THE INFLUENCE OF THE NEW RURAL DEVELOPMENT PARADIGM ON CHANGES IN LAND USE: THE CASE OF POMURJE REGION

UTJECAJ NOVE PARADIGME RAZVOJA RURALNOG PROSTORA NA PROMJENE KORIŠTENOG TLA - STUDY CASE: POMURSKA REGIJA

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ABSTRACT
The new rural development paradigm was developed as a response to the inefficiency of the old development model. The expansion of the EU to the Mediterranean countries (Greece 1981, Portugal and Spain 1986) has pointed out large regional disparities, especially in rural regions. Thus, common agricultural policy was developed between 1957 and 1962 when it finally came into force in the EU. The agricultural sector and the farmers were in the forefront as the carriers of the agricultural activity. The aim was to increase food production to the maximum and strengthen the competitiveness of the production. The old paradigm was in contradiction with the free trade principles, due to the use of refunds, which protected the EU producers against their competition. Under pressure of the developed countries, the EU decided to adopt a new development model. Leader programmes (started in 1991/1992) and Agenda 2000 (declared 1997) set the foundations for the new rural development paradigm, which became global in 2006. They followed the examples of good practice. Exogenous rural policy model was substituted for the endogenous one. The new development paradigm considers the rural area as an integral space. Development initiatives are generated in the local environment. The ideas are being networked which includes policies by different economic sectors on a multiinstitutional level. Awareness and recognition of rural values, ecological, cultural and social ones, is the main motivational factor in local communities when setting up development projects. The key requirements for success are: flexibility, competences, efficiency and synergy, which leads to a deviation from unilateral sectorial dependency to broad intersectoral cooperation and integral approach to the rural area. The main interest in our research was how these new approaches influenced the changes in Slovenian agriculture, which was studied by way of studying the changes in land usage in the Prekmurje region (NUTS 3). The chosen region is an atypical Slovenian region, the least economically developed, largely rural, with relatively low forestation level and poor traffic accessibility. The relief of the landscape and composition of the soil are suitable for agricultural activities.
Simultaneously, we were identifying changes in the usage of space and evaluated the influence of the new development paradigm on development of agriculture and the rural area. The influence of the new rural development paradigm on changes in land use in the period 2000 – 2012 was evaluated by the analysis of spatial changes. We analysed the areas of receding field surfaces in connection with the areas of receding arable surfaces. We were interested in the influence of these changes on the newly built-up surfaces in the area of Pomurje, as a positive indicator of the new development paradigm, in newly-created overgrowing areas, as the factor of efficient land usage, which proves that the development initiatives in the environment are insufficient. By way of analysing changes in ageing of the population we confirmed the assumption that the changes in land use are co-dependent on introducing the new rural development paradigm.

Key words: rural area, land use, Common Agricultural Policy (CAP), Pomurje region, sustainable development, food supply, revitalization of rural area

INTRODUCTION

Rural areas are traditionally associated with primary agricultural production. Since the beginning of civilisation, man has, by way of his activity, been adapting land use to his needs. Land use is the usage of land, caused by human activity in the landscape and is one of the good indicators of landscape structures and processes (Kladnik, 1999). As such, it is a reflection of mutual interaction of natural, historical, social, and economic factors (Gabrovec and Kladnik, 1997). In addition to providing food sources and preserving natural resources, rural areas are a source of human capital, which has always been a foundation of economic and demographic development of the country, settlements and urban areas. Intensive industrialisation resulted in depopulation of the rural space, ageing of the population and abandonment of agricultural activity. In the last number of years, it has been acknowledged that the significance of agriculture to rural development is in decline (Van der Ploeg et. al., 2000).

The reasons for the lessened importance of the influence of agriculture and agricultural production in the economic structure of the developed countries lie in the rapid development of tertiary sector and in industrial restructuring. After the World War II, intensified globalisation of economy occurred. The developed economies faced competition by cheaper products from the developing countries. The traditional industrial sectors that did not detect danger and did not adapt to the new market conditions on time, influenced the crisis in the economically developed countries. This process started in the middle of the last century, initially in the United States of America, and spread to European economies in the 70s and 80s. Searching for the way out of the crisis lead to the change in the industrial production paradigm, and transition from Fordism to post-Fordism, while mass production of material goods was substituted for innovative, flexible production of goods, intended for targeted consumer groups. Service sector began to strengthen and the transition to information society occurred. Scientific development and technological advances caused structural changes in the economy (Lorber, 1999). With a delay, the influence of the crisis in the secondary sector transferred to the primary economic sector as well.

In practice, there was the old rural development paradigm which was based on top – down approach which in practice meant that rural development was planned and directed from outside the rural environment. The aim was to reduce disparities, which was supposed to be achieved by increasing the farms’ income and by facilitating competitiveness. The key target sector was agricultural activity. The main facilitating factors, aimed at restructuring the farming, were the refunds.

Standpoints about achieving desired goals and models of solving complex regional problems are different. They depend on the level of development of the society and its value system, and on har-
monisation of interests of different groups. Defining regional problems and monitoring them is important on its own, and last but not least, making decisions on the proposed solutions has an important role too. The origins of the new rural development paradigm come from the examples of good practice in local environments of the most developed countries. Terluin (2003) in her article analyses to which extent theories are supported by empirical evidence. The matching results show that the mixed exogenous/endogenous development approach, the community-led development theory and the first hypothesis of Bryden’s theory (termed by Terluin, 2003) on the exploitation of social and cultural capital are widely supported by empirical evidence from the case studies (Bryden & Dawe, 1998). Based on positive results, the old sectorial approach to rural development was substituted for a new approach which shifted the development centre of gravity to the entire rural area. Van der Ploeg & Long (1994, cited in Perpar and Udovč, 2012) emphasize that at present a major concern regarding the process of rural development is the need to strengthen endogenous development by stimulating local community initiatives and bottom-up planning processes. Bryden (2000) states that there was notable transition in the nature, content, and administration of rural policies in many EU and other OECD countries during the 1980s and 1990s.

Under the conditions of unreliable food supply on the planetary level, and due to the negative impacts of intercontinental food transport (traffic is becoming one of the most important sources of greenhouse gases), the awareness of the importance of local self-supply of food is becoming one of the key strategic and political emphases when planning development in the society (Perpar and Udovč, 2010). Therefore, monitoring the changes in land use is of vital importance, both when planning new projects as well as with spatial planning. To ensure suitable well-being of the given society, harmony between satisfaction with life, health, the possibility of lifelong learning, social life, feeling of safety and suitable environment is needed (Vrabič Kek, 2012).

Studying regional development problems of Podravje (Lorber, 2005) we noted that exogenous development model did not develop cooperation between local and national partners when forming regional policy and also neglected the importance of activating own innovative potentials and development initiatives. It also neglected the large potentials for interregional cooperation and building a recognisable regional identity. According to OECD (1996, cited in Nemes, 2005), there are four key requirements for the success of a rural district, understood as a socio-economic network: flexibility, competences, efficiency and synergy. Flexibility is needed to respond to, and to pre-empt through strategic planning, changes in the market: This would lead to diversification from single sector dependency to a broader rural economy. Endogenous development is understood as the hypothesis that improvements in the socio-economic well-being of disadvantaged areas can best be brought about by recognising and animating the collective resources of the territory itself (Ray, 2000). Traditional rural values bear an important role in planning rural development. Nemes (2005) suggests classifying rural values into three main categories: ecological values, cultural values and community values.

Efficient rural development needs a creative environment which can identify new development possibilities of the rural area, the process of making political decisions and new forms of organisation (Lorber, 2003a). Parker’s model (Parker, 2000) on regional strategies and approaches to facilitating regional development can be used in the context of rural development as appropriate. Practical enforcement of theoretical premises and examples of good practice in rural development requires holistic approach by all interested public. The main problem of the new EU member states and Slovenia lies in restructuring of the economy that is too slow, in the lack of knowledge and awareness of new development possibilities. Despite the reduction of arable land area and decrease in the number of agricultural holdings there is an increase in average size of the farms, redirection to production of produce, different livestock farming structure and increase in multifunctional agricultural holdings and the rural environment, which is the result of introducing the new development paradigm.
NEW APPROACHES TO RURAL DEVELOPMENT

It was characteristic of the developed economies for GDP in the primary sector to continually decrease. At the same time, declining number of employees in agriculture can be noted. The increasingly improved mechanization, genetically changed crops, selection in animals and use of fertilisers and herbicides had increased yield per hectare and addition through growth to the point where the agricultural production grew larger every year. Exogenous approach to rural development stimulated production growth, while direct refunds were aimed at increasing competitiveness of the farms. Market surpluses affected lowering the product prices which resulted in decay of smaller farms, especially those situated areas, less suitable for agricultural activity. Not that long ago, agricultural areas were treated as being homogenous and experiencing equal barriers and developmental opportunities. This way of thinking no longer suits the real situation in the European region (Lorber, 2009). Changes can be noted both in agriculture as well as in rural area. The number of middle-size and large agricultural holdings with increasingly directed and specialised production was increasing. The decay of small farms affected the depopulation of rural areas, quick ageing of the population while the proportion of young people was decreasing. Negative trends in rural development demanded taking actions to stop these negative trends (Lorber, 2013a).

During the past century, European area faced enormous changes in cultural landscape. There are vast differences among the countries when it comes to food safety. Data on land use in the European Union area (EU) are systematically collected by the statistical office, Eurostat, established under European Commission. In the area of the studied EU countries, main types of land use in year 2009 are: forests (39%), followed by arable areas (24%), meadows (20%), shrubbery (6%), water surfaces (5%), built-up and other anthropogenic areas (4%) and cleared areas (2%). Forest cover is the highest in Scandinavia (Finland 68%, Sweden 66%), while Slovenia takes the third place with 63% of wooded areas. The share of arable land is typically inversely related to forest coverage. The lowest shares of arable land in 2009 were noted in Sweden (4%), Ireland (5%), Finland (6%) and Slovenia (11%). By far the largest shares of arable land were noted in Denmark (48%) and Hungary (47%), followed by Poland (36%), Czech Republic (35%) and Germany and Italy with 33% of arable land respectively. Average share of arable land in the 23 studied EU countries amounted 24%. The neighbouring Austria had 17% arable areas. Slovenia, compared to other EU countries, has an above average proportion of forests and a below average proportion of arable areas. High forest cover in itself can be favourable as forests represent an important sink-hole for CO2 as a greenhouse gas; while, from the energy- and economic points of view, forests represent and important renewable energy source and raw material which should get its added value increased within wood industry. In Slovenia, the large proportion of forest cover is to great extent a result of reducing arable areas. According to Plut (2012), a stable food-, ecosystem- and forest balance in Slovenian territory would require a forest cover of about 50%.

Typically, the transition countries have not yet restructured their national economies in full. Structural changes can be ascribed not only to the natural and geographical facts, but increasingly to the external factors such as the quality of the natural and social heritage. High level of development in some agricultural areas in Europe shows that a rural-based activity in itself is not necessarily a burden to dynamic economic development and jobs growth (Lorber, 2009). Relatively new democracies are falling behind when it comes to institutional arrangements of their countries. The influence of the state is still significant and new economic and political circumstances generally had a positive effect on regions with capital cities and the previously industrially well-developed regions. Despite the advantages presented by the common EU agricultural policy the countries do not benefit from the given opportunities enough. The reason for this is the fact that the countries have not yet abandoned the exogenous approach entirely; instead, we can talk about intertwining the exogenous and endogenous approaches (Nemes, 2005). The reason for this lies in the fact that before transition, agriculture was managed in a planned manner. Private farms were small in size and did not receive public assistance for their development, while every attempt at entrepreneurial approach was disabled by barriers, both in the form of allowed size of private farms and limited access to mechanisation. State policy suppor-
ted development of socially-owned holdings which were large agricultural holdings with specialised, sustainably focused production. Due to the manner of managing them, they were inefficient and their productivity was low. They monopolised the market and were not exposed to market competition, as the agricultural product prices were regulated and food import was under state control in both respects, quality- and quantity-wise. Slovenia and the former states of the Socialist Federal Republic of Yugoslavia were in a somewhat more favourable position due to the special form of socialist economic policy that was less dependent on planned economy than the eastern European countries and did to some point observe market rules.

Rapid changes on the agricultural markets lead to thorough consideration about revaluation of the role of agriculture. Former agricultural policy was a targeted, sectorial one and its main aim was increasing the production. Developed non-European countries (G20, Cairns group, developing countries) criticised European agricultural policy and demanded for closure of production-oriented refunds for the agriculture sector. These countries demanded a revision of the "green box" exceptions in the WTO rules (green box for agriculture), emphasizing that these exceptions represent a distortion of competition and prevent the development of the agriculture sector in many of the developing countries. Instead, another group of countries (mainly the EU, Japan, Norway and Switzerland) claim that agriculture has to be considered from a holistic point of view (FAO, 2006). New rural development paradigm was formed in the past decades based on examples of good practices and changes, both in the economic and geopolitical areas.

<table>
<thead>
<tr>
<th>New Rural Paradigm</th>
<th>Old approach</th>
<th>New approach</th>
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<tbody>
<tr>
<td>Objectives</td>
<td>Equalisation, farm income, farm competitiveness</td>
<td>Competitiveness of rural areas, valorisation of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>local assets, exploitation of unused resources</td>
</tr>
<tr>
<td>Key target sector</td>
<td>Agriculture</td>
<td>Various sectors of rural economies (e.g., rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tourism, manufacturing, ICT industry, etc.)</td>
</tr>
<tr>
<td>Main tools</td>
<td>Subsidies</td>
<td>Investments</td>
</tr>
<tr>
<td>Key actors</td>
<td>National governments, farmers</td>
<td>All levels of government (supra-national, national,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>regional and local), various local stakeholders</td>
</tr>
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<td></td>
<td></td>
<td>(public, private, NGOs)</td>
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</tbody>
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Tab. 1. New rural development paradigm, differences between the old and the new approach
Source: OECD, 2006.

The main changes result from the newly defined rural development goals, which are a result of focusing on the space and not so much on the agricultural sector alone. The main tools to achieve these goals are investments rather than the refunds. The paradigm defines approaches to tackle challenges faced by the rural areas and is based on searching possibilities resulting from unused potentials on both regional and local levels. The essential element of the new rural development paradigm is the holistic approach. The main challenge rural areas are faced with is how to identify and develop local development potentials. When pursuing development goals, we need to consider several steps: to understand the region’s distinct economic assets, to identify the best market opportunities for the region, and to craft a strategy that exploits one to seize the other (OECD, 2012). This definition of the steps suggests that every approach is unique and special, regardless of the local or regional nature of the projects.
The basic characteristics of the models of rural development

<table>
<thead>
<tr>
<th>Key principle</th>
<th>Exogenous model</th>
<th>Endogenous model</th>
<th>Neo-endogenous model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic force</td>
<td>Local initiative and enterprise</td>
<td>Globalisation, rapid technological change in communications and information</td>
<td></td>
</tr>
<tr>
<td>Function of rural areas</td>
<td>Food and other primary production for the expanding urban economy</td>
<td>Diverse service economies</td>
<td>Knowledge economy, dynamic participation of local actors in local and external networks and development process</td>
</tr>
<tr>
<td>Major rural development problems</td>
<td>Low productivity and peripherality</td>
<td>The limited capacity of areas and social groups to participate in economic and development activity</td>
<td>Resources allocation and competitiveness in a global environment</td>
</tr>
<tr>
<td>Focus of rural development</td>
<td>Urban growth poles. The main forces of development conceived as emanating from outside rural areas;</td>
<td>Capacity building (skills, institutions and infrastructure) and overcoming social exclusion</td>
<td>Enhancing local capacity and actors participation to direct local and external forces to their benefit</td>
</tr>
<tr>
<td>Approach</td>
<td>Top - down</td>
<td>Bottom - up</td>
<td>Holistic</td>
</tr>
<tr>
<td>Criticism</td>
<td>Dependent, distorted, destructive and dictated, development</td>
<td>Not practical in contemporary Europe</td>
<td>Operates at a level of insufficient empirical evidence</td>
</tr>
</tbody>
</table>

Tab. 2. The basic characteristics of the models of rural development.


Neo-endogenous rural development follows the arguments that rural areas are not isolated but part of a globalized world, so exogenous forces should also be taken into account. It means that the key to local development lies in building a local institutional capacity able to both mobilize internal resources and cope with the external forces acting on a region (Galdeano-Gómez et al., 2010). This implies that the development process in rural areas is largely dependent on the interplay of endogenous (local) responses and exogenous (global) forces (Terluin, 2001).

Drabenstott and Henderson (2006) propose two key ingredients to a rural development strategy: (1) the twin forces of innovation and entrepreneurship, and (2) a critical mass of human, financial, and social capital to support evolving innovative and entrepreneurial activity. Innovation is a newer factor in assuring regional competitiveness. On the global market, the differences in production costs of basic products are so large that finding new, similar product rather than competing on the old one is essential. Therefore, innovation is the key to new products and new technologies (OECD, 2012). In the transition countries without proper entrepreneurial tradition, innovation is of key importance and not only at entrepreneurial and production levels but also at organisational, motivational and leadership levels.

The second key content is the critical mass. The studies confirm the assumption that fast-growing regions have enough human, financial and social capital that, in synergy, assures development. These synergies involve a whole host of things, including technology transfer, workforce skills, entrepreneurial networks, and the mere lifestyle amenities that knowledge workers increasingly expect. Econo-
mists lump all these synergies into a concept they call "agglomeration." Rural regions economies usually face depopulation processes, which causes ageing of the population and decreases the available labour force. Therefore, they need to give special attention to raising the productivity. In rural regions the key drivers of productivity will be innovation in the form of new products and processes that strengthen SMEs and improve workforce skills (Drabenstott and Henderson, 2006).

The rural development models gathered in the table evolutionarily show basic development characteristics of the New paradigm (tab. 2).

DEVELOPMENT OF A COMMON AGRICULTURAL POLICY (CAP) IN EUROPEAN UNION

Transition countries had to adapt their legislation to the European one already during the pre-accession period. Thus, agricultural policy was also adapted and adopted the principles of common agricultural policy of the EU whose origins go back to 1962. CAP was planned as common policy with the aim of assuring affordable food for the citizens of the EU and of assuring proper life standard to farmers. The incentives increased productivity to the point where in 1984, food production exceeded market needs. Therefore, certain measures were adopted and, by way of changing the intended use of refunds, aimed at achieving balance between food production and actual market needs. In 1992, CAP shifted focus from supporting the market to supporting the producers. So the refunds for covering price disparities between market price and production price of food were lowered and direct refunds to farmers were increased. Doing so, they wanted to foster more environmentally friendly food production. Naturally, this affected lowering the amounts of food and increased the quality of the products at the same time. The reform coincided with the World Summit in Rio (1992) where foundations for sustainable development were set. The next milestone in CAP was made in 2003. The new reform interrupted the connection between refunds and production. Under the new circumstances, they receive the income reimbursement provided that they take care of the agricultural land and meet the environmental protection requirements, take care of the wellbeing of the animals and comply with the safe and healthy food production standards (European Commission, 2012).

In practice, common agricultural policy was a way to implement holistic, high-quality and original sustainable development strategies whose aim is to encourage new forms of strengthening natural and cultural heritage, strengthening and widening economic environment that would contribute to creation
of new jobs and improvement of organisational abilities of the community. The Local Action Group (LAG) is a body of public and private interested parties who, in a partnership, determines the common strategy and a local action plan to develop the area of the Leader+ programme. It works on both, horizontal and vertical levels of decision making and functioning. At the project level, it is important that the initiatives come from local participants in cooperation with the public and the civil society (Lorber, 2013a). It is one of the most original and most strategic characteristics of the Leader programme approach (European Union, 2008).

There are three LAG groups established in the area of Pomurje region. These are: LAG Pri dobrih ljudeh\(^1\) which includes eight municipalities with a population of 31,916 covering 319.10 km\(^2\), LAG Goričko\(^2\) with 10 municipalities and 30,363 population, covering 565.10 km\(^2\) and LAG Prlekija\(^3\) with 11 municipalities, 55,611 population and covering the area of 601.10 km\(^2\) (Prekmurje region does not include the municipalities of Ormož, Središče ob Dravi and Sveti Tomaž). LAG does not include the urban municipality of Murska Sobota. Through LAG, EU-funded projects deriving from local initiatives that are based on rural values of the local environments are implemented.

**THE FUTURE OF THE COMMON AGRICULTURAL POLICY AFTER 2013 AND EUROPE 2020**

Global financial crisis affected the creation of new strategic orientation Europe 2020. Upgrading CAP from 2011 is based on two pillars. The first comprises measures for strengthening competitiveness of the agricultural sector, facilitating innovation and entrepreneurship, while the second is intended for fighting climate changes and ensures maintaining and providing new jobs and economic growth of the rural areas.

The strategic goals are:

1. Long-term choice of Europe to ensure safe food supply. To this end, maintaining the potentials for food production on a sustainable basis throughout the EU is important.
2. Supporting agricultural communities that ensure quality, useful and diverse food, produced in a sustainable manner. Care for the natural environment, water protection, care for animal and plant health are important for the health of the population. Agricultural and the associated activities must actively manage natural sources to maintain the agricultural landscape, to fight the loss of biodiversity and need to contribute to alleviating and adapting to climate changes.
3. Creating new jobs, which ensures economic, social and environmental advantages of the space and maintains vitality of rural communities (local level) where farming is still an important economic activity (European Commision, 2011; Neal, 2012; Nowicki, 2012; Sorrentino, A. 2012).

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1. www.las-pridobrihljudeh.si
2. www.las-goricke.si
3. www.las-prlekija.com/lasprlekija/
If the aim of the Common Agricultural Policy of the EU and rural development policy as a whole is to practise integrated development of rural areas, the focus of the policy should be on the varying potentials of each rural region (Voutilainen and Wuori, 2012). Introduction of the new rural development paradigm made the agriculture as an economic sector more complex and heterogeneous.

In order to achieve rural development goals, we need to strengthen the integration of knowledge at the local level. The link between research and regions does not exist today because most rural regions do not yet have clear strategies and because national research is focused on sectors, not regions (Drabenstott and Henderson, 2006; Lorber, 2003b). In Slovenia, it can be noted that cooperation of developmental institutions and individual researchers is bound to projects and individual bilateral contracts. Only as of lately, Slovenian universities have started a trend to create a strategy to include research into the local environment.

CHANGES IN RURAL DEVELOPMENT IN THE AREA OF POMURJE REGION NUTS 3

By way of studying changes in land use we studied the influence of the new rural development paradigm on the situation in agriculture in the considered Pomurje region.

For the purposes of our analysis, we used digital data on land use for 2000 and 2012. These were presented at the level of the Pomurje region. On the other hand, the basic data given in vector form were converted into raster form with cell size 25 m x 25 m. For a more transparent analysis, the land use groups were generalised into 11 classes: fields and gardens, vineyards, orchards, other permanent plantations, meadows, overgrowing land, mixed land use, forest, built-up and similar land, other and water surfaces.

Pomurje region includes the area on the left bank of the Mura river in the Republic of Slovenia, and in addition to that also the area of Apaško polje, the whole Radgonsko-kapelske gorice, central and bottom Ščavniška dolina and those parts of Central and East Slovenske gorice that belong to Mura.
L. LORBER, I. ŽIBERNA - THE INFLUENCE OF THE NEW RURAL DEVELOPMENT RIVER BASIN

This is the area that was in the past traditionally oriented towards agriculture, either arable farming or livestock farming in the flat land or wine-growing and fruit cultivation in the hilly areas, mainly in the area of Ljutomerse gorice and Radgonsko-kapelske gorice. Among the land use categories in the area of Pomurje region in 2000, there was the largest proportion of fields and gardens \((60,608.9\ \text{ha} \text{or as much as } 45.3\% \text{ of the entire surface, which is by far the largest in Slovenia})\). Filed surfaces were in large contiguous plots of land in the area of Pomurje plain (Ravensko and Dolinsko), at the bottom of Lendava valley, Mala and Velika Krka and Kobiljski potok. On the right bank, the largest proportion of filed surfaces was in the Area of Apaško polje, Zgornje and Spodnje Mursko polje, and Ščavniška dolina (Figure 3). Wine-growing areas covered \(2915.1\ \text{ha} \text{ (2.2\% of the surface and were the most commonly represented in the territory of Ljutomerse, Radgonsko-kapelske and Lendavske gorice, and, fragmentarily, in the territory of south-east edge of Goričko and, in small patches, also in the remaining areas of Goričko.}

Orchards covered \(1975.4\ \text{ha} \text{ (1.5\% of the surface. Meadow surfaces were – except in the area of intensive agriculture – equally distributed within the region and covered } 14415.4\ \text{ha of the surface (10.8\%). Smaller patches of overgrowing land (634.3 \text{ha}, 0.5\%) occurred along the Mura river and in the area of Dolinsko. Forest surfaces (40747.8 \text{ha}, 30.5\%) were found in Goričko, along Mura, at the passage from Ravensko to Dolinsko, in Spodnje Mursko polje and in individual patches in Apaško polje and Slovenes gorice. In 2012, there were 56,767.6 \text{ha (42.4\%) fields and gardens, 2,488.9 \text{ha (1.9\%) vineyards, 2,474- 2 \text{ha (1.8\%) orchards, 14,385.8 \text{ha (10.8\%) meadows, 3,627.1 \text{ha (2.7\%) overgrowing plots of land and 43,619.0 \text{ha (32.6\%) forest areas in Pomurje region. Changes in land use in the referred period reflected on fields and gardens the most (decrease by 3,841.3 \text{ha}), mixed land use (decrease by 2,011.1 \text{ha}), vineyards (decrease by 426.1 \text{ha}), sand meadows (decrease by 99.8 \text{ha}). Among arable land, the increase can be noted in orchards (by 498.8 \text{ha}) and other permanent plantations (by 41.5 \text{ha}). In the referred period, arable land decreased by 5,767.9 \text{ha gross which represents 4.3\% of the surface of Pomurje region. It is interesting that forest areas and overgrowing areas increased by almost\)}}\)
the same amount (in total by 5,864.1 ha), which already points out to the overgrowing processes in the cultural landscape which, from the viewpoint of food safety, an outstanding place on a Slovenian scale.

Field surfaces in the area receded in the majority of Pomurje region settlements. Positive change indexes in field surfaces were noted only in some settlements which are unequally scattered throughout Pomurje, on Apaško and Zgornje and Spodnje Mursko polje, while growth in field surfaces can be noted in settlements in Srednje Slovenske gorice and Spodnje Mursko polje.

Figure 6 shows that recession of field surfaces is a process that has fairly uniformly covered the whole area mentioned. In the areas of field recession, some clear causes can be identified: the relationship between land use and changes which are a result of the new rural development paradigm. The images show the influence of receding arable land due to building of infrastructure, especially building the Pomurje motorway branch and the road network in general, and the associated infrastructure (rest areas, supply centres) and in addition to that growth of shopping centres, especially around Murska Sobota and some other settlements.

Emerging industrial and business zones in the municipalities with larger natural potential where innovation and entrepreneurship as an important development factor of the new development paradigm found their expression also have an important influence on decreasing arable land. The policy of the European spatial development perspective prioritizes revitalization of brownfields to preserve greenfields and in the context of obtaining strategic goals, to increase competitiveness and the competitive edge of the European Union. When creating local, regional and national strategies, special priority is given to understanding the importance of assuring quality of the environment, maintaining agricultural land and sustainable rural development (Lorber, 2013b). Field surfaces could recede to other forms of arable land too, so from the viewpoint of agricultural land use, data on recession of arable land are more important, as can be seen in Figure 6.
Arable surfaces in the referred area were also receding uniformly, and the influence of the penetrating infrastructure onto the arable surfaces is still clearly visible here, while at the same time, we can clearly see transition of arable land into overgrowing areas or into the forest in the areas near Mura and unfortunately also in the areas which are very important in the context of food production potential. This process is otherwise characteristic of Slovenia as the arable surfaces did recede the most in the areas with high food production potential (Žiberna, 2013). 3934.3 ha (51.7%) of lost field surfaces were situated in the areas with moderate food production potential, and 1954.1 ha (25.7%) in the areas with high food production potential. As much as 77.4% lost field surfaces were found on relatively fertile land in the area of Pomurje region! And even more unfavourable trends can be noted when it comes to receding vineyards and fruit cultivation surfaces. There are 98.9% lost vineyard surfaces and 93.3% lost fruit cultivation surfaces can be found in the areas with moderate and high
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food production potential. Unfortunately, as much as 72.8% of all newly built-up areas are found in these exact areas! From the viewpoint of food safety of a country these trends are extremely unfavourable, and above all, irrational and illogical.

Overgrowing areas in Pomurje region that in 2000 covered 63.3 ha or 0.5% of the surface grew to 3627.1 ha (2.7% of the surface) in 2012. The process of overgrowing is the most notable in Goričko, in the border area along Mura, in the south-eastern part of the Mura plain, and in fragments also in the most fertile part of the Mura plain, unfortunately also in the area of Ljutomerske gorice.

The process of growing forest surfaces can be noted in the entire area of Pomurje region; only in a smaller part of the settlements, situated mostly in the Mura plain and in Spodnje Mursko polje, the decrease of forest surfaces can be detected. The reforestation process is most clearly notable in Goričko, in the border area along Mura around Hotiza and, unevenly, on the right Mura bank. In 2000, there were 40747.8 ha forest surfaces (30.5% of the surface of the entire region), while these increased to 43619.0 ha (32.6%) in 2012. Forest surfaces thus increased by 2871.3 ha (index 107.0). The most notable increase in forest surfaces in addition to the already mentioned area along Mura can be noted mostly in Goričko and – unfortunately – also in Radgonsko-kapelske gorice. Out of the mentioned 2871.3 newly-created forest surfaces, as much as 742.5 ha (or 25.9%) (!) were still under the fields in 2000, 109.9 ha (3.8%) were orchards and 1331.1 (46.4%) were meadows, if we restrict ourselves only to some of the directions of change of soul use. Vast majority of the new forest surfaces was thus created on the former arable land which confirms the theory of visible reforestation process. With concern, we can make a conclusion that in the period 2000 - 2012 as much as 5864.1 ha (or 4.4% of the entire surface and 7.2% of all arable land in 2000) were lost to reforestation and overgrowing.

Spreading of built-up surfaces to the arable land has unfortunately been noted in Pomurje region as well. It has been mentioned that in the referred area in the period 2000 – 2012, 2030.1 ha of new built-up surfaces appeared, of which the vast majority (72.8%) occurred in the areas with moderate and high food production potential. The processes of changing arable land into built-up surfaces are transparently shown by data about the source of the newly-built up land: as much as 1092.3 ha or 53.9% (!) were fields in 2000, 418.1 ha (20.6%) were meadows, 282.8 ha (13.9%) were forests, and 103.1 ha (5.1%) were orchards, if we state only the most common sources of the newly built-up surfaces. Among these, the new motorway with the entire associated infrastructure can be recognised in Figure 9, as well as all the other new communications, shopping centres in the vicinity of larger settlements, and residential areas which are spreading throughout the region in a dispersed manner.
What we can understand from the increase of built-up areas is also the fact that the process is directed in an irrational manner and is, from the standpoint of food safety, also markedly inadequate.

Inadequate processes of land use changes in the area of Pomurje region are unfortunately not only a result of inadequate values and false attitude towards production of healthy food but are also generated by inadequate demographic situation. One of the reasons for extensification of land use in the area of Pomurje region is also the high percentage of elderly population. Ageing index (ratio of population aged 65 or more to population aged up to 14 years) is higher than 100 in the majority of the Pomurje region, and in the Goričko area and in some areas of Pomurje plain and Ščavniška valley it
is even higher than 300. The process of mitigation the unfavourable trends in land use change in the area of Pomurje region will thus not be associated only with changed evaluation of arable land but with the holistic strategic approach to directing the development in the region. Unfortunately, Pomurje region is not the only problematic area in Slovenia in this respect.

New opportunities to improve quality use of land can be expected with further development of multifunctional activity of the farms which will be founded on innovation and entrepreneurship. Structural changes in agricultural holdings caused the need for additional arable surfaces. Farmers tackled this problem in two ways, by purchasing more land or by leasing it, mostly by combination of both. Data for the past years show that the number of larger farms has been increasing. The number of middle-sized and small farms is decreasing.

DISCUSSION AND CONCLUSIONS

Ensuring good-quality, healthy food is undoubtedly one of the important indicators of quality of life and basic priorities of common agricultural policy of the EU. One of the most important reasons for the lack of food is the change of land use.

Slovenia, compared to other EU countries, has an above average proportion of forests and a below average proportion of arable areas. Large forest cover in itself can be favourable, as forests represent an important sink-hole for CO2 as a greenhouse gas; while from the energy- and economic points of view, wood represents an important renewable source of energy and raw material for both, additional activities on farms and wood industry. In Slovenia, the large proportion of forest cover is to great extent a result of reducing arable areas. According to some estimates, for a stable food-, ecosystemic- and wood balance in the Slovenian territory, an approximate 50% forest cover would suffice.

The indicator of self-sustainability in food in individual countries is comparing arable surfaces per capita. According to estimates, around 0.3 ha of arable land per capita would ensure food supply sustainability in our climate. Only one-third of the discussed countries in the EU met this condition in 2009. Compared to other discussed countries, Slovenia is at the bottom with 0.085 ha of arable surfaces per capita. The situation was worse only in the Netherlands and in Belgium, while the EU average amounts to 0.2178 ha of arable surfaces per capita. The unfavourable situation in Slovenia in respect of food supply sustainability is to a large extent a result of changed land use, with simultaneous processes of extensification (transition of intensive arable surfaces into meadows, overgrowing areas or forest) or the process of building-up arable surfaces. During the period of 2000 to 2012, building-up was the reason for the loss of over 5000 ha of fields, over 9000 ha of meadows, and a good 2000 ha of vineyards and orchards. In other words, 15% of today’s built-up surfaces were arable surfaces in 2000.

The new rural development paradigm is of key importance to land use and rural development changes. Majority of authors tend to tackle the development of agriculture and rural areas in a similar way. If the aim of the Common Agricultural Policy of the EU and rural development policy as a whole is to practise integrated development of rural areas, the focus of the policy should be on the varying potentials of each rural region (Voutilainen and Wuori, 2012). Slovenian local communities use local action groups (LAG) to get involved in implementation of the common EU agricultural policy. In the research, we note that despite three operating LAGs in Pomurje region there are not enough innovation and entrepreneurial initiatives for faster rural and agricultural development. Partly, blame for this situation can be put on the financial crisis. The efficiency of initiatives depends on the human capital of the individual environments. Despite well-defined theoretic approaches it can be noted that local environments are lacking knowledge and personnel of different profiles in order to be able to approach creating successful development programmes in an integral manner. The bottom-top approach has not come into life to the full extent everywhere as both, local and broader policies, still influence decision-making too much. The reasons for this can be sought in historic heritage of the previous system which did not take natural development of agriculture into consideration and was based on a large number of small private farms which were facing development restrictions. Their development
was additionally hindered by the favoured larger socially-owned specialised agricultural co-operatives which operated according to planned economy principle, without considering market rules and without proving their efficiency in competitive markets. This way, innovation and entrepreneurship were suppressed in the early stage. Industrialisation and rapid urban development were the reasons for depopulation of the space and the outflow of young people to urban areas. In some environments, the creation of new municipalities increased the process of spreading built-up surfaces into arable surfaces, as this facilitated emergence of new interests for spreading residential and industrial zones and commercial and storage areas mainly to the surfaces with high food production potential. All this resulted in lack of human capital, which is reflected as a problem to implementation of the new rural development paradigm in the practice of new approaches to rural development in transitional countries.

For these reasons, holistic approach was difficult to implement already in the initial stage of creating initiatives, evaluating opportunities to use local natural resources, shaping the structure of the project and of course the care for coordination of all interested parties for successful project implementation. Introduction of the new rural development paradigm made the agriculture as an economic sector more complex and heterogeneous. New relationships are being established between agriculture and rural development at local, regional and national levels.

Trends in economic development in the past decades show the influence of globalisation on changes in rural and agricultural development. Most rural regions in developed countries have already moved beyond their traditional role of providing raw materials. Changes in the structure of income of the farms occurred. With the new development paradigm, space for new approaches to creating income opened. Farmers were looking for their opportunities in introduction of new products and supplementary activities on farms. In the EU – 27 as a whole around 5.2% of farms had at least one other source of income. The largest share belongs to Denmark (52%), and more than one-third to Sweden and Austria. Among the new member countries with other gainful activities were recorded in Slovenia (16.8%), the Czech Republic (15%) and Estonia (13.5%). The significance of multifunctional activity of the farms is in their income efficiency, as on average they reach 8.9% of agricultural standard output in the EU – 27 in 2010 (Eurostat, 2013).

The new rural development paradigm has influenced the changes in spatial development of rural areas through CAP and LAG. In Prekmurje, the emphasis is on building infrastructure, mostly water supply for households, building wastewater treatment plants and modern traffic infrastructure. The share of multifunctionally focused agricultural holdings is on the increase. The emphasis is put on the quality of the products modernising the production and introduction of new products, technologies – wine production, innovation reconstruction of orchards, new semi-manufactured goods, renewable energy sources (thermal energy for greenhouse heating) and services. The basis for intersectoral cooperation is provided by industrial and business zones at municipality level, development of spa tourism and establishing food supply chains and development of logistic activity. Returning to rural values and reviving old trademarks and traditional products and production from the rich cultural heritage is still characteristic of the new EU members.

The future in sustainable development of rural areas lies in development of autonomous development perspectives and discovering domestic potential as well as in integrating with other regions. In the open-market system, rural areas with unfavourable production structures are faced with international competition. They can improve their competitiveness by producing high quality agricultural crops and products, using adequate marketing strategies and by rediscovering the multifunctionality of agriculture – ecologic- and organic food production. Sustainable rural development is enabled by returning to old, environment-friendly production- and processing technologies. Obtaining these

4 http://www.lust.si/
5 http://www.oceanorchids.si/si/index.php
goals requires support to regional education centres. Further education and promotion of entrepreneurial mind-set will help increase the proportion of pluriactivity and diversification of family farms. Further reduction in number of farms and increase in average farm size will, along with higher productivity, form a basis for subsequent rural development (Lorber, 2009).

We can ascertain that implementation of the new rural development paradigm will have a positive effect on the image of rural areas. This will maintain the settlement and improve positive demographic indicators. Development of a life-friendly environment, adequate infrastructure, accessible healthcare services, education, recreation and new jobs will be, along with the appropriate land use, advantageous for development and revitalisation of the rural areas and food self-supply.

REFERENCES


Lorber L. 1997: Značenje integracije znanosti in tehnologije (tehnološki parkovi) u prestruktuiranju gospodarstva (na primjeru Slovenije), Acta Geographica Croatica, PMF, Zagreb.


Ray, C. 2000: Endogenous socio-economic development and trustful relationships: partnerships, social capital and individual agency The Dialectic of Local Development: The Case of the EU LEADER I Rural Development Programme CRE Working Paper (45), University of Newcastle


Terluin, I. 2003: Differences in economic development in rural regions of advanced countries: an overview and critical analysis of theories, Journal of Rural Studies 19, 327-344

Voutilainen, O., Wuori, O. 2012: Rural development within the Context of Agricultural and Socio-economic Trends – The case of Finland, European Countryside, No.4

Vrabič Kek, B. 2012: Kakovost Življenja. SURS. Ljubljana.

Žiberna, I. 2013: Spreminjanje rabe tal v Sloveniji v obdobju 2000-2012 in prehranska varnost, Revija za geografijo, 15, 8-1, Filozofska fakulteta, Maribor.
N. Lorber, I. Žiberna - The Influence of the New Rural Development


Poročilo o stanju kmetijstva, živilstva, gozdarstva in ribištva v letu 2011, Ministrstvo za kmetijstvo in okolje, Ljubljana 2012.

Pravilnik o evidenci dejanske rabe kmetijskih in gozdnih zemljišč. UL RS 122/2008.
Pravilnik o razvrstitvi kmetijskih gospodarstev v območja z omejenimi možnostmi za kmetijsko dejavnost. UL RS 25/2010.


Medmrežje 3: http://www.stat.si/

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