

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS? EMPIRICAL EVIDENCES FROM MARAMUREȘ

FRANCESCA REGOLI¹, MATTEO VITTUARI², ANDREA SEGRÈ³

ABSTRACT - The European rural policy is shifting from the concept of multifunctionality to the one of public good with a growing attention to environmental concerns and green livelihoods. In Maramureș, Romania, this approach is only partially explored: as diversification strategy, several tourist accommodation facilities have been created by rural households, but those services are often not integrated to territorial amenities. Consequently, the rural system is still agriculturally based with a largely unexplored potential considering non-farm activities, a high migration rate, and a consistent land abandonment. The research aims to investigate how tourist initiatives can contribute to the promotion of green livelihoods through the valorization of local assets. Tourism can foster the enhancement of the territorial capital (natural, cultural social, institutional and economic ones), the preservation of public goods in the area (i.e. forests, land management) and the promotion of a more environmental oriented livelihood. A development strategy based on the recognition of the specificity embedded in the territorial capital can move the traditional heritage and local assets back to the core of the policy debate, recognizing their role in the socio-economic and environmental development of the area. Methodologically, the work is based on a cluster analysis carried out through data collected from a range of rural guesthouses (offering tourist accommodation facilities) and focusing on the concept of public good and on the local strategies adopted to manage and valorize the territorial capital. Collected data served as main tool for the identification of the major challenges that local administration should overcome to identify an effective strategy for local development. Moreover, the cluster analysis has been anticipated by an extensive literature review conducted on the existing policy papers, reports and documents focused on the promotion of sustainable development in rural Romania.

Keywords: public goods, territorial capital, rural tourism strategies, Vișeu Valley, Maramureș

INTRODUCTION

The debate on the Common Agricultural Policy CAP after 2013 involves the European, national, and regional level. The new policy will include a reform of the Rural Development Programme 2007-2013 and should address the upcoming challenges and the diversity of the agricultural and rural systems in EU 27. The perspective of the CAP post 2013 focuses on the new economic, social, environmental, climate-related and technological challenges. More in details the emerging questions, the CAP has to face, refer to the introduction of policies that can favor the promotion of a sustainable and inclusive growth (EC Agricultural and Rural Development, 2010).

In this framework, some of key issues refer to small agricultural holdings and in particular to their future and the one of their related rural communities; their public and socio-economic utility and their performances, which has to be measured not only in terms of economic competitiveness but considering also their role for the sustainable management of natural resources and land use (Cioloș D., 2010). This shift from a productive to a broader and multidimensional policy focus is underlined also by the strong emphasis on the diversified role of agriculture (i.e. more attention on services) and on the increased share of funding allocated to the second pillar that have been characterizing the CAP in the past decade. Moreover, the European rural policy is shifting always more towards strategic

¹ University of Bologna, Department of Agricultural Economics and Engineering – Faculty of Agriculture, Italy.
E-mail: francesca.regoli@unibo.it

² University of Bologna, Department of Agricultural Economics and Engineering – Faculty of Agriculture, Italy.

³ University of Bologna, Department of Agricultural Economics and Engineering – Faculty of Agriculture, Italy.

choices oriented to the long-term future of its agricultural and rural areas and is increasing the attention on their role in the satisfaction of the needs of the European society (EC Agricultural and Rural Development, 2010).

In particular small farm holdings represent a large number of stakeholders in EU 27 (Davidova S. et al, 2010): in 2007, the Farm structure survey shows that 16.4 million persons work regularly on 7.3 million agricultural holdings of at least 1 ESU (Eurostat, 2010). Those farms, often characterized by a subsistence or semi-subsistence agricultural production, play a significant role for the sustainable management of natural and social resources, and, mostly in Central and South - Eastern Europe, represent a social buffer against poverty (Salasan C., Fritsch J., 2009). Meanwhile, the small size unit implies the pursuit of farm diversification strategies (Van Huylenbroeck, 2006), implementing and integrating non-farm and off-farm activities as the offer of tourist services and accommodation. Nevertheless, farmers are providers of environmental services through the preservation and valorization of public goods (i.e. forests, land management)⁴. Above all, the agricultural sector provides public goods, which are often underestimated but extremely important at the local and global level for the preservation and enhancement of agricultural landscape, farmland biodiversity, water quality and availability, soil functionality, climate stability, air quality, resilience to flooding and fire and social goods such as rural vitality, food security and animal farm welfare and health (Cooper et al., 2009).

In this framework, small-medium farm holdings result contributing to:

- The enhancement of high nature value (HNV) farming favoring a low intensity farming system and traditional methods (Beaufoy, Marsden, 2010).
- The valorization of local assets and thus promoting green livelihoods and biodiversity conservation.
- The strengthening and the sustainable exploitation of the territorial capital and its multiple dimensions (Bordieu, 1987; Brunori et al., 2007).
- The reinforcement of the concept of territorial capital including the valorization of the rural territories as a social construction (Ambrosio-Albala et al., 2008) shaped by its local resources and actors.

Therefore, farmers play an important role, even if they are not fully aware of the contribution they offer to the local and the regional community. Furthermore, they are frequently not motivated to continue to work in the primary sector since there is not a significant economic return and rural areas are often not offering adequate business services (i.e. lack of institutional services, infrastructures, road connections; OECD, 2006).

The out - migration from rural areas requires a broader public intervention: the identification of an economic value of public goods could offer to farmers the opportunity to claim their contribution and services to the community redesigning their role towards society. Meanwhile, stimulating the diversification of the economic and social revenues, within the agricultural and rural sectors, it contributes to the enhancement of the environmental public goods as well.

Rural tourism (RT) represents a major driver for the promotion of the economic viability of the countryside and one of the priorities of the “Europe 2020 strategy” (EC, 2010). Furthermore,

⁴ “Public goods or collective goods are a very special class of goods which cannot practically be withheld from one individual consumer without withholding them from all (the “non-excludability criterion”) and for which the marginal cost of an additional person consuming them, once they have been produced, is zero (the “non-rivalrous consumption” criterion)” (Paul M. Johnson, 2005). In this article only the wide range of public goods provided by agriculture will be considered. “There is a wide range of public goods associated with agriculture, many of which are highly valued by society. The most significant of these are environmental - such as agricultural landscapes, farmland biodiversity, water quality, water availability, soil functionality, climate stability (greenhouse gas emissions), climate stability (carbon storage), air quality, resilience to flooding and fire – as well as a diverse suite of more social public goods, including food security, rural vitality and farm animal welfare and health” (Cooper et al., 2009).

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS? EMPIRICAL EVIDENCES FROM MARAMUREȘ

tourism has a “multi-sectoral character” since it is transversal to a number of policies (i.e. transport, fiscal, regional; EC, 2010). Considering the predominance of rural regions in Romania, RT can largely contribute to the economic diversification and vitality of the countryside and to address some of the key issues assessed by the debate on the new (CAP) after 2013: to valorize agricultural production and food processing, to manage natural resources in a sustainable manner, to maintain landscape and biodiversity.

METHODOLOGICAL APPROACH

The work is carried out through a three steps methodology: an extensive literature review; a survey; and a cluster analysis based on the data collected through the interviews. In particular, the article analyses a specific case study related to the Vișeu valley, located in the Eastern part of the Land of Maramureș.

The literature review was conducted on existing policy and scientific papers, reports and documents focused on policies aimed at promoting a sustainable development for remote rural Romania.

After the revision of available secondary information, a number of interviews to rural guesthouses⁵ (RGHs, offering accommodation) were conducted to gather primary data⁶.

Although the survey does not pretend to have a statistical significance, it allows the investigation of several elements that characterize the Vișeu Valley. A total of 26 interviews, covering a large majority of the RGHs of the valley, were carried out including both formally registered and unregistered operators. In the Vișeu Valley, the 10 registered RGHs (MDRT, 2011) represent a small share of the total, therefore to limit the investigation to this group would have lead to the exclusion of the majority of actors operating within the tourist sector.

The survey has been organized in two thematic sections: the first referring to the characteristics of the rural guesthouses and households, the second related to the perception of those local stakeholders about the concept of public good and focused on the local strategies adopted to manage and valorize local resources.

Data are then grouped through a cluster analysis, following the Unweighted Pair-Group Method (UPGM) that uses arithmetic averages (Romesburg H. C., 2004)⁷.

A resemblance matrix is created, assigning a numerical value to the attributes, to identify the similarities among the objects and is then turned into a graphic tree to identify the clusters. Each cluster groups objects with similar characteristics.

Identified clusters are then analyzed according to the conceptual framework of the territorial capital and so to those endogenous assets of a territory (Brunori, 2006; Brunori et al., 2007) that represent a social construction (Ambrosio-Albala et al., 2008) created by the interaction among all its multiple dimensions: natural, cultural, social, human, institutional.

RURAL TRENDS AND TERRITORIAL CAPITAL: EVIDENCES FROM MARAMUREȘ

The Vișeu valley is located in the Eastern part of the Maramureș County (*Județul Maramureș*), in the area known as the Land of Maramureș (*Țara Maramureșului*). The county covers 2.6% of the national territory with a population of 510,110 inhabitants (Census, 2002). Small communes (ref. to

⁵ Referring to farmers providing tourist services (including accommodation facilities as well), the notion of “rural guesthouses” (RGHs) has been adopted for its broader meaning, which allows the inclusion of formally registered and unregistered operators, the offering of board and lodging facilities as other tourist services. Furthermore it appears the most appropriate notion considering the main features of the structures (combining farm and tourist activities) and their small dimensions on the average.

⁶ A total number of 26 interviews were carried out including both formally registered and not registered guesthouses.

⁷ The algorithm, based on the UPGMA approach, was produced using the Matlab® programming language, <http://www.mathworks.com>

Law 351/2001) are the most widespread form of agglomeration: the county is composed of 2 cities, 11 towns, and 63 communes (Council of Maramureş County, 2009). The territory is mostly hilly or mountainous; a significant share of land is utilized for agricultural activities (11.6% or 74,524 ha); the population is predominantly rural and around 37% of the economically active population is engaged in the agricultural sector (National Institute of Statistics, Maramureş County – INS.MM, 2008). This rate is quite close to the percentage of working force employed in the tertiary sector, which includes over the 39% of the population. Those numbers reflect, hence, the national situation: according to national statistics in 2009, 35.8% of the population was employed in the primary sector, 24.4% in the secondary sector, while 39.8% in the tertiary sector (INS, 2010).

Table 1. Working force distribution in Maramureş County (2008)

Working Sectors	Population (thousand persons)	Percentage (%)
Total	198.00	100.00
Primary sector*	72.50	36.61
Secondary sector**	46.50	23.49
Tertiary sector***	79.00	39.90

* Agriculture, forestry, fishing and hunting sectors.

** Industry, including: mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities.

***Wholesale and retail; repair of motor vehicles and motorcycles; construction; professional, scientific and technical activities; health and social assistance; transport and storage; real estate transactions; hotels and restaurants; public administration; information and communication; others.

(Source: Authors' elaboration from the Statistical Yearbook for Maramureş County, 2008)

The unemployment rate, in 2009, registered a growth (6.5%, December 2009; INS.MM, 2010) as the situation at the national level, after a period of unemployment share fluctuating between 3% and 5% (County Agency for Employment, *Agenția Județeană de Ocupare a Forței de Muncă – AJOFM*). At the national level, the relatively positive trend registered in the years 2005-2008 (average rate around 4.87%) stopped in 2009/2010 with the unemployment rate going back to 2002 figures (8.4%; INS, 2010).

Relative to the internal migration balance, the year 2007 registered a negative trend (-24 per 1,000 inhabitants; a total of -1,238 people) almost confirmed by the year 2008 (-22; -1,106) and also the international migration had a negative balance in the county: -4 per 1,000 inhabitants (-74 people) in 2007 and -1 (-40) in 2008 (INS.MM, 2010).

On the contrary, at the national level, the internal migration registered a positive balance: +17.4 per 1,000 inhabitants in 2007 and +18.1 in 2008; the percentage decreased in 2009, when the balance registered +15.4. Concerning the international permanent migration, the national balance has a constantly negative trend in migration flows: -4.2 per 1,000 inhabitants in 2007 (a total of -8,830 people), -4.1 in 2008 (-8,739) and -4.9 in 2009 (-10,211; INS, 2010).

Furthermore, Maramureş, as well as the whole country, is characterized by a relevant number of circular migrants (Sandu D., 2005) going to work abroad temporarily. As stated by Sandu et al. (2004), the temporary migration (after the collapse of the Communist regime) has represented a new phenomenon within the migration system, more difficult to measure than permanent migration and internal migration. The last Census (2002) accounted for a negative balance of 360 thousand temporary emigrants, to be added to the permanent and internal migrants. According to Sandu et al.'s computations (2004), the 30 per 1.000 inhabitants of the temporary emigrants were from Maramureş, determining a very high migration within the country. A very sharp increase of out-migration balance took place just after 2002, when the free circulation to Schengen area for Romanian citizens was introduced. The National Development Strategy 2013-2020-2030, estimated the number of the temporary emigrants in around 2 millions in the spring 2008 (Ministry for Environment and

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS?
EMPIRICAL EVIDENCES FROM MARAMUREȘ

Sustainable Development, 2008) and Eurostat counted in 2008 a total number of 230,000 Romanian (permanent) immigrants to other Member States (Eurostat, 2008).

In this context, related to job mobility and opportunities, the tourism sector does not appear fully exploited in Maramureș and two major and conflictual dimensions appear: the rates of unemployment and migration, and the recognition of Maramures, from a scientific and promotional perspectives (Ciangă, 2007; County Council of Maramureș, 2006a; MaramuresInfoTurism center⁸), as one of the richest in terms of cultural and territorial capital among the Romanian Counties. Just the 1.5% of the population results employed in tourist activities, although in statistics the tourist sector includes only those working in hotel and restaurant services (INS.MM, 2010). On the contrary, tourist activities based on local cultural and natural resources could be further enhanced, considering in which extension the urban-rural and anthropological structure of the county is connected to the morphology of the territory (Ilieș G., 2007).

The Vișeu Valley area, including the side valleys of Ruscova, Vaser and Vinului, develops along the Vișeu river, a tributary of the Tisa river, and is composed of 8 communes (Bistra, Petrova, Leordina, Ruscova, Repedea, Poienile de Sub Munte, Vișeu de Jos, and Moisei) and 2 towns (Vișeu de Sus and Borșa).

The economy of the Valley is strongly based on local resources as wood, due to the large presence of forests, and agriculture, with farm production mostly based on potatoes, onion, corn, beans, hay, and livestock. Tourism, largely focused on the opportunities offered by the Maramureș Mountains Natural Park, is also a relevant sector. In particular, an interesting and successful case is represented by a Swiss-Romanian joint venture (CFF Vișeu de Sus), which has created a tourist attraction, based on a narrow gauge steam train (*mocăniță*), which runs from Vișeu de Sus along the Vaser Valley within the Natural Park. A very peculiar and traditional asset (a former transport for woodcutters and cut lumbers) has been reinvented into a tourist attraction, since 2003, after a period of stagnation due to the collapse of the Communist regime when almost all the state-run forestry railways “CFF” were dismantled. Other local assets (i.e. food and handcraft products) have not been object of a valorization process such as in the case of *mocăniță*.

Table 3. *Main elements of the territorial capital in the Vișeu Valley*

Features	
Location	- Maramureș County, North-West of Romania; - Part of the North West Development Region 6 (Law no. 151/1998).
Peculiarities of the area	- Developed along the Vișeu river, a tributary of the Tisa river; - 60 km long; - Surrounded by the Maramureș Mountains (1400-1600 m, East), Rodna Mountains (1600-1800 m, South-East) and the Maramureș Depression (800 m).
Natural capital	- Pietrosul Mare Nature Reserve (Rodna Mountains), 3,300 ha; - Rodna Mountains National Park (22,700 ha out of which 10,328 ha located in Maramureș County); - Sâlhoi-Zâmbrslavele Nature Reserve (Maramureș Mountains) 5 ha (Ilieș, G., 2007); - Maramureș Mountains Natural Park (133,354 ha); - Peculiar forestry according to the altitude (lower, medium and upper mountain layers); - Quartz area.

⁸ MaramuresInfoTurism Center, www.visitmaramures.ro

Cultural and human capital	<ul style="list-style-type: none"> - Wood civilization: wooden churches, houses and gates since the 18th century; - Historical monuments and museums; - Farmers and food processors; - Wood handicraftsmen.
Social Capital	<ul style="list-style-type: none"> - Association for local Development Ivan Krevan (Repedea); - Association of Cattle Farmers Codrișorul; - Association the Sons of Leordina; - Farm Association of Cattle Farmers and Land Owners of Leordina; - Association of Ruscova Valley (Repedea); - Association of the Beauty (Bistra); - Pro Vișeu Foundation.
Economic Capital	<ul style="list-style-type: none"> - Woodcutters and wood handicraftsmen; - Small size farm holdings; - Main agricultural production: potatoes, onion, corn, beans, hay; - Livestock production: sheep, cattle and swine; - Food processing mostly for own consume; - Mining activities; - Tourism: rural guesthouses; itineraries with the narrow gauge steam train (<i>mocănița</i>) in the natural valley of Vaser; visit to the Maramureș Mountains Natural Park; - Milk processing industry; - Wood processing industry.
Institutional Capital	<ul style="list-style-type: none"> - 10 local administrations (2 within the towns and 8 within the communes); - 33 libraries; - 10 nurseries and 46 sections of primary schools and 23 of secondary schools (Babeș-Bolyai University, 2008); - Maramureș Mountains Natural Park; - Association Micro-region for the economic and social development of the Land of Maramureș – MTMM; - Pro Vișeu Foundation (NGO in Vișeu de Sus).
Stakeholders	<ul style="list-style-type: none"> - Local farmers; - Local craftsmen; - 8 communes and 2 towns; - Maramureș Mountains Natural Park; - Mocănița CFF S.R.L.; - Potential LAG (Local Action Group) of the Maramureș Mountains (composed of 52 members), out of which: <ul style="list-style-type: none"> ✓ 11 local communities: Moisei, Vișeu de Sus, Vișeu de Jos, Poienile de sub Munte, Repedea, Ruscova, Leordina, Petrova, Bistra, Rona de Sus and Rona de Jos; ✓ 7 NGOs, Associations and Foundations; ✓ the Maramureș Mountains Natural Park; ✓ 8 local experts (professors, public officials, lawyers); ✓ 29 private enterprises.

(Source: Authors' elaboration)

ANALYZING RURAL GUESTHOUSES CHARACTERISTICS AND STRATEGIES IN THE VIȘEU VALLEY

The first section of the survey was based on twelve attributes, gathering data to analyze the characteristics of the rural guesthouses and household (Table 4) and to group them in different clusters.

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS?
EMPIRICAL EVIDENCES FROM MARAMUREŞ

Table 4. *Rural guesthouses and household characteristics*

<ol style="list-style-type: none"> 1. Guesthouse location (in the countryside, in the commune, on the main road or on a secondary road); 2. Accommodation authenticity and ambience, classifying the guesthouses in three groups: traditional; rural (defined as a combination of traditional features with modern or with no particular style features) and modern; 3. Homemade food processing capacity: share of homemade food products; 4. Food production capacity and practices: not having; natural (no use of pesticides or chemical fertilizers), conventional and certified organic production; 5. Family members engagement in food processing: to assess if family members are mainly involved in the food transformation process; 6. Land property size: in a range from 0 to more than 10 hectares; 7. Job diversification: to assess how many farmers have more than one job and which level of interconnection exists among the different jobs; 8. No. of family members involved in the tourism business; 9. Age distribution of family members involved in the tourist activity; 10. Gender distribution in activity management; 11. Attention to green house gas emissions, according to the heating system working in the farm/guesthouse; 12. Lifetime of the guesthouse, to perceive the duration of the tourist activity.
--

(Source: author's survey)

The outcomes of the resemblance matrix led to the identification of 6 clusters (Figure 1). Cluster 1 and 2 appear the most representative including 9 (cluster 1) and 11 guesthouses (cluster 2), respectively⁹. The other clusters, grouping from 3 to 1 of the remaining 6 RGHs, can be defined as “strange fallen objects” (Romesburg, 2004) since they include few units and, therefore, are not particularly significant for the analysis.

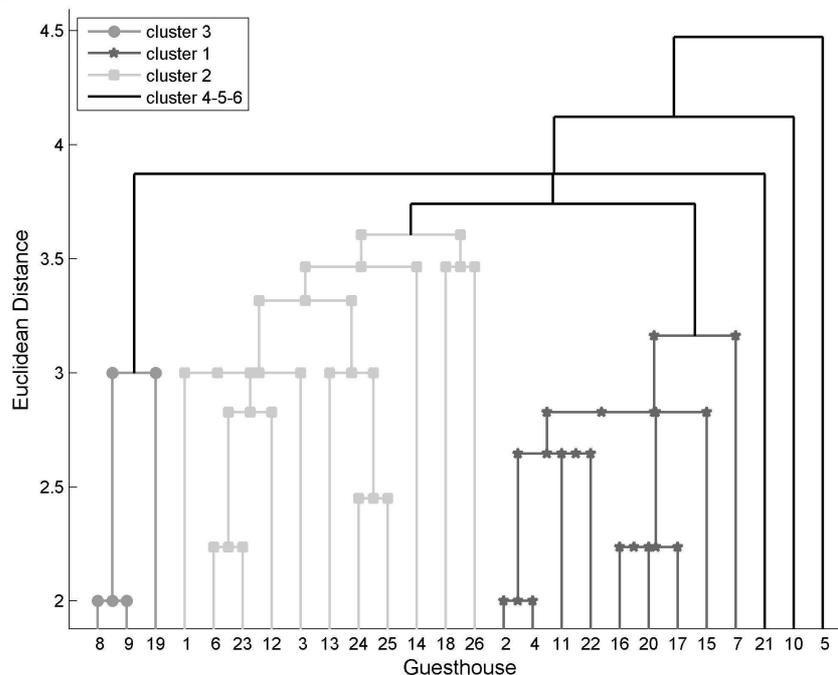


Figure 1. *Cluster tree I representing the peculiarities of rural guesthouses*

Source: Authors' elaboration following the Clustering Method UPGMA - Unweighted Pair-Group Method using arithmetic Averages (Romesburg H. C., 2004).

⁹ A more detailed description of the characteristics of cluster 1 and 2 is provided in Annex A.

RGHs belonging to clusters 1 and 2 are largely managed by women and are characterized by a higher number of family members involved in the tourist activity (compared to the other clusters).

Both female and male conductors are usually 50 years or older with younger family members engaged in more than one occupation, either in the primary sector or services. Therefore tourism, as well as farming, represents in the majority of cases an additional source of income for the family. Such a strong family based human capital led to the development of a more direct and informal contact with tourists and to the preservation of the traditional family food heritage. Women, strongly engaged in food preparation, provide a significant contribution to the preservation of traditional cooking skills and in the purchasement of local products, strengthening the creation of local food networks. Considering cultural capital, the attention is not only focused on the preservation of traditional food, but also on the creation of a specific “*rural ambiance*”: maintaining the features of traditional rural houses providing a set of *modern* services (i.e. private bathroom, air conditioning, internet access)¹⁰. Taking into consideration the criteria established by the national Law 638/2008, within cluster 1 and 2 high standard (private bathroom, private TV, internet access, air conditioned) and medium standard (air conditioned, private TV) categories prevail¹¹.

RGHs are mostly connected to small farms (under 5 ha) based on traditional low-input management systems with an extremely limited use of chemical fertilizers and pesticides so that most of the products could be considered as naturally produced (even if there are no certification schemes). Environmentally sound practices can be found also in the recycling of organic byproducts even if this is implemented mostly according to the traditional habits, rather than as an environment oriented strategy. Most of the farmers are still not fully aware of the relevance of these farming practices, which contribute to the enhancement of natural resources (i.e. farmland biodiversity, water quality and availability, soil functionality).

Almost all RGHs have wood based central heating systems. Wood is collected from the surrounding forests but the overall sustainability of these systems is affected by the absence of an effective monitoring system to regulate the largely diffused unauthorized forest exploitation (County Council of Maramureş, 2006b).

The second thematic block of the survey focuses on the perception of the guesthouse owners on public goods (Table 5).

Table 5. *Perception of the guesthouse owners on public goods*

- | |
|---|
| <ol style="list-style-type: none"> 1. Perception towards public goods (p.g.), considering as p.g.: water springs and rivers; farmland biodiversity; forests; land management; cultural heritage and historical monuments; 2. Connection of the promoted activities to the territory; 3. Gastronomic offer: ability to process and offer traditional or standard food; 4. Access to public funds for opening/restructuring the activity; 5. Membership to a local/regional network for territorial promotion; 6. Waste management practices: recycling of agricultural byproducts and animal organic byproducts; waste separation. |
|---|

(Source: Author’s survey)

¹⁰ The combination of tradition with modern services does not appear always completely balanced as stated through empirical observations.

¹¹ This classification is based on a number of academic publications on tourist management underlining the specific features a rural guesthouse should have to respect the classification of rural accommodation (Ilieş M., 2007; Ghereş M., 2010).

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS?
EMPIRICAL EVIDENCES FROM MARAMUREȘ

According to those attributes, 4 clusters (Figure 2) are identified. Cluster 1 and 2 appear the most representative including 17 and 6 guesthouses, respectively¹². The other 2 clusters group 2 and 1 rural guesthouses and are thus defined as “strange fallen objects”.

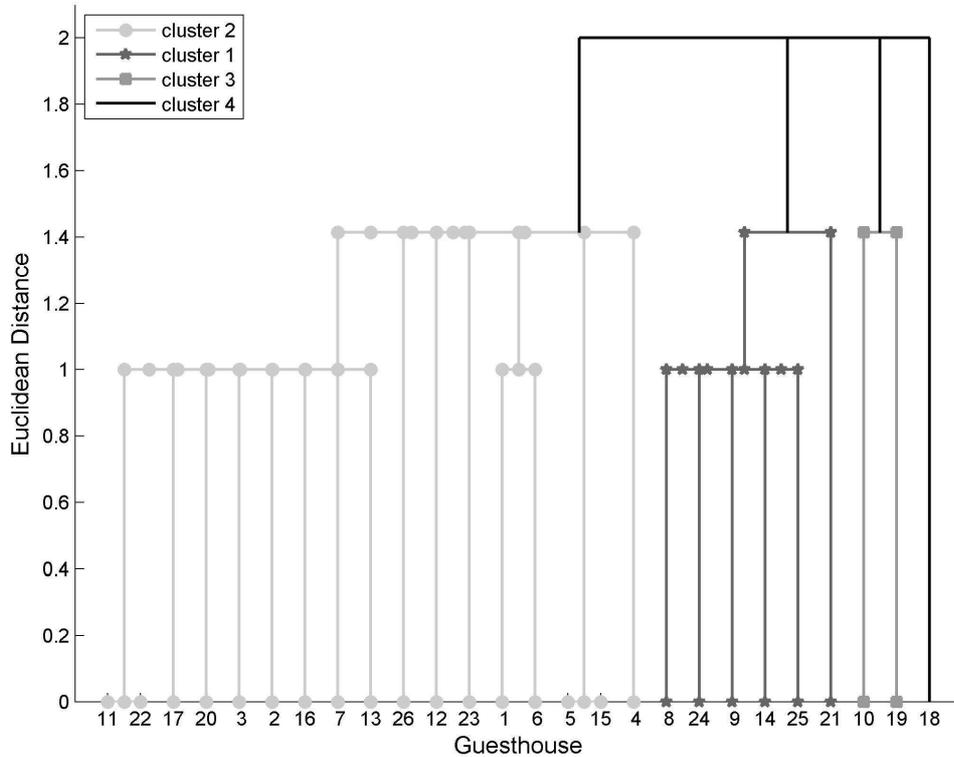


Figure 2. Cluster tree II representing the perception of the guesthouse owners on public goods

Source: Authors’ elaboration following the Clustering Method UPGMA - Unweighted Pair-Group Method using arithmetic Averages (Romesburg H. C., 2004).

RGHs’ owners belonging to clusters 1 and 2 generally present a limited awareness about their role in the provision of public goods and about the opportunity to connect the activities they promote with the territory. These elements are emphasized by limited institutional and social capitals. Most of the farmers are members of local associations or networks, but they are generally characterized by a passive attitude since they are not actively participating in the associative life. Moreover, associations generally fail to create awareness and do not act as “driver of change” introducing innovation and new management practices.

Institutions have also a limited capacity to act as driver of change. Looking at waste management practices, local policies aimed at promoting recycling and awareness campaigns are still scarcely implemented (County Council of Maramureș, 2006b). The most spread recycling procedure is related to the use of agricultural and animal organic byproducts, while only few farmers collect paper or PET separately.

¹² A more detailed description of the characteristics of cluster 1 and 2 is provided in Annex B.

Public funds to private stakeholders result scarcely effective: almost all guesthouse owners invested private financial resources and did not apply for public funds for building or renovating the guesthouse. The application for public funds is generally considered not attractive due to the high bureaucratic requirements, to the costs connected to co-financing and in some extent to mistrust towards public institutions.

CONCLUSIONS

Collected data were elaborated through a cluster analysis, which led to the identification of the most representatives groups according to a list of attributes, previously assessed by the authors according to the different dimensions of the territorial capital (natural, cultural social, institutional and economic ones). Those features aimed to outline in a first section the characteristics of the rural guesthouses and the perception of those local stakeholders about the concept of public good and the strategies they adopted to manage and valorize the territorial capital.

Human capital benefits from the active involvement of women in RGHs management and in food gathering and preparation: they “bring in” the traditional family food heritage and an extended knowledge of local food networks. Some environmentally sound practices such as the use of local and seasonal food, but also the recycling of organic byproducts, are embedded in the traditional abilities of the managers (mostly over 50 years old), rather than driven by effective public policies or by the efficiency of extension services provided by associations or public institutions. The introduction of innovation and green livelihoods is limited by the average age of managers, with the younger family members mainly engaged in other activities, and by the lack of trust in public associations and public institutions. Associations fail to create awareness, to promote networking among RGHs, and do not act as “driver of change” providing effective information; therefore, they limit the opportunities farmers could have. The mistrust is widespread also towards public institutions: a large number of guesthouses are not registered since they perceive registration as an additional cost and not as a way to get benefits, advice, and additional services.

Low institutional and social capitals fails in raising the awareness about the role rural households and farmers could have in the management and preservation of public goods and for the valorization of the territorial capital.

While rural guesthouses at the individual level are not entirely aware of the territorial capital of their region, at the public level, local organizations are not fully engaged or able to engage in designing strategies targeted on the identification and exploitation of local resources and in promoting the creation of active networks among local stakeholders and their participation in policy discourses. Farmers and rural households should be included in this policy process in order to better assess their needs and to raise their consciousness about the potential embedded in local resources and on the importance of preserving and exploiting public goods through a sustainable approach (i.e. to limit the unauthorized forest exploitation; County Council of Maramureş, 2006b).

Furthermore the role of farmers and rural households is important also because they can act as “facilitator” between local resources and tourists:

- as advisors on the traditional local farming systems
- as entertainers and storytellers (e.g. reinventing local heritage)
- as providers of rural-tourism activities (e.g. offering peculiar accommodations, organizing activities connected to the territory)
- as “nature value keepers” (e.g. contributing to the HNV farming and so to the preservation of biodiversity).

Meanwhile, tourism can stimulate farmers to adopt sustainable and eco-friendly approaches, considering that it represents an additional source of income. Thus, the tourism sector can provide a significant contribution to the inclusion of farmers in a process aimed at the creation of awareness about a tourist offer reflecting the real potential of the area: from nature based resources to traditional heritage, to local products processing.

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS? EMPIRICAL EVIDENCES FROM MARAMUREȘ

Consequently, tourism can represent an instrument to activate environmentally sound practices based on the sustainable exploitation of the territorial capital, and on the preservation of public goods.

Nevertheless, to reach these goals, the public administration should invest in the social and human capitals through the implementation of specific local development policies and the promotion of best practices to assess and guarantee a sustainable growth projects and to overcome the lack of synergies for bridging the different dimensions of the territorial capital into a unique system.

On this purpose, an opportunity to introduce a change in the Vișeu Valley is represented by the legal constitution of the LAG of Maramureș Mountains, which involves a number of local stakeholders and can represent a tool for the implementation of several activities and projects.

As stated by Buhalis (1999), tourist destinations are becoming more competitive; therefore, being innovative, competent, and strongly interconnected to the territory represents a strategic tool to guarantee a stability of a region. The creation of an effective network among local stakeholders, based on identified common targets, should include also those dimensions.

ACKNOWLEDGEMENTS

The creation of the algorithm (through the Matlab® programming language) has been realized in collaboration with the colleague Dr. Filippo Zaniboni, Department of Physics – Geophysics Section, University of Bologna.

REFERENCES

- AMBROSIO-ABBALA, M., DELGADO, M. (2008), *Understanding rural areas dynamics from a complex perspective- An application of prospective structural analysis*, 12th EAAE Congress “People, food and environment: global trends and European strategies”, Gent.
- BEAUFOY, G., MARSDEN, K. (2010), *CAP reform 2013 Last chance to stop the decline of Europe’s High Nature Value Farming?* Birdlife, in EEB EFNCP IFOAM WWF Proposal for a new EU CAP.
- BRUNORI, G. (2006), Post-rural processes in wealthy rural areas: hybrid networks and symbolic capital, in *Between Local and the Global: confronting complexity in the contemporary agri-food sector*, Research in “Rural Sociology and Development”, Volume 12, 125-152, Elsevier Ltd.
- BRUNORI, G., ROSSI, A. (2007), Differentiating countryside: social representations and governance pattern in rural areas with high social density: the case of Chianti, Italy, *Journal of Rural Studies* 23, Elsevier: 183-205.
- BUHALIS, D. (1999), Marketing the competitive destination of the future, *Tourism Management* 21 (2000), Pergamon Elsevier: 97-116.
- CIANGĂ, N. (2007), *Wooden churches – a representative component in the cultural rural landscape of Transylvania*, Romanian Review of Regional Studies, Volume III, Number 2, Presa Universitară Clujeană, Cluj-Napoca.
- CIOLOȘ, D. (2010), European Commissioner for Agriculture and Rural Development, Conference on “Semi-subsistence farming in the EU: current situation and future prospects” 13 - 15 Oct. 2010, Sibiu.
- CONSILUL JUDEȚEAN MARAMUREȘ [County Council of Maramureș] (2006a), *Dezvoltarea turismului în Județul Maramureș*, (document de programare) [Tourism Development in Maramureș County – Programming Document], October, <http://www.cjmaramures.ro/>.
- CONSILUL JUDEȚEAN MARAMUREȘ [County Council of Maramureș] (2006b), *Plan local de acțiune pentru mediu* [Local Environmental Action Plan], second version, <http://www.cjmaramures.ro/>.

- COOPER, T., HART, K., BALDOCK, D. (2009), *The provision of public goods through agriculture in the European Union*, http://ec.europa.eu/agriculture/analysis/external/publicgoods/report_en.pdf.
- COUNTY DIRECTION FOR STATISTICS IN MARAMUREȘ (2008), *Statistical Yearbook for Maramureș County*, <http://www.maramures.insse.ro>.
- DAVIDOVA, S., GORTON, M., FREDRIKSSON, L. (2010), *Semi-subsistence farming in Europe: concept and key issues*, background paper for the seminar “Semi-subsistence farming in Europe: current situation and future prospects”, October, Sibiu.
- EUROPEAN COMMISSION (2010), *Europe, the world's No 1 tourist destination – a new political framework for tourism in Europe*, COM (2010) 352 final, Brussels.
- EUROPEAN COMMISSION - *Agriculture and Rural Development* (2010), The Common Agricultural Policy after 2013, Public debate Summary Report, http://ec.europa.eu/agriculture/cap-post-2013/index_en.htm.
- EUROPEAN COMMISSION EUROSTAT (2008), *Statistics in focus 98/2008*, European Statistical Data Support, ISSN 1977-0316, <http://ec.europa.eu/eurostat/>.
- EUROPEAN COMMISSION EUROSTAT (2010), *Agricultural statistics 2008-09*, Pocketbooks, ISSN 1830-463X, Publications Office of the European Union, Luxembourg.
- EUROPEAN NETWORK FOR RURAL DEVELOPMENT (2010), *Semi-subsistence farming in Europe: concepts and key issues*. Background paper prepared for the seminar “Semi-subsistence farming in the EU: current situation and future prospects” 13-15 October 2010, Sibiu.
- GHERES, M., CIORNEA, R., POP, I. (2010), *Mapa întreprinzătorului în Agroturism* [Agritourism Investor's Portofolio], Risoprint, Cluj-Napoca.
- GOVERNMENT OF ROMANIA - Ministry of Environment and Sustainable Development (2008), *Strategia Națională pentru Dezvoltare Durabilă a României. Orizonturi 2013-2020-2030* [National Sustainable Development Strategy. Romania 2013-2020-2030], Programul Națiunilor Unite pentru Dezvoltare Centrul Național pentru Dezvoltare Durabilă, București.
- GOVERNMENT OF ROMANIA - Ministry of Regional Development and Tourism (MDRT) <http://www.mdrt.ro/>.
- ILIEȘ, GABRIELA (2007), *Țara Maramureșului. Studiu de geografie regională* [The Land of Maramureș. Study of Regional Geography], Presă Universitară Clujeană, Cluj-Napoca.
- ILIEȘ, M. (2009), *Amenajare turistică* [Tourist Facilities], Casa Cărții de Știință, Cluj-Napoca.
- INSTITUTUL NAȚIONAL DE STATISTICĂ [National Institute of Statistics] (2008), *Participarea populației la forța de muncă, pe sexe și medii* [Population's Participation in the Labour Force, on sex and environment], Produse & Servici – Date statistice – Indicatori forța de muncă <http://www.insse.ro>.
- INSTITUTUL NAȚIONAL DE STATISTICĂ [National Institute of Statistics] (2010), *România în cifre* [Romania in figures], București.
- JOHNSON, P.M. (2005), *A Glossary of Political Economy Terms*, Department of Political Science, Auburn University, USA.
- MONITORUL OFICIAL [Official Gazette of Romania] No. 408/24 July 2001, Legea nr. 351/2001 privind aprobarea Planului de amenajare a teritoriului național - Secțiunea a IV-a - rețeaua de localități [Law no. 351/2001 on the approval of the National Spatial Plan – Section IV - Settlement Network], București.
- OECD (2006), *The new rural paradigm, policy and governance*, OECD Publishing, Paris.
- REGOLI, F., VITTUARI, M., SEGRÈ, A. (2011), *Policy options for sustainability. A preliminary appraisal of rural tourism in Romania: the case of Maramureș*, in “Food Agriculture and Tourism-Linking local enogastronomy and rural tourism: interdisciplinary perspective”, Sidali K. L., Spiller, A. Schulze B. (editors) Springer, Heidelberg.
- ROMESBURG, H.C. (2004), *Cluster Analysis for Researchers*, Lulu Press, North California.
- SALASAN, C., FRITZSCH, J. (2009), The role of farm activities for overcoming rural poverty in Romania, in Burchenrieder, G, and J. Möllers (eds.) *Structural Change in Europe's Rural*

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS?
EMPIRICAL EVIDENCES FROM MARAMUREȘ

- Regions – Farm Livelihoods Between Subsistence Orientation, Modernization and Non-farm Diversification*, Vol. 49 of IAMO Studies Series (IAAE 2009 Mini-symposium), pp. 23-41.
- SANDU, D., RADU, C., CONSTANTINESCU, M., CIOBANU, O. (2004), *A Country Report on Romanian Migration Abroad: Stocks and Flows after 1989*, Study for www.migrationonline.cz, Multicultural Center Prague, November 2004.
- SANDU, D. (2005), *Emerging Transnational Migration from Romanian Villages*, Current Sociology 2005; 53; 555, Sage Publications, London.
- UNIVERSITATEA BABEȘ - BOLYAI, FACULTATEA DE GEOGRAFIE, CENTRUL DE GEOGRAFIE REGIONALĂ (2008), *Reactualizare plan de amenajare a teritoriului județean – PATJ – județul Maramureș. Infrastructura tehnică a teritoriului. Economia. Faza I-a: Situația existentă și disfuncționalități* [Update to the County Spatial Plan – Maramureș County. Technical Infrastructure of the Territory. Economy. First Stage: Current State and Dysfunctions], Project no. 6671/14.11.2008, Vol. II, Cluj-Napoca.
- VAN HUYLENBROECK, G. (2006), Multifunctionality or the role of agriculture in the rural future, *The Rural Citizen Governance, Culture and Wellbeing in the 21st Century*, Compilation © 2006, University of Plymouth, UK.

ANNEXES

Annex A. *Data collection - Attributes related to the peculiarities of the rural rural guesthouses and household characteristics*

	Attributes and related classification	Cluster 1 (9 RGHS)	Cluster 2 (11 RGHS)
1	Location. Countryside= 1; Commune - main road= 2; Commune - secondary road= 3.	Located in the commune in the main road or in a secondary road (value 2.77).	Located in the commune mostly in the main road (value 2.09).
2	Accommodation authenticity and ambience. Traditional= 1; Rural= 2; Modern= 3.	In between traditional and rural (value 1.77).	In between rural and modern (value 2.72).
3	Homemade food processing capacity. Number of food products homemade = from 0 to 5.	More than 4 homemade products (value 4.66).	More than one homemade product (value 1.09).
4	Food production capacity and practices. Not offering= 0; Natural food= 1; Conventional food= 2; Organic certified food= 4.	Producing natural food (value 1).	Producing natural food (value 1.18).

5	<p>Family members engagement in the food processing. Nr. of products processed by the male family members: 0 product= 0; 1 product= 1; 2 products= 2; 3 products= 3; more than 3= 4.</p> <p>Nr. of products processed by the female family members: 0 product= 5; 2 products= 6; 3 products= 7; more than 3= 8.</p>	<p>Male members produce in between 1 or 2 food process (value 1.33).</p> <p>Female members process more than 3 products (value 8.1).</p>	<p>Most of male members process 1 food product (value 1.54).</p> <p>Female members process more than 2 products (value 5.54).</p>
6	<p>Land property size. 0 ha = 0; Till 1 ha= 1; Between 1 and 2 ha= 2; Between 2 and 5 ha= 3; Between 5 and 10 ha= 4; More than 10 ha= 5.</p>	<p>In between 2 and 5 ha (value 2.72).</p>	<p>Around 1 ha (value 1).</p>
7	<p>Job diversification. High (agricultural and tourism activities)= 1 Medium (only tourist field)= 2 Low (agricultural, tourism activities and off-farm activity)= 3; Very low (tourism and off farm activity)= 4.</p>	<p>Around 3 job occupations (value 2.66).</p>	<p>3 job occupations (value 3).</p>
8	<p>Nr. of family members involved in the tourism activity. 1 person = 1; 2 people = 2; 3 people = 3; 4 people = 4.</p>	<p>Generally 2 family members involved (value 2.33).</p>	<p>Generally almost 2 family members involved (value 1.82).</p>
9	<p>Age distribution. Between 30/40=1; Between 40/50=2; Between 50/60=3; Over 60=4.</p>	<p>Majority of the owners around 50 years old (value 2.33)</p>	<p>Majority of the owners almost around 50/60 years old (value 2.90)</p>
10	<p>Gender distribution activity management. Female = 1; Male= 2.</p>	<p>Almost all guesthouses managed by female family member (value 1.33).</p>	<p>Almost all guesthouses managed by female family member (value 1.18).</p>
11	<p>Attention to green house emissions. Central heating by gas= 1; Central heating by wood= 4.</p>	<p>Almost all have central heating by wood (value 4).</p>	<p>Almost all have central heating by wood (value 3.72).</p>

CAN RURAL TOURISM BOOST GREEN LIVELIHOODS?
EMPIRICAL EVIDENCES FROM MARAMUREȘ

12	Guesthouse lifetime. Short (from 2008 to 2010) = 1; Medium (from 2005 to 2010) = 2; Long (before 2005) = 3.	Medium (value 2.11).	In between medium or short (value 1.72).
-----------	---	-------------------------------	---

(Source: Authors' elaboration)

Annex B. *Data collection - Attributes related to the perception of the guesthouse owners on public goods*

	Attributes and related classification	Cluster 1 (17 RGHS)	Cluster 2 (6 RGHS)
1	Perception towards public goods. High level (all) = 1; Medium level (from 2 to 3) = 2; Low lever (from 1 to 2)= 3; Very Low level (0)= 4	Low - medium level perception of what are the local public goods (value 1.29).	Low perception of what public goods refers to (value 3.5).
2	Connection to the territory. High level (3 - 4 promoted activities)= 1; Medium level (1-2 promoted activities)=2 Low level (0 activities)=0	The largest group promotes activities on average connected to the territory (value 1,29).	The largest group promotes activities scarcely connected to the territory (value 0).
3	Gastronomic offer. Traditional food= 1; Standard food= 2 Not offering food= 3	Traditional food (value 1.06).	In between standard food and not offering food (value 2.33).
4	Access to public funds for opening/restructuring the activity. Yes= 1; No = 2.	Almost none accessed public funds (value 1.94).	None accessed public funds (value 2).
5	Membership to local network for territorial promotion. Yes active membership =1; Yes passive membership=2; No= 3	Passive membership (value 2.47).	Passive membership (value 2.83).
6	Waste management practices. High level (recycling of agric. byproducts and animal organic byproducts; waste separation)= 1	A large majority recycle agric. byproducts and animal organic byproducts (value 2.47).	A large majority does not recycle (value 3.66).

	Medium level (recycling of agric. byproducts and animal organic byproducts)= 2 ; Low level (any kind of recycling)= 3; Not known= 4		
--	---	--	--

(Source: Authors' elaboration)