A SYSTEMS APPROACH TO RURAL DEVELOPMENT IN SERBIA: RESULTS OF A BASELINE SURVEY ON THE COMMUNITY

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Abstract

Sustainable rural development requires increased economic productivity and the social development of communities. Economic productivity can be increased in a number of ways: 1) improving quality of existing production, 2) improving quantity of existing production, 3) improving reliability of supply to the market, 4) developing added-value products, 5) diversifying into new types of production, and/or 6) diversifying into new economic sectors. Traditional approaches to rural development have tended to focus on one or the other. We propose a holistic perspective where economic and social development work together to strengthen rural communities. To support this, a systems approach is taken, where targeting individual sectors within a community is integrated into a strategy to build on existing social capital and develop improved interaction and co-operation to support both social and economic growth.

For this combined strategy to work, we need a clear initial picture of a community’s existing strengths, weaknesses, opportunities and threats. This establishes a baseline of information, not only on conventional economic indicators, but also of social capital indicators such as levels of trust, existing willingness to cooperate, social problem areas, traditional community culture, etc. We recently completed a baseline survey of the community of Boljevac, in Kruševac municipality, located on the slopes of Jastrebec mountain in southern Serbia. The community is fortunate in still having a village school where the local schoolteacher, Aca Milošević, has been playing the role of community development officer, in addition to his teaching duties. In consequence, the survey showed high levels of trust within the community, and considerable willingness to cooperate and share resources, skills, labour. The survey also identified in several households a willingness to innovate and develop new economic activities.

Thus the scene is set for discussing with the community specific opportunities to improve its economic productivity, while at the same time cultivating improved trust and cooperation amongst community members. This holistic perspective is essential if increased economic productivity is to lead to the increased economic cooperation required to generate better buying power, exploit new markets, etc.

Keywords: rural development, systems approach, economy, social capital, cooperation

Introduction

Drift of population from rural to urban areas is a centuries-old global phenomenon. Serbia has not escaped this phenomenon, having experienced a shift from over 79% rural population (settlements <10,000 inhabitants) in 1948 to only 45.9% rural population at the
During this period the capital city Belgrade, for example, grew from only 630,000 (11% total population) to over 1,630,000 (23% total population) (Anon 2004, 2011). The causes of rural depopulation are many, including expectations of gaining a better job; a better standard of living; to attend school; a desire for technology; or a desire to experience the better amenities that an urban environment can offer.

This drift from rural communities to the urban centres results not only in the breakdown of rural social networks and an impact on rural economic productivity if land is abandoned, but pressure on the infrastructure and social services of urban areas to which the population migrates. The financial implications of this population drift for local authority budgets are considerable. Thus, the experience of Kruševac municipality in southern Serbia is typical: “The biggest problems facing Kruševac are: unemployment, environment and lack of spaces in the pre-school institution ‘Nata Veljković’, stated during the interview, and the priorities currently engaging the management of the City are: water supply, modernization of schools, streets and roads, and ...’ (Anon 2010). Kruševac spends 20% of its budget (ca. €6 million) on buildings, maintenance, supplying heating and water (Anon 2012).

Sustainable rural development, through increasing the productivity and social development of rural communities, serves the dual purpose of raising the economic contribution of rural areas to the wealth of the region and reducing the pressures of migration on urban centres by improving the quality of life of rural communities. Economic productivity can be increased in a number of ways: 1) improving the quality of existing production, 2) improving the quantity of existing production, 3) improving the reliability of supply to the market, 4) developing added-value products, 5) diversifying into new types of production, and/or 6) diversifying into new economic sectors.

Social development builds community assets, social capital, co-operation and democratic involvement. Traditional approaches to rural development have tended to focus on individual sectors, such as agriculture or tourism (e.g. Mihajlov and Petrović 2011, Hristov and Sivčev 2007, UNDP 2009). Strategic plans for rural areas also tend to take a piece-meal approach. Thus, Bogdanov and UNDP-funded coworkers (Bogdanov 2007) established that problems of the young in rural areas were generally inadequately treated in municipality strategic plans. Municipalities whose programmes included alleviating problems of the young in rural areas usually addressed them through educational programmes related only to agriculture. Further, the position of women in local communities was not frequently considered in municipal strategic plans (only 35% of municipalities).

To overcome the limitations of targeting specific sectors of the rural economy, we propose a holistic perspective where economic and social development work together to strengthen rural communities. To support this, a systems approach is taken. Intensive development at the level of a small village is linked to the wider economic system – other surrounding villages, nearby major city markets, strategic commercial actors and so on. This intensive development takes a ‘matrix pattern’. One aspect targets improved productivity through technical help in carefully specified economic activities. This is integrated into a strategy to build on existing social capital and develop improved interaction and cooperation to support both social and economic growth.

An essential first step in implementing this strategy for a rural community is to establish a baseline upon which to build; namely a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. This will identify the community’s existing social capital upon which ideas to develop further the community’s economy and social capital can be built, facilitated by expert support and guidance, akin to the neo-endogenous approach to rural development proposed by Ward et al. (2005), and references cited therein.

Thus, here we present a preliminary report on results of a baseline survey of aspects of social capital of a rural community, focusing on establishing the community’s existing levels
of trust and cooperation; essential factors determining the community’s capacity to make progress.

**Material and methods**

The rural community at the centre of our research is Boljevac, one of seven settlements making up the parish of Ribare in Kruševac municipality. The village is located on the south-eastern flank of Jastrebac mountain at an altitude of 660-700 m, at the end of a badly-worn Macadam road 3 km from the main asphalt road to Kruševac. According to preliminary results from the 2011 population census (Anon, 2011), the village has 125 inhabitants distributed amongst 43 households. The community is typical of much of rural Serbia, with most families carrying out largely subsistence farming, and a few with employment outside the village.

Although the village has no public transport, shop or local amenity, it still has a village school providing education for the first four years. The village schoolteacher, Aca Milošević, in addition to his formal role as schoolteacher, has also acted as an unofficial community development worker during the five years since he started teaching at the school (Petrović, 2011). In consequence, many in the community are already motivated to improve themselves and their lives in the village.

A questionnaire was put together on the basis of questions provided by a group of experts and motivated individuals who were interested in helping Boljevac to develop. They had expertise in:

- agricultural production,
- food processing,
- tourism,
- agricultural pollution control,
- small-scale energy production,
- market economics,
- product branding,
- entrepreneurship and book-keeping,
- rural economics,
- ethnology and
- community cooperation.

In this way, we would get a broad picture of the village’s social capital and its strengths, weaknesses, opportunities and threats in many sectors potentially of interest, apart from aspects of agriculture. The questionnaire had over 370 questions, divided into the section headings shown in Table 1.
Table 1. Section headings of the questionnaire. Headings in bold indicate questions for which results are presented here.

<table>
<thead>
<tr>
<th>Section heading</th>
<th>Questions</th>
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<tbody>
<tr>
<td><strong>You and your family</strong></td>
<td>4-10</td>
</tr>
<tr>
<td><strong>You and your community</strong></td>
<td>11-38</td>
</tr>
<tr>
<td><strong>Membership of associations, clubs, etc</strong></td>
<td>39-52</td>
</tr>
<tr>
<td><strong>How far and often do you travel?</strong></td>
<td>53-60</td>
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<tr>
<td><strong>Who do you trust?</strong></td>
<td>61-76</td>
</tr>
<tr>
<td><strong>Your household assets, services, support</strong></td>
<td>77-101</td>
</tr>
<tr>
<td>Your use of land</td>
<td>102-117</td>
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<tr>
<td>Your crop production</td>
<td>118-195</td>
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<tr>
<td>Your food production</td>
<td>196-202</td>
</tr>
<tr>
<td>Your animal production</td>
<td>203-231</td>
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<tr>
<td>Your selling and marketing challenges</td>
<td>232-240</td>
</tr>
<tr>
<td>Your other sources of income</td>
<td>241-248</td>
</tr>
<tr>
<td>Your farm production and household costs</td>
<td>249-274</td>
</tr>
<tr>
<td>Your agricultural support services</td>
<td>275-279</td>
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<tr>
<td><strong>Your level of cooperation</strong></td>
<td>280-337</td>
</tr>
<tr>
<td>Borrowing and saving money</td>
<td>338-344</td>
</tr>
<tr>
<td>Your views on tourism</td>
<td>345-366</td>
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<tr>
<td>Your thoughts on the future</td>
<td>367-372</td>
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</tbody>
</table>

To speed up the process of interviewing villagers, show cards were prepared for groups of questions, so that respondents could just point at the most appropriate answer on the show card, which would then be recorded by the interviewer on the questionnaire. The questionnaire was prepared and formatted in English and then translated into Serbian.

Two postgraduate (diploma) students were given instructions on how to conduct the interviews, which took place during one week in late October/early November 2011, and every household in Boljevac was visited. The interviewers stayed in a house in Boljevac that had previously provided accommodation for visitors. The village schoolteacher had informed some of the villagers of the questionnaire shortly before the interviewers arrived, though many households were not previously aware that interviewers would call.

Completed questionnaires were transcribed into both SPSS (for detailed quantitative and qualitative analyses, to be reported elsewhere), and Excel (Microsoft, Version 2004 for Mac) for the analyses presented here.

**Results and discussion**

The survey process

Of the 43 households in the village, 34 agreed and six declined to take part in the questionnaire (85% return), and three households were absent during the time of the survey. The respondent was usually head of the household (25/34 households), with the remainder being either wife or son of the head of the household. The process was completed quicker than expected because many respondents had no idea of the answers for many questions, in particular about agriculture - no idea how big their fields were, no idea what their crop yields were, no idea what prices they got, and so on - they seemed in many cases to live a very hand-to-mouth existence. They knew which fields were theirs and they could see how big they were, but it wasn't important to know how many ha/ares they were! No-one kept any farm
records of anything; not surprising as most of the adults were known to be functionally illiterate!

One student interviewer found it easier to communicate with respondents than the other, as people in Boljevac had met her on a previous visit and had more trust in her. A few people were reluctant to give answers because they feared they were officials from the council or some other mistrusted organisation. One person didn't want to answer the questionnaire because he works for a local influential politician. Although most of the time the male head of the household gave the answers, often the women knew more about their agricultural production than the men!

Although show cards had been prepared for each batch of questions, these were rarely used, partly because it saved time to go through the choices of answer verbally, and partly because all the information on show cards had been typed in Latin Serbian, whereas the villagers, especially those who left school early in their education, were more used to reading Cyrillic Serbian! On other occasions the wording of some of the questions was difficult for them to understand.

Many respondents were very happy to spend the time going through all the questions, but a sizeable proportion thought it was rather long and were clearly impatient to get to the end. Many were also reluctant to give answers because of lack of trust. One person initially said 'No' the first day (lack of trust and not lack of time), but then a day later said 'OK' and agreed to answer the questions.

During the interviewing process the two interviewers got the impression that the village was divided amongst those who got on well with each other and a (probably smaller) proportion who didn't get on well with each other, and were mistrusting. These impressions were reflected in answers to many of the questions on trust and cooperation (see below).

On a technical note, the questionnaire demonstrated a widespread lack of information amongst the people of Boljevac on aspects of agriculture, no doubt in part associated with functional illiteracy amongst most adults. Therefore, future activities in Boljevac should include opportunities for the villagers to improve their reading and writing skills. The challenge of reading and understanding information using the Latin as opposed to the Cyrillic Serbian alphabet needs to be taken into account not only for our future activities within the Boljevac development project but because it has much wider implications for projects on rural development in general. For international aid projects in particular, the Latin alphabet is more generally used for documentation (leaflets and brochures) for project stakeholders, which would include subsistence farmers (V Jovanović, personal communication).

Selected findings from the questionnaire

Population structure is shown in Figure 1. Of the 109 people recorded, half were over 48 years old, and the number of children of school age, at 18.3% (20/109), was exactly average for a village of its size in rural Serbia (Anon, 2003). The continued supply of children reaching school age each year explains why the village still has a functioning school, teaching years 1 to 4 of basic schooling. Although the number of children at school is currently only six, the school roll has shown no significant trend during the last 18 years, fluctuating between six and nine (A Milošević, personal communication).

Nine households had a family member with a job outside the village. No respondents were planning to move from Boljevac and only three respondents had children who were planning to move from the village. So, the population of the village is likely to be stable for the next few years, which is an encouraging sign. Membership of associations and clubs was not high, being essentially limited to political parties (9 respondents), trade unions (syndicates) (4), and sports clubs (3). Although nearly everyone visited the centre of the
parish (Ribare) at least once a month, one third of households had never visited Belgrade and only one person had ever been out of Serbia.

Household assets painted a general picture of poverty in the community. Nearly two thirds of households (21/34) either owned or had access to a car, though tractor is the most frequent form of transport. Twelve households had no bathroom or toilet; only five households had a computer of some sort; only 21 households had a vacuum cleaner and no-one in the village had air conditioning, even though summer temperatures reach 40˚C. The only service that was regarded as good in the village was access to water (30/34 scored this very good), which comes from a local spring and is piped by gravity around the village. Housing, health care, dental care, education and bus services were generally considered to be either OK (housing and education), poor (health and dental care), or very poor (bus transport) - not surprising considering that the nearest bus stop is 3 km from most of the village, along unlit cart tracks. Despite the generally worse-than-average picture in these quality of life data, 71% of respondents assessed their personal life as being better than the life of their parents, 21% assessed this as the same and only 9% as worse.

Achieving sustainability in rural development for the community will be determined largely by the extent to which individuals are able to develop effective and long-term cooperation of various types, both amongst the inhabitants of Boljevac itself and with people from neighbouring communities, particularly those in the six other settlements making up the parish of Ribare. However, effective cooperation needs trust. Therefore, several questions in the questionnaire probed aspects of trust (Figures 2a,b) as well as aspects of cooperation (Table 2, Figure 3).

It was clear that most people in Boljevac put high trust in their family members and relatives, with 76% of respondents saying they could trust all family members and relatives (Figure 2a), though 21% said they could trust only some of their family and relatives. As would be expected, levels of trust decreased the further away respondents got from family relationships. Only 25% trusted all of their friends; only 21% trusted all their neighbours, and levels of trust in people they did not know well from outside Boljevac were much lower (only 6-12% respondents choosing ‘All’). Consequently, the choice ‘None’ gained the highest score for people they did not know well from other nationalities (79%), and the frequency of ‘None’ gradually reduced the nearer they got to family relationships. Even so, two respondents said they couldn’t trust any of their friends, and five said they had no trust in any of their neighbours.

Regarding the level of trust of representatives of different categories of official and profession (Figure 2b), members of political parties commanded the least trust (32/33 respondents choosing either ‘Some’ or ‘None’). Note that four respondents who were members of political parties said they had no trust in members of any political party! Lack of trust in political parties was closely followed by members of state government (30/33 choosing ‘Some’ or ‘None’), then private companies (28/32) and local government (27/33). In contrast, responses were the other way round for members of professions, with schoolteachers having very high levels of trust (27/33 respondents choosing ‘All’ or ‘Most’), then doctors and priests with reasonably high levels of trust (22/33 for both). Only two respondents did not trust any schoolteacher, five didn’t trust any doctors, though, interestingly, seven (21%) did not trust any priests!

Questions on cooperation were divided into existing cooperation within Boljevac and with neighbouring villages, and future intentions on cooperation within Boljevac and with neighbouring villages. Results from these questions are summarised in Table 2. Currently around two thirds of people in Boljevac (68%) already cooperate with others in the village, and 21% are cooperating in some way with people in other local villages. Most popular forms of cooperation with others in Boljevac were supply of mechanical/machinery services (20
respondents), supply of animal feed (18), supply of agricultural labour (15) and supply of artificial fertilisers (12). In addition to these four types of cooperation (either 3 or 4 respondents), cooperation with people outside Boljevac included supply of seeds (3), sales of crops (3) and sales of livestock (3).

Interestingly, four respondents who were currently cooperating with others in Boljevac were not planning to continue this cooperation, though others not cooperating in the village at the moment planned to do so in the future, resulting in very little change overall in the proportion of people planning to cooperate within Boljevac in the future (65%). However, many more people from Boljevac were planning to cooperate with others in local villages in the future (53%). These planned increases in outside cooperation targeted supply of mechanical/ machinery services (8), supply of agricultural labour (6), sales of milk (5), fruit and vegetables (5), as well as food products (4). Food products were evidently seen by several respondents as a potential growth area, requiring cooperation both within and beyond the village.

Table 2. Questions relating to cooperation of villagers with others in Boljevac and in neighbouring villages.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you cooperate with other households in Boljevac on agricultural issues?</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td>Do you cooperate with people in other local villages on agricultural issues?</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>Do you intend to cooperate more with other households in Boljevac in the future?</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Do you intend to cooperate more with people in other local villages in the future?</td>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

When asked for their general views on cooperation (given free choice to say what they wanted), replies could be categorized into four types of response: they thought cooperation was a bad thing or unnecessary, they fondly remembered the former cooperative (that collapsed around 10 years ago) and wanted something like that back again, they thought cooperation was generally a good thing or useful, they thought cooperation was essential or very good. Frequencies for these four categories of response are shown in Figure 3. Only three respondents thought that cooperation was either not necessary or bad. Thus, overall, 91% (31/34) considered that some sort of cooperation would be useful, either as a cooperative like the former Ribare cooperative, or some other form of association with others in Boljevac and/or neighbouring villages. This result gives considerable encouragement for providing the village with a better future.

Respondents were also given a free choice to suggest any type of training that they would like to receive in the future, both to improve existing skills and to introduce new skills. Two thirds of households (23/34) suggested at least one type of training, including six households already in their 60s or above. Of those households not interested in training, seven were in their 60s or above and only one household specifically stated that no training courses were needed. The most popular types of courses were on aspects of agricultural production (crops, soft fruit and animal and milk production, irrigation and soil conservation), with five households specifically requesting training in aspects of food processing, and one household requesting advice on tourism. This indicates a very high level of interest amongst the younger households (over 80%) in improving themselves and their future economic prospects.

Conclusions

The data collected from our Boljevac questionnaire have provided a detailed picture of a small village community, which would be typical of many in rural Serbia. While their quality of life in terms of assets and incomes is inevitably below average for the country as a whole, the fact that the large majority of families is content to stay in Boljevac indicates that
quality of life means more to them than just tangible assets and money. Several respondents who have jobs outside the village said they enjoy life in the village because there they can relax, enjoy the clean environment and peace and quiet. Nevertheless, there was universal complaint about the absence of an asphalt road to the village.

Improving the quality of life standards will inevitably need improvements in the economic productivity of the community. As explained earlier, this may be achieved through one or more of the following mechanisms: 1) improving the quality of existing production (to get higher prices per unit sold), 2) improving the quantity of existing production (to sell more at the same price), 3) improving reliability of supply to the market (to encourage buyers to pay a premium), 4) developing added value products (to get much higher prices than selling unprocessed goods), 5) diversifying into new types of production (to sell new crops for which there is high market demand), and/or 6) diversifying into new economic sectors (to get additional income from tourism, or small-scale energy generation, for example).

Training of one sort or another, working alongside the villagers on a regular basis, will provide opportunities for them to make progress in one or other of these six areas of economic development. However, although outside expert support for Boljevac is needed to ensure that the community builds on its existing strengths and interests, future development work should be undertaken with caution, as intensive development of the village could lead it to lose the very character and appeal that its inhabitants cherish at present. The ambitions of the villagers seem modest, and this needs to be recognised by those who seek to help the village to develop sympathetically and sustainably.

To achieve any of these developments will require cooperation of some sort to a greater or lesser extent, maybe initially to pool resources in some form of informal association, which might lead eventually, if the market conditions are appropriate, to a new cooperative focusing on one or other products the village has to offer, creating a ‘Boljevac’ brand. It is clear that the existing level of cooperation of households is high. Evidently the groundwork in community development laid during the previous five years by Aca Milošević, as the village schoolteacher in Boljevac, has had an impact on people’s willingness to do something (as evidenced by the high level of interest in training courses), and to cooperate to improve the village’s economic future.

Thus, for our systems approach to rural development to be implemented successfully in other rural communities around Serbia, an essential starting point will be the existence within the community of a willingness to doing something for itself and an existing high level of cooperation with others; i.e. initial groundwork in community development needs to be carried out by someone in the community who commands a widespread high level of trust and respect, like the village schoolteacher, as an essential prerequisite for any project on rural development to have sustainability beyond the end of the project.

As a footnote to this research, following publicity for Boljevac on local and national media during the past two years, an investor has recently bought land on the edge of the village with the intention of setting up a fish farm, and providing accommodation for tourists. The new government of Kruševac municipality has also agreed to provide funds to make a start on building a road to Boljevac in 2013. Thus, the efforts of the village schoolteacher to motivate the community and to publicise Boljevac are beginning to bring tangible rewards.

Acknowledgements

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grateful for the generous hospitality of their hosts during their stay in Boljevac and for the patience of respondents while completing the questionnaire.

References


Figure 1. Frequency distribution of population in Boljevac.

Figure 2a. Frequency distribution of level of trust in different categories of people. Answers to the following question - Everybody has different opinions about different groups of people. Please tell me if you think you can trust: All, Most, Some, or None of the people in the following groups:

Question number:
1 - Family and relatives
2 - Friends
3 - Neighbours
4 - People you do not know well from other local villages
5 - People you do not know well from nearby cities such as Kruševac
6 - People you do not know well from Belgrade
7 - People you do not know well from other nationalities
Figure 2b. Frequency distribution of level of trust in different categories of people. Answers to the following question - And do you think you can trust: All, Most, Some, or None of the people in the following groups:

Question number:
1 - Local government officials
2 - State government officials
3 - Political parties
4 - Private companies
5 - Doctors
6 - Priests
7 - Schoolteachers

Figure 3. Frequency distribution of respondents’ opinion about cooperation in general.

Category number:
1 - Negative views on cooperation
2 - They want the former cooperative to come back
3 - Positive views on cooperation
4 - Very positive views on cooperation