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# SUPPORTING PROGRAMS FOR THE DEVELOPMENT OF COOPERATIVES IN THE REPUBLIC OF SERBIA

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Marko Jeločnik<sup>1</sup>, Jonel Subić<sup>2</sup>, Zorica Vasiljević<sup>3</sup>

\*Corresponding author E-mail: [marko\\_j@iep.bg.ac.rs](mailto:marko_j@iep.bg.ac.rs)

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## ABSTRACT

Serbia is among few countries that have two ministries, the Ministry of Agriculture, Forestry and Water Management and the Ministry of Rural Welfare, active in solving actual problems linked to living and working conditions in rural space. Establishment of cooperatives, or joined action of rural population could enable developmental processes in rural areas. Both ministries offer certain programs of public support focused on cooperatives advancement or establishment, and indirectly securing the competitiveness and sustainability of cooperative members (i.e. mainly family farms). The main research goal is observing the economic impact of the one of program support lines of the Ministry of Rural Welfare directed to development of cooperatives, and further prevention of disappearing of rural communities in Serbia. Analysis shows that mentioned support has turned over the previous trend of shutting down the cooperatives into situation when over 1,100 new agricultural cooperatives have been established in last several years. Additionally, derived results initiate certain recommendations, useful both for policy makers and cooperatives.

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## Introduction

Usually the term “rurality” is linked to certain features such are low level population density, small scale settlements (villages, hamlets or small towns), specific style-life, usual practicing of agriculture or forestry, single or few member households, presence of farms and micro and small companies, limited level of economic activities, etc.

- 1 Marko Jeločnik, Ph.D., Senior Research Associate, Institute of Agricultural Economics, Volgina Street no. 15, 11060 Belgrade, Serbia, Phone: +381 64 66 88 357, E-mail: [marko\\_j@iep.bg.ac.rs](mailto:marko_j@iep.bg.ac.rs), ORCID: (<https://orcid.org/0000-0003-4875-1789>)
- 2 Jonel Subić, Ph.D., Principal Research Fellow, Institute of Agricultural Economics, Volgina Street no. 15, 11060 Belgrade, Serbia, Phone: +381 63 296 111, E-mail: [jonel\\_s@iep.bg.ac.rs](mailto:jonel_s@iep.bg.ac.rs), ORCID: (<https://orcid.org/0000-0003-1342-1325>)
- 3 Zorica Vasiljević, Ph.D., Full Professor, Academic Board for the Village of SASA, Kneza Mihaila Street no. 35, 11000 Belgrade, Serbia, Phone: +381 64 14 39 942, E-mail: [zoricav1313@gmail.com](mailto:zoricav1313@gmail.com), ORCID: (<https://orcid.org/0000-0002-3076-3303>)

(Bogdanov et al., 2008). Measuring and expressing rurality could be done in several ways. According to the most often used OECD nomenclature (based on population density), the Republic of Serbia belongs to the group of predominantly rural countries, where the rural areas encompass about 85% of national territory (Gajić et al., 2021), while the rural space is inhabited by almost 55% of overall population (Radović, Radović Marković, 2016).

It is not so easy to precisely define the rural space and rural settlements in Serbia towards the mosaic structure of their network (Drobnjaković et al., 2022). They are usually classified in line to certain demographic, urban-morphological, functional, or socio-economic criteria (Drobnjaković, 2019). Some estimations show that in rural space functions almost 4,800 rural settlements (Antevski et al., 2012). Unfortunately, over the 25% of them is in the process of disappearing (Subić, Jeločnik, 2021), just with few inhabitants or without younger population. Rural business ambient is characterized by low diversification of economic activities, exposing the agriculture as dominant activity (Bogdanov, Vasiljevic, 2011). Ambient is also limited by low economic power of farms, unsatisfactory access to contents of physical and social infrastructure, presence of intensive rural-urban migratory processes and mainly negative natural increase (Šantić et al., 2017).

Serbia is one of the few countries that the focus on solving the actual issues within the rural space initially articulates throughout the work of two ministries, the Ministry of Agriculture, Forestry and Water Management (MAFWM) and the newly established Ministry of Rural Welfare (MRW), while there is no overlapping in competences of the previously mentioned public institutions.

The idea that cooperation and joined action of rural population could initiate developmental processes in rural space lives for centuries (Lipatova et al., 2021). In rural space, it's not so only, but it's usually focused on activities close to agriculture. Cooperation, or collective action of individuals is in the core of cooperatives. They tend to represent a functional type of horizontal integration of small entrepreneurs in certain sector that in long run strive to achieve overall business verticalization (Sexton, 1986). International Cooperative Alliance defines them as “people-centered“ enterprises owned, controlled and run by and for their members to realize their common economic, social, and cultural needs and aspirations. They could be formed around many human activities and needs (Ostrom, 2010), but globally, the most of cooperatives belongs to the group turned to agriculture (Nilsson, 1998; Valentinov, 2007). Cooperatives could be organized in many forms, but generally they make their business activities in accordance to basic cooperative principles launched by the ICA at the end of XX century (Nikolić et al., 2021). Their sustainability is initially based on successful matching of economic and social axes of sustainability (Đurić et al., 2021).

There are strong beliefs that cooperatives and cooperation could be a successful tool in improving livelihood in rural areas (Kumar et al., 2015; Dubey et al., 2016), as they have positive impact on boosting the overall life and business conditions (Wanyama

et al., 2009). Farmers' low-level productivity and poor competitiveness, i.e. „market invisibility”, is among the most pronounced motives for joining the cooperatives (Nestorov et al., 2015).

Public support to forming and strengthening the business activities of cooperatives is not the very new policy tool (Iliopoulos, 2013; Candemir et al., 2021). It usually supports initial joining of individual farmers and establishing of new cooperative (Normark, 1996; Ribašauskienė et al., 2019), approach to favorable credit lines or certain tax exemptions and tax holidays (Cook, 1993; Bijman et al., 2012), covering the part of price or supplying the required inputs, equipment, mechanization, insurance or some other costs (Ortmann, King, 2007; Kislev, 2015), setting and realization of marketing strategic activities essential for cooperative sustainability (Vergroesen, 1989; Getnet, Anullo, 2012), partial immunity towards antitrust laws, or free technical assistance (Knapp, 1962; Sexton, Iskow, 2021), linking with public administration securing the transfer of important information at national or local level (Bijman, Hu, 2011), etc. Mentioned support could occur as direct or indirect (Wanyama, 2016).

The most often throughout this support certain governments have been strived to stop the negative economic and social trends in agriculture, or rural areas, even to revive them (Torgerson et al., 1998; Yanbykh et al., 2019). It could impact slowdown in migration processes (Brown, Wardwell, 2013), offer a new business and entrepreneurial opportunity and decrease the unemployment in rural space (Aref, 2011; Tibi, Atoma, 2015), provide the increase in farm and local community incomes (Kwapong, Korugyendo, 2010; Ma, Abdulai, 2017), or provide new market possibilities, especially for small farmers (Markelova et al., 2009), initiate occurring of agricultural or some other activities out the agriculture that was not previously practiced (Kontogeorgos et al., 2016), facilitate improvement of physical infrastructure (Churk, 2015), boost the image of local community (Candelo et al., 2019), empower the overall living conditions in certain rural territory (Curl, 2010), etc.

In line to mentioned, it has to be noted that Serbia has long and very rich tradition of cooperatives in the sector of agriculture (Ševarlić et al., 2010; Krasavac, Petković, 2015). Milestone in cooperative's development in Serbia was set in the middle of XIX century. At the territory of Vojvodina (at that time a part of Austro-Hungarian Empire), during the 1846. in Bački Petrovac was established the first credit agricultural cooperative (in this moment third launched cooperative worldwide). At the territory of former Serbia during the 1894. was established the first partially agricultural cooperative (farmers' credit cooperative) in village Vranovo. At these times, very soon it has been established the several associations of cooperatives at national level, while they were jointly involved in launching the International Cooperative Alliance in UK (Bojić, Vapa Tankosić, 2015; Zakić, Nikolić, 2018; Nikolić et al., 2018).

Currently, at global level work over the three million cooperatives, gathering almost 10% of employed persons worldwide (Gulan, 2022). Contrary to that, in Serbia is active slightly over 2,900 cooperatives (almost 0.09% of active cooperatives worldwide), while

almost 75% of them are targeted as agricultural (CUS, 2023). They engage more than 123 thousand members (Laban et al., 2021). Sectors of economy that attracts top 100 cooperatives worldwide are agro-food complex, trading, and banking (Gavrilović et al., 2023). In the field of agriculture, as in many other sectors, despite some extremes, there are mostly limp links between the economically weak cooperative members. But, although the tenfold smaller number of cooperatives, or intensity of their business activities and available assets in Serbia compared to EU, throughout the cooperatives, farms have greater opportunity to decrease overall production costs, access cheaper and better-quality inputs, much easier market produced goods, approach to contemporary technological alternatives, or enlarge offered products' assortment and engaged activities, etc. (Kovačević, 2021).

### **Materials and Methods**

Realization of the research primarily involved the use of “desk research” method, as well as methods of analysis and synthesis, which enabled an adequate assessment of specific measures and programs implemented by the competent Ministry (MRW) focused to the strengthening of competitiveness and position of the Serbian village and rural areas. The research was carried out based on available secondary data of MRW, together with the consultation of relevant literary sources. All data and results are presented in proper tables, while all values are given in RSD or EUR.

The main goal of research is to present the economic impact of one of MRW activities, i.e. supporting measure for the development of cooperatives at national level, realized towards the prevention of further dying out of rural communities in Serbia. Additionally, paper tries to define certain recommendations, useful both for public policy makers and grant's end users (cooperatives).

### **Results with Discussion**

As a global issue, there are usually the incomplete data towards the number and economic strength of cooperatives. In previous period, cooperative sector initially has had a broader census in 2012 guided by the UN (Zakić, Nikolić, 2018). Some earlier estimation of the Cooperative Union of Serbia (CUS) shows that in 2017 there were registered around 2,600 cooperatives of all types, where over the 1,500 of them were active in sector of agriculture (Knežević, 2021). Meanwhile, in next five years their number is almost doubled (CUS, 2023).

Legislative background linked to cooperatives in Serbia is covered by the Law on Cooperatives, aiming to encourage determining of clear and easy follow rules and procedures for establishment, management and operation of cooperatives, as well as to offer sustainable model that will fit the general interests of local community, or to represents the specific instrument in fighting against poverty and social reintegration of vulnerable groups. Besides, it has to encourage true competition, especially in sectors where occur traditional dominancy of large enterprises, such are construction, trade, or agriculture), and to revive and boost the local economic development (MERS, 2021).

As was previously mentioned, basically there are two ministries competent for cooperative issues at national level (MAFWM and MRW).

Ministry of Agriculture Forestry and Water Management (MAFWM) is mainly involved through the nationally funded support program for improving the competitiveness of entities involved in agricultural production, i.e. two sub-programs. The first one covers incentives for strengthening the links within the market chain in primary agriculture and diversification of income in rural areas (eligible are the agricultural cooperatives that have at least five members as registered holders or as different family farms in active status). It includes reimbursement of investments in milk and meat production, beekeeping, aquaculture, fruit and vegetable production, or flowers, grapes, and crops production, as well as investments in old and artistic crafts. Grants will be directed to building farm facilities, purchase of equipment and greenhouses, or purchase of machinery and equipment for crop production in open field, as well as for irrigation and anti-hail systems, etc. Grants range from 20 to 50 thousand EUR. The second sub-program involves incentives for improving the links within the market chain in the area of purchasing, processing and marketing of primary agricultural products, as well as incentives for improving the marketing of handicrafts products. Grants for processing will cover investments in reception, manipulation, determination of quality, processing and fine-processing, and storing of crops, as well as investments linked to improving competitiveness in processing and marketing of milk and dairy products, or meat and meat products. Besides, it covers wine production and marketing, or investments in processing, packaging and marketing of bee products. At the end it covers investments in advancing the marketing of certified old and artistic crafts. Grants range from 25 to 400 thousand EUR (MAFWM, 2021).

Besides MAFWM makes redistribution of EU IPARD program financial assets, while the one part of the fund could be possibly directed to cooperatives. It usually involves investment in physical properties of the cooperative such are: a) investment in building production facilities (stables, various warehouses and silos, manure depots, fence, water filtration and waste management facilities, renewable energy production plants, greenhouses, irrigation systems, cages in chicken growing, plantations, internal road network, etc.), equipment, mechanization (mainly tractors) and special vehicles, etc. used in primary agricultural production (Measure 1); and b) investment related to processing and marketing of agri-food and fishery products, i.e. building or advancement of processing and accompanying facilities, and elements of internal physical infrastructure, investment in required equipment for food processing and facilities for production of renewable energy. There is expectation that implemented program will boost the overall performances of the milk (dairy) and meat (meat processing), as well as fruit and vegetable sectors, leading them to growth in productivity and competitiveness, or achieving the valid EU standards, better food products positioning at market, and increase in export (Measure 3), (Sim Cert, 2023; Krunet, 2023).

Meanwhile, cooperatives could also achieve certain level of public support aimed for various purposes throughout the several other funds, such are: a) Program of

the Development Fund of the Republic of Serbia that supports purchase, building or reconstruction of working space and warehouses, purchase of machines, vehicles and equipment, investment in permanent working capital, software and hardware, advancement of energetic efficiency or ecological issues, etc. (FRS, 2023); b) Program of Development Agency of Serbia that supports purchase of new production equipment, machines, vehicles for internal transport, specialized tools, improvement of energetic efficiency and ecology, building machines, etc. (DAS, 2023); c) Agro-credits given by listed commercial banks (e.g. Banca Intesa) supported by MAFWM through the subsidizing the interest rate, etc. (Agrosmart, 2023).

On the other side, main intentions of the Ministry of Rural Welfare (MRW) are to improve the living and working conditions in rural areas, which would slow down pronounced processes of demographic migration and lead to the revival of Serbian villages. In accordance with that, every year at the entire territory of Serbia, Ministry has been implementing several programs (grants distribution based on public competition), such are: a) Supporting program for the development of cooperatives; b) Supporting program for the purchase of rural households (houses with garden) by the young couples; c) Supporting program for the purchase of minibuses for the needs of certain local rural communities; d) Supporting program for the organization of specific rural events; etc. (MRW, 2023).

In line to the available MRWs' budget, in recent years, supporting programs have led to several positive trends, which as a result initiate the growth in economic activity and advancement of the quality of life in rural areas, i.e. greater interest of the population for the living in rural space.

Related to cooperative issues, not so far, based on initiative of the National team for the revival of the Serbian villages and in that time actual Minister in charge for balanced regional development, in 2017 has been started the implementation of the project "500 cooperatives in 500 villages" (Jeločnik et al., 2022).

From 2021 the project was transformed into a permanent measure of the newly established MRW. Through the project, or further program of the Ministry, to existing and newly established agricultural cooperatives were awarded grants (up to the level of previously determined amount) throughout the competitive public tenders (based on the proposed business idea). Intention was to support the development of cooperatives activity, to strengthen capacities and provide alternative sources of income in the agriculture sector, but also to support other rural activities (rural tourism, craftwork, social programs, etc.), to create new jobs in rural areas, or to provide survival and staying, or to attract the people to come and have quality life in rural communities (Aničić et al., 2019; Šantić, Antić, 2020).

So, there are financing the best ranked draft project ideas of cooperatives that will contribute the improvement or enlargement of current cooperatives' business activity, or drive them to totally new business activities that haven not been practiced yet (e.g. investment in mechanization, production and processing facility and equipment, new or

advanced technology, process or products certification, distribution channel, marketing strategy, etc.).

During the period 2017-2021., the mentioned project, and later the public measure, have had available almost 2.2 billion RSD (around 18.7 million EUR) of budgetary assets for further reallocation to agricultural cooperatives of different profiles (*Table 1.*).

**Table 1.** Available budgetary assets for supporting cooperatives (period 2017-2021, in RSD)

Year	Total assets available
2017.	200,000,000.0
2018.	823,515,000.0
2019.	667,463,000.0
2021.	507,500,000.0
<b>Total</b>	<b>2,198,478,000.0 RSD</b> (app. 18,697,720.0 EUR, exchange rate 117.58)

Source: MRW, 2023b.

There are expressed certain oscillation or exclusion in observed period regarding the available assets (*Table 1.*), what was mainly caused by national budget contractions and reallocation of budgetary assets to some other purposes (e.g. in 2020. and 2021. the size of available budget was affected by the Covid-19 issues). In average, in each year of observed period for support was available almost 550 million RSD (app. 4,7 million EUR). The ratio between the maximal and minimal available assets in some year is 1:4.12, while the highest was in 2018.

The selection criteria of grant calls are determined to favor the excellence of the cooperatives' business ideas, as well as to contribute the overall benefits for the certain local rural community, i.e. generally impact on employment of local population. By proposition to each selected cooperative was assigned maximally 7.5 or 15 million RSD, towards they are newly established or already existing cooperatives (Nikolić, 2020). In total for observed period was approved over the 2.13 billion RSD, while the overall efficiency of realized support was around 97% (the lowest was in 2018.), (*Table 2.*).

**Table 2.** Approved (spent) budgetary assets for supporting cooperatives (period 2017-2021, in RSD)

Year	Total assets approved	Share of approved in available assets (in %)
2017.	182,217,046.67	91.1
2018.	804,849,368.19	97.7
2019.	652,179,644.13	97.7
2021.	492,510,521.86	97.0
<b>Total</b>	<b>2,131,756,580.85 RSD</b> (app. 18,130,265.19 EUR, exchange rate 117.58)	

Source: MRW, 2023b.

In average, over the 260 cooperatives apply each year to program call (*Table 3.*), while the most submissions were in 2021. Unfortunately, in average, almost 40% of submitted draft proposals for the grant were improper, pointing out both, the complexity of selection methodology and lack of administrative skills or proper techno-economic knowledge of cooperative members that limit them in development of adequate draft project proposals. So, among 643 project proposals were selected those that were further financially supported.

**Table 3.** Total number of cooperatives that apply for the grant

Year	Number of applicants	Number of formally improper applicants	Number of formally adequate applicants	Share of formally adequate project proposals
2017.	218	105	113	52
2018.	208	71	137	66
2019.	293	99	194	66
2021.	329	130	199	60
<b>Total</b>	<b>1,048</b>	<b>405</b>	<b>643</b>	<b>61</b>

Source: MRW, 2023b.

The success of the measure realization in observed period could be seen in fact that grant was received by 207 cooperatives. So, almost 20% of the total number of applied cooperatives (selection threshold) win the grant, or around 32,2% of cooperatives with proper application. Meanwhile, almost 60% of cooperatives that gain the grant were classified as newly established (Table 4.). The most of cooperatives were granted in 2018. (34.8% of the total number of granted cooperatives in observed period), as in this year was delegated the highest sum of available assets from MRW budget. It could be noticed that there is opposite trend in selected newly established and old cooperatives, as general intention is to promote cooperative spirit and to pull in as much as possible new members and external labor from certain rural region.

**Table 4.** Number of granted cooperatives

Year	New cooperatives	Old cooperatives	Complex cooperatives	Total
2017.	9	12	-	21
2018.	39	31	2	72
2019.	33	22	2	57
2021.	40	17	-	57
<b>Total</b>	<b>121</b>	<b>82</b>	<b>4</b>	<b>207</b>

Source: MRW, 2023b.

Simplifying, if it is generally assumed that each granted cooperative in average have at least legal minimum of 5 members and additionally employ 2-3 new external employees throughout the realization of proposed project idea, it derives that in observed period awarded grants provide improvement in business activities and additional income to at least 1,035 cooperative members and 414 to 621 paid external employees. Further, if it is supposed that based on improved cooperative activities each cooperative member can earn additional 10 thousand RSD/month net for its farm, or each external worker got the net wage of 50 thousand RSD/month for its family, program earning capacity could be set at range 372.6 million RSD to 496.8 million RSD annually. So, throughout the final consumption or partly reinvesting in main cooperative business activity or livelihood elements at the level of individual households or local community, initially spent MRWs assets could be returned to wider community in 5.7 to 4.3 years. Gained assets returning could be much faster if they include package of taxes involved in gross incomes and wages.

**Table 5.** Dispersion of awarded cooperatives in line to field of activity

Field of Activity	Number of cooperatives	Share
Livestock breeding	32	15.5
Fruit and grape growing	34	16.4
Crop production	37	17.9
Processing of crop products	6	2.9
Fruit processing	32	15.5
Vegetable processing	14	6.8
Medicinal plants growing	6	2.9
Vegetable production	17	8.2
Beekeeping	19	9.1
Horticulture	1	0.5
Production of oils and squeezed fruits	1	0.5
Mixed agricultural production	3	1.4
Rural tourism	1	0.5
Complex cooperatives	4	1.9
<b>Total</b>	<b>207</b>	<b>100.0</b>

Source: MRW, 2023b.

Observing the dispersion of awarded cooperatives towards their field of main activity (*Table 5.*), the most of them are linked to primary production (72.0%), while significant share is involved in processing of agro-food products (25.6%). Besides, cooperatives involved in plant production and plant products processing (71.5%) dominate than those oriented to livestock production and livestock products processing (24.6%).

The process of public grants distribution is followed by well-balanced regional dispersion of available public assets, what clearly presents that survival and development of villages in every part of Serbia is of great national interest for policy makers (*Table 6.*).

**Table 6.** Territorial dispersion of awarded cooperatives

Territory	New cooperatives	Old cooperatives	Complex cooperatives	Total	Share
South Serbia	46	17	-	63	30.4
Central Serbia	61	18	2	81	39.1
Vojvodina	12	46	2	60	30.0
K&M	2	1	-	3	1.5
<b>Total</b>	<b>121</b>	<b>82</b>	<b>4</b>	<b>207</b>	<b>100.0</b>

Source: MRW, 2023b.

In same time, there come to some deviation in value of share of awarded cooperatives and total sum of assigned assets between certain regions (*Table 7.*), specifically South Serbia and Vojvodina.

**Table 7.** Territorial dispersion of assigned assets (in million RSD)

<b>Territory</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2021</b>	<b>Total</b>	<b>Share</b>
South Serbia	106.4	203.7	119.1	118.1	547.4	25.5
Central Serbia	42.2	318.6	237.6	205.2	803.6	37.4
Vojvodina	33.6	270.0	295.5	169.2	768.2	35.8
K&M	-	12.5	-	15.0	27.5	1.3
<b>Total</b>	<b>182.2</b>	<b>804.8</b>	<b>652.2</b>	<b>492.5</b>	<b>2.131.7</b>	<b>100.0</b>

*Source:* MRW, 2023b.

In long run, program realization has been initiated in great interest in establishment of cooperatives. So, while up to 2017. were shut down around 100 agricultural cooperatives annually, from the moment of program initiation till today over 1,100 new agricultural cooperatives have been started to operate in Serbia.

### **Conclusions with Recommendations**

The social role and assigned responsibility of the newly established MRW in preserving and improving the position of village and rural population in Serbia is indisputable. It is highly affirmative that by the implemented measures and activities, MRW in previous period has successfully dealt with the most of issues that follow the progress of living and working conditions in rural areas. Proposed recommendations are directed both to public policy makers and end users of the assigned budgetary assets, i.e. agricultural cooperatives and indirectly to family farms.

In upcoming period, public policy makers could:

- to affect the more intensive involvement of scientific, educational and professional institutions and organizations within the mechanism of established measures' creation and implementation. Mentioned has to be in line to general benefits derived from the transfer of available knowledge, practices and skills, i.e. they would be in function of deeper analysis and additional fine-tuning of applied measures, as well as in finding new supporting alternatives;
- to create a model for the distribution of incentives that would slightly favors the cooperatives gathered around production lines with higher economic potential and social benefits, or specific ideas that preserve the culture and tradition of a certain rural community;
- to make stronger media pressure in order to popularize available measures and attract on that way potential donors;
- to try in conditions of re-escalation of global economic crisis, to fight for higher share of these measures during the distribution of national budget, as well as to allocate the larger individual grants to end users; etc.

In close future grant users (agricultural cooperatives) could:

- to have stronger believes in their business ideas, as to be more persistent in their attempts to approach available public grants;

- to better articulate their business ideas and potential contribution to the local rural community, i.e. to better justify the necessity of using the available incentives;
- to rely more strongly on the existing knowledge base, as to do not run away from the joint preparation of business ventures with reputable representatives of science and profession; etc.

As there have been passed more than five years since the initiation of the grants distribution to the appropriate representatives within the Serbia's cooperative sector, further research steps should be turned to deeper analysis of real economic, ecological and social impacts, as to general benefits achieved not only by the grant beneficiaries, but the rural communities in which they are located.

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### Conflict of interests

The authors declare no conflict of interest.

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