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The ecomuseum as a sustainable product and an accelerator of regional development. The case of the Subcarpathian Province

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Abstract: The purpose of this paper is to assess the influence of ecomuseums on the socio-economic development of the Subcarpathian Province. The research methods include Internet-based survey and literature studies. The paper starts with an overview of the definitions, history and current situation of these museums. The authors examine the influence of ecomuseums on the socio-economic development of the Subcarpathian Province through the list of indicators. The role and function of ecomuseums is investigated in the view of sustainable development principles.
Within the past years the concept of sustainable development has been gradually applied within the regional tourism industry in Poland, including the Subcarpathian Province. Sustainable tourism has a positive influence on the region's development and competitiveness. It also involves cooperation among numerous stakeholders and highlights the assets of this province: the quality of the environment alongside with attractive natural and cultural heritage. In the past years the innovative form of an ecomuseum has been introduced in several municipalities. It has had a significant impact on the economic activity of local communities, especially in the mountain areas. Ecomuseum is an innovative model of an open-air museum designed, built, and managed by the local community. It embraces the holistic interpretation of cultural heritage for a sustainable development. More and more ecomuseums are now created around the world.

Keywords: tourism, sustainability, museum

1. Introduction

This paper aims at assessing the influence of ecomuseums on the socio-economic development of the Subcarpathian Province through a list of indicators. Additional goals include reflecting on:

- the definition of an ecomuseum;

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- its placement within the sustainable development framework;
- conditions for ecomuseums' development in the Subcarpathian Province.

The thesis of the paper is that the ecomuseums foster socio-economic development in the Subcarpathian Province. The research methods used in this paper are survey conducted via the Internet and literature studies.

2. The idea of an ecomuseum

The concept of ecomuseum was created after Second World War when many traditional communities were torn apart, heritage places were destroyed and habits began to change. This led to a movement in 1960s in France which encouraged preservation of those elements. It is also connected to the idea of musée éclaté which is a form of an open museum (Nazariadli, Rayatidamavandi, 2011: 92).

The term was shaped by museologists Huges de Varine and Georges-Henri Riviere during their meeting with the French Minister of Environment in 1971. Their meeting was arranged to set up a new form of linked heritage and environment protection together. Both authors changed the definition a few times within the past years. The prefix 'eco' comes from Greek word 'oikos' which means 'house' or 'household'. Therefore, ecomuseum is a museum which is created for, by and about people at their home in their environment (Keyes, 1992). The definition of an ecomuseum is ambiguous. Some researchers state that there is no standard definition (Su, 2005: 241). Maurizio Maggi presented a definition saying that an ecomuseum is a special kind of museum based on an agreement by which local community takes care of the place (Nazariadli, Rayatidamavandi, 2011: 91). The agreement is a long term commitment but not necessary in the legal meaning and form. The local community is defined as inhabitants of the place and local authorities. Its care should translate into a vision and a plan for future development. The place is not merely certain location but also the whole local heritage including social, cultural and environmental elements. Another definition was presented during "Declaration of Intent of the Long Net Workshop" in Trento, Italy in May 2004 where this kind of museum was defined as a

dynamic method in which communities preserve, interpret and manage their heritage for a sustainable development (Nazariadli, Rayatidamavandi, 2011: 92). This perspective shows that it is better to describe what is the function of an ecomuseum rather than what it is. Museologist Peter Davis (2006) proposed a new definition after examination of ecomuseums in Italy, China and Japan: a community–driven museum or heritage project that aids sustainable development (Davis, 2006: 199).

To conclude, there are numerous definitions of ecomuseums. All of them contain common elements which are as follows:

- community,
- heritage,
- sustainability,
- location.

Shaped in various forms and operating within varying conditions, all ecomuseums should be created by a local community, preserve or promote local heritage, be (self) sustainable and linked to specified location.

Most ecomuseums (80%) were created in the three last decades. Often they are located near frontiers which divide countries, cultures or minorities. It is a sign of local mobilization to protect cultural or natural heritage (Davis, 1999; Heron, 1991). An essential element of an ecomuseum is its holistic nature (Corsane, Holleman, 1993; Davis, 1999) which leads to its further connections with sustainable development.

According to Davis (1999), there are two types of ecomuseums: a discovery museum and a community ecomuseum. The first discovery museum is Armorica Regional Nature Park founded in 1968 (Hubert, 1985). The second type was first introduced in the ecomuseum in Le Creusot Montceau-les-Mines in 1974. Its various functions include maintaining cultural identity and satisfying local needs of economics, politics and regeneration (Nazariadli, Rayatidamavandi, 2011: 93). Most of ecomuseums described in this paper are community ecomuseums. Currently, ecomuseums are present in several countries around the world, especially in French speaking countries, Scandinavian countries, German speaking countries and Japan.

3. The sustainable development framework

The idea of sustainable development dates back to the late 1980s and has its roots in a report prepared by the Brundtland Commission entitled "Our Common Future" (UN, 1987). In this document sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. There are three pillars of sustainable development: ecological balance, economic growth and social progress. The first one, ecological balance, reflects concern for human interactions with the environment and strife for keeping the environment as pristine as possible, minimizing the negative impact on the environment and protecting non-renewable resources. The main condition of achieving sustainability is to consume the natural resources at a pace at which they can be replenished naturally. Ecological sustainability also includes maintenance of biodiversity, atmospheric stability and other ecosystem functions. The second pillar is economic growth and it means achieving business profits and taking into consideration social and environmental costs. Due to the market failure the costs of externalities are often omitted when counting final profits. The aim of the last pillar – social progress is to develop the quality of life. Social sustainability includes distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

In this paper the emphasis is put on the sustainable development of tourism. According to the International Union for Conservation of Nature (IUCN) sustainable tourism means all forms of tourism development, management and marketing of tourism that respects the integrity of natural, social and economic environment to ensure the exploitation of natural and cultural resources for future generations (Parks for life, 1994). The idea is to achieve harmony between tourists' needs, environment and local societies. Another definition, prepared by World Tourism Organization (WTO) states that sustainable tourism has been designed to manage all resources, such as economic needs, social and aesthetic to be satisfied, while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (WTO, 1993).

There are a few basic principles which should be followed in order to pursue sustainable tourism. Firstly, it is recommended to promote a healthy and productive lifestyle in harmony with

the environment. Secondly, it is vital to bring people from different countries together in order to create openness and tolerance. Another very important aspect is to preserve the natural resources and protect the local culture. Sustainable tourism seeks also to protect biodiversity and cultural diversity. Local people should be involved in the initiatives at all stages, from planning to creation of new sources of income. It is also important to try to reduce the amount of waste, save energy and water and eliminate substances which are damaging to the environment. Moreover, tourists and local societies should be stimulated to act in an ecological way (Zrównoważony rozwój turystyki wiejskiej, 2001).

The aims of sustainable tourism are similar to the goals of sustainable development. The first goal, the ecological one, is aimed at preserving natural resources for tourism needs and reducing pollution caused by tourism. The second goal, economical, is focused on securing the welfare for local people and assuring an optimal deployment of tourism infrastructure. The last one – social – concentrates on achieving satisfactory possibilities of employment within the tourism industry, ensuring relaxation options for local citizens and increasing the participation of local people in tourism policy. (Identyfing determinants of the development of rural tourist destinations in Poland, 2002).

It is worth mentioning that tourism is one of the most important industries for many countries and regions. In the European Union, tourism industry comprises of 1..8 mln enterprises, which employ about 5.2% of the total workforce, accounting for some 10 mln workplaces . European Commission states that the tourism industry generates more than 5% of EU GDP. Although the above mentioned statistics concern the situation in the whole EU, they provide a good context for understanding the role of the tourism industry. Especially in the underdeveloped andpoorer regions income generated by tourism is vital. Without doubt the Subcarpathian Province can be perceived as one of the poorest regions in Poland (CSO, 2012), which means that here, especially in rural areas, tourism can be a trigger for development.

4. The conditions in the Subcarpathian province

The Subcarpathian Province is situated in the south-eastern part of Poland. The province comprises an area of 17 845 km2 and has a population of about 2,1 million people, which constitutes 5.5% of the total Polish population. On average, it is inhabited by 119 people per 1 km² with the most densely populated district of Łańcut (172 people per 1 km²) and the least densely populated Bieszczady district (26 people per 1 km²) (CSO, 2012). The Subcarpathian Province was created on 1st January 1999 as a result of Polish local government reforms prepared in 1998. The province covers the area of former Rzeszów, Przemyśl, Krosno, Tarnów and Tarnobrzeg voivodeships. The area of Subcarpathian Province borders with Lesser Poland, Świętokrzyskie and Lublin Province and also with Slovakia and Ukraine. The province includes 4 city districts: Rzeszów, Przemyśl, Tarnobrzeg, Krosno and 21 land districts; altogether there are 159 communes. The most significant city in southeastern Poland is the capital of Subcarpathian Province, Rzeszów, which acts as the economical, scientific and cultural center of the region. Other large cities of this province include: Przemyśl, Stalowa Wola, Mielec, Tarnobrzeg, Krosno, Dębica, Jarosław, Sanok and Jasło.

The Subcarpathian Province accounts for 3.7% of Polish GDP, in 2009 in this province GDP amounted to 52 512 mln PLN (CSO, 2010). The most important business activities in the region are trade, industry, services and construction. In the past, the province belonged to so called “Poland B” which was the less-developed, more rural than the industrialized part “A” of Poland. The government wanted to boost the local economy and prepared a massive program of industrialization, known as the Central Industrial Region, which started in the mid-1930s. As a result of this program factories such as PZL Mielec, PZL Rzeszów or Huta Stalowa Wola were established in the region and more industrial companies were localized in Dębica, Nowa Dęba, Sanok, Tarnobrzeg and Nowa Sarzyna. Most of these companies are still active (Podkarpackie przestrzeń otwarta 2012). The unemployment rate was 17,1% in February 2013 (CSO, 2013). There are two economic zones in the region: Euro-Park in Mielec and Euro-Park Wisłosan in Tarnobrzeg.

According to the statistics (CSO, 2012), it is the least urbanized province in Poland. Only 45% of the province citizens live in cities, compared with the global Polish figure of 61.8%. The Subcarpathian Province is perceived as one of the most ecologically pristine regions of the country (CSO, 2012). The region can claim unusual natural and cultural diversity, for instance the mountain ranges of Beskid Niski and Bieszczady, the Carpathian Foothills and the lowlands of Sandomierska Valley, as well as the southern Roztocze Hills. Moreover, for many centuries the area was a melting pot of cultures, traditions and religions. Besides Polish and Jewish people the region was a home for Łemko and Boyko ethnic groups, Ukrainians, Vlachs and Slovaks. Today, the historic landmarks bear witness to this multicultural heritage, most prominent amongst them the monuments of sacral architecture (churches, tserkovs, and synagogues). A great deal of old traditions and rituals have survived until today and are recalled during various events. The landscape of the Subcarpathia is adorned with the beautiful historic architecture of the towns, as well as the palaces and castles of renowned Polish aristocratic families. Numerous attributes, such as the rich flora and fauna, interesting tourist trails, breathtaking landscapes and architecture, as well as the regional cuisine contribute to the genuine attractiveness of this land. In the region there are several protected areas, two national parks (Bieszczady National Park and Magura National Park) and 11 landscape parks.

There were 12 ecomuseums listed in the Subcarpathian Province in the literature. Most of them are located in Bieszczady County in the south-east of the Subcarpathian Province, on the border with Ukraine. Its name derives from the Bieszczady mountain range. The Bieszczady county is believed to be the least densely populated in Poland (CSO, 2012). The Bieszczady County includes Bieszczady National Park and Polish part of the UNESCO-designated East Carpathian Biosphere Reserve. One ecomuseum “W krainie bobrów” is located in Lesko County, another one in Łańcut County, and one in Strzyżów County.

There are nine ecomuseums currently (2013) operating in the Subcarpathian Province (see Table 1).

Table 1: Ecomuseums operating in Subcarpathian Province in 2013

No	Name of Ecomuseum	Develop-ment phase (2013)	Description
1	Bandrów Narodowy	Closed	The ecomuseum includes one of the best preserved wooden countryside buildings, including: Boyko cottages, smithy, cemetery and cellars. It organized numerous workshops related to the local craftsmanship. One of the biggest attractions of the place is the opportunity to see a traditional mosaic agricultural landscape. In the area, there are also natural leakages of crude oil and the ecomuseum provided information about the history of crude oil mining in the region. Another interesting place in the vicinity is the village of Steinfels with its shrub plants acting as areas of quarry for birds. The ecomuseum sold a broad variety of wicker baskets which are locally produced.
2	"Hołe" in Dźwiniacz Dolny	Operatin g	The area of ecomuseum comprises of six sites: Dźwiniacz Dolny, Łodyna, Leszczowate, Brelików, Wańkowa, Serednica and two former villages: Romanowa Wola and Maćkowa Wola. The advantage of the ecomuseum is heritage of the non-existing places and cultures combined with natural beauty. Almost all above mentioned places are located in the Słonne Mountains Landscape Park. In the ecomuseum there is 28 kilometers of educational paths. There are orthodox churches in Wańkowa and Serednica, manors in Serednica and Brelikowo, church in Leszczczowate, crude mine and Boyko's cottage in Łodyna, reserve of "Jews in Serednica", educational path in Dźwiniacz Dolny and natural monument of 200 year old lime tree.
3	Hoszów-Jałowe	Closed	The ecomuseum prepared a historic path "Trackers of lost trails" which is 8 kilometers long. The path was established with the help of teachers and students of local primary schools. It aims to present the region's past and history. The most valuable monuments are old orthodox churches in Hoszów and in Jałowe, ruins of grave chapel, ruins of church belfry, wooden Boyko cottages, remains of an old mansion, many stone roadside crosses and other interesting things and places. Moreover the history of Hoszów is related to the Bar Confederation, First World War and Polish-Ukrainian war.
4	Hoczew-Nowosiółki	Operatin g	In the ecomuseum there is a natural monument „Progi skalne na Hoczewce". Other attractions include natural resources of this area, there are many rare fish species living in the river of San, next to Hoczewka, they are appreciated by local and international anglers. There is also a local Museum of Nature and Hunting in Nowosiółki.
5	"Trzy kultury" in Lutowiska	Operatin g	The ecomuseum was established in 2006 in Lutowiska, a village situated in Bieszczady County. Creating an ecomuseum was the initiative of group of people linked to the local school. The founders were fascinated by the undiscovered and mysterious history of the place and by multitude of traces of ancient citizens. They were aware of the fact that in the past, the region was inhabited by three nations:

			Polish, Ukrainian and Jewish who lived in peace and created a rich, multicultural community. Although there are some existing traces of those cultures, still remains unrevealed the spiritual legacy of this community. Desire for exploration was the main reason for establishing the ecomuseum "Trzy Kultury". The goal was to bring back to life three cultures as one, coherent entity. The rich cultural heritage and the beauty of unique natural resources are basis for development the ecomuseum, which works actively on protecting the assets and conserving the heritage. After getting to know and understanding their own culture and history, the people became the guides. They organize many workshops, meetings with former inhabitants and other cultural events. The ecomuseum creates workplaces for locals through developing ecotourism and local heritage initiatives. It brings local people together and supports sustainable development of the area. In order to show the most interesting spots, the ecomuseum set up an educational path, which is 13 km long and marks 17 interesting places such us Jewish graveyard, the ruins of a synagogue, the old Jewish school, Orthodox churchyard, Greek-catholic, cemetery, old Boyko cottages, neo-gothic church of St. Stanislav and many others. While preparing the trail, undiscovered ruins of an old synagogue and many Jewish tombstones were found. The trail enables the visitors to get to know cultural, natural and historical heritage of Lutowiska and see the world that existed in the past and disappeared during and after the World War II. Moreover, in the ecomuseum organises permanent and temporary exhibitions. There is a gallery and a shop selling local products. The ecomuseum includes also accommodation and restaurants specializing in local cuisine. The ecomuseum is accessible not only on foot but also by bicycle or on horseback. In 2006 the ecomuseum was awarded "Heritage Award" in category of "Local Initiative protecting Cultural and Natural Heritage".
6	Łukowe-Olchowa-Średnie Wielkie-Kalnica	Closed	One of the biggest attraction of this ecomuseum was a sports horse stud, opened all year-long. The ecomuseum comprised of sites such as roadside chapels, orthodox church in Łukowe, cemetery chapel in Olchowa. In the area of ecomuseum, the traces of Wincenty Pol stay in Kalnica may be found.
7	„W krainie bobrów" in Orelec-Uherce Mineralne-Zwierzyń-Myczkowce	Operating	The ecomuseum is located in Orelec, Myczkowce, Zwierzyń and in the vicinity of those places. It was established in order to broaden the knowledge about cultural heritage of the region and to promote the region and its assets. Altogether it covers 30 kilometers of educational, cultural and touristic paths established to meet not only the needs of tourists but also to serve the local society. A lot of essential work to establish ecomuseum was done by the youth attending local schools. One of the main attraction of this place is a reserve of "Beavers in Uherce", in which the traces of beavers and their forage can be seen. Moreover there is a waterfall in Uherce, several natural monuments, educational path and many orthodox and catholic churches.

8	W widłach Wisły i Sanu	Operating	The ecomuseum offers unique way of sightseeing based on questing. It is an innovative form of sharing knowledge about the region and meanwhile to deliver an interesting touristic product. There are 23 paths, one bike route and infrastructure for nordic-walking.
9	„Zielony cień Marii Czerkawskiej" in Rudenka	Operating	The ecomuseum was established in 2007 in Rudenka and Bezmiechowa. The ecomuseum comprises of 14 sites, which are of high cultural and educational importance. There are an old smithy, orthodox church, well, manor of Czerkawski family, two reserves and educational path. The museum was established to unite the inhabitants and to encourage them to work together to protect the cultural heritage of a local poet – Maria Czerkawska, who was born and lived in Bieszczady.
10	„W krainie Bojków" in Zatwarnica	Operating	The ecomuseum "W krainie Bojków" was established in Zatwarnica, an old forest settlement situated at the foot of Połonina Wetlińska. Boyko is a distinctive ethnic group of highlanders or mountain-dwellers, who inhabited Carpathian highlands. The ecomuseum set an educational path of history and nature called "Hylaty". The main attraction of the path is an old Boyko cottage, an old water mill, the biggest waterfall in Bieszczady region, typical for this place trees such us firs, birches and sycamores. There is a path to Dwernik Stone (1004 m) which is one of the most beautiful peak of Bieszczady Mountains. It is also possible to see many species of animals and birds such us red deer, lynx, martens and others.
11	„Siedem przysiółków" in Rakszawa	Operating	The ecomuseum in Rakszawa is still under construction. The main attraction of this place is a Neolithic thematic village – settlement Rakszawa.
12	„Góry wolności" in Frysztak	Operating	The ecomuseum was opened in 2011. Founders were fascinated by the idea of ecomuseums that were previously opened in the region of Bieszczady and desired to open one in Frysztak. The aim of the ecomuseum is to create one, coherent touristic offer and to show the main attractions of the region. Moreover the ecomuseum focuses on integration of local communities. There are many artists, painters, sculptors and craftsman living in the area of Frysztak. Their art combined with natural beauty of the place and unique tourist attractions is the strength of the organisation. The ecomuseum prepared for visitors an unique way of sightseeing – questing. Each tourist gets a short rhyming poem or riddle, which serves as map and enables to find other attractions. The most interesting monuments are church in Lubla and the Stępina-Cieszyna Railway Shelter Complex.

Source: Authors' own elaboration, based on Dokumentacja wzorcowej ścieżki kulturalno-przyrodniczej, łączącej elementy przyrodnicze wraz z lokalną kulturą, tradycją. Metodologia. www.zielonepodkarpacie.pl/. Accessed on: 2013-05-06.

4. Analysis of Subcarpathian Province ecomuseums

As stated in the introduction, the goal of the study is to assess the influence of ecomuseums on the socio-economic development of the Subcarpathian Province through the list of indicators. The starting point for creation of indicators was the analysis of commonly used tools to assess business impact. It has shown that various methods of impact measurement used by governmental and non-governmental organizations cannot by directly applied to the ecomuseums which are to the very different nature of the latter, because they operate on the verge of business model and association form. They often exist as semi-formal organizations, sometimes with undefined legal structure and do not act as one single company. The profit maximization is not the ultimate goal thus they implement different growth strategies. One of the analyzed tools was Measuring Impact Framework developed by the World Business Council for Sustainable Development (WBCSD, 2008). The authors decided to take it as a starting point and adapt to measuring the ecomuseums.

The proposed clusters of business activities which are governance and sustainability, assets, people, financial flows do not match the form of ecomuseums. Therefore three areas corresponding to the sustainable development pillars were chosen. These are as follows:

- regional development – economic aspect;
- environment protection – environmental aspect;
- local community – social aspect.

Having defined the objective of the study as stated above, the survey was narrowed to nine ecomuseums. The sources of impact identified within each aspect are presented in the Table 2.

Table 2. Ecomuseums impact measurement

Aspect	**Measure**	**Type of impact indicator for socio-economic development**	**Scores**
regional development – economic aspect	Number of people employed (1.1.)	Increasing employment	0 – no 1 – one or more
	Plan to employ new people in next 12 months (1.2.)	Creating new employment possibilities	0 – no 1- one or more
	Trainings for the employees (1.3.)	Improving human capital quality	0 – no 1 – yes

	Number of visitors per year (1.4.)	Promotion of region	0 - <10 0,5 - <10,574> 1 - > 575[1]
	Creation of new facilities (1.5.)	Improving infrastructure	0 – no 1- yes
	Creation of new companies (1.6.)	Supporting local entrepreneurship	0 – no 1- yes
	Development of existing companies (1.7.)	Supporting local business	0 – no 1 – yes
	Procurement of local products (1.8.)	Increasing regional GDP	0 – no 1 - yes
environment protection – environmental aspect	Promotion of environmental and social activities (2.1.)	Raising environment quality and catering for society needs	0 – no 0,5 – one 1- more
	Inclusion of protected areas (2.2.)	Raising environment quality	0 – no 0,5 – one 1- more
	Energy and water use reduction (2.3.)	Efficient resource management	0 – no 1 - yes
	Renewable energy use (2.4.)	Efficient resource management	0 –no 1- yes
	Animal and plant protection (2.5.)	Raising environment quality	0 – no 1 -yes
	Tourist traffic risk management (2.6.)	Risk management for region	0 – no 1 - yes
	Introducing signs and information tables (2.7.)	Infrastructure development	0 – no 1 - yes
local community – social aspect	Inclusion of local community (3.1.)	Improvement of human capital	0 – no 0,5 – one 1- more
	Partners (3.2.)	Civic society development	0 – no 0,5 – one 1- more
	Evaluation of ecomuseum presence (3.3.)	Promotion for region	0 – no 0,5 – one 1- more
	Support to unprivileged groups (3.4.)	Dealing with social issues	0 – no 0,5 – one 1- more
	Promotion of diversity (3.5.)	Civic society enhancement	0 – no 1- yes
	Support for culture and art (3.6.)	Promotion of region	0 – no 0,5 – one

[1] Median of the total number of visitors.

			1- more
	Trainings for visitors (3.7.)	Improvement of human capital	0 – no 1- yes
	Raising awareness actions (3.8.)	Promotion for region	0 – no 0,5 – one 1- more
	Heritage objects protected (3.9.)	Promotion for region	0 – no 0,5 – one 1- more

Source: Authors' own research.

Table 3. Scores of ecomuseums

No	Name of Ecomuseum	Economic	Environmental	Social
1	Bandrów Narodowy	-	-	-
2	"Hołe" in Dźwiniacz Dolny	31.25%	57.14%	88.89%
3	Hoszów-Jałowe	-	-	-
4	Hoczew-Nowosiółki	na	na	na
5	"Trzy kultury" in Lutowiska	50%	71.42%	88.89%
6	Łukowe-Olchowa-ŚrednieWielkie-Kalnica	-	-	-
7	„W krainie bobrów" in Orelec-Uherce Mineralne-Zwierzyń-Myczkowce	na	64.28%	83.34%
8	Ekomuzeum w widłach Wisły i Sanu	31.25%	42.85%	66.66%
9	„Zielony cień Marii Czerkawskiej" in Rudenka	na	na	Na
10	„W krainie Bojków" in Zatwarnica	50%	57.14%	61.11%
11	„Siedem przysiółków" in Rakszawa	50%	35.71%	55.56%
12	„Góry wolności" in Frysztak	31.25%	28.57%	77. 78%

Source: Authors' own research.

The ecomuseums were assessed and compared based on the scores related to each impact indicator. The maximum scores for each aspect were respectively 8 = 100%, 7 = 100%, 9 = 100%.

The most problematic aspect was the economic development. Three ecomuseums received 50% of scores. Higher results were observed in the environmental aspect. The most developed was the ecomuseum in Lutowiska (71.42%). The same ecomuseum as well as "Hołe" got highest scores in the social aspect (88.89%).

4.1. Methodology

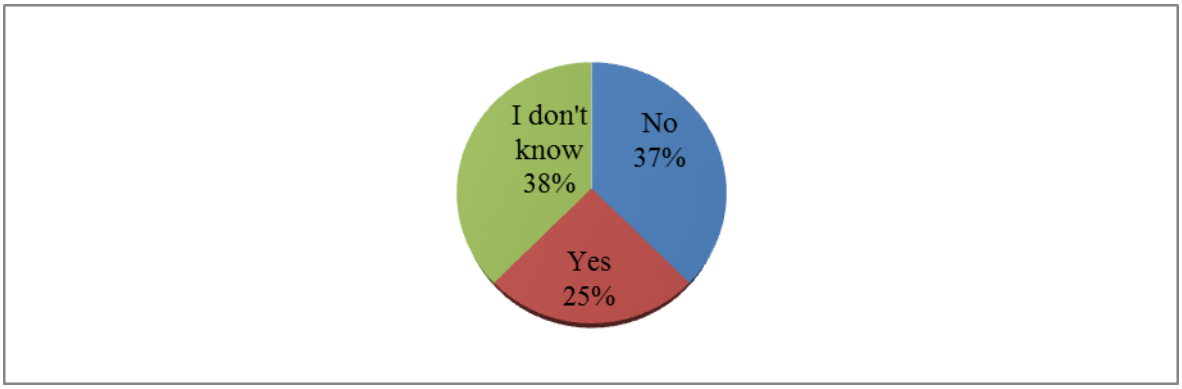
The study was based on an online survey preceded by telephone calls with all the ecomuseums in the region. The aim of the survey was to collect up-to-date information referring to sustainable development indicators proposed by the authors which allows a comparison of the ecomuseums. The questionnaire in Polish was sent by the email to twelve ecomuseum representatives. It comprises of three sections (economic development, environment protection, local community) and 35 questions (12 closed, 12 open and 11 semi-open questions).

The collection of the questionnaires was not random and the sample cannot be defined as statistically significant. As the result, the authors decided to abandon quantitative methods and concentrate on comparison of case. Out of 12 institutions contacted we have received 58% of answers. Three of the contacted museums were non-existent. Two were planned but did not succeed to open (Hoczew-Nowosiółki, Łukowe). The main reason for the closure was lack of funding and support. One was closed after the death of the leader (Bandrów Narodowy). Out of nine existing ecomuseums 77% filled in the questionnaire which is a positive result. The ecomuseums which received the survey were those under construction, planned and operating.

4.2. Results

The first section describes the indicators linked to the economic development of the region. Only one of the ecomuseums employs workers. 25 % of the museums consider employing or involving as a volunteer new people in the following 12 months (see Figure 1). As a consequence trainings for the employers is organized in one museum. It is conducted repeatedly for the craftsmen and concerns medieval crafts performed in the town.

Figure 1. Do you consider employing or engaging another person as a volunteer within next 12 months?



Source: Authors' own elaboration.

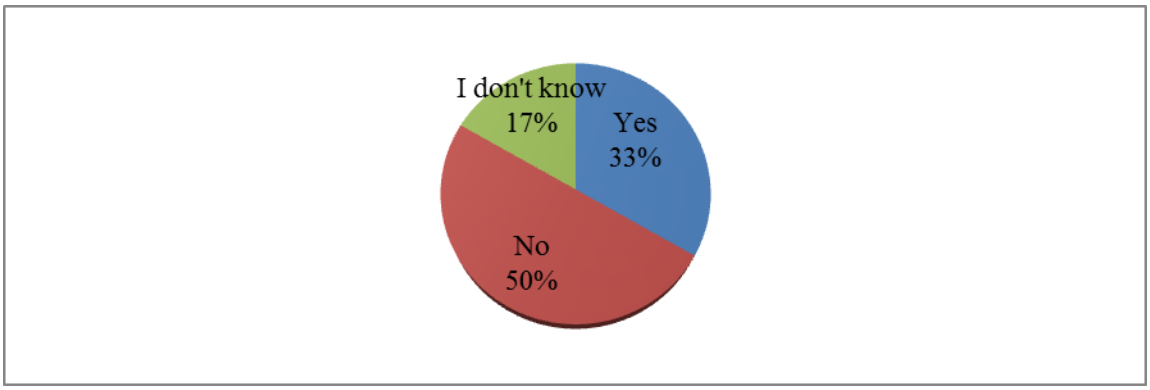
The average number of visitors estimated by respondents reaches 1371 people per year. In 67% of the cases, ecomuseums contributed to the construction of the local infrastructure. The examples mentioned by the representatives include educational trails, information center, shelters, signs, viewing terrace and benches.

Presence of ecomuseums did not stimulate creation of new enterprises so far. Half of the respondents had no information, the others gave a negative reply. The museums performed better as it comes to the development or promotion of already existing enterprises. 33% of the ecomuseums offered this kind of support (see Figure 2).The distinctive cases are an art gallery "Na dwie ręce" in ecomuseum "W krainie Bojków" and a company Aktywne Bieszczady (www.aktywnebieszczady.pl) initiated thanks to ecomuseum "Trzy Kultury".

Often (83%) ecomuseums support distribution of local products. To reach this goal the ecomuseums organize fair trades, special events and permanently display the products in the information centers. These were traditional dishes, honey, embroidery and other artistic products.

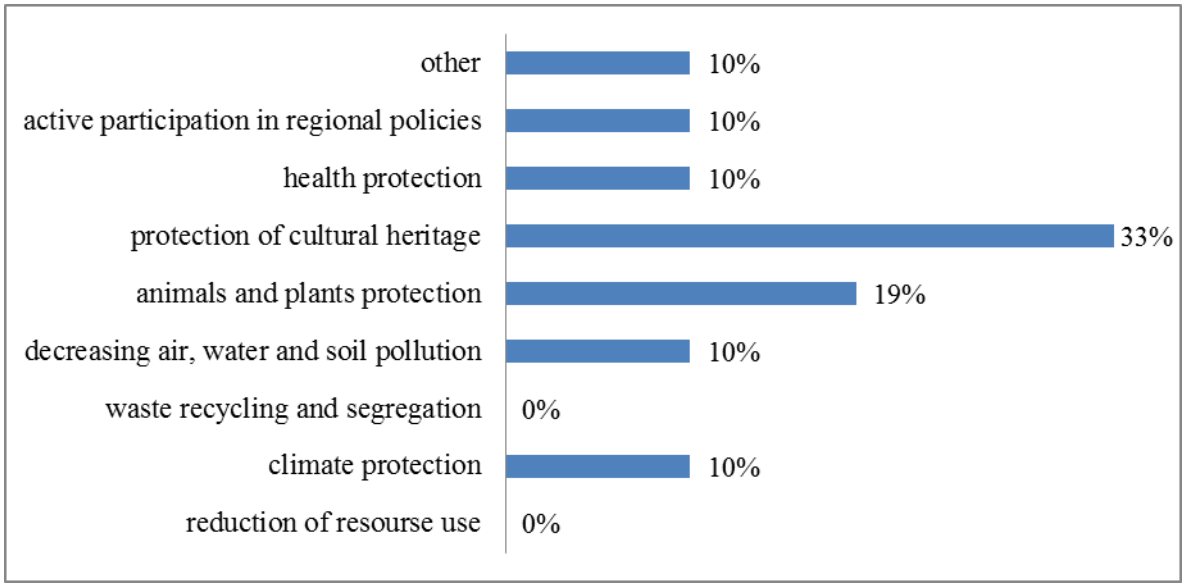
The second area of study was environment protection. Although most of the museums concentrate on the cultural heritage protection (33%), the second chosen option was preservation of fauna and flora species (19%) as presented in Figure 3.

Figure 2. Have the ecomuseum contributed to the development of existing companies in the region?



Source: Authors' own elaboration.

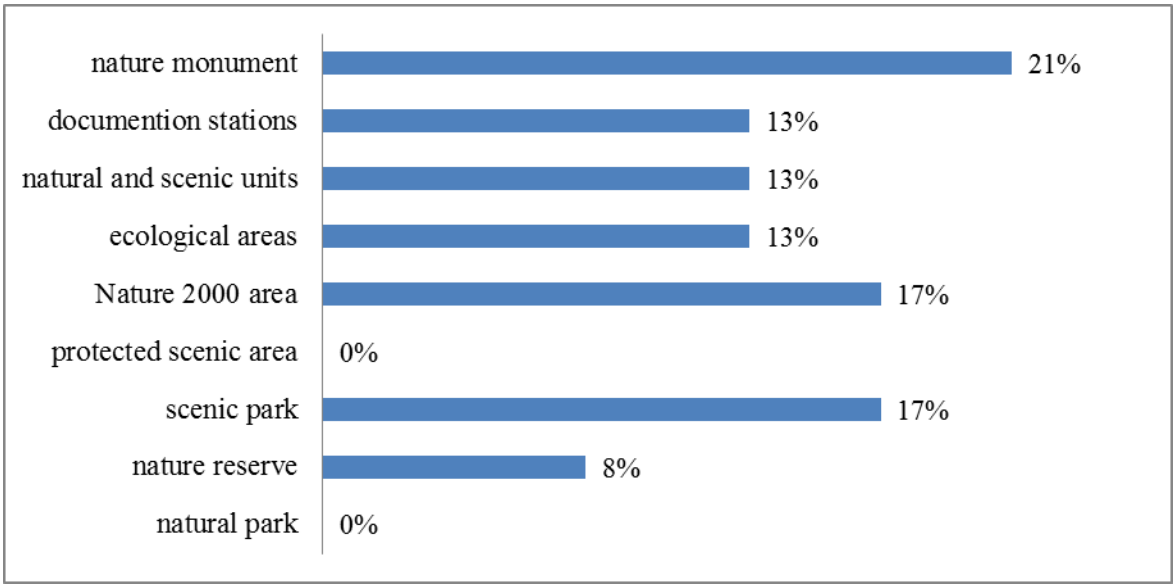
Figure 3. What are promotion areas of the ecomuseum?



Source: Authors' own elaboration.

Animal and plant protection may be one of the priorities because most of the ecomuseums are located within protected areas (see Figure 4). Two of the ecomuseums, "Hołe" and "W krainie bobrów", have special protection programs.

Figure 4. Does ecomuseum include any protected areas?



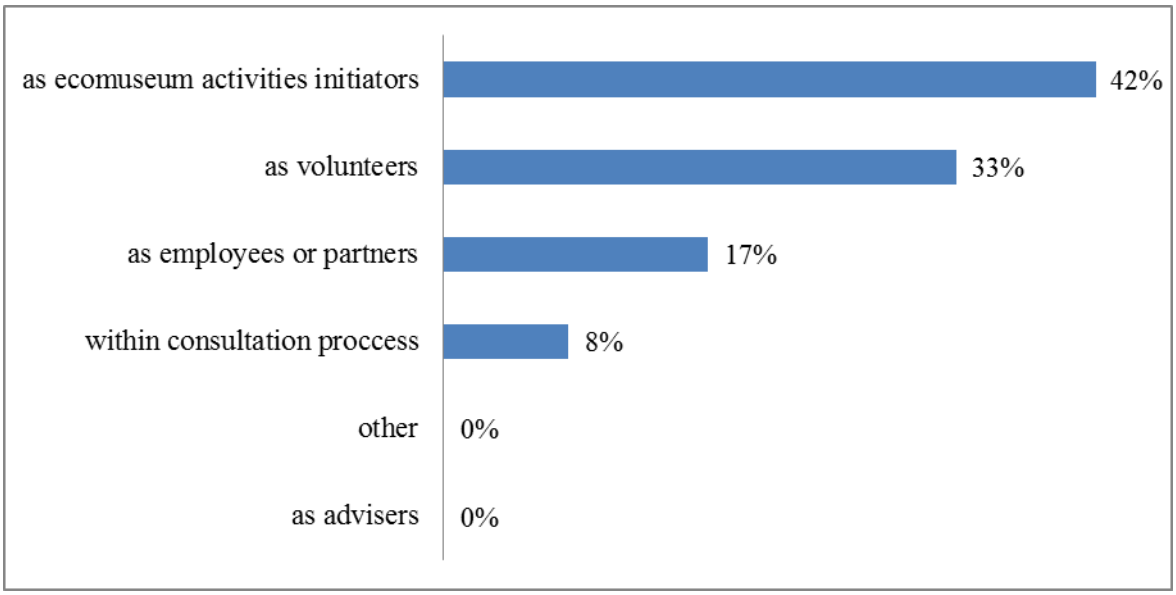
Source: Authors' own elaboration.

The issue which is not addressed by the museums is resource use. None of the ecomuseums reported actions to reduce water or energy consumption within its boundaries. Only 29% of ecomuseums have facilities for the solar energy production.

The percentage of the ecomuseums who have planned actions to prevent potential negative influence of tourists presence in the region may seem to be low (29%). However, this responsibility is ambitious for such a small organization and as a consequence planned risk prevention should be appreciated. The informative function of the analyzed subjects is performed well. As much as 86% of them introduced signs of trails, paths and discovery sites to facilitate the flow of tourists.

The third aspect which was elaborated in the survey was involvement of the local community (see Figure 5). It was often pointed as initiators and leaders of initiatives (42%). The next chosen options were volunteers, employees and partners.

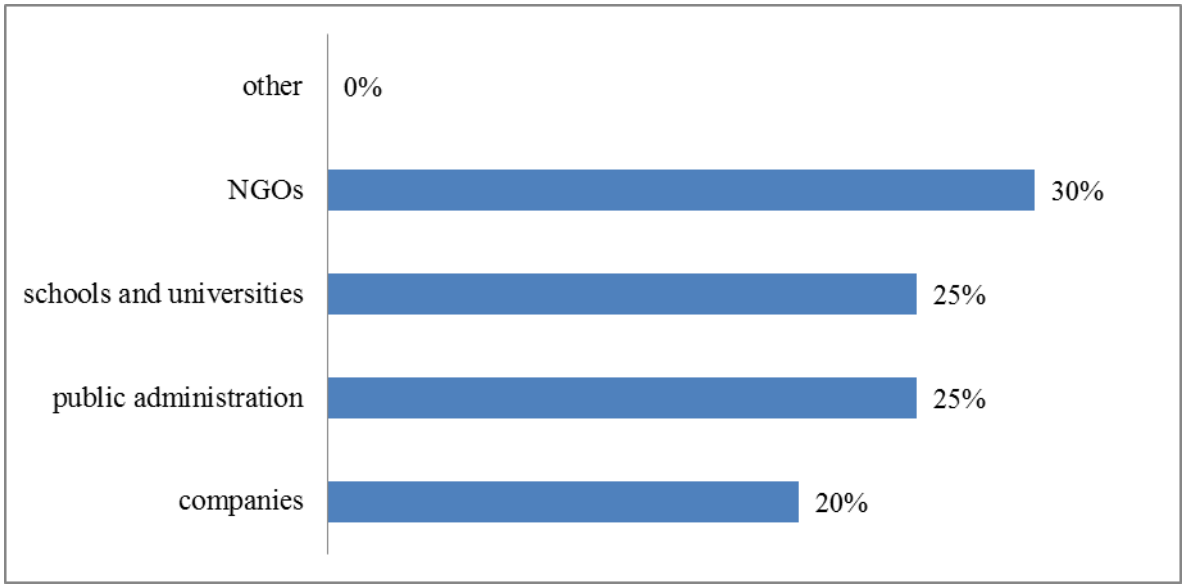
Figure 5. How the local community is included in the ecomuseum actions?



Source: Authors' own elaboration.

Following the question of the local community role, we asked about the main partners of the ecomuseums (see Figure 6). The distribution of answers given in the cafeteria was relatively even. Most museums partner with non-governmental organizations including associations and foundations.

Figure 6. Who are the partners of ecomuseum?



Source: Authors' own elaboration.

The survey included a question on the local community opinion on the ecomuseum. According to the responders, the community attitude towards ecomuseum is rather positive (43%) or strongly positive (29%). The rest described it as neutral.

Ecomuseums conduct supportive actions for the unprivileged. 25% of the examined cases organize support for senior people and 13% for the poor. Interestingly the other group mentioned by respondents was artists. The craftsman and artists who constitute around 30% of "Góry Wolności" members are senior citizens on the retirement or permanently unemployed. Some are subject to the poverty threat, all due to the age or lack of employment are socially excluded. The ecomuseum programs activate those people, raise self-esteem, give possibility to earn. However, according to the respondent the most important is the psychological aspect which is a possibility to meet, go out of the house and helplessness.

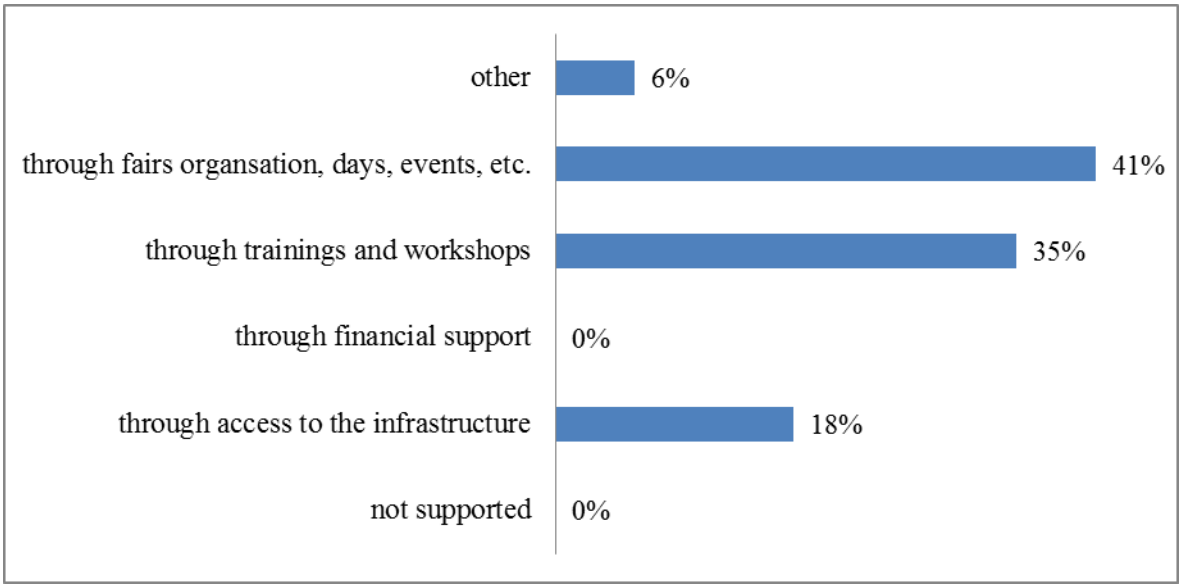
Ecomuseums promote diversity due to the fact that 57% of them have multicultural or multinational character. The case of "Trzy kultury", which integrates Polish, Ukrainian and Jewish heritage is a good example.

The common forms of visitors' involvement are workshops (43%). In "Hołe", they include skills as follows: traditional bread baking, paper making, felting wool, herbalism, pottery, basketry, painting on glass.

In "Góry Wolności" the workshops include crafts, traditional and vegetarian cuisine, creating apiary. Last year trainings entitled "Sami sobie" included internal workshops of ecomuseum's members. The aim was to collect best practices which will help to improve presentation techniques. In "Trzy Kultury" there are guided tours connected to craft workshops.

There are various ways in which ecomuseums are promoted. The most popular option are fairs and events (see Figure 7).

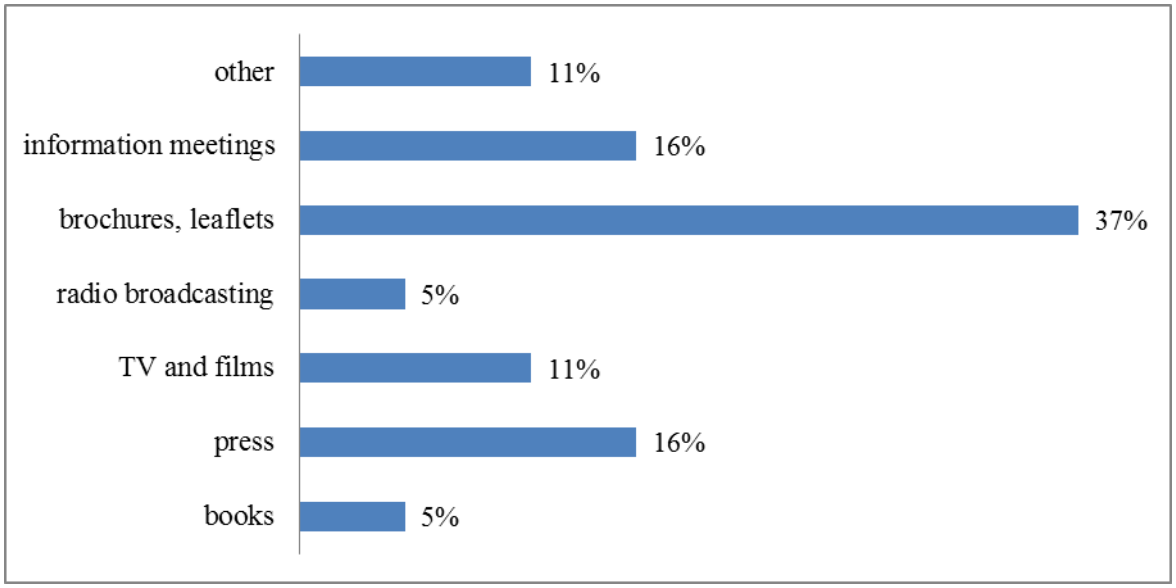
Figure 7. How is the local culture and craft supported?



Source: Authors' own elaboration.

Most often ecomuseums choose a printed form of promotion – brochures and leaflets, press releases and information meetings (see Figure 8). All these forms influence mostly local audience.

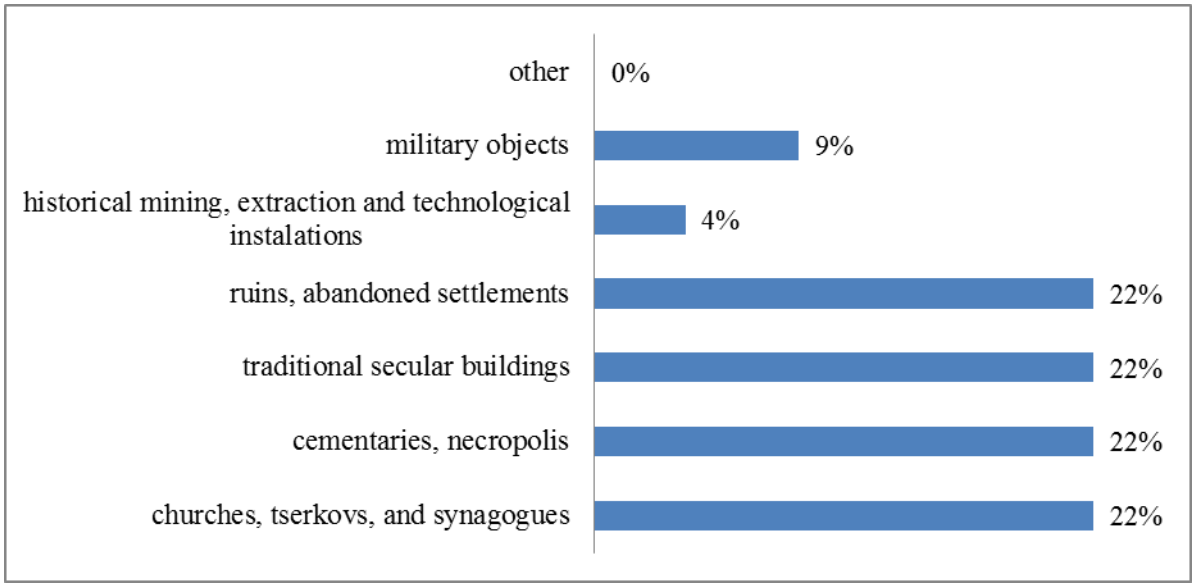
Figure. 8 How is ecomuseum informing about its activities?



Source: Authors' own elaboration.

Among the building and monuments which are located within the boundaries of ecomuseum there is an equal share (22%) of secular and religious building as well as ruins and cemeteries. Historical mining installations are present in one of ecomuseums (see Figure 9).

Figure 9. What kind of cultural and historical object does the museum include?



Source: Authors' own elaboration.

5. Conclusions

"We are a young ecomuseum created in the autumn 2010. We are still working on our offer and activities. We decided that tourists will be led by quests instead of signs and tables. Currently, we start realizing the project "Rozmaitości Gór Wolności" supported by Swiss financing"

Magdalena Stefanik, Ecomuseum "Frysztak Góry Wolności"

This quotation shows the up-to-date development state of many ecomuseums. They are still in the early phase, collecting funds needed to develop. Reaching to the ecomuseums' leaders is also difficult because the responsibility for them is dispersed. This situation leads to the conclusion that there is great potential to influence sustainable socio-economic development of the region. However, at the moment this objective is partly addressed.

Basing on the survey results, the thesis of this paper can be partly confirmed at the present state of ecomuseums development in the given region. They received high scores in the social and environmental aspects, yet there is untapped potential in the economic aspect. Due to this fact, the authors of this paper propose some suggestions to foster current performance and future development of the ecomuseums. The ecomuseums may consider the following actions:

- launch cooperation with institutions stimulating economic development of the region, such as business incubators, employment agencies, etc.
- create sustainable relation with regional universities which may offer know-how and graduate students in tourism and management as support
- continue to apply for grants and programs organized by regional, national and international institutions such as European Union
- create twinning partnerships with foreign ecomuseum to transfer best practices.

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Ekomuzeum jako produkt zrównoważony oraz czynnik napędowy rozwoju regionalnego na przykładzie województwa podkarpackiego

Streszczenie

Celem artykułu jest ocena wpływu ekomuzeów na rozwój społeczno-gospodarczy województwa podkarpackiego. Ekomuzeum to innowacyjny model muzeum na wolnym powietrzu, które zostało zaprojektowane, zbudowane oraz jest zarządzane przez przedstawicieli lokalnych społeczności. Metody badawcze zastosowane w pracy to badania ankietowe i literaturowe. Pierwsza część artykułu obejmuje przegląd definicji, zarys historii i bieżącej sytuacji wśród muzeów tego typu. Autorzy zbadali wpływ ekomuzeów na rozwój społeczno-gospodarczy województwa podkarpackiego za pomocą stworzonej przez nich listy wskaźników. Rola i funkcja ekomuzeów jest analizowana w świetle zasad zrównoważonego rozwoju. W ostatnich latach wzrosło zastosowanie koncepcji zrównoważonego rozwoju w sektorze turystycznym rozwijającym się w polskich regionach, w tym także w województwie podkarpackim. Zrównoważona turystka wywiera pozytywny wpływ na rozwój regionu oraz na jego konkurencyjność. Wymaga współpracy licznych interesariuszy oraz promowania atutów danego regionu, takich jak jakość środowiska, atrakcje przyrodnicze czy dziedzictwo kulturowe. Innowacyjna forma jaką jest ekomuzeum została wprowadzona w kilku gminach w województwie. Stworzenie ekomuzeum miało znaczny wpływ na aktywność ekonomiczną lokalnej społeczności, zwłaszcza tej zamieszkałej w terenach górzystych.

Słowa kluczowe: turystyka, zrównoważony rozwój, muzeum.