Analysis of the Second Order Effects of Landscape Management on Rural Economies in Bulgaria and Turkey

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1. MOTIVATION AND RESEARCH QUESTIONS
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1. Motivation and Research Questions

This research focuses on building a specific framework and to measure the contribution of landscape to the development of rural economy. The main issues are to be determined how landscape contributes to the competitiveness of rural economy and special focus on the second order effects. Analysis is made in key sectors of agriculture at the rural economy of Pazarjik region in Bulgaria and Guneykent/Isparta region in Turkey. Both regions are CSA at the CLAIM project. They are neighbor and similar countries, one is the EU member and another is a candidate for the EU
1. **Motivation and Research Questions**

The second order effects we consider *socio-economic effects downstream the use of public good type landscape services.*

There are different ways in which the value of landscape benefits can be described:

- **Positive Multiplier effects:** The (increased) use of a public good type service creates new economic activities or enhances/develops/alters existing economic activities.
- **Negative Multiplier effects:** The (decreased/finished) use of a public good type service decreases or even eliminates existing economic activities.
2. Data and Methods

• The cascade approach was implemented to define the influence of landscape on rural competitiveness.

• In economic terms, landscape can provide multiple goods and services. Society preferences on such goods or services can be determined through identifying a supply and a demand side.

• Landscape functions are divided into four groups which are: provisioning, regulating, cultural & amenity, and supporting. Every function has several potential services which contribute to the major economic sectors.
2. DATA AND METHODS

To identify the linkage between landscape services and generated output of economic sectors we use quantitative and qualitative data.

• Analysis is made in key sectors of rural economy of Pazarjik (BG CSA) and Isparta (TK CSA) region based on the data gathered in 2013.
• In Pazardjik region we carried out two surveys (48 vineyards farms and 6 wineries) and choice experiment about consumers’ preferences to the landscape composition in wine tourism.
• In Isparta region has been carried out survey with 79 rose producers in Güneykent settlement where typically represents views of rose producers in Turkey.
• In order to include stakeholders’ opinions, local stakeholders’ laboratories (LSL) were also conducted in both case study areas.
2. DATA AND METHODS

• To further validate our results, we use the case study specific results of an Analytical Network process (ANP) analysis, conducted in line with the CLAIM project.
• ANP is a multicriteria analysis, which can overcome some of the limits of monetary evaluation. It describes economic actors by including a cluster representing producers and consumers of landscape services in a rural community.
• The network constitutes of the following clusters:
  - Economic actors - producers and consumers
  - Private and public good-type services
  - Socioeconomic benefits
  - Welfare and competitiveness
3. RESULTS – CSA Bulgaria

• The landscape structure provides potential services which benefit the following economic sectors in the region: agriculture, tourism, timber industry, mining, production of construction materials and electricity generation.
• The empirical research indicates that there is demand of the following services: food, raw materials, fresh water, climate and air quality, spiritual experience and sense of place.
• Landscape values are: local brand of food, well developed infrastructure, appropriate conditions for recreation and rich heritage.
• There is evidence for contribution and benefits to the regional welfare which are health and well-being, good image of local foods, attractive tourists services, stimulated investment activity and high productivity of agriculture.
3. RESULTS – CSA Bulgaria

• The competitiveness of the region is above average. For this evaluation main contribution is higher productivity of economic sectors.
• The structure of the regional economy, and is almost constant activity over the past 10 years. The main sectors are manufacturing, mining, agriculture and forestry.
• Also well-preserved natural environment is an opportunity for the development of tourism and related sectors such as trade, services and transport.
• Demographic conditions in the region reported negative trend. The population density is below the national average and constantly decreasing.
3. RESULTS – CSA Bulgaria

Multiplier effects and feedback loops in Pazardjik region

**Soil Water sources Heritage**

**Use of heritage and soil**

**Enhancement of economic activity wine tourism**

**Development**

**Development supply side – new economic activities.**
- Development supply side – farmers, land traders; Marketing consulting companies; logistics.
- Development income side – increase of employment.
- Development income side – financial stability.

**Development income side of wineries:**
- Direct sales of wines; Revenue diversification
- Accommodation, spa activities, gourmet, recreation/

**Development supply side – construction activity, land market activity**
- Increase of: construction activity, land market activity
- Higher tax revenue.
- Development of social and technical infrastructure.
- Higher investments; Tourism innovations.

**Feed back:**
- Demand of land
- Demand of heritage
3. RESULTS – CSA Bulgaria

According to second order effects we can define them as the following:
*Direct socio-economic benefits* arise from the management of landscapes:
- The maintenance, conservation and restoration of specific landscape elements (e.g. hedgerows and tree rows, rural and farm traditional buildings, terraces and stone walls, fencing etc.)
- Additional employment opportunities and returns for the farmers, thus representing a way to diversify on-farm activities.
3. RESULTS – CSA Bulgaria

Indirect socio-economic benefits arise from landscape functions and amenities:
- The development of rural tourism linked with the attractiveness of specific landscape amenities can stimulate additional on-farm activities, such as renting accommodation on the farm and the direct selling of farm products, in local stores, markets, etc.
- Moreover, niche-market opportunities can arise for the selling and marketing by farmers of local products with high value-added (food, craft products etc.);
- Finally a positive "image" can stimulate the general demand for local products.
3. Results – CSA Turkey

• The case study area, Güneykent, has 14.29 per cent of rose oil gardens and produces 24.16 per cent of total rose oil production of Isparta.

• Agriculture is the main sector in the region’s economy. Rose farming is the most common income sources in the region. 95 per cent of the population have rose gardens.

• They also produce vegetables and cereals (mostly rain-fed conditions) and orchards.

• Livestock breeding is also common agricultural activity in the region. Both crop and animal production are carried out in small family farms and in fragmented agricultural land.
3. RESULTS – CSA TURKEY

• Landscape structure and composition provides many economic activities such as rose farming, rose tourism, agricultural area and agricultural industry in Guneykent region.

• According to observation from case study area, demand for services can be classified as tourism, raw materials and spiritual experience/sense of place.

• Addition that there are several landscape values are local brand of foods, local brand of rose products as marketed goods, appropriate conditions for recreation and rich natural heritage as public goods.
3. Results – CSA Turkey

• Parallel to Bulgarian case study, there are many similarities in terms of contribution of benefit to regional competitiveness and regional welfare are:

  ➢ good image of local foods,

  ➢ attractive tourists services,

  ➢ stimulate agricultural industry investment,

  ➢ high rose oil productivity compared to other region and

  ➢ creating value added for rose industry
3. RESULTS – CSA TURKEY

• Rich and large agricultural areas and rose farming system provide opportunities for the creating income resources from agro tourism in the region. Besides, rose and rose products provide opportunities for the development of rose industry in Güneykent region.
• Rose products has spiritual effects on human and that feature provides opportunity for the development of value added of rose industry and tourism.
• This tourism activity helps to protect the cultural heritage and traditions and it has considerable contribution for the development of cultural tourism.
• The degree of economic activity population in the region is close to the average for the country, but the unemployment rate is higher. This leads to lower wages, forcing locals to seek additional sources of income.
3. RESULTS – CSA TURKEY

Multiplier effects and feedback loops in Güneykent/Isparta region

Oil Rose Production

Multiplier effect

The development of manufacturing and service companies

Oil rose processing sector

Multiplier effect

The development of manufacturing and service companies

- Perfumery
- Cosmetics
- Other medical and aromatic plant production and processing
- Food
- SPA

Employment Income (+)

Supply Demand (+)

Investment (+)

Infrastructure (+)

Life quality (+)

Other agricultural activities (-)

Overpressure (-)

RURAL TOURISM

Accommodation Catering

Handicraft Souvenirs

Cultural heritage Niche Product/Market

Public relationship Social interaction

Feedbacks

Input and service suppliers
3. RESULTS – CSA TURKEY

Rose oil production contributes to income generation of its producers, helps to protect biodiversity, provide the also a unique raw material for rose oil production and rose oil dependent industries.

Not only these direct effects on the socio-economic of its producers and environment, rose oil farming has *secondary effects* on the region's economy, particularly in rural development. It is observed in the region that new rose oil processing and related industries have been increased by local producers. They are becoming actors not only in the raw material production but also the further steps of the value chain, recently.

The *other “secondary” effect* of the rose oil farming is on rural tourism.
3. RESULTS - ANP

- The evaluation of the network is carried out in form of face-to-face interviews led by the respective CSA leaders. Local stakeholder laboratory and are therefore all involved and aware of the topic of landscape valorisation and have participated to the validation of the CLAIM framework.
- In Bulgaria 11, in Turkey 9 experts/stakeholders took part in the exercise. The respondents have been selected from the LSL.
- Due to the different regional basic conditions, the composition of the expert/stakeholder panel slightly differs:

<table>
<thead>
<tr>
<th>Stakeholder-group:</th>
<th>CSA 7 (TK)</th>
<th>CSA 8 (BG)</th>
</tr>
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<tbody>
<tr>
<td>Agriculture</td>
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<td>7</td>
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<td>-</td>
</tr>
<tr>
<td>Tourism</td>
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<tr>
<td>Others</td>
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</tbody>
</table>
3. RESULTS - ANP

- In Bulgarian case study, raw material production contributes to landscape valorisation more than the supply of food. This result is explainable by the clear dominance of forests in the region, where the share of forest area is twice as high as the share of agricultural land.
- In Turkey case study supply of food contributes to landscape valorisation more than raw material production.
- Agriculture in the Bulgarian CSA has a lower importance than in the Turkey case study. The reason for this case study as there is only low vertical integration of farms and most of the added value is created by not the farmers but the downstream industry. That is why agriculture itself does not contribute so much to competitiveness.
4. CONCLUSIONS

• In Bulgaria contribution of landscape benefits to the regional competitiveness can define as a good image of local foods, attractive tourist’s services and high productivity of agriculture. From the bio-physical context on local competitiveness semi-mountainous landscape has highest significant influence on local employment – vineyards farms. In other side available water resources combining with riche sources of mineral water boosted tourism and balneology.

• In Turkish CSA rose oil production contributes to income generation of its producers, helps to protect biodiversity, provide the also a unique row material for rose oil production and rose oil dependent industries and create value chain. The sondary” effect of the rose oil farming is on rural tourism.
THANK YOU FOR YOUR ATTENTION!