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Abstract

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Microenterprises play an essential role in Bulgarian agriculture. However, in recent years, there has been a decline in the number of small family farms. Among the reasons for this trend are limited access to credit, consultancy, and EU funding compared to the larger farmers. In the present article, an evaluation of the impact of small farming on the local economy is presented. The sample includes Roma farmers participating in the Land-Source of Income program. We find that small farming has a strong impact on the local economy, generating substantial cash flow that is often unnoticed not only by the State but also by local authorities. The Land program also contributes to the creation of this cash flow. The findings in this article suggest lessons for small-scale farming that go beyond the researched area: (1). The economy should be seen as an ecosystem of micro, small, medium, and large businesses. Therefore, the policies must optimize the entire ecosystem, not a particular group of actors, or industries (2) this ecosystem consists of the different types of participants and the legislative framework, in which they operate. Small, medium and large businesses interact on local markets, and this creates the cash flow in the system (3). It is not easy to separate the effects of the programs from those made by general economic development, but attempts in this direction can help us to understand better the socio-economic processes we research.
Keywords: Support programs; Isolated communities; Ecosystem; Low-income farmers

Introduction

Microenterprises account for about 90% of all enterprises and employ 40% of the labour in Bulgarian agriculture. During the last ten years, there has been a decline in the number of farms that cultivate between 2–10 da of land. Such farmers have limited access to credit, consultancy, and EU funding compared to the larger farmers. However, they are essential for rural development and the local markets.

In recent years, there has been an increased interest in the impact evaluation of various programs and projects. There are also a large number of literature sources, methodological guidelines, and empirical evaluations in this area (Garbarino & Holland, 2009), (Centro for Strategy Evaluation&Services, 2010), (Training and Development Agency for Schools, 2010) (Gertler et al., 2016), (Martínez et al., 2016), (Ubfal et al., 2021). Three approaches to evaluate impact are outlined in the literature. Each of them is important and shows the impact from different perspectives. Moreover, their elements are often combined to evaluate specific programs and projects.

The first approach is based on a logical framework and theory of change where the causal relationship between resources-activities-results-impact is explored. Achieving a

given result is the consequence of a series of activities. It compares the results of the programs with the initial values of given indicators. The second approach is based on the cost/benefit analysis, where the investments are compared with the results achieved. It pays attention to the efficiency of the invested resources. The third approach compares the results with and without implementing the project/program. It comes from the technical and other sciences but is also widely used in the social sciences. This approach emphasizes that processes are not static and continue to develop over time. Therefore, it is necessary to compare the results of the program or project with the processes that would develop if the projects were not implemented. Despite relatively well-developed theoretical frameworks and accumulated experience, impact assessment in practice is difficult. A valuable and engaging discussion on the benefits and challenges related to the impact assessment is provided by Howard White (White, 2010) (White, 2009) (White et al.).

In the present article, we present an evaluation of the impact of small family farmers on the local economy and their income and the contribution of the Land Source of Income program.

Material and Methods

Evaluating the impact of programs to support family business and entrepreneurship is challenging and depends on the goal being set. In the case of the Land-Source of Income program, it is to improve people's lives. Changes in quality of life can only be assessed when a sufficiently long period is analyzed. One of the main challenges in this case is that this change is due both to the used instruments of the program and to the general trend in the development of the economy. If the economy is growing, then the improvement due to the general state of the economy will add to the effect of the implemented program. If the economy is depressed, the effect of the program will reduce the effect of the depression. Separating the program's effect from the influence of general economic development is a complicated process. The current assessment is based on (1) the intervention of the Land Income Program, (2) the circular flow of resources, goods/services, and money in economic systems, and (3) the poverty threshold and the average income.

The program is designed to soften the Roma families' difficulties, such as insufficient access to credit, consultancy services, education, and isolation. Within the program, instruments for the families have been developed to purchase land, long and short-term assets. In parallel, the families receive regular agro technical, economic, and legal consultations. These activities are expected to have a positive impact on families' incomes. Working with schools, municipalities, and local state authorities is expected to impact the environment in which families live and work positively.

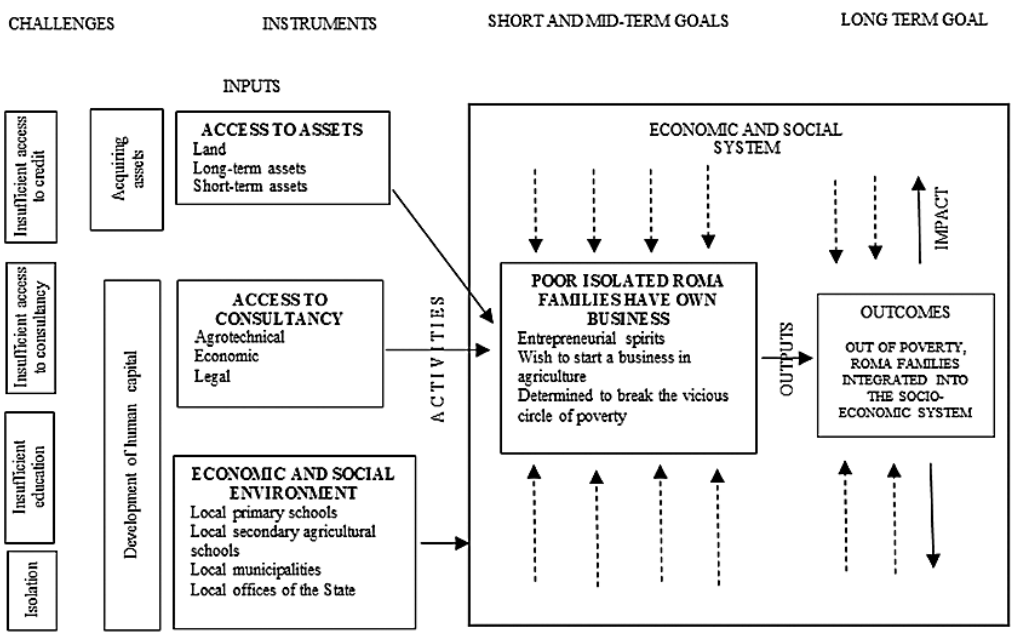

Fig. 1. Land Income Program

Source: Own presentation with data from the LSI Foundation

George MIaoulis Jr., PhD. D., with whom we worked in 2019 on LSI foundation issues, suggested a possible approach for evaluating the effect of the Land program. The idea is to calculate the production value and, in this way, assess the impact of cash flows on the local economy. The article "Income Multipliers in Economic Impact Analysis" (Coppedge, 2011) also presents a similar idea. This idea has a theoretical justification. The households provide firms with land, labour, and capital in the circular flow model. For provided resources, households receive income that consists of rent (for land), wages (for labour), interest (for capital), and profit (for entrepreneurial skills). With the resources, firms produce goods and services for households. Households buy the goods and services firms produce with the income they receive. In this model, a clear distinction is made between households (where the consumption decisions are made) and firms (where the production decisions are made). The exchange of resources for income and income for good and services happen in the respective markets. In the case of small-family farms, even when they sell most of the product on the market, part of the resources used in the production process and income received do not go through the market (for example, family labour). The incomes of family workers have a residual nature.

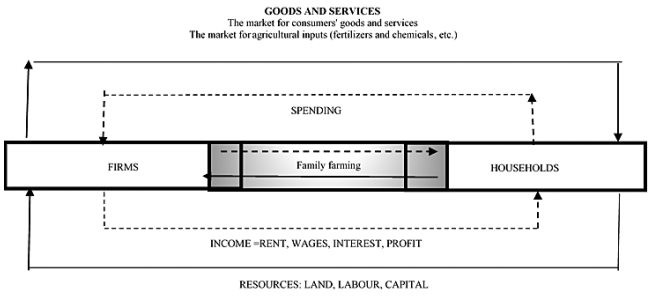

Fig. 2. Circular flow of money and goods in the economic system

Source: Modified presentation of circular flow in the standard economics textbooks

The families' economic status is assessed by comparing their incomes with the incomes at the national level. Bulgaria's poverty threshold and average incomes from 2011-2022 are suitable indicators. These indicators are provided for each year by the National Statistical Institute. The NSI information on the poverty threshold and average incomes is calculated for one person and for two adults with two children up to 14 years of age. The incomes for both indicators include the gross income received from salaries, pensions, and others. Persons with a net income lower than the poverty threshold are considered poor.

The Land -Source of Income program has been implemented on the territory of the Plovdiv region since 1987. The period is quite long and is associated with significant structural changes in the economy: the collapse of the old cooperatives, changes related to Bulgaria's accession to the European Union, and the global economic crisis of 2009-2010. With such structural changes, the impact of general economic development on the program's results will be significant. Therefore, the assessment covers the period 2011-2022, which is comparatively more stable regarding structural changes.

The team implementing the program maintains a database with most of the critical indicators. However, the actual cost and revenue data are not collected systematically. The program's beneficiaries, primarily at the entry time, were poor and landless families. Even now, most do not keep accounting. In this case, the data could be collected through a yearly survey for each family and crop. However, this approach is not only time-consuming but very expensive. In our experience, collecting reliable cost and revenue data takes at least 3 hours per interview.

Results and Discussion

History, goals and achievements.

The Land-Source of Income program has a nearly 26-year history (Penov & Georgiev, 2021). It started in 1997 as a humanitarian program aimed at helping people produce their food instead of waiting for food packages. Seventy families from two villages in the Plovdiv region were provided land, fertilizers, chemicals, and an agronomist to help them grow crops. Over time, this concept developed into a model for working with the country's poor and isolated population groups. This model fits nicely into the concept of the inclusive economy. Currently, in the Plovdiv region, the program works in seven municipalities. After 2010, the model was successfully implemented by 5 NGOs working with isolated communities in Bulgaria.

The Land-Source of Income program was designed and carried out by an NGO with the same name. The program was financially supported by America for Bulgaria Foundation, Trust for Social Achievements, SEGA Foundation, OP Human Resource Development, the Ministry of Justice, private donations, and donations of the team implementing the program. In addition, the program received methodological support concerning the work with the families and in designing the strategy by the Economics department of Agricultural University – Plovdiv; The Center for Entrepreneurship of the Technical University-Sofia, Branch Plovdiv; America for Bulgaria Foundation; Trust for social achievements.

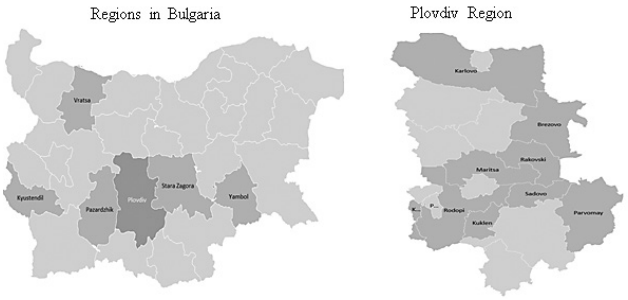

Fig. 3. Territory of implementation of Land-source of income program

Source: Own presentation

The model aims to help households from disadvantaged communities to become sustainable economic units integrated into the socio-economic system (Penov et al., 2012). It includes two components: (1) Access to assets and (2) Human capital development. The first component helps the families to accumulate assets convertible into the official economic system. The second component helps the families acquire knowledge and skills to use assets efficiently. The two components are implemented simultaneously, ensuring the transformation of assets into capital that brings a constant flow of income to families.

From 2000–2022, 194 families were supported to start, stabilize, and expand their businesses (figure 4). Four hundred fifty-nine projects were financed, mainly related to agricultural production. Through the program, families have acquired 597 da of land and purchased nearly as much with their money. For 2009–2022, with the foundation's help, families have received nearly 1 million BGN from the Bulgarian Rural Development Program and the Direct Payments schemes.

Three instruments have been developed to help families

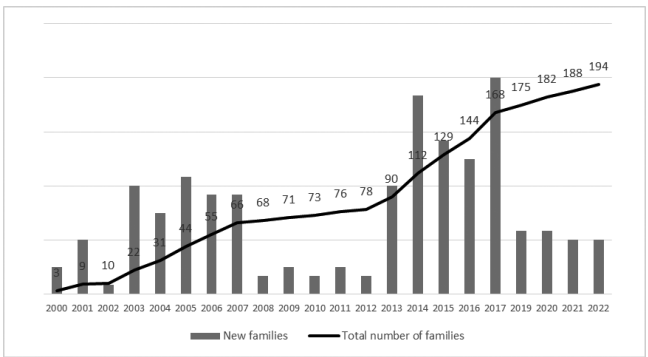

Fig. 4. Assisted families in the Plovdiv region 2000–2022 (Number of families)

Source: Own presentation with data from the LSI Foundation

acquire assets: (1) for the purchase of land, (2) for long-term assets, and (3) for short-term assets (Figure 5). Two groups of tools have been used to develop human potential. The first group is aimed directly at families, such as providing agrotechnical, economic, and legal advice and implementing new technologies. The second group aims to work with local government bodies, local cultural centres, and schools to reduce the isolation of families.

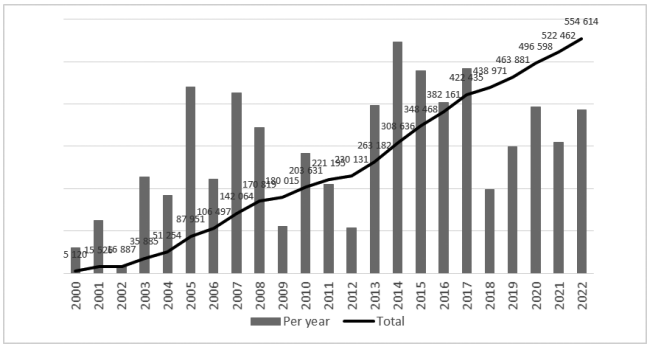

Fig. 5. Financial support to families in the Plovdiv Region for Land, LTA, STA 2000–2022 (BGN)

Source: Own presentation with data from the LSI Foundation

Along with the financial support, families received regular agrotechnical, economic, and legal consultations (Figure 6). These consultations are free for program participants and other farmers working in the area. Numerous activities of primary and secondary agricultural schools and local cultural centres have been supported.

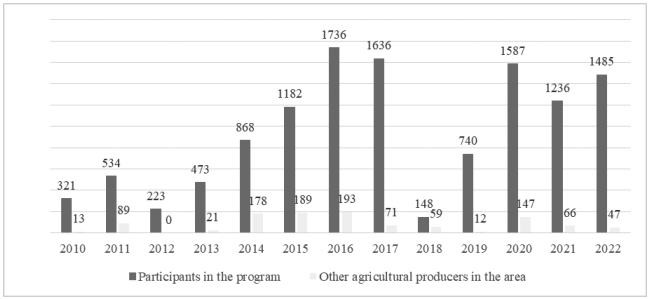

Fig. 6. Provided agro technical, economic, and legal advice to families 2010–2022 (Number)

Source: Own presentation with data from the LSI Foundation

An EXEL model has been developed to examine different scenarios depending on the values of (1) investments in the families, (2) revenue per unit of cultivated land, (3) the distribution of the revenue to costs and family income, (4) the distribution of income among families and helpers, (5) the changes in the price levels.

Investments in the families

For the period (2011–2022), the LSI Foundation helped families to purchase land, LTA, and STA worth 351 thousand (BGN). Also, the families received support from EU and National sources. From the measures supporting small agricultural producers of the Bulgarian Rural Development Program (RDP), the families received 311 thousand levs (BGN). From the Direct Payments schemas, they received a total of 599 thousand levs (BGN)(Table 1). The specialists from the foundation helped the families with the application process and during the implementation stage.

The financial support provided by the LSI Foundation and the support attracted from the RDP can be considered investments in the families' business. Direct payments are another matter. On one hand, the direct payments are paid per unit of land and officially are instruments to support the farmers' income. From this point of view, they should be included in the income part of the analysis. In our opinion, in the Bulgarian context, this instrument works in practice as a subsidy per unit of production factors (in this case land) (Penov, 2015). On the other hand, direct payments can also be considered an investment by society in developing families' businesses. For the needs of the analysis, it is essential to consider what the families received (from the LSI Foundation and society) and what they produced. From this point of view, direct payments are more like investments.

Table 1. Investments in the families 2011–2022 (BGN)

Year	Total	Land-Source of Income Foundation	EU and National sources	
			Rural Development Program	Direct payments
2011	73 754	17 563	45 000	11 191
2012	22 643	8 937		13 706
2013	72 370	33 051	15 000	24 319
2014	164 213	45 454	50 000	68 759
2015	88 348	39 832		48 516
2016	131 573	33 693	60 000	37 880
2017	58 248	40 275		17 973
2018	42 887	16 536		26 351
2019	147 853	24 910	90 000	32 943
2020	134 649	32 717	39 600	62 332
2021	138 343	25 864	11 300	101 179
2022	186 183	32 152		154 031
Total	1 261 063	350 982	310 900	599 181

Source: Own presentation with data from the LSI Foundation

Revenue of production

When part of the data is unavailable, an alternative approach is estimating them. Families participating in the program grow different crops and get different yields. In the present work, we have adopted the expert evaluation method of the revenue per unit of land. The unit of land is decare (da). One decare is equal to 0.1 hectare. The agronomist and the agricultural economists of the foundation initially estimated these values. Then, the values were discussed with representatives of the supported families. This method does not require much time, and the results are very close to the actual situation. The disadvantage is that when working with average values, information about the income distribution among the families could be omitted since the lands they cultivate and their experiences are different.

The families in the program mainly grow vegetables (greenhouse and field) and perennial crops (vineyards, cherries, etc.). According to the most conservative estimate (prices for 2011), families receive on average about 3000- 4500 (BGN) per da. for growing vegetables and fruits. However, each year, part of the area is sown with different crops or left fallow for crop rotation (especially for the vegetables grown in the field).

Production costs and income.

The first cost element is the rent for the leased land. There are two approaches to determining land rent: rent as a percentage of output (sharecropping) and fixed rent. Families pay a fixed rent for the rented land in the areas where the program is implemented. The second element is the labour cost. Vegetable production and fruit growing are labour-intensive industries, so labour costs have a significant share. The families in the program cultivate the land with their labour but use helpers for harvesting.

In most cases, the helpers are friends and relatives who do not receive money for their work. Often, they are compensated by receiving part of the production, or in turn, the families help them other times. The labour costs of the helpers are calculated as a percentage of the income that remains after deducting the rent. For the needs of the analysis, we assume that 50% of the revenue is material costs (fertilizers, chemicals, etc.) and the remaining 50% is income. We also assume that the income is distributed as follows – 90% for families and 10% for helpers.

Family income contains several elements that are difficult to distinguish: (1) the value of the unpaid family labour; (2) the rent for the own land; (3) the return on invested capital; (4) the reward for entrepreneurial skills (profit).

Cultivated land and beneficiaries

The cultivated land and the beneficiaries for 2011–2022 are presented in Table 2. Families in the program cultivate land: (1) bought through the foundation's schemes; (2) bought with their own money; (3) rented land. Owning land

provides a stable base for production, and the investment in land protects the families' wealth against inflation. The price of land increased twice during this period, 2011–2022.

The beneficiaries are the families participating in the Land-source of Income program and their members who work on the farm. The "helpers" join the family members mainly during the harvest. Only families that cultivate land during the years are included in the present analysis. The families that have non-agricultural businesses are excluded from the sample.

Two variants are evaluated in the present study. Option 1 is the current situation where all land is cultivated by the families (Table 1). Option 2 assumes that the families cultivate only the land they bought with their own money and rented land. In this case, the number of family workers can be expected to remain the same, but they would need fewer helpers. So, the number of helpers is reduced by the same percentage as the land was reduced (Table 2).

We also assume that families would have the same access to funding under direct payments and RDP measures in both options. For this reason, we keep the funds from the RDP, but since the families will cultivate less land, they will also receive less money through direct payments schemas.

Average input-output production scenario (realistic)

In this scenario, we assume revenue of BGN 3,000 per da. The results are given in Tables 4 and 5. In this case, the

Table 2. Option 1 – Families cultivate all the land

Year	Beneficiary (number)			Cultivated land (da)			
	Families cultivating land during the years	Workers from the families	Helpers	Bought through LSI foundation	Bought by the families	Rented land	Total land
2 011	56	158	94	285	142	335	762
2 012	57	160	98	284	163	331	778
2 013	63	171	94	302	174	315	791
2 014	72	195	123	336	209	374	919
2 015	78	197	166	333	225	389	946
2 016	88	214	165	345	343	420	1 109
2 017	105	252	186	366	414	452	1 233
2 018	105	254	206	366	414	452	1 233
2 019	105	252	171	366	416	452	1 235
2 020	139	322	188	403	573	497	1 473
2 021	146	345	226	409	612	559	1 580
2 022	149	353	397	409	642	564	1 615

Source: Own presentation with data from the LSI Foundation

Table 3. Option 2 – Families cultivate only the land bought with their own money and the rented land

Year	Beneficiary (Number)			Cultivated land (da)			
	Families cultivating land during the years	Workers from the families	Helpers	Bought through LSI foundation	Bought by the families	Rented land	Total land
2 011	56	158	59		142	335	477
2 012	57	160	62		163	331	494
2 013	63	171	58		174	315	489
2 014	72	195	78		209	374	583
2 015	78	197	108		225	389	613
2 016	88	214	114		343	420	763
2 017	105	252	131		414	452	866
2 018	105	254	145		414	452	866
2 019	105	252	120		416	452	868
2 020	139	322	137		573	497	1 070
2 021	146	345	167		612	559	1 171
2 022	149	353	296		642	564	1 206

Source: Own presentation with data from the LSI Foundation

Table 4. Average input-output scenario (realistic) (2011–2022)

Parameters	Option 1: Families cultivate all the land	Option 2: Families cultivate only the land bought with their own money and rented land	Option 1 – Option 2
INVESTMENTS	1 214 553	732 416	482 137
From the LSI Foundation	304 472		304 472
From RDP and direct payments	910 081	732 416	177 664
PRODUCTION	55 732 347	38 896 041	16 836 306
Turnover in the market for consumer goods	27 609 168	19 191 015	8 418 153
Turnover in the market of fertilizers, chemicals, etc.	27 609 168	19 191 015	8 418 153
Turnover in the land rental market	514 010	514 010	
INCOME OF FAMILIES	24 848 251	17 271 914	7 576 338
Annual family income	20 917	14 231	6 686
The annual income of a family worker	8 360	5 712	2 648
INCOME OF HELPERS	2 760 917	1 919 102	841 815
The annual income of a helper	1 346	915	431

Source: Own presentation. Model simulation data

money invested directly in the family businesses in Option 1 is 1,214 thousand BGN, while in Option 2, it is 732 thousand BGN. The production value in Option 1 is 56 million BGN, while in Option 2 is 39 million BGN.

In Option 1, nearly 28 million BGN are spent on the market for consumer goods and services and as much on the market for fertilizers, chemicals, etc. In Option 2, nearly 19 million BGN are spent on the consumer goods and services market and as much on the market for fertilizers and chemicals. In both options, this is a significant amount of money flow in the local economy. The impact would be even more significant if these figures were multiplied by the income multiplier (Coppedge, 2011).

The average annual income of families in Option 1 is 21 thousand BGN, while in Option 2, it is nearly 14 thousand BGN. The average annual income of a family worker in op-

Table 5. Average input-output scenario (realistic) (2011–2022). Income of the families compared to income in the economy

Year	Income of the families				The poverty line for Bulgaria		Household income NSI	
	Option 1: Families cultivate all the land		Option 2: Families cultivate only the land bought with their own money					
	Per family worker	Per family	Per family worker	Per family	Per person	Per household with 2 children	Per person	Per household with 2 children
2011	6 417	18 105	3 978	11 223	3 420	7 182		
2012	7 046	19 778	4 439	12 461	3 356	7 047	4 240	10 037
2013	7 508	20 380	4 611	12 515	3 431	7 205	4 731	11 224
2014	7 721	20 911	4 869	13 188	3 885	8 159	4 740	11 489
2015	7 987	20 172	5 147	12 999	3 910	8 210	4 886	11 723
2016	8 119	19 744	5 562	13 527	3 698	7 765	5 105	11 966
2017	8 337	20 008	5 835	14 005	4 213	8 848	5 526	12 697
2018	8 390	20 295	5 873	14 206	4 213	8 848	5 940	13 286
2019	9 118	21 883	6 389	15 333	4 957	10 409	6 529	14 225
2020	9 830	22 772	7 124	16 504	5 412	11 365	6 951	14 977
2021	11 857	28 018	8 767	20 718	6 052	12 709	7 657	16 015

Source: Own presentation. Model simulation data. NSI publications. Indicators of poverty and social inclusion for the period 2010–2022

Table 6. Low input-output scenario (pessimistic) (2011–2022)

Parameters	Option 1: Families cultivate all the land	Option 2: Families cultivate only the land bought with their own money and rented land	Option 1 – Option 2
INVESTMENTS	1 214 553	732 416	482 137
From the LSI Foundation	304 472		304 472
From RDP and direct payments	910 081	732 416	177 664
PRODUCTION	27 866 173	19 448 020	8 418 153
Turnover in the market for consumer goods	13 676 082	9 467 005	4 209 076
Turnover in the market of fertilizers, chemicals, etc.	13 676 082	9 467 005	4 209 076
Turnover in the land rental market	514 010	514 010	
INCOME OF FAMILIES	12 308 473	8 520 305	3 788 169
Annual family income	10 354	7 011	3 343
The annual income of a family worker	4 139	2 815	1 324
INCOME OF HELPERS	1 367 608	946 701	420 908
The annual income of the helper	666	451	215

Source: Own presentation. Model simulation data

tion 1 is 8 thousand BGN, while in option 2, it is 6 thousand BGN. For a poor area, this is quite a good income.

The families' income and the families' workers in option 1, for all the years (2011–2022), is above the poverty line. Moreover, the incomes are even higher than the national average. This income level would put families in the program closer to the "middle class". In option 2, however, families' incomes are close to the poverty line.

Low input-output scenario (pessimistic)

In this scenario, we assume 1 500 BGN revenue per da. The results are given in Tables 6 and 7. In this case, the investments in the families' businesses are the same. The production value in option 1 is 28 million BGN, while in option 2 is 19 million BGN. In option 1, nearly 14 million BGN are spent on the market for goods and services and as much on the market for agricultural inputs (fertilizers, chemicals, etc.). In option 2, nearly 9 million BGN are spent on the consumer goods and services market and as much on the agricultural inputs market. Although these values are lower than the previous scenario, the cash flow in the local economy remains significant.

The average annual family income in Option 1 is 10 thousand BGN, while in Option 2 is 7 thousand BGN. The average annual income of a working family member in op-

Table 7. Low input-output scenario (realistic) (2011-2022). Income of the families compared to income in the economy

Year	Income of the families				The poverty line for Bulgaria		Household income NSI	
	Option 1: Families cultivate all the land		Option 2: Families cultivate only the land bought with their own money					
	Per family worker	Per family	Per family worker	Per family	Per person	Per household with two children	Per person	Per household with two children
2011	3 161	8 918	1 941	5 477	3 420	7 182		
2012	3 476	9 758	2 173	6 100	3 356	7 047	4 240	10 037
2013	3 713	10 077	2 264	6 145	3 431	7 205	4 731	11 224
2014	3 817	10 339	2 392	6 477	3 885	8 159	4 740	11 489
2015	3 949	9 974	2 529	6 387	3 910	8 210	4 886	11 723
2016	4 015	9 765	2 737	6 656	3 698	7 765	5 105	11 966
2017	4 128	9 907	2 877	6 905	4 213	8 848	5 526	12 697
2018	4 155	10 050	2 896	7 006	4 213	8 848	5 940	13 286
2019	4 519	10 844	3 154	7 570	4 957	10 409	6 529	14 225
2020	4 880	11 305	3 527	8 171	5 412	11 365	6 951	14 977
2021	5 892	13 923	4 347	10 273	6 052	12 709	7 657	16 015

Source: Own presentation. Model simulation data. NSI publications. Indicators of poverty and social inclusion for the period 2010–2022

tion 1 is 4 thousand BGN, while in option 2 is 3 thousand BGN. For a poor area, this income can assure only physical survival. In Option 1, for all the years, the income of the families and the workers from the families are close to the poverty line, while Option 2 is below the poverty line.

Contribution of the Land-source of income program

One way to measure an intervention's impact is to have a study group (with intervention) and control (without intervention). Setting such an experiment is expensive in social sciences. An alternative way is to select a sample of farmers with similar characteristics from the general population as participants in the Land-Source of Income foundation. In our case, most families participating in the program are entrepreneurial-minded, willing to engage in agriculture, and determined to improve their lives. In addition, they are of Roma origin and live in isolated communities. The families are included in the program mainly in two ways: either they are identified by the team and invited to participate, or they come to the office based on the information they have about the program from friends, relatives, etc.

Moreover, in the settlements where the program is implemented, many families with the characteristics described above participate in the program. In addition, agro-consultation is available to everyone in these villages. If we randomly select families from the same area not included in the program as a control group, they would differ from those that participated. For these reasons, it is not easy to form a control group. The challenges related to the selection of a control group and the threat of selection bias are discussed in the literature by several authors (White, 2010).

To determine what would have happened without the program, the main question we need to answer is: What would these families do if the Land-Source of Income program did not exist? Most families would have been engaged in agriculture without the program, and most would have succeeded. From this point of view, we may think of Option 2: "Families cultivate only the land bought with their own money and rented land", as a control group, and Option 1: "Families cultivate all the land", as an intervention group. The difference between the two options could be the lowest boundary of the impact of the Land-Source of Income program. Why the lowest boundary? – Because, without the support of the specialist implementing the program, up to 2–3 families would have access to credit and financing from the RDP measures. In addition, fewer families would have access to direct payment schemes, and most would not be able to purchase land with their own money. Additionally, only actually cultivated land in the studied years is included in the calculations. Non-agricultural businesses are not included in the evaluation.

Conclusions

Three sets of conclusions can be drawn from the present study. The first group is related to the impact of small farming on the local economy and the contribution of the Land-Source of Income program. The second group is related to agricultural policy. The third group is connected to recommendations for the research of social processes.

The following conclusions can be drawn regarding the impact of small farming and the Land program. First, the small family farming has a substantial effect on the local economy. The money flow generated by the families' business is mainly spent on a territory with a radius of about 70 kilometres. These money flows positively impact the local market for consumer goods and services and the market for fertilizers and chemicals. The impact would be even more significant if these figures were multiplied by the income multiplier (Coppedge, 2011). Second, the program contributes to the increased family incomes. In both scenarios, family income under Option 1 is higher than income under Option 2. The result is that people who have taken their destiny firmly in their hands can prosper, but helping them would speed up the process. Third, the program brings families closer to the middle class. Fourth, the distortion of the results due to the subjective element contained (expert assessment) and selective bias are insignificant.

Regarding the agricultural policy, the following recommendations can be made. First, programs that support family entrepreneurship (microbusiness) can be understood by examining a sufficiently long period. Individually, micro-businesses generate modest income, but collectively, they cause significant cash flows on local markers that often go unnoticed by municipal and government structures. Family businesses, mostly micro-businesses, play an essential role in the functioning of markets in the local economy. Therefore, if politics does not support them, it should not hinder their development. Second, the economy's structure should be seen as a system of micro, small, medium, and large businesses operating in a given institutional environment where each has an important role. Large companies produce standardized goods and services at relatively low cost thanks to economies of scale. The medium business compensates for medium-term fluctuations in demand thanks to greater flexibility. Small and especially micro businesses produce goods and services mainly for the local market and compensate for short-term changes in demand. Small, medium and large enterprises interact on local markets, creating the cash flow in the system. Therefore, policies need to aim at optimizing the entire ecosystem and not at a particular group of actors or industries. This ecosystem consists of the different types of participants and the legislative framework they operate: access to financing from financial institutions and

state support programs and distribution of added value among participants in the process. The benefits of small-family farming go far beyond the economic indicators presented in this paper. They use small plots and preserve biodiversity where they operate (Di Falco, Penov, Aleksiev, & van Rensburg, 2010).

Concerning future research, the following recommendations can be made. First, a significant body of research and guidance on impact assessment exists. They are undoubtedly helpful, but the programs differ in their goals and the context in which they are implemented. Therefore, it is necessary to develop a separate methodology for each evaluation. Second, setting a control (no intervention) and a study (intervention) group is undoubtedly a methodologically correct way to evaluate the impact, but it is not easy to apply in studying social processes. However, trying to assess impact in this way helps us to understand more fully the socio-economic processes we research.

The described analysis has the following limitations. First, there are differences between the definitions of a household used by the NSI and a family participating in the program. In addition, the income of families participating in the program, calculated in the manner described above, differs from the NSI indicators. It contains several elements that need clarification (rent for the land, not paid family labour, profit). Despite the differences in the components of these indicators, comparing them helps assess the positions that families from the program have compared to the rest of society. Second, adopting a single value of production per unit of land does not allow to see the stratification of families.

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References

Centro for Strategy Evaluation & Services. (2010). Evaluation of the Indicators of the Entrepreneurship and Innovation Programme Final report. Kent TN14 5WT, UK: Centro for Strategy Evaluation & Services. Retrieved 9 4, 2023, from https://ec.europa.eu/cip/files/docs/eip_indicators_evaluation_finalreport_february2010_en.pdf.

Coppedge, R. O. (2011). Income Multipliers in Economic Impact Analysis. (T. Crawford, Ed.) Department of Agricultural Economics and Agricultural Business, New Mexico State University. Retrieved 25 5, 2023, from https://pubs.nmsu.edu/_z/Z108/index.html.

Garbarino, S. & Holland, J. (2009). Quantitative and Qualitative Methods in Impact Evaluation and Measuring Results Issues Paper. UK: Governance and Social Development Resource Centre. Retrieved 9 4, 2023, from https://gsdrc.org/publications/quantitative-and-qualitative-methods-in-impact-evaluation-and-measuring-results-3/.

Gertler, P., Prema, P., Prema, P., Rawlings, L. & Vermeersch, C. (2016). Impact Evaluation in Practice Second Edition. International Bank for Reconstruction and Development / The World Bank. doi:10.1596/978-1-4648-0779-4.

Martínez, C., Puentes, E. & Ruiz, J. (2016). Micro entrepreneurship support programme in Chile. International Initiative for Impact Evaluation. Retrieved 9 4, 2023, from https://www.alnap.org/system/files/content/resource/files/main/microentrepreneurship-chile.pdf.

Penov, I., Georgiev, G., Grigorova, D. & Trendafilov, V. (2012). An integrated model for supporting small businesses or how to help disadvantaged families to secure self-employment income. Plovdiv: Makros. (Bg.) Retrieved 4 17, 2023, from http://landsourceofincome.org/en/%D0%BF%D1%83%D0%B1%D0%BB%D0%B8%D0%BA%D0%B0%D1%86%D0%B8%D0%B8-%D0%B8-%D0%BC%D0%B0%D1%82%D0%B5%D1%80%D0%B8%D0%B0%D0%BB%D0%B8/%D0%BC%D0%BE%D0%B4%D0%B5%D0%BB/.

Penov, I. (2015). The influence of direct payments on the behavior of agricultural producers in Bulgaria. Scientific works of Agrarian University, *LIX*(5) (Bg). doi:10.22620/sciworks.2015.05.016.

Penov, I. & Georgiev, G. (2021). Entrepreneurial Support for Social and Economic Inclusion of Families Living in the Rural Areas of Bulgaria. *Ikonomika i upravlenie na selskoto, 66*(1), 3-10. Retrieved 8 26, 2023, from https://journal.jaem.info/page/en/details.php?article_id=511.

Training and Development Agency for Schools. (2010). Impact evaluation – a model. Guidance and practical examples. Training and Development Agency for Schools. Retrieved 9 4, 2023, from https://dera.ioe.ac.uk/id/eprint/10956/1/impact_evaluation_model_pack.pdf.

Ubfal, D., Arraiz, I., Beuermann, D., Frese, M., Maffioli, A. & Verch, V. (2021). Implementation and Impact Evaluation of Entrepreneurship Support Services in Jamaica. Inter-American Development Bank. Retrieved 9 4, 2023, from https://publications.iadb.org/en/implementation-and-impact-evaluation-entrepreneurship-support-services-jamaica.

White, H. (2009). Theory-based impact evaluation: principles and practice. *Journal of Development Effectiveness, 1*(3), 271-284. doi:10.1080/19439340903114628.

White, H. (2010). A Contribution to Current Debates in Impact Evaluation. *SAGE, 16*(2) 153–164. doi:10.1177/1356389010361562.

White, H., Sinha, S. & Flanagan. (n.d.). A review of the State of impact evaluation. Independent Evaluation Group, World Bank. Retrieved 9 4, 2023, from https://www.oecd.org/dac/evaluation/dcdndep/37634226.pdf.

NSI. (2010-2022). Indicators of poverty and social inclusion in 201 0,2011,2012,2013,2014,2015,2016,2017,2018,2019,2020,2022. National Statistical Institute (Bg).

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