SOCIAL EXPECTATIONS CONCERNING LANDSCAPE QUALITY OBJECTIVES FOR THE ROZTOCZE – SOLSKA FOREST REGION

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Summary. The European Landscape Convention obligates EU countries to elaborate and implement a landscape quality objectives (standards) for regions which are under quick transformation, or require special protection. These objectives should be expressed by experts, after examination of local social expectations. In order to examine social expectations concerning landscape quality objectives for the Roztocze – Solska Forest region a survey was conducted. The questionnaire was filled in by 8 social and work groups of people, which exerted an important role in protection and creation of the landscape of the region and by farmers and tourists. The results show which features of the landscape of the region are considered to be the most important, worthy to be preserved and improved. The preferences of each respondents groups about landscape quality and threats were defined.

Key words: European Landscape Convention, landscape quality objectives, socio-ecology, biosphere reserve, Roztocze region, The Solska Forest

INTRODUCTION

A need for establishing the landscape quality objective was formed by the European Landscape Convention on October 20, 2000. This convention describes the landscape quality objective as „the formulation by the competent public authorities of the aspirations of the public with regards to the landscape features of their surroundings” [European Landscape Convention 2000].

The identification and improvement of this objective has a special significance in regions with great natural, cultural and landscape values. The UNESCO Biosphere Reserves are on the top of this list. Till the half of 2008, 531 Biosphere Reserves were established in the world. Among them, there are nine biosphere reserves in Poland. Scientific documentation is collected to establish
some new reserves. The Roztocze – Solska Forest biosphere reserve belongs to this group (Fig. 1). Its area will comprise 264 796 hectares in Poland and 38 830 hectares in the Ukraine [Chmielewski (ed.) 2004]. This region was nominated as the first study area for identification and improvement of the landscape quality objective in Poland.

GENERAL CHARACTERISTIC OF THE STUDY AREA

The Roztocze – Solska Forest biosphere reserve is located in the south-east of Poland, near the Ukrainian border. It covers almost the whole physiographic macro-region of Roztocze and the mezo-region of the Biłgoraj Plain. It is one of the most important water source regions in Poland. Two rivers – the Wieprz and
the Tanew, which play an important role in the hydrographic system of Poland, have their beginnings in this region. A few smaller rivers, which have a regional significance, have their beginnings in this region as well.

Photo 1. Field mosaics of West Roztocze (T.J. Chmielewski)

Photo 2. Historical cottage in Roztocze (T.J. Chmielewski)
This region is unique in the world due to its diversity of forest, peat-bog, meadow and steppe and arable ecosystems. The unique natural richness of this region resulted in creating here 1 national park, 4 landscape parks, 15 nature reserves (1 fauna reserve, 3 peat reserves, 11 forest and landscape reserves), 2 landscape protected area and more than 30 ecological lands.

About 10% area of the Biosphere Reserve was nominated to be given the status of Natura 2000 habitat sites [Chmielewski et al. 2003]. Unique in Europe is the characteristic multi-stripes field mosaic, with lines of numerous balks covered with various weeds and numerous clusters of trees and bushes (Photo 1). Many examples of traditional, wooden architecture were preserved in rural settlements. Interestingly, the buildings are typical of the regional architecture in Roztocze (Photo 2).

**METHOD OF IDENTIFICATION OF LANDSCAPE QUALITY OBJECTIVES**

European scientists have been working on the landscape quality objective since about ten years ago. The biggest activity in this research can be observed in Spain, Portugal, The Netherlands and Italy, and among the Central-European countries – in Slovakia [Arriaza et al. 2004, Godienė 2006, Nagué and Sala 2006, Olmo et al. 2006, Rossi et al. 2006, Sanz et al. 2006]. Research on identification of landscape quality objectives in the future Roztocze – Solska Forest biosphere reserve is the first such attempt in Poland [Chmielewski and Sowińska 2006, Sowińska and Chmielewski 2007, 2008].

According to the European Landscape Convention, landscape quality objectives identification must take into consideration the aspirations of the local public. To examine the views of the local community on features of the Roztocze and the Solska Forest landscapes, a questionnaire was used. The questionnaire was conducted among 8 social and work groups of people who exerted an important role in landscape protection and management in this region.

The respondents were: 1) farmers, 2) experts-scientists, 3) employees of the national park, landscape parks and public forests, 4) representatives of local government, 5) tourists, who took their rest in Roztocze and the Solska Forest, 6) members of social organizations supporting ecology (NGO) and members of photographic societies, 7) teachers, who work in the region, 8) students, who come from the Roztocze and Solska Forest.

The questionnaire was conducted among 30 respondents in each group, 240 people in total. The questionnaire consisted of 6 tasks which aimed at revealing key and valuable characteristics of natural and cultural components of the landscape or threats to the landscape quality objective. Each task contained 4 such features. The respondent was also to add some new features to the list. The respondent was to fill in the questionnaire by awarding a certain number of points: from 1 to 5 – for given features of the landscape. The respondent was to
give 5 points for a feature which he considered the most important for the preservation of the landscape; the respondent was to give 1 point for a feature which he considered the least important for the preservation of the landscape. In the last task the respondent was to write his own suggestions about new features of landscape, along with their gradation.

RESULTS

The results of the questionnaire revealed that the features proposed by the authors of the questionnaire were given predominance over features given by the responders. Importantly, a very high grade was given to multi-stripe field mosaic (1033 points in question 3 – land use structure and 908 in question 4 – cultural heritage) and to the mosaic of fields and forests (952 points in question 3) (Fig. 2). Those two features were highly graded especially by employees of the national park, landscape parks and Public Forests, and by members of NGO. [Chmielewski and Sowińska 2006, 2007].

Very low grade were given to two features proposed by the authors – open space of fields and meadows (685) and to rural and provincial settlements (701). Those two features were graded very low by all the groups of respondents.

Additional features written by the responders created a very long list (over 80 proposals). Among them, the highest scores of points were given to:

– natural state of rivers valleys (106),
– rural landscape without buildings and technical infrastructure (88),
– high diversity of wild flora and fauna (82),
– loess ravines and gullies (94).

Among the major threats to the landscape quality of the region was the proliferation of habitable buildings and summer cottages in open landscape (944). The remaining threats were given much lower number of points: the devastation of natural structure of water courses and the transformation of river valleys (823); the influence of changes of characteristic features of rural architecture on ordinary architecture (760); the construction of cell-phone towers and wind-power plants in the most exposed view-points (757). The respondents also added 14 additional threats, for example:

– contamination of the components of environment (94),
– illegal dumping grounds in forests (53),
– cutting of forests (43),
– uncontrolled tourism (34).

The differences of opinion expressed by people from different social and work groups were not big and ranged from 3 to 10%. The opinions expressed by people from different social and work groups were the most similar for the question – Which threats to the quality of landscape do you consider to occur? – and the most different for the question – Which features of natural forms of land-
scape formation and components do you consider the most important to be preserved? The highest difference in the number of points were given to the variety mosaic of different kind of ecosystems (38). This feature obtained 83 points in students’ opinion and 121 in the members of NGO’s (question 2) (Fig. 3).

The most significant different opinion was presented by farmers who for all the questions gave the highest grade to features which were graded by almost all of the other groups as not the most important to be preserved. For example, for question 3, farmers and students gave the highest number of points to mosaic

![Diagram showing different features and their importance among various groups](image)

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<tr>
<th>Group of respondents</th>
<th>Features</th>
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<tr>
<td></td>
<td>A. Multi-stripe field mosaic with balks</td>
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<td>B. Mosaic of fields and forests</td>
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<td>C. Rural and provincial settlements</td>
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<td>D. Open space of fields and meadows</td>
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<td>E. Other features</td>
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Fig. 2. The results of the questionnaire – question 3
of field and forests, while according to the rest of the groups the most important feature was characteristic multi-stripe field mosaic with lines of numerous balks covered with various weeds and numerous clusters of trees and bushes. The same situation can be observed for question 5 concerning landscape threats. The devastation of natural structure of water courses and transformation of river valleys was given the highest number of points only by farmers, while the rest of the groups pointed to the proliferation of habitable buildings and summer cottages in open landscape.
Farmers and teachers displayed the greatest initiative in filling in the questionnaire. Those two groups added the greatest number of own suggestions – 26 and 25, respectively. Fewer additional features were listed by students – 18.

CONCLUSIONS

1. The conducted research allowed to establish the gradation of landscape features which – in public opinion – determine the specific character and the unique values of the Roztocze – Solska Forest regions. At the same time, however, the research revealed the views of people from different social and work groups on the main threats to these values. Furthermore, the research showed the preferences of these walk of life groups in reference to the needs for landscape quality protection and design.

2. The results of the research may be considered as a stepping stone on the path to the realization of the tasks imposed by the European Landscape Convention.

3. Collected information will make a basis for further scientific research on landscape quality objective of the Roztocze – Solska Forest biosphere reserve. It is also an inspiration for works on methodology of identification and implementation of landscape quality objectives as an instrument of sustainable development of the most valuable European regions.

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OCZEKIWANIA SPOŁECZNE DOTYCZĄCE STANDARDÓW JAKOŚCI KRAJOBRAZU ROZTOCZA I PUSZCZY SOLSKEJ

Streszczenie. Europejska Konwencja Krajobrazowa zobowiązuje państwa członkowskie UE do opracowania i wdrożenia standardów jakości krajobrazu dla regionów podlegających szybkim przekształceniom lub wymagających szczególnej ochrony. Standardy te powinny być postulowane przez ekspertów po zbadaniu oczekiwań lokalnych społeczności. Oczekiwania społeczne dotyczące standardów jakości krajobrazu Roztocza i Puszczy Solskiej określono poprzez badania ankietowe, które skierowane były do 8 grup respondentów odgrywających kluczową rolę w kształtowaniu i zarządzaniu krajobrazem tego regionu oraz do jego mieszkańców i turystów. Wyniki badań pokazały, które z cech krajobrazu regionu uważane są za najważniejsze, a tym samym za godne zachowania i twórczego rozwijania. Umożliwiły również porównanie opinii i preferencji różnych grup społeczno–zawodowych odniesienia jakości krajobrazu i jej zagrożeniom.

Słowa kluczowe: Europejska Konwencja Krajobrazowa, standardy jakości krajobrazu, socjo–ekologia, rezerwat biosfery, Roztocze, Puszcz Solska