



---

# MULTIFUNCTIONAL CONCEPT OF AGRICULTURE: JUST AN IDEA OR THE REAL CASE SCENARIO?

Darja MAJKOVIČ, Andreja BOREC,  
Črtomir ROZMAN, Jernej TURK, Karmen PAŽEK  
Faculty of Agriculture, Maribor

UDK: 631(497.4)  
Izvorni znanstveni rad  
Primljeno: 1. 6. 2004.

Multifunctionality as a feature of agriculture is subject to different interpretations, depending on the state and context. However, there is no comprehensive definition of this concept. Multifunctionality originates in the supposition that agriculture, apart from the production of food also has other broader social functions and aspects, such as maintaining production potentials, encouraging rural development (keeping the population in the country, cultivating the landscape), and protecting the environment. In the first chapter the authors present a view of the multifunctional nature of European agriculture, followed by a presentation of Slovene agriculture and its most important characteristics in different contexts – economic and social. If definitions of multifunctional agriculture published so far are taken into account, it may be stated that this process is well under way in Slovenia. A special part of this paper has been devoted to the empirical evaluation of this phenomenon, where the authors indicate an incomplete approach to testing and the difficulty in objective quantification of such a complex phenomenon. Above all, it is necessary to establish clear criteria for the follow-up of multifunctional agriculture and its influences on general social interests.

✉ Darja Majkovič, University of Maribor, Faculty of Agriculture,  
Vrbanska 30, 2000 Maribor, Slovenia.  
E-mail: darja.majkovic@uni-mb.si

## **INTRODUCTION**

---

579

The background to the debate of multifunctionality is a process of agricultural policy reform started in the mid 1980s. The introduction of the concept of multifunctionality by Agricultural Ministers at their meeting in 1998 added a further per-

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

spective to the discussion. Paragraph 13 of the OECD Ministerial Communiqué stipulates that "...agro-policies should... (allow) agriculture to manifest its multifunctional character..." and in paragraph 15 it is said that adopted policy principles should "... preserve and strengthen the multifunctional character of agriculture..." (OECD, 1998). Discussions about this issue were also held at the World Trade Organization (WTO) and enabled the EU and other members to present their view of the concept, as the way for next debates at the trade negotiations on agriculture.

The aim of this paper is the clarification of some important questions regarding multifunctionality in the experts' debates, which are connected to the nature of agriculture, and to provide better understanding of such a complex issue. To achieve these goals, firstly, the term of multifunctionality is examined from sociological and economical points of view, while demonstrating the necessity for establishing a holistic, empirically supported methodological framework. The short survey of the perception of multifunctional agriculture in Europe is afterwards followed by the case of Slovenia.

## **MULTIFUNCTIONALITY – THE SEARCH FOR A UNIFIED DEFINITION**

Agricultural activity, beyond its primary function, can also shape the landscape, provide environmental benefits such as land conservation, the sustainable management of renewable natural resources and the preservation of biodiversity, and contribute to the socio-economic viability of many rural areas (OECD, 1998).

Many people argue about the place of agriculture in the country economy, especially due to very high proportions of support in the budget of the country / integration of countries. In the European Unions' (EU) budget there is around 45% of the money foreseen for the 1st (Agricultural Expenditures excluding Rural Development) and 2nd pillar (Rural Development) of the Common Agricultural Policy (CAP) (European Commission, 2004). Looking from the primary function's point of view, agricultural activities result in the production of food and fiber. In this narrow economic sense, agriculture is not a sector that enjoys significant comparative advantages (competitiveness) or builds up the economic performance of the country, at least in the case of Slovenia (see Table 1) and also many other countries.

The term multifunctionality is not strictly defined and has many different interpretations, depending on the country and on the context in which it has arisen. Generally it is concluded that the multifunctionality of agriculture can be defined as the joint production of commodities and non-com-

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

modities by the agricultural sector. So, multifunctionality refers to the fact that an economic activity may have multiple outputs and, by virtue of this, may contribute to several societal objectives at once (among others see Durand and Van Huylenbroeck 2003; OECD 2001) Working definitions of the key elements of agricultural multifunctionality are: i) the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture; and ii) the fact that some of the non-commodity outputs exhibit the characteristics of externalities or public goods, with the result that markets for these goods do not exist or function poorly. Many economic activities result in multiple outputs (intended output and other, often unintended outputs or effects). But the specific characteristics of agriculture as an industry (geographical dispersion of farm enterprises, high levels of support and protection in the sector, agriculture together with forestry as a major land-using activity in the OECD countries) are one of the reasons why the discussion of joint production in agriculture has entered policy debates to such an extent. Of course, the concept of multifunctional agriculture has followers and opponents. In general, EU, Japan, Korea, Norway and Switzerland recognize the fact that agriculture has several roles in addition to the production of agricultural goods and food. Unsurprisingly, the major exporters of agricultural commodities (United States, Cairns<sup>1</sup> group) say the concept is just a pretext for maintaining protectionist agricultural policies.

How multifunctionality is related to sustainability (for detailed reading on sustainability see Pravdić, 2003) is also a recurrent question that frequently appears. Sustainability is a resource-oriented, long-term and global concept. It refers to the use of resources, human, natural and man-made, in ways that allow current generations to satisfy their needs without jeopardizing the capacity of future generations to meet theirs. On the other hand, multifunctionality can be marked as an activity-oriented concept that refers to specific properties of the production process and its multiple outputs (OECD, 2001). The perception of the concept of multifunctional agriculture can be seen in Picture 1.

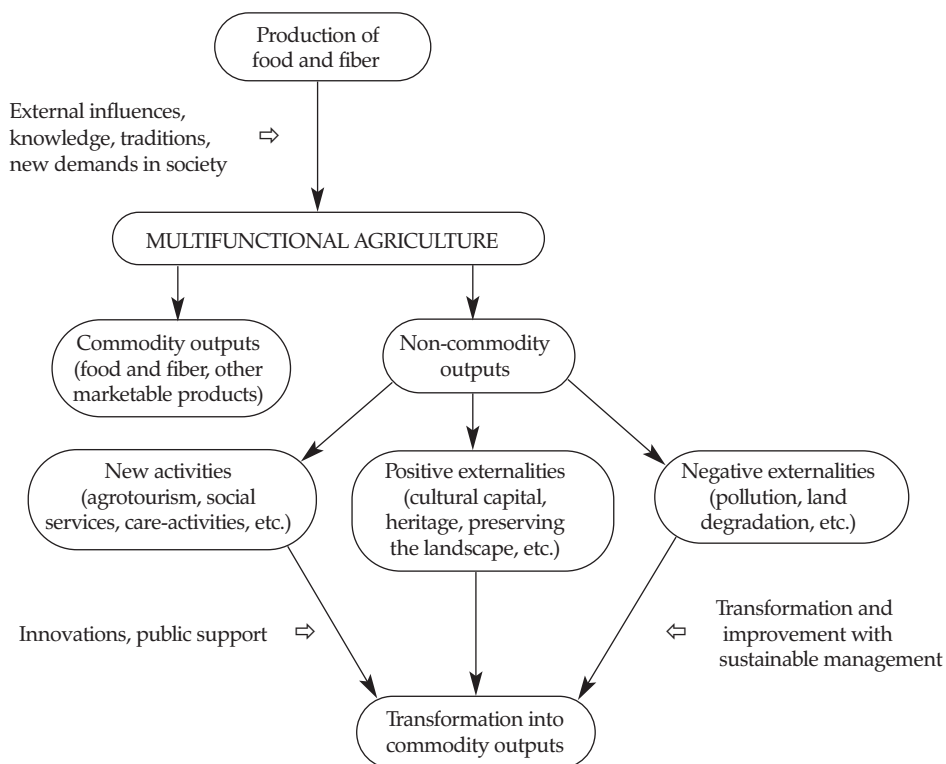
If we start with agriculture's primary function (production), hence it follows that with the influences from the environment and society demands, the role of agriculture is much wider. The task of multifunctional agriculture is not just productivity and competitiveness, but also outputs that are characterized as public goods (producing and safeguarding of the rural landscape, the protection of the environment, contribution to the viability of rural areas, satisfying consumer concerns such as food quality and safety, etc.). These various agri-

DRUŠ. ISTRAŽ. ZAGREB  
 GOD. 14 (2005),  
 BR. 3 (77),  
 STR. 579-596

MAJKOVIČ, D. ET AL.:  
 MULTIFUNCTIONAL...

cultural and non-agricultural functions are valued by the society in their own right. The results appear as jointly produced multiple outputs and multiple effects<sup>2</sup> by agriculture, in the form of commodity and non-commodity outputs. We have divided non-commodity outputs into three major groups, as can be seen in Picture 1. If we talk about multifunctional agriculture as an activity-oriented concept, we must mention numerous "new" activities that emerge in the modern society and are more or less connected to agriculture, like agrotourism, care activities, etc. The result that ensues from performing agricultural activities and associated functions is expressed also by externalities, divided into positive and negative ones (for instance, agro-tourism, as an activity, results in positive – maintaining the cultural heritage, job opportunities, etc. – and negative externalities – increased environmental pollution). The effects of the latter can be mitigated in the long run – with sustainable management of the resources we may enhance their efficient use and preserve them for the generations to come. The main interest of the farmers is to transform non-commodity outputs that come out of multifunctional agriculture into marketable commodities. This can be done by introducing their innovative thinking, prudent marketing approach and surely with public support.

PICTURE 1  
 Agriculture with its  
 multiple functions



## **RECOGNITION OF THE CONCEPT OF MULTIFUNCTIONAL AGRICULTURE IN EU**

---

New countrysides are emerging throughout Europe, characterized by new multifunctional enterprises, strong regional economies, new professional identities and networks that interlink the rural and urban. Multifunctionality is a central feature of these changes, allowing farm enterprises to engage in new activities, such as agro-tourism, the production, transformation and commercialization of quality products, the management of landscapes and nature, the production of energy crops, part-time farming and new co-operative arrangements. In Europe, more than 50% of all professional farmers are actively engaged in one or another of these new rural development practices (Prodi, 2002).

Obviously, the specific nature of agriculture, and also the awareness of multifunctionality, are recognized not just by the individuals' strong public support, but also by the policy makers in the European Union (EU), who are aware of the agricultural characteristics in the EU, as written in the Agenda 2000: "The fundamental difference between the European model and that of our main competitors lies in the multifunctional nature of agriculture in Europe and in the role it plays in the economy and environment, in society, and in the conservation of the countryside; hence the need for maintaining agriculture all over Europe and protecting farmers' income." Agriculture is multifunctional because it is not limited to the sole function of producing food and fiber but it also has a number of other functions. At the same time it is the sector taken as a whole which is multifunctional (European Commission, 1999). It is obvious that there has to be realignment of agriculture to meet the rapidly changing needs of the European society (European Commission, 1996; Depoele, 1996). The era when cities merely expected the surrounding countryside to supply them with cheap food is over. Today, there are new needs and expectations. In this respect, elements such as quality production, new short chains linking producers and consumers, organic farming, integration of care activities into farms, involvement in new forms of energy production, agro-tourism, etc. are to be seen as crucial building blocks (Marsden et al., 1993; Ploeg van der et al., 2002).

Regional typical food production can be a promising quality production option for marginal rural areas. They are marketed in the context of the area of origin and retained with local culture and landscape. Value is added to these products primarily during the processing and marketing; the main obstacles with introduction of such products are often organizational, mainly marketing efforts and pooling the farmers/producers into networks for joint performance. It is im-

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

portant that products do not come from just one entrepreneur, but from several farmers, because this makes the product more authentic and credible, which raises consumers' willingness to buy such products and pay for higher value added. The production of typical products goes far beyond the simple commodity production. Since it involves mutual connection of farmers, processing, packing and marketing, the benefits of regional typical food production expand from the farming community into the wider community. The case of Italy and its quality production is a story of success: according to ISMEA (2000) they have recognized 113 PGI (Protected Geographical Indication) and PDO (Protected Designation of Origin) products and around 500,000 people are directly or indirectly employed in high quality food chains. The total value of the already recognized products is at farm level some 3,5 billion euros, whilst after transformation – that is at the level of food market – this equals around 8 billion euros.

Organic farming is also recognized as the answer to the new society demands (Ploeg van der et al., 2002). Mansvelt et al. (1998) conducted a study with empirical data on organic farming in the Dutch clay area. The authors indicate that together with their compliance to the theory of organic farming and the attitude of its practitioners, there seems to be a good reason to suppose that organic farming has a considerable potential to merge the new, multifunctional objectives of agriculture.

### **PROPOSED ANALYTICAL FRAMEWORKS TOWARDS ASSESSING MULTIFUNCTIONAL AGRICULTURE, ITS OUTPUTS AND EFFECTS**

The methodological approaches for assessing multifunctional agriculture are subject of many debates in the field of agricultural economics, sociology and elsewhere. The trend shown in recent years is to develop the concept of multifunctionality as a rural development policy instrument that is sensitive to economic, social, cultural, environmental and geographical context. To develop such an instrument, multifunctional agriculture has to be evaluated in an empirical way.

Several approaches were proposed by different authors. Yrjölä and Kola (2001) introduced the cost-benefit analysis (CBA) as a method that can be used to evaluate the effects of non-commodity outputs, produced by agriculture on the total welfare of society. CBA measures the economic changes due to changes in the use of resources. Agriculture is thus feasible if its benefits, estimated with a CBA are higher than estimated costs. The proposed methodology can in our opinion provide solely partial information on all benefits and costs that emerge through agricultural production at farm, regional or state levels. For empirical evaluation, all multifunctional

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

effects of agriculture should be expressed in unified (e.g. monetary) terms. However, in a "real world" situation the analysis is rarely conducted on the basis of only this criterion. As reported by Tiwari et al. (1999) reality is complex, and the use of CBA alone may not be sufficient when the analysis involves consideration of variables which cannot be easily quantified into monetary units and the process is likely to be influenced by multiple competing criteria. CBA is also sometimes criticized for the limitation that it does not generally take into account the interactions between different impacts. The main difficulty when applying CBA method is that the evaluation of a project must relate to an unambiguous monetary uni-dimensional criterion, since a comprehensive cost-benefit approach requires all project option effects to be transformed into a single monetary dimension (Rogers and Bruen, 1998a, 1998b). This is the point where the Multi-Criteria Analysis (MCA) appears as an alternative methodological tool. The multi-criteria methods unlike monetary ones attempt to take into consideration the multiple dimensions of an observed problem in a balanced matter. Project effects are treated in their own dimensions. In this light, Hall et al. (2004) extensively discuss the potential of MCA in combination with economic analysis and review the evidence of consumer demand for non-market goods. Despite the fact that MCA enables inclusion of non-monetary criteria into the analysis, its major shortcoming is determination of weights (i.e. decision makers' or individual actors' preferences) given to individual criteria. It is very likely that different actors might have totally different perceptions of importance of multifunctional agricultural outputs. Different MCA methods use different weighting approaches (Belton and Stewart, 2000). The results should therefore be a subject of an extensive sensitivity analysis. In many cases the choice for appropriate methodology is discussed in the light of proposed agricultural policy measures aimed to preserve agriculture in endangered areas. The usage of suitable methodology can represent the basis for the levels of payments, provided to the farmer in order to preserve landscape and other values in these, less favored areas. The examples of such a measure are agri – environmental programs in many European countries. The common financial farm management tools for their evaluation are used in most cases. Rozman et al. (2002a, 2002b) assess the direct payment measures for Slovene Agri – Environmental Programme (SKOP) on the basis of a partial budget calculation.

The debate on methodological assessment of multifunctionality remains opened. We believe that the potential of MCA methodology and CBA should be further exploited. Likewise, the potential of general equilibrium models (Cretegny, 2001)



in relation with corresponding methodologies (e.g. programming models) represents additional opportunity for the evaluation of multifunctional agriculture.

## **HOW IS IT WORKING IN SLOVENIA?**

The society must be aware that agriculture makes important contributions to the social, environmental and territorial viability of rural areas for which the consumer or user of the public goods is not paying. It is obvious that agriculture and environment are closely linked. Thus, agriculture contributes to the preservation, maintenance and development of landscapes. In Slovenia, agro-tourism activity as one of the indicators of the growing importance of the viability of rural areas has been significantly increasing in the last decade. Tourists come mainly from Slovenia (60%), Germany (13%), Italy (12%) and Croatia (8%) (Borec et al., 2004). We must not forget to mention the biodiversity, preserving biotopes, maintaining the soil condition and the quality of water. Around 46% of all Slovene households are situated in non-urban settlements (SURS, 2003) and 23.7% of the total surface in the year 2000 represents an agriculturally utilized area (European Commission, 2002). An additional percentage of land consists of other areas maintained by farmers in the countryside (wooded areas, natural areas, infrastructure, etc.). These farmers and other people working in rural areas, manage a big proportion of Slovene territory. According to Kovačič et al. (2000), rural areas occupy 93% of Slovene territory and 60% of the population live in such areas. The prospects of viable agricultural development in Slovene relations, based on economic reasoning exclusively, become rather bleak (Ivančič et al., 2003). This is why the multifunctional approach to agriculture must be acknowledged and efforts must be made not just to sell commodities, but also to transform and sell non-commodity outputs in the form of products' higher value added.

Agricultural activity has a big impact on the environment where rural and urban inhabitants live and contributes to their welfare. Of course, we can not deny that the impact is both positive and negative; but fortunately, the environmentally-friendly farming practice is becoming reality in farmers' everyday life, and also the subject of institutional support. In Slovenia, the importance and many-sided function of agriculture has been recognized in the last decade. If we use the Durand and Van Huylenbroeck (2003) definition of different commodity and non-commodity outputs of a multifunctional agriculture, some attempts were made to present them in Slovene circumstances:



- Food and fiber, transformation of products and production of other marketable products (for an exact review of the performance of Slovene agricultural sector in this paragraph, the reader might find some other references, since the inclusion of a detailed analysis of these marketable/commodity outputs would exceed the extent of this paper).
- Rural tourism (Borec et al., 2004; Kovačič, 2003)
- Taking care of the elderly or disabled (Vadnal, 2003)
- Food security/safety (Sever, 2000)
- Rural way of living/traditions (Barbič, 1998)
- Soil conservation (Stritar, 1991)
- Rural landscape (Klemenčič, 2002)
- Biological diversity (Ivančič et al., 2003)
- Health and other non-commodity products (Lock et al., 2003)

Initiatives were launched by policy makers that were afterwards performed on the institutional level. On the national level many institutional tools for the maintenance and improvement of a multifunctional concept of agriculture were introduced: programs like Slovene Agri – Environmental Programme (SKOP), Special Action for Pre – Accession Measures for Agriculture and Rural Development (SAPARD), Projects of Integrated Rural Development and Village Renewal (CRPOV), etc.

The aim of these initiatives is to keep the rural areas alive and integrate them into the states' economy and livelihood of all the inhabitants. We see multifunctionality as a way of life. It provides more quality livelihood for both rural and urban inhabitants and also better conditions for farmers' economic performance, like higher added value of market products with selling non-market commodities; e.g. selling healthier organic products. The number of organic farms as a form of sustainable farming is increasing significantly in Slovenia (Pažek, 2003). Some researches were conducted regarding organic farms and their performance. Adamič (2000) found out the consumers are familiar with organic farming and they are willing to pay an approximately 30% higher price (depending on the kind of product) for organic than conventional products. More than 50% of the consumers, when buying food, require the information about the area of origin and the methods of production. Around 16% of producers have decided on organic farming for marketing reasons, and even 50% of producers see organic farming as a way of life (Oset, 2000). The results of these studies indicate that organic farming is gaining importance in Slovenia, not just on the producers' side (supply), but also on the demand side. Society values this way of sustainable farming from the aspect of health as well as a way of preserving the environment.

## The economic performance of the Slovene agricultural sector

One of the indicators that illustrate the economic importance of the individual sector in the country's economy is the sector's share in gross value added (GVA) and Gross Domestic Product (GDP). These shares are constantly decreasing because of the growing importance of other economic activities and this process can be seen as a general trend in most of the developed countries. As it can be seen in Table 1, the economic significance of the Slovene agricultural sector is relatively small. The share of agriculture in GDP has declined from 5,9% during the economic transition to 3,1% in the year 2002. In the terms of trade, agriculture certainly does not perform competitively compared to other sectors in Slovene economy and the share of agriculture in total trade is relatively small – in the year 2001, the share of agriculture in total export reached merely 3,7% and 6,6% of the total import. UMAR (2004) predicts the GVA in agricultural sector will be increasing and as such will have a positive effect on Slovenian economic growth, together with the manufacturing sector. Their prediction for 2004 is based on the direct payments for agricultural production, while the optimistic scenario for the forthcoming years is based on the reform of CAP, where other, non-production goals of agriculture will be recognized in the wider context.

TABLE 1  
The role of agriculture  
and forestry in  
Slovenia

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Share in GVA (%)	5,9	5,2	4,6	4,6	4,5	4,3	4,2	3,7	3,2 <sup>b)</sup>	3,0	3,2
Share in GDP (%)	5,2	4,5	4,0	3,9	3,9	3,7	3,6	3,2	2,9	2,7	na <sup>d)</sup>
Share in employment <sup>a)</sup> (%)	7,8	7,5	6,9	6,9	6,3	6,1	6,2	5,9	5,6	5,2	9,6
Trade balance (mio USD)	-141	-286	-335	-465	-439	-411	-387	-349	-318	-312	-234 <sup>c)</sup>

a) Data based on the National accounts, except for 2002, when it is based on Labor Force Survey.

b) Data for 2000, 2001 and 2002 includes agriculture, forestry and fishery.

c) Data for 2002 in mio EUR.

d) Data for 2002 not available due to the revision of the National accounts data by SURS.

Source: Kovač, 2002; SURS, 2003; UMAR, 2004.

Rural employment cannot be strictly said to be a non-commodity output of multifunctional agriculture, but rather the input into commodity production. But it may have an impact on society which might be considered as externalities – it is slowing the migration from rural to urban areas. The proportion of employment in the agricultural sector is decreasing. In 1998 the share was 12% (46% of women) and in 2003 it decreased to 9,6%, with the proportion of women which still remained the same (SURS, 2003). The highest share of people, employed in primary agricultural activity is typical of

depopulation areas. Also, the highest share of unemployment (13,9%) can be seen in these areas, little less in suburban areas (13,5%) and the smallest rate of unemployment (12,5%) can be observed in typical rural areas (Perpar and Kovačič, 2002).

### Pluri-activity and multifunctionality

Multifunctionality is not completely equal, although linked to pluri-activity,<sup>3</sup> which can be defined as a combination of agriculture and other economic activity by farm households. One of the ways in which a farm household may become pluri-active is part-time farming. This linkage is an important issue due to the fact that in Slovenia the majority of the farms (74%) are characterized as part-time and supplementary farms<sup>4</sup> (SURS, 2003), so they are acting pluri-actively. More detailed results can be seen in Table 2.

➔ TABLE 2  
Socioeconomic type  
of family farms in  
Slovenia

Year	Full-time farms	Part-time farms	Supplementary farms	Aged farms	Total
1991	21,3	49,8	19,2	9,7	100
1997	15,3	30,4	43,6	10,7	100

Source: *Statistical Yearbook of the Republic of Slovenia* (SURS), 2003.

Maintaining the viability of small and medium size farms and their businesses is becoming a major policy goal in many European regions. The proportion of part-time farms has significantly increased across Europe (Abercrombie, 1983; Gasson 1988). Fuller and Brun (1991) suggest that part-time family farms have higher standards of living than full-time farms. The importance of part-time farming is an important issue of maintaining population in rural areas and preserving the rural environment and landscape (Gasson, 1988). The last data available in Slovene circumstances goes back to year 1997. The future projection (for the year 2010) of socio-economic structure of the farms shows, that there will be no more than 5% of full-time farms and more than 50% of farms with heterogeneous source of income (Kovačič and Udovč, 2002). The structure of agricultural holdings by source of income shows that only 12% of holdings gain their income only from agriculture and around 37% from mixed sources (SURS, 2003). So pluri-active performance of Slovene farms is something usual – Slovenian farmers ensure better living conditions for themselves also by assuring alternative sources of income, not necessarily linked with agriculture in a direct way.

### Multifunctional agriculture and its effects for the residents

Multifunctional agriculture as an undoubtedly on-going process in the society touches the livelihood conditions of rural and also urban inhabitants. As one of the outputs of multi-

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

functional agriculture, they both expect a wide range of reachable livelihood assets to achieve positive livelihood outcomes:<sup>5</sup>

- Human capital (viable rural communities, that prevent migration from rural to urban areas)

- Institutional/political capital (initiatives and cooperation on the institutional and political level, the recognition of innovations on all levels and their incorporation into decision-making processes)

- Economic capital (farm income, higher added value for farm products, local employment)

- Social capital (vibrant communities, social services)

- Cultural capital (maintenance of the "traditional" agricultural character of the land, cultural and natural heritage, farm-based educational activities)

- Natural/environmental capital (biodiversity, watershed protection, flood control, landscape maintenance, soil conservation, water quality, biodiversity, habitats).

It is evident that the livelihoods are shaped by a multitude of different forces and factors which are constantly shifting. Also the multidimensional nature of peoples' assets and the relationships between them comes into force (e.g. the rural initiative in the area which has mainly the objective of enhancing local natural capital may also develop local social capital – interdependency among assets exists also in the sense that they mutually reinforce each other). Structure and processes that transform assets into livelihood outcomes are the institutions, organizations, policies and legislations that shape livelihoods, which determine access to various types of capital. But in our opinion, one of the key factors are the farmers – whose role is often neglected – in the way of their innovative thinking. Farmers try to upgrade their farms in the direction they want by introducing one or more novelties or, in a broader sense, by introducing innovations (Swagemakers, 2003). We can go further and state that these novelties, or the innovations, can be introduced by all the actors, at different levels. And in the end they promote the economical recognition of the new agricultural functions (transformation from non-commodities into commodities). In this way, they respond to society demand, linked to agriculture (agricultural and rural employment, rural and regional development, agricultural landscape, cultural heritage values, sustainable farming management, animal welfare, environmental protection, food safety, etc.) with its characteristics (spatial preferences, consumer preferences).

## **CONCLUSIONS**

There are more than one feasible interpretation of the concept of multifunctional agriculture. One is to explain multifunctionality as a characteristic of economic activity as it re-

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

sults in multiple (positive and negative) outputs. Multifunctionality is from this point of view distinctive for almost all economic activities. The second way of interpreting the term is to recognize the multiple roles and also society functions of agriculture. At the first glance, the landscape is no doubt the most visible non-commodity output (public good) of multifunctional agriculture. With its diversity and richness of various agricultural systems it represents an undeniable social, cultural, ecological and economic heritage for the society as a whole. Another fact raises the importance of this output – the land itself is a typical agricultural immobile resource and this means it is staying where it is, as a part of our everyday environment, so sustainable management of this good is more than necessary.

There is a growing awareness of the positive and negative non-commodity outputs of agriculture among rural and urban citizens, and governments are increasingly looking for ways to ensure that the non-commodity outputs of agriculture correspond in quantity, composition and quality to those demanded by society (OECD, 2001).

In Slovenia, the process of diversification (not just diversification in the strictly production sense, but also wider – introduction of new on-farm activities) is in progress. For many people, pluri-activity is preferred for living in the countryside, having a farm and simultaneously having an urban job and consequently income security. This way, many traditional agrarian regions can develop new and successful businesses on the farms by blending their existing environmental and community assets and marketing these toward the expanding markets of society needs. If we try to ask ourselves about the existence of multifunctionality in Slovene circumstances, we may find the answer by using the following definition made by Durand and Van Huylenbroeck (2003), who allege that: "Multifunctionality at farm level is reached when a certain type of activity delivers different outputs also at regional level through the combination of multifunctional farms or activities." Regarding everything that has been presented in our paper, we can strongly affirm that multifunctional agriculture is the way of life for Slovene farmers and also other rural and urban residents.

Multifunctionality is not a new phenomenon. Agricultural activities have always resulted in many outputs and provided different functions – it is the perception of people, whose expectations and priorities have changed. Many researchers argue about the multifunctional concept – not much whether it exists or not, but recently more about the empirical methods, which the effects of the concept would be measured with and evaluated. But this is already a new, probably even wider chapter in the multifunctional agriculture debate.

## NOTES

---

<sup>1</sup> The Cairns Group is a coalition of 17 agricultural exporting countries which account for one-third of the world's agricultural exports (Argentina, Australia, Bolivia, Brazil, Canada, etc.).

<sup>2</sup> As proposed by OECD terminology (2001), the term multiple outputs has a slightly positive connotation (e.g. an attractive landscape), while the term multiple effects is used to denote more negative impacts (e.g. water pollution).

<sup>3</sup> Through pluri-activity (Bryden et al., 1992; Fuller and Brun, 1991) the farm enterprise is partly built on off-farm income. This implies the maintainance of a farm which would otherwise probably disappear.

<sup>4</sup> Full-time farms: all AHMs (active household members aged 15-64) work on the farm and are not employed outside the farm. Part-time farms: members are active on the family farm or outside it. Supplementary farms: none of the AFMs work only on the farm. Only household members employed elsewhere, retired persons and dependants work on the farm. Aged farms: all household members are older than 64.

<sup>5</sup> Livelihood outcomes are the achievements or outputs of livelihood strategies. Livelihood strategies is the overarching term used to denote the range and combination of activities and choices that people make and undertake in order to achieve their livelihood goals (anonymous, 2004).

## REFERENCES

---

Abercrombie, K. (1985), *Part-time Farming in the Rural Development of Industrialized Countries*. Report of a Seminar held in Scotland, October 1983.

Adamič, N. (2000), *Analysis of the possibilities of marketing organic products in the North – Eastern part of Slovenia (Celje region)*. Graduation thesis. University of Maribor, Faculty of Agriculture, 49 pp.

Anonymous (2004), *Working material for the Socrates intensive course programme on Multifunctional agriculture*, Pisa (24th of March – 2nd of April). Gent: Universiteit Gent.

Barbič, A. (1998), Cultural identity of the Slovenian countryside: Territorial integrity and cultural diversity from the perspective of rural communities: *Agriculture and human values*, Vol. 15: 253-265.

Belton, V. & Stewart, T. J. (2002), *Multiple Criteria Decision Analysis. An Integrated Approach*. Kluwer Academic Publishers, USA, 372 pp.

Borec, A., Pažek, K. and Majkovič, D. (2004), *Agro-tourism as a supplementary activity on Slovene farms* [Presentation on Socrates intensive course programme on Multifunctional agriculture, Pisa, 24th March – 2nd April, 2004]. Gent: Universiteit Gent.

Bryden, J. M., Bell, C., Gilliat, I., Hawkins, E., MacKinnon, N. (1992), *Farm household adjustment in Western Europe 1987-1991*. Final report on the research programme on farm structures and pluriactivity. Volume 1 and 2, ATR/92/14, European Commission, Brussels.



DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

Cretegnny, L. (2001), *The reform of the Swiss agricultural policy: An approach through the multifunctionality of agriculture in general equilibrium framework*. Ph. D. Thesis. University of Laussane, Laussane, 183 pp.

Depoele, van L. (1996), European rural development policy. In: Heijman, W., Hetsen, H., Frouws, J. (Eds.), *Rural reconstruction in a market economy* (Wageningen LUW) Mansholt Studies 5.

Durand, G., Van Huylenbroeck, G. (2003), Multifunctionality and rural development: a general framework. In: Van Huylenbroeck, G., Durand, G. (Eds.), *Multifunctional Agriculture. A new paradigm for European Agriculture and Rural Development*. Ashgate Publishing Company: 1-16.

European Commission (1996), *The Cork Declaration: A living countryside*. Report of the European Conference on Rural Development, Cork.

European Commission (2000), *Agenda 2000*.

European Commission, Directorate General for Agriculture (2002), *Agricultural Situation in the Candidate Countries: Country Report on Slovenia*. <http://europa.eu.int/comm/agriculture/external/enlarge/publi/countryrep/slovenia.pdf> (18. 10. 2003).

European Commission (2004), *General Budget of the European Union for the Financial Year 2004. The Figures*. Brussels, Luxembourg, January 2004. <http://europa.eu.int/comm/budget/pdf/budget/syntchif2004/en.pdf> (28. 04. 2004).

Fuller, A., Brun, A. (1991), *Farm Family Pluriactivity in Western Europe. Partial Results of a Research Programme Founded by the EC Commission and National Agencies*. The Arkleton Trust (Research) Limited. United Kingdom.

Gasson, R. (1988), *The Economics of Part-time Farming*. Harlow: Longman Scientific and Technical.

Hall, C., McVittie, A., Moran, D. (2004), What does the public want from agriculture and the countryside? A review of evidence and methods. *Journal of Rural Studies*, 20: 211-225.

ISMEA (2000), *Made in Italy. I prodotti agricoli di qualita: un inventario dei mercati, dell' valore aggiunto e dei livelli di occupazione*, Rome.

Ivančič, A., Turk, J., Rozman, Č., Šiško, M. (2003), Agriculture in the Slovenian transitional economy: The preservation of genetic diversity of plants and ethical consequences. *Journal of agricultural and environmental ethics*, 16 (4): 337-365.

Klemenčič, V. (2002), *Procesi deagrarizacije in urbanizacije slovenskega podeželja*. In: *Podeželje na prelomu tisočletja / Mednarodna znanstvena geografska konferenca*, Ljubljana, 19.-21. september 2001. Ljubljana: Oddelek za geografijo Filozofske fakultete: 7-21.

Kovač, M. (2002), *Primarna dejavnost – politika in stanje v Sloveniji v primerjavi z EU*. Delovni zvezki Urada za makroekonomske analize in razvoj, letnik XI/3: 53 pp.

Kovačič, M., Gosar, L., Fabijan, R., Perpar, A. (2000), *Razvojno-tipološka členitev podeželja v Republiki Sloveniji. Typologische Gliederung des Ländlichen Raumes in Republik Slovenien*. Agrarna ekonomika in politika, študije 6. Ljubljana, BF, Odd. za agronomijo, Inštitut za agrarno ekonomiko: 129 pp.



DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

Kovačič, M., Udovč, A. (2002), Struktura kmetij in njen vpliv na dohodkovni položaj kmetov v Sloveniji. Farm structure and its influence on farmers income status in Slovenia. *Sodobno kmetijstvo*, 35 (2): 67-74.

Kovačič, M. (2003), Turizem v razvoju podeželja in prispevek mladih. Posvet: Znanje, mladi in turizem. Državni zbor Republike Slovenije in Turistična zveza Slovenije, Ljubljana. [http://www.ds-rs.si/dejavnost/posveti/posvet\\_16122003/Kovacic.doc](http://www.ds-rs.si/dejavnost/posveti/posvet_16122003/Kovacic.doc) (15. 03. 2004).

Lock, K., Gabrijelčič Blenkuš, M., Martuzzi, M., Otorepec, P., Wallace, P., Dora, C., Robertson, A., Maučec Zakotnik, J. (2003), Health impact assessment of agriculture and food policies : lessons learnt from the Republic of Slovenia. In: *Bulletin of the World Health Organization*: 391-397.

Mansvelt, van J. D., Stobbelaar, D. J., Hendriks, K. (1998), Comparison of landscape features in organic and conventional farming systems. *Landscape and Urban Planning*, 41: 209-227.

Marsden, T. K., Murdoch, J., Lowe, P., Munton, R. C., Flynn, A. (1993), *Constructing the Countryside: Approach to Rural Development*. Routledge, 192 pp.

OECD (1998), *Agriculture in a Changing World: which Policies for Tomorrow?* Meeting of the Committee for Agriculture at the Ministerial level, Press Communiqué, Paris, 5-6 March.

OECD (2001), *Multifunctionality. Towards an analytical framework*. Paris, OECD, 160 p.

Oset, M. (2000), *Analysis of conditions for organic food production in the North-Eastern part of Slovenia*. Graduation Thesis. University of Maribor, Faculty of Agriculture, p. 10.

Perpar, A., Kovačič, M. (2002), Razvojno stanje, značilnosti in problemi podeželskih območij v Sloveniji. Development situation, characteristics and problems of rural areas in Slovenia. *Sodobno kmetijstvo* 35 (2): 52-61.

Pažek, K. (2003), *Finančna analiza ocenjevanja investicij dopolnilnih dejavnosti na ekoloških kmetijah*. Magistrska naloga, Univerza v Mariboru, Fakulteta za kmetijstvo, 168 pp.

Ploeg, J., D. van der, Long, A., Banks, J. (2002), Rural development: The state of the art. In: Van der Ploeg, J. D., Long, A., Banks, J. (Eds.), *Living countrysides. Rural development processes in Europe: The State of the Art*. Elsevier, Netherland, 231 pp.

Pravdić, V. (2003), Sustainable development: its meaning, perception and implementation. The case of Ecotourism in Croatia. *Društvena istraživanja*, Vol 12, 3-4 (65-66): 285-309.

Prodi, R. (2002), Foreword in: *Living countrysides. Rural development processes in Europe: The State of the Art*. Eds. Van der Ploeg, J. D., Long A., Banks, J. Elsevier, Netherland, 231 pp.

Rogers, M. and Bruen, M. (1998a), A new system for weighting environmental criteria for use within ELECTRE III. *European Journal of Operational Research*, 107: 552-563.

Rogers, M. and Bruen, M. (1998b), Choosing realistic values of indifference, preference and veto thresholds for use with environmental

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

criteria within ELECTRE. *European Journal of Operational Research* 107: 542-551.

Rozman, Č., Majkovič, D., Turk, J. (2002a), *Računalniški model za izračunavanje višine ukrepov programa SKOP 1.0*. Maribor: Fakulteta za kmetijstvo.

Rozman, Č., Majkovič, D., Turk, J. (2002b). *Metodološka pojasnila k računalniškemu modelu za izračunavanje višine ukrepov programa SKOP*. Interni dokument. Univerza v Mariboru, Fakulteta za kmetijstvo, Maribor, 3 pp.

Sever, D. (2000), *Implementation of EU legislation on food safety in Slovenia*. In: Conference proceedings / 3rd Conference on Practical Application of European Legislation on Foodstuffs Bled, 16-17 November 2000. Slovensko kemijsko društvo, Ljubljana: 22-23.

Stritar, A. (1991), *Land-scapes, landscape systems / Soil use and conservation in Slovenia*. Ljubljana, I. Stritar, 172 pp.

SURS (Statistični urad Republike Slovenije) (2003), *Statistični letopis 2003*. Letnik XLII, 667 pp.

Swagemakers, P. (2003), Novelty production: new directions for the activities and role of farming. In: Van Huylenbroeck, Durand, G. (Eds.), *Multifunctional Agriculture. A new paradigm for European Agriculture and Rural Development*. Ashgate Publishing Company: 189-207.

Tiwari, D. N., Loof, R. & Paudyal, G. N. (1999), Environmental-economic decision-making in lowland irrigated agriculture using multi-criteria analysis techniques. *Agricultural Systems*, 60: 99-112.

UMAR (Urad Republike Slovenije za makroekonomske analize in razvoj) (2004). *Pomladansko poročilo 2004*. Report in press: UMAR, Ljubljana: 109 pp.

Vadnal, K. (2003), Konceptualizacija sistema socialnih storitev za osebe s posebnimi potrebami kot dopolnilne dejavnosti na kmetijah. Zbornik Biotehniške fakultete Univerze v Ljubljani, *Kmet.* 81-2: 205-220.

Yrjölä, T., Kola, J. (2001), *Cost-benefit analysis of multifunctional agriculture in Finland*. Paper presented at: 77th EAAE Seminar / NJF Seminar No. 325, August 17-18, Helsinki.

## Multifunkcionalnost poljoprivrede – zamisao ili stvarnost?

Darja MAJKOVIČ, Andreja BOREC,  
Črtomir ROZMAN, Jernej TURK, Karmen PAŽEK  
Agronomski fakultet, Maribor

Multifunkcionalnost kao značajka poljoprivrede podliježe različitim tumačenjima, ovisno o državi i kontekstu. Ipak, nema ni jedne sveobuhvatne definicije toga pojma. Multifunkcionalnost proizlazi iz pretpostavke da poljoprivreda – osim proizvodnje hrane – ima i druge šire društvene funkcije i aspekte, kao što su održavanje proizvodnih

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...

potencijala, poticanje ruralnoga razvoja (zadržavanje pučanstva na selu, kulturni izgled krajolika) te zaštita okoliša. U prvom poglavlju predstavljeno je gledište na multifunkcionalnu prirodu europske poljoprivrede, slijedi prikaz slovenske poljoprivrede i njezinih najvažnijih značajki u različitim kontekstima – ekonomskim i socijalnim. Ako se poslužimo objavljenim definicijama multifunkcionalne poljoprivrede, možemo utvrditi da je ona u Sloveniji u punom jeku. Poseban dio ovoga rada posvećen je problematici iskustvenog ocjenjivanja te pojave, gdje upozoravamo na nedorečenost pristupa ispitivanju i težinu objektivne kvantifikacije tako kompleksnoga fenomena. Prije svega treba postaviti jasne kriterije za praćenje multifunkcionalne poljoprivrede i njezinih utjecaja na opće društvene interese.

## Multifunktionalität als landwirtschaftliches Konzept: Nur ein gedanklicher Entwurf oder ein Real-Case-Szenario?

Darja MAJKOVIČ, Andreja BOREC,  
Črtomir ROZMAN, Jernej TURK, Karmen PAŽEK  
Fakultät für Landwirtschaft, Maribor

Für Multifunktionalität im Sinne einer Charakteristik der Landwirtschaft gibt es viele verschiedene Interpretationen, doch gibt es keine universale Definition der Multifunktionalität. Dieses Konzept geht von der Annahme aus, dass neben der Nahrungsmittelproduktion auch andere bedeutende Funktionen der Landwirtschaft berücksichtigt werden müssen, so z.B. die Erhaltung des Produktionspotentials, die Entwicklung ländlicher Gegenden (Verhinderung von Landflucht, Landschaftspflege) sowie Umweltschutz. Das erste Kapitel präsentiert den Begriff und die Definition der Multifunktionalität. Es folgt eine Beschreibung der wichtigsten Merkmale der slowenischen Landwirtschaft unter wirtschaftlichen und sozialen Gesichtspunkten. Aufgrund der bislang verwendeten Definitionen kann festgestellt werden, dass das Konzept der Multifunktionalität in der slowenischen Landwirtschaft voll zum Einsatz gekommen ist. Ein gesonderter Teil dieser Arbeit widmet sich der Problematik der empirischen Auswertung dieses Phänomens. Die Autoren verweisen darauf, dass der dabei praktizierte, nicht ausreichend definierte Ansatz einer objektiven Quantifizierung eines so komplexen Phänomens nicht gerecht wird. Es gilt vor allem, klare Kriterien aufzustellen, anhand deren die Multifunktionalität in der Landwirtschaft und ihre Auswirkungen auf andere Gesellschaftsbereiche mitverfolgt werden können.

DRUŠ. ISTRAŽ. ZAGREB  
GOD. 14 (2005),  
BR. 3 (77),  
STR. 579-596

MAJKOVIČ, D. ET AL.:  
MULTIFUNCTIONAL...