Judit Katona-Kovács[1], Thomas Dax[2], Ingrid Machold[2]

[1]University of Debrecen, Faculty of Applied Economics and Rural Development, Hungary
katonaj@agr.unideb.hu
[2]Federal Institute for Mountainous and Less-Favoured Areas, Vienna, Austria
thomas.dax@babf.bmlfuw.gv.at, ingrid.machold@babf.bmlfuw.gv.at

Governance of market in the case of local food systems as crucial dimension of the „rural web" – case study of an Austrian and a Hungarian National Park region

Abstract: *Rural development processes can be interpreted as the result of an increasingly complex interplay of different driving forces. The 'rural web' concept, developed recently as a theoretical framework, emerges as the intersection of six inter-related dimensions (endogenity, novelty production, governance of market, institutional arrangements, social capital, sustainability), each of which highlights particular features of rural development. Keeping in mind that these dimensions cannot be separated from each other, the paper examines the domain of governance of market in two National Parks, the Hortobágy National Park region in Hungary and the Hohe Tauern National Park region in Austria. In both cases the existence of a dynamic innovation approach is visible, which means that these large protected areas are referred to beyond their boundaries as tools of sustainable regional development. While the two regions are exemplary for different development paths (one characterizing more a case study of the "accumulation" group and the other one of the „depletion" group), the interrelations of actors turn out to be crucial for development activities. With regard to the specific situation of national parks the question arises, if producers of the two examined regions distinguish themselves from the conventional agri-food market through initiatives that aim to create alternative food networks. The hypothesis behind the work is that governance of market can be one of the reasons for the differences in development of the two regions. The paper compares the food networks in the two regions, and also examines the local contexts in which they take shape. Finally it tries to assess how the other sectors (especially tourism) are linked to agriculture, within the specific context of environmentally sensitive regions of National parks.*

Introduction

The work in the paper is part of an ongoing research in the territory of the first National Park of Hungary, where sustainability of the area is examined. This work is supported by the János Bolyai Research Fellowship of the Hungarian Academy of Sciences. Earlier study of the authors (Katona-Kovács – Dax, 2008) following the work of Copus et al (2007) indicated that the selected case study areas are examples of two different paths. The Hohe Tauern National Park region characterizing more a case study of an "accumulation" group while Hortobágy National Park region of a „depletion" group. Taking the rural web concept, the aim of this paper was to exam the similarities and differences of the two regions, special regard to the governance of market dimension. Machlis – Field (2000) underline "*if one wishes to stimulate local economy the place to begin with is the export sector ...* those *economic activities within the boundaries that bring in money"*. As the two examined regions are protected areas, there are barriers to economic activities, *"export sectors"*. On the other hand the work of Mose (2007a:xv) states, that there is a new understanding of protected areas and sharp contrast to traditional concepts, focusing mainly on the conservation, new approaches are aiming at a consistent integration of conservation and development functions making protected areas 'living landscapes'. The economic activities he lists are: "*Agriculture as well as forestry, handicrafts, tourism, or education…* these activities… *offer potential arenas to test which way and to what extent this process of integration could be developed in practice."* The paper tries to get an answer if there are differences in the governance of the market along these activities in the selected areas. The hypothesis behind the work is that this can be one of the reasons for the differences in development of the two regions. Ladegård and Romstad state that against supply side, demand side is a much neglected issue in rural development. Examination of market governance dimension of rural web could be an answer to this problem as well. The first part of the paper outline the concept of rural web, what gives a frame to the work. That is followed by the case studies of the two National Parks, comparing the food networks in the two regions, and also examining the local contexts in which they take shape. The final chapter gives the comparison of the case studies and the conclusions through the link to rural web.

The concept of "rural web"

With increasing global integration of our economies the discussion on innovation and regional growth has taken account of emerging aspects of interrelations. This perspective has turned out to be also relevant for rural development analysis. As a consequence, rural action was more and more seen as a wide scope of activities influenced by the inter-play of quite different drivers and policies. This wider theoretical framework has been brought together recently by the definition of the "rural web", a more or less coher-

ent and hybrid network based on the specificity of each region (Brunori et al. 2007). It draws particularly on the concepts of networks, coherence and territorial capital. The ETUDE project in which this concept was designed highlighted in a series of case studies and reports the particular relevance for rural regions.

In all its elements the local is confronted with the perception from and interrelation to the outside. The role of networks is unquestioned in recent studies on rural change. It is important to realize that they are not limited to internal strengthening of regional identity, but transgress borders and include a plurality of networks. This understanding of networks is summarized by Murdoch, "T*he network approach is useful because it allows us to link together the development issues that are internal to rural areas with problems and opportunities that are external. In this sense the term `network' allows us to hold `inside' and `outside' together within one frame of reference*" (Murdoch 2000, p.417).

The second aspect, the coherence of activities, is seen as the spatial expression of particular modes of regulation and strategies of social groups. According to different viewpoints there is different reflection on rural change by 'internal' and 'external' observers. This leads to quite different coherences and spatial processes might be perceived simultaneously, by one group as idyllic and by others as threatening outlook necessitating active intervention.

Territorial capital can be understood as embedded in the notions of 'space of places' and 'space of flows' (Castells 2010). The current tendency to give priority to the space of flows opens the territory increasingly to the influences of global change. As Castells argues this threatens our experiences in urban and rural societies. "*The dominant tendency is toward a horizon of networked, ahistorical space of flows, aiming at imposing its logic over scattered, segmented places, increasingly unrelated to each other, less and less able to share cultural codes*" (Castells 2010, p.459). This dimension of changes affects particularly rural regions.

These considerations are summarized in the view that nowadays regional rural societies and economies are driven by multilayered networks. This rural web is hence composed of a set of interrelations and interactions between actors, resources, activities, sectors and places that are specific to each of region observed (van der Ploeg et al. 2008). Moreover, we encounter webs of different density, more or less coherence and have to take account of the dynamic evolution of webs. Considerations on the theory of rural development and empirical studies led to the definition of six dimensions of the rural web (Figure 1). Though these dimensions might be readily distinguished from each other, they cannot be separated, as the web exerts its strengths simultaneously across all dimensions.

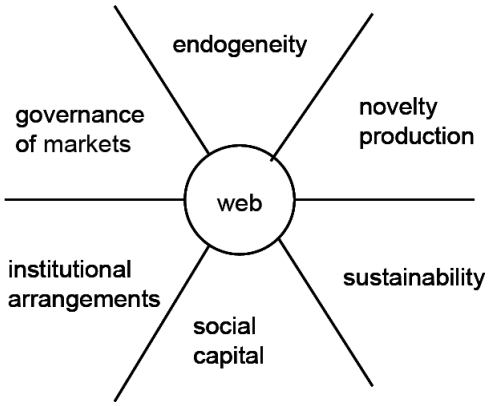

Figure 1. The theoretical dimensions of the web
Source: van der Ploeg et al. 2008, p.8

The following characterization of the dimensions intends to underscore the core relevance of the web for rural development processes:

- *Endogeneity* refers to the degree to which a regional economy is grounded on regionally available (and regionally controlled) resources.
- *Novelty production* is defined as the capacity to continuously improve processes of production, products, patterns of cooperation etc.
- *Sustainability* is defined in a variety of ways; a generally accepted notion is the existence of the social and ecological conditions necessary to support human life at a certain level of well being through future generations. Three dimensions (environmental, social and economical) of systems are emphasized.
- *Social capital* is embodied in the ability of individuals, groups, and institutions to engage in networks to cooperate and use social relations for a common purpose and benefit. Importance of trust, keeping norms and making partnership.
- *Institutional arrangements* are structures and mechanisms of social configuration and cooperation.
- *Market governance* refers to the institutional capacity to control and strengthen markets and to construct new ones (including the organization of supply chains).

The elements of the rural web are taken as a conceptual framework against which the specific organization of agricultural products in the two national park regions is analyzed.

Case study Hohe Tauern National Park region in Austria

Short description of the National Park Hohe Tauern

The National Park Hohe Tauern (Figure 2.) is the largest National Park in Austria and of the whole alpine region. It is located in the Central Alps (with altitudes between 1000m and 3798m) with an extension of more than 1,800 km2.

Its establishment looks back at a long history of protection with an agreement being signed by the three governors of the concerned provinces Salzburg, Carinthia and Tyrol to develop a common protection area already in the 1970s. Though these three provinces have some share in the National Park, the province of Salzburg has by far the largest share and will be the focus of analysis in this paper. In 1981 Carinthia declared their part as National Park, Salzburg followed in 1984 and finally Tyrol completed the protected area in 1991. In 2006 the National Park Hohe Tauern was acknowledged by the International Union for Conservation of Nature (IUCN) as protection area of the category II (National Park).

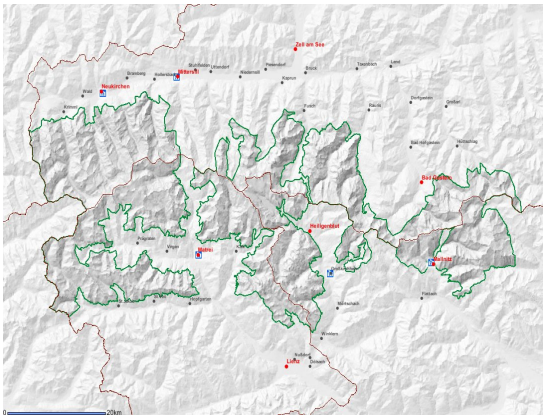

Figure 2. Hohe Tauern National Park region

This conservation area has been selected as case study because there is a long tradition of alpine farming despite the high share of wilderness areas. In the public perception this led to the shaping of the specific cultural landscape which is of outstanding ecological as well as social and economic relevance. While at the outset of the creation of the national park the conservation task was the main policy priority, meanwhile a shift in the perspective have led to a stronger valuation of the asset base in the region (Mose, 2007b). This contributed to a vision of raising the regional identity through the specific cultural heritage (Ploner, 2006). While in the core zone (65% of the area) the protection of the nature in its originality is of major importance (Huttegger 2005), in the external zone a specific cultural landscape developed which is particularly rich in species with traditional construction types and breeds of domestic animals adapted to the region. As a result an exceptional biodiversity of fauna and flora emerged overall in this area.

Population and economic activities

Table 1. shows the change of population between 2002 and 2009. The total number of inhabitants in the region decreased but not in each settlements. The average number of economic activities related to the inhabitants of the region is 0.4.

Table 1. Population and economic activities in the examined settlements

Examined settlements/ LAU2s	Population	Population	Change of the population	Economic activities
	2002	2009	2009/2002	2010
Badgastein	5 351	4 499	84.1 %	2 145
Bramberg	3 880	3 935	101.4 %	868
Fusch	758	691	91.2 %	160
Hollersbach	1 167	1 124	96.3 %	423
Hüttschlag	972	916	94.2 %	95
Kaprun	2 916	2 966	101.7 %	2 180
Krimml	878	850	96.8 %	373
Mittersill	5 567	5 417	97.3 %	2 586
Muhr	627	659	105.1 %	29
Neukirchen	2 614	2 603	99.6 %	845
Rauris	3 109	3 040	97.8 %	676
Uttendorf	2 820	2 823	100.1 %	733
Wald	1 169	1 167	99.8 %	376
TOTAL	**31 828**	**30 690**	**96.4 %**	**11 489**

In Table 2. following the Statistical Classification of Economic Activities the respective figures for the municipalities of the National Park area are calculated (only the most relevant activities are included). A higher share can be seen for the sector of accommodation, which underlines the character of the tourist region, and also the effect of the National Park on the economic structure in the area.

Table 2. Share of economic activities linked to NACE classification in the examined National Park settlements, 2008

NACECODES	NP settlements
A.. - Agriculture, forestry and fishing	0.82
B.. - Mining and quarrying	3.85
C.. - Manufacturing	11.52
F.. - Construction	12.37
G.. - Wholesale and retail trade; repair of motor vehicles and motorcycles	10.54
H.. - Transporting and storage	7.29
I.. - Accommodation and food service activities	25.29
.. Enterprise support service	5.94
.. Public services etc.	18.76

Following the concept of the National Park both the maintenance of the natural area and the protection of the cultural landscape close to a natural state are the core aims (Nationalpark Hohe Tauern 1995). While in the core zone the protection of the nature presides over all other aspects, in the external zone also the interests of mountain farmers, the regional economy, tourism, local population and science are to be considered. The combination of both aspects, an integration of protection and utilization activities leads to the favourable situation that the National Park region is able to make a considerable contribution to the regional value added and act as incentive for new ideas for a sustainable regional development (Mose 2007b).

The council of the National Park as the highest decision making body ensures cooperation between the three provinces and coordination of relevant measures and projects. As the administration of the National Park is carried out in the three National Park administrations of Carinthia, the Tyrol and Salzburg, these activities also provide a wide range of tourism offers, like guided tours, special excursions, trekking tours, presentations, visitor centres and exhibitions and link to further use of the particular assets.

In addition to that initial focus the foundation of the network of farmers, marketing initiatives, processing sector, tourism actors and handicraft enterprises („Arbeitsgemeinschaft - ARGE Nationalparkregion Hohe Tauern“) and regional key actors, like local section of the Agricultural Chamber, and land owners in the national park in 1994 contributed to develop a sensitive and sustainable way for improving economic activities and quality of life in the area. The working group set up participated in EU programmes like Leader II and Leader+ and supported regional projects. It facilitated sponsors and partners, initiated new networks, engaged in public relations and product marketing activities intensifying the interconnections between agriculture and regional tourism. In relation to the rural web it is important that further networks were built, like a network of restaurants and another one clustering guest houses for young people in the area as well as a network of women who promote traditional handicraft (Tauernblicke 2004). Recently (in 2006) the ergion wide “umbrella” network (ARGE Nationalparkregion Hohe Tauern) was modified into an association of the Local Action Group of the Leader progamme. This new institutional base retained the previous aims linked to the national park and went on with the promotion of linkages in regional development. As the association is now directly responsible for the Leader 2007-2013 programme this new organizational position allows to even further stress the use of local assets and increase reference to the national park in programme activities.

Food chain network example: organic milk of the „Ja!Natürlich“ product line

One of the most explicit examples of addressing the symbolic character and image of the region for economic purposes is the evolvement of organic farming in the region. In 1994 a close cooperation between the Nationalpark Hohe Tauern and the organic product line Ja!Natürlich of the international concern

REWE started. It had and still has the aim to provide new and stable market opportunities for the main regional products milk, beef and tourist facilities of mountain farmers. Today every second farmer in the region manages the farm according to the conditions of organic farming, and the regional dairy „Pinzgau Milch" has become the largest processor of organic milk in Austria. Organic farmers have long-term contracts with the dairy and can rely on a guaranteed takeover of their milk production, as well as considerable surcharges for organic milk. Because of the fruitful cooperation between the national park and the brand ja!Natürlich the region gained the label of an European „organic model region".

Besides the processing and marketing of organic milk, which has the longest history of cooperation between the National Park region and ja!Natürlich, the production and marketing of organic beef by the same brand as well as the tourism project of holidays on a Ja!Natürlich farm have been accomplished. Participants from both sides realize considerable advantages such as income increases/maintenance for farmers and processors, valorisation of the regional resources, continuos public relations for the national park on every package of milk, a strong customer loyality through high quality products with a distinct indication of source and high acceptance of the national park by the local population (Loferer 2006).

As presented in Table 3. about 520 organic farmers deliver 33 Mio kg milk per year to the regional dairy „Pinzgau Milch" in Maishofen, Salzburg located within the National Park region. The organic milk is collected in separated tanks with subsequent separated processing. Organic milk has meanwhile achieved the majority of the processing quantitiy of the dairy (33 Mio out of 55 Mio kg total milk processing). It is important that the organic milk is delivered to Ja!Natürlich and subsequently merchandised by REWE within the Ja!Natürlich product line. 45% of the raw milk is processed to so called „white milk products", including drinking milk, butter, joghurt, etc., another 45% to mixed milk drinks and about 10% to „yellow milk products" (cheese) (Wilhelm 2007). The products of Ja!Natürlich are placed on the market under the commission of the supermarket chains of the REWE concern Merkur, Billa, Adeg throughout Austria. About 10% of the sold milk products remain in the province of Salzburg, about 65% in Austria (without Salzburg) and about 25% are exported abroad.

Table 3. Supply Chain of organic milk in the National Park Hoher Tauern

Production	*Processing*	*Marketing*	*Sale/Consumers*
Organic milk production: about 520[1] out of 1000[2] farmers	Dairy „Pinzgau Milch" 33 mio kg organic milk (60%) (out of 55 mio kg [3])	Organic product line "Ja Natürlich" of REWE	In the supermarket chains of the REWE concern: Billa, Merkur, Adeg in Austria Consumers[2]: ca. 10% Salzburg ca. 65% Austria ca. 25% abroad

1 Ja!Natürlich (o.J.)
2 Tremesberger 2010
3 Loferer 2006

As already mentioned the cooperation between the National Park Hohe Tauern and Ja!Natürlich comprise also the production and marketing of organic beef of high quality and as third pillar Ja!Natürlich-holidays. Since 2001 there is a broad cooperation of the agency for the "holiday-region" of the national park which coordinates the whole tourism marketing activities of the region with the Ja!Natürlich farmers, showing considerable success (3.000 overnight stays per season in 2009). Tourists are able to retrace the organic products to their origins, produce themselves local products and stay in organic farms or National Park inns (REWE 2009).

Besides these activities some other local food systems developed within the region or are in the process of development. One of the more advanced projects is the „Bramberger fruit juice", which is already a product of the Austrian label „Genussregion" of the Ministry of Agriculture, Forestry, Environemnt and Water Resources since 2007. Within the Leader+ programme a consortium of national park actors, the orchard and horticulture association and some municipalities purchased a flexible modern apple press that would allow all partners to be used and could also handle smaller quantities of fruits (which is particularly important for small-structured farmers in the area). Since then the private cultivation and maintenance of the traditional regional apple and pear trees within meadow orchards could experience a certain revival. The orchard and horticulture association as the operator of the fruit press, thus could enhance use of traditional meadows with scattered fruit trees. It also provided a „Pomarium", which is an educative orchard to teach people about growing and cultivation of fruit trees in the former typical cultivated landscape.

Another project of the Leader+ programme is the „Pinzgauer Wollstadel". There women of the region manufacture and work with the wool of sheep in a traditional way and provide an illustrative example of diversification use. The produced garments (like traditional jackets, clothes, caps, gloves, etc.) are sold in the „Wollstadel", a traditional building highlighting local culture and contributing to building a symbolic value from the production. Training courses on the traditional ways of wool processing (like spinning, frisking or knitting) add to the respective activities.

The production and marketing of venison is an example of a recent activity of the current Leader programme, indicating the extension to further activities and realizing a comprehensive perception of the rural assets. This includes also food health aspects as the marketing campaign stresses the image of venison as healthy food (poor of fat, cholesterine and calories).

The list of relevant activities reveals the linkage of processing invention in the national park image and builds on the specific regional identity. Much of this development could only be achieved by the continuous involvement

of large group of networks that enhances innovatory approaches which are based on the local resources. The activities hence address a great deal of the rural web dimensions and illustrate the relevance of the concept.

Case study Hortobágy National Park in Hungary

Short description of the Hortobágy National Park

The Hortobágy National Park was established originally on 520 km^2 in 1973. The rating system for protected areas of International Union for Conservation of Nature classified it to the II. Category.

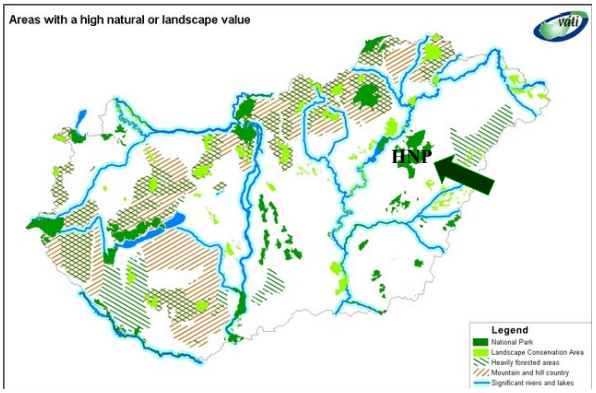

Figure 3. Areas with a high natural or landscape value in Hungary, including the HNP
Source: National Office for Regional Development (2005:20)

The area of the National Park has grown since its foundation due to the gradual preservations and taking under conservation. Its basic area is over 800 km^2 in 2010. Most part of the environmental protected area is state owned. Two NUTS2 regions, four NUTS3 regions (borders of these counties with red line in Figure 4.), 10 LAU1 regions and 22 LAU2s share area with the HNP.

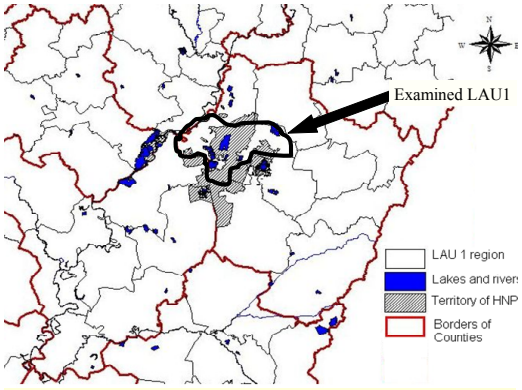

Figure 4. LAU1 regions with share in the HNP area
Source: Katona-Kovács et al. 2009

The reason for the selection this area as case study is, that HNP is the first and so far the largest national park in Hungary. The UNESCO World Heritage Commission entered the area of HNP on the list of World Heritage on 1st of December 1999. Justification for inscription were: Criterion (iv): The Hungarian Puszta is an outstanding example of cultural landscape shaped by a pastoral human society. (Nearly 60% of the area is grassland) Criterion (v): The landscape of Hortobágy National Park preserves intact and visible the evidence its traditional use over more than two millennia and represents the harmonious interaction between human beings and nature. (UNESCO, 2009) The examined LAU1 region (Balmazújvárosi, Figure 4) is the only, where all LAU2s share territory with the National Park area, so this LAU1 from the ten sharing area with the national Park has the largest share.

Population and economic activities in the examined LAU1

Table 4. shows that in twenty years the number of inhabitants decreased in each settlement[1]. The only LAU2 where this decrease was less than 2% is the centre city of the examined LAU1, which is the biggest in the examined small region, giving 57% of the total population of the LAU1 region in 1988 and 60% in 2008.

According to the database of the Central Statistical Office (HCSO), 4558 economic activities are registered in the LAU1, from which 2961 actors have only tax reference number. In the case of the other 1597 we can find different forms of economic activities (e.g. limited companies, cooperatives, associations). The average number of economic activities related to the inhabitants of the region is 0.15.

Table 4. Population and economic activities in the examined settlements

Examined settlements/ LAU2s	Population	Population	Population	Change of the population	Economic activities	Actors only with tax reference number
	1988	2002	2008	2008/1988	2010	2010
Balmazújváros/S1	18 503	18668	18 269	98.7 %	**1083**	**1934**
Egyek / S2	6 638	5919	5619	84.6 %	**206**	**497**
Tiszacsege / S3	5 624	5169	5013	89.1 %	**193**	**366**
Hortobágy / S4	1 717	1708	1601	93.2 %	**115**	**164**
TOTAL	**32 482**	**31 464**	**30 502**	**93.9 %**	**1597**	**2961**

Source: HCSO

1 In the paper the examined LAU1 is the Balmazújvárosi, which is also mentioned as small region in the text. The four LAU2s consisting the examined LAU1 are called as settlements, abbreviations refer to these LAU2s S1, S2, S3 and S4, the higher the number the smaller the settlement examined (see Table 4)

Examining those economic activities with only tax reference number the results show (Table 5.), that they are mainly activities from agriculture. Most of them are small farmers, with own land. In this category accommodation and food services activities give the highest share in Hortobágy, which is the smallest settlement of the region, but the most visited place by tourist with the concentration of tourists' attractions.

Table 5. Share of economic activities linked to NACE classification only with tax reference number in the examined settlements, 2010

NACECODES	S1 (%)	S2 (%)	S3 (%)	S4 (%)
A.. - Agriculture, forestry and fishing	**87.1**	**96.0**	**85.8**	**64.0**
I.. - Accommodation and food service activities	0	0.4	2.7	**19.5**
L.. - Real estate activities	9.1	2.0	8.2	7.9
Other activities	3.8	1.6	3.3	8.6

Source: own calculation based on the database of HCSO

Table 6.shows that even in the case of determinate economic activities primary sector also has high share, especially in smaller LAU2s (S2, S3, S4). Wholesale and retail trade gives the highest share. Results along activities are in line with other studies, which stated that there are no significant industrial establishments in the region. (Süli-Zakar, 2009) Baranyi (2008) also underlined that the region forms the periphery of the NUTS3 regions it covers.

Table 6. Share of economic activities linked to NACE classification in the examined settlements, 2010

NACECODES	S1 (%)	S2 (%)	S3 (%)	S4 (%)
A.. - Agriculture, forestry and fishing	7.2	**19.4**	**17.1**	**17.4**
B.. - Mining and quarrying	0	0.5	0	0
C.. - Manufacturing	7.9	4.4	4.7	5.2
D.. - Electricity, gas, steam and air conditioning supply	0.2	0.5	0	0
F.. - Construction	17.0	10.2	8.8	3.5
G.. - Wholesale and retail trade; repair of motor vehicles and motorcycles	**18.0**	**25.7**	**23.3**	**22.6**
H.. - Transporting and storage	5.7	1.5	8.8	3.5
I.. - Accommodation and food service activities	5.2	5.3	**9.3**	7.8
J.. - Information and communication	0.7	2.9	0	0
K.. - Financial and insurance activities	2.4	3.9	2.6	3.5
L.. - Real estate activities	4.2	1.0	0	1.7
M.. - Professional, scientific and technical activities	7.1	3.9	2.1	11.3
N.. - Administrative and support service activities	5.4	4.4	3.1	1.7
O.. - Public administration and defence; compulsatory social security	0.3	0.5	0.5	1.7
P.. - Education	2.6	1.5	2.1	0.0
Q.. - Human health and social work activities	1.8	1.5	1.6	2.6
R.. - Arts, entertainment and recreation	3.0	2.9	3.1	3.5
S.. - Other services activities	11.4	10.2	13.0	13.9
T.. - Activities of house holds as employers	0	0	0	0
U.. - Activities of extraterritorial organisations and bodies	0	0	0	0

Source: own calculation based on the database of HCSO

Here (Table 6.) accommodation and food service activities have the highest share in Tiszacsege, which LAU2 is situated next to the river Tisza, but even in this case 50% of these economic activities are low quality beverage serving activities for local inhabitants.

Aims, initiatives and networks

As in the case of Hohe Tauern NP in the core zone the protection of the nature presides over all other aspects, while in the external zone farmers, tourism, handicraft, science, the regional economy and local population are to be considered.

The three key organisations of the HNP are state owned. The HNP Directorate (Internet 1.) located in Debrecen LAU2, the Hortobágy Non-profit Limited Company for Nature Conservation and Gene Preservation (Internet 2.) and the Fish-farm of Hortobágy are located in Hortobágy LAU2 but different places. In the future there is an aim to place the three main and state owned organisations in the same building in Hortobágy and increase the cooperation between them.

The role of the HNP Directorate changed, as earlier they had environment management and authority tasks and later the authority tasks was given to the Lower-Tisza Inspectorate for Environment, Nature and Water. A lot of good initiatives of the Directorate has been started (railway on the fishpond for bird watching as well, Safari in HNP, Bicycle rout, "Csárda" rout), some of them are already achieved (e.g. visitor centre in Hortobágy LAU2, Internet 1). The organisations are also applying for different EU funded sources (e.g. along LIFE program, AEMs, regional and rural development). The problem is the lack of collaboration, communication, distribution of these funds between actors. For example the above mentioned initiatives were presented to the inhabitants on an organised Forum as the Directorate's future steps/or ongoing projects. Because the high cost of these projects the constructors of these tasks come from outside of the region. Also along an interview in the Directorate, the interviewee to the question, do you employ local actors to the environment management task, gave the answer that the reason why not is, that they are not enough qualified for the job.

Main functions of the Hortobágy Non-profit Limited Company for Nature Conservation and Gene Preservation (Ltd) are breeding animals from gene bank stocks, grassland management with the aim of animal care, ecological farming on arable land and tourism. The rate of ecological farming has been increasing since the establishment of the Ltd.. About 2,300 hectares of arable and 22,000 hectares grassland are managed by the HNP directorate, but utilised by the Ltd within the scope of an agreement on nature-protective maintenance. The Ltd became the greatest organic-primary food producer in Hungary. In 1999 Ltd was registered as integrator of organic production on 20 neighbouring farms. Regarding the webpage of the Ltd. they integrate about 26 farmers. It has to be added, as a result of the elections in 2010, the government selected new leaders for the three main organisations of the HNP. A

problem along the change is that in these cases the knowledge of the earlier actors they gained along their work is never needed. Even a farmer who was integrated through the Ltd said, that he does not know the future of their link with the integrator.

Hortobágy Local Action Group is becoming also an important actor since 2007, they have their office in the main building of the Non-profit Company. Related to the Austrian LAG this is a much younger organisation as the region has not gained funds from LEADER+, although they applied for it. Burocracy around funding and the operation of the organisation does not allow the LAG to fulfil its task along the LEADER principles and instead of putting energy to develop the region and communicate with inhabitants active members of the LAG spend their time mainly with administration. This is also underlined by the fact, that the social debate on the future of the programme, was mainly linked to administration and burocracy questions. An other problem is that the LAG is loosing the trust of the local actors, as payments are very slow, why on the other hand the deadline of applications are very strict. Even the budget of the LAG is changed as a result of the 2010 elections.

Food chain network

One of the main organic products of the region is grain (wheat, sunflower). From over the 400 organic producers in the region one third share area with the National Park. They sale their products through the coordination and integration of the Hortobágy Non-profit Limited Company for Nature Conservation and Gene Preservation and the association of organic producer in the region (East Hungarian Organic Producers Association). The grain is exported (to Germany, Switzerland, Italy) to foreign mills and processors, so the added value is not the profit of the region. There are two smaller oil processors in Karcag and Hajdúszoboszló.

An other important organic product of the region is the Hungarian Grey Cattle. This product gives the most important income of the Ltd. The Ltd. found a niche market for the meat of the Cattle. Their main buyer is the HIPP Ltd., but the Ltd. also have an own shop in Hortobágy, where the fresh meat, sausages and other processed products are soled directly to the consumers, including tourist.

Table 7. Supply Chain of the organic meat of the Hungarian Grey Cattle

Production	*Processing*	*Marketing*	*Sale/Consumers*
Organic meat production by the Non-profit Ltd and about 20 integrated farmers	Mainly by HIPP, but the Non-profit Ltd also has contract with two Hungarian processors	Through HIPP and the Non-profit Ltd.	Most of the product is sold abroad through the HIPP, but the own shop of the Non-profit Ltd. and restaurants also create link to consumers

Source: based on the interview carried out at the Ltd.

Also important organic product of the region is fish. The Fish-farm of Hortobágy has about 60 km^2 fish pound and employ about 165 people. The Fish-farm (working in the form of a join-stock company) is one of the biggest employer of the region. The whole supply chain of the fish (Table 8), is in the hand of the Fish-farm.

Table 8. Supply Chain of the organic fish

Production	*Processing*	*Marketing*	*Sale/Consumers*
Fish-farm of Hortobágy organic production on the whole area from 2004	Fish-farm of Hortobágy has an own processing factory	Fish-farm of Hortobágy	Own shop in Debrecen (NUTS2 regional centre) Cora Budapest bio market

Source: Home page of the farm http://www.hhgrt.hu/kereskedelem/elohutott.html

Beside the state owned organisations, there is a bigger private farm, called Virágoskút (http://www.viragoskut.hu/). This farm with its organic products (vegetables, tinned food, meat, milk) is well known in the region. Its activity covers the whole supply chain, from production to marketing and also selling. The family running the farm, sell their products directly to consumers on bio-markets, but also through retailers. 25 families from the region work on this farm. The label of their products has the information, that it is bio, but they do not advertise the region, there are no signs that the product was produced in the HNP region.

Additional regional products

Tourism as an additional product is presented through the work of Bodnár (2004). She states, that the World Heritage status has not resulted in making the HNP more popular among either the national or the foreign tourist. The national park region can be characterized by a transit tourist traffic at present, again loosing added value. The results of her questionnaire survey demonstrate well that the affected settlements which can take part in receiving tourists towards– except for Hortobágy village – have not prepared for this task yet. Not only the development stage of the basic infrastructure and the number of the programme offers, and its quality are uneven but in many cases the lack of the presence and cooperation of the human resources with environmental consciousness. Cooperation is insufficient at present between the HNP's organisation and the surrounding settlements and between the settlements. The HNP's organisations should undertake the initiative role in making contacts with the settlement. It should inform the local councils of its development ideas and the possibilities in them, i.e. they should implement tourist attraction together in the Zone D of the HNP.

Comparison of the case studies and conclusions through the link to rural web

Pekka et al. (2010) call attention that *current rural development has encouraged local stakeholders to look for new alternatives of rural production and local livelihood. In a way, rural communities are at present subjected to a resilience test where both the individual performance and the community support to novel entrepreneurship do matter.*" Their results show, that "*the farmers' networks are driven more by survival strategies focusing on production methods and less by competitive strategies focusing on markets.*" The market governance domain of the rural web has high importance in national park regions, because the economic structure of the regions and as a result "export sectors" has limitations coming from environmental protection. In the examined two regions farmers of the Hungarian case study are more focusing on production methods, while strategies focusing on markets are more present in the Austrian region. In HNP region farmers fight for survival, while in Hohe Tauern they attempt to distance themselves from conventional agri-food market.

We found depopulation in both regions, but the negative trend is more visible in the Hungarian case. The two examined region has around the same number of population but the number of economic activities per inhabitant is two and a half time higher in Hohe Tauern.

Endogeneity is an extremely relevant dimension within the rural web of the National Park Hohe Tauern. There is a strong awareness within local actors concerning the embeddedness of the regional food production in the regional economy. The example of organic milk shows that particularly the production is grounded in regional resources, knowledge and traditions (small scale farming), local identity and sense of place. The examples of various other networks and projects based on regional resources like the Bramberger fruit juice, the production and marketing of venison, underpin the relevance of the "local" in the production design. One conclusion might be that food production and marketing here embodies the distinctive landscape and culture into the product (milk, beef) and turns it into a sensible market value (Brunori et al. 2007, S. 13). Endogeneity domain need further improvement in the case of the HNP. Value chains in the HNP although based on regional resources are involving less actors from the region and partnerships along the chains are weaker. Although the region is part of the World Heritage actors of the HNP in the shadow of their problems do not see the possibilities linked to this resource. As endogeneity has a strong and two way interactions with novelty, endogeneity and regional identity has to be improved in the HNP. Interaction between novelty and governance over the markets has positive impact in terms of endogenous development, which is visible in the Austrian case.

The aspect of *sustainability* is even more of significant importance according to the aims of the national park (maintenance of the natural area, protection of the cultural landscape), the strong strategic orientation towards organic

production, especially of milk and beef production, and the relationship built between a small-scale tourism sector and goals of sustainability for use of the national park. Ecological sustainability is visible in the Hungarian case but sustainability linked to the other two dimensions (social and economical) is questioned.

Strong territorial identity as largest National Park in Austria and as a region with a specific cultural heritage adds to *the social capital* development in the region. This reflects the already long and still ongoing cooperation between different stakeholders within the ARGE National Park and now the LAG National Park Hohe Tauern and the National Park Verwaltung, though there could be a better on-going cooperation between the municipalities and national park council (Ploner 2006). Already in 1994 the regional institutional association (ARGE Nationalpark Hohe Tauern) engaged in organizing the local actors and aimed at enabling and improving economic activities and quality of life. More recently the ARGE turned out to become very important in backing up the Leader process and initiating a host of regional projects linked to the national park. Through the transformation of the ARGE into an association of the Local Action Group of the Leader programme the link of the Leader network to the aims and projects of the National Park even was enhanced. Particularly the intensified cooperation between "ja!Natürlich" and the national park administration and the LAG reveal the support for social capital development.

These activities led to new networks (network of women promoting traditional handicraft, network of restaurants and network of guest houses for young people) that underline the relevance of *institutional arrangements*.

REWE, the market organization involved in making use of organic products places the region National Park Hohe Tauern on the market via their organic product line "ja!Natürlich". Particularly through the extension of the organic milk supply chain and its extension to other products, like organic beef, farm holidays organic farms, the market value for the involved farmers could be sustained and increased substantially. In consequence this summed up to the label of an "organic model region" that is leading in the market in Austria and a widely recognized best-practice example. To a high degree the economic process is linked to the distinctiveness of the national park area and its products. This is a quite clear example of constructing and developing a new and powerful market with influence far beyond the regional boundaries. In the case of the Hortobágy National Park supply chains and market governance of local products are much more separated. Possibility to be another "organic model region" is there but it needs more and better links, cooperation between actors and products.

In both case study regions the institutional situation and linkages of activities is of core relevance for the effectiveness of rural development action. Particularly in the national park region Hohe Tauern a long-term commitment and dense structure of actors have contributed to strengthen this "rural web" which

can be revealed through highlighting some of the major components in its regional appearance. Our study underlined that the denser the web of domain interrelations, the greater the sustainable outcome.

Kanemasu et al. (2008:181) in their work along testing the web in one case study call for attention, „*that although the traditional process utilised ensures benefits in terms of local resource management, however, the fact that 80% of the market of that given product is controlled by an individual actor raises questions about the extent to which this rural development initiative is delivering benefits in terms of local economic development and social justice*".

In the case studies examined by Kanemasu et al. (2008), where governance of market was the most important domain, they had the result that the creation of new institutional frameworks is the weakest and less interactive domain. The results of the examined case studies in this paper find stronger relations (role of REWE, the HNP organisations and LAGs), so the aspect of a New Institutional Framework is added to the interrelations of the dimension of rural web around market governance (Figure 5). A well operating, new institutional framework can have a positive, while a weak one would imply negative effects on market governance and vice versa.

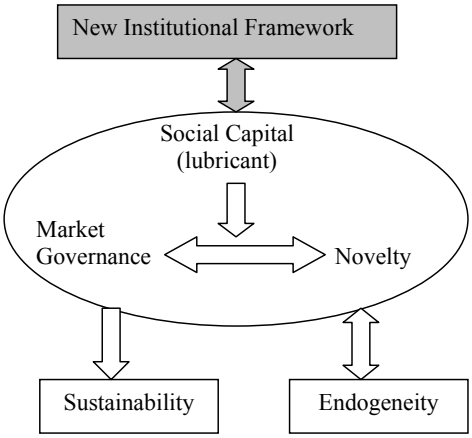

Figure 5. A pathway of rural development: domain interrelations unfolding around market governance. Source: Kanemasu et al. (p181) and addition of aspect of New Institutional Framework

Our results underlined the importance of all domains in successful rural development even in the case when governance of market was the most important domain. Stronger domains result a more sustainable region. As it was mentioned in the introduction Hohe Tauern National Park region characterizing more a case study of an "accumulation" group while HNP region of a „depletion" group, which above the differences in resources (especially financial, human and social capital) also comes from the variance in the rural web domains in the two regions.

Our work also resulted new questions, which could be examined in the future, such as: Further actor oriented analysis could be carried out (SWOT) linked to the structure of the examined food supply chains, how the different level actors think about the sustainability of the system they are involved in. Does the number of food supply chains matter? Is it important if it is a bottom-up or top-down developed chain? The share of different type of food chains in NP areas from the total output could be examined as well. Is the share of value chains in NP areas' economy the same as the share of chains in conventional areas' economy? Finally it could be examined what type of food value chain insure the resilience of the region better.

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