

# Framing forest based recreational potential by the local stakeholders: Case study from the Cantanhede council, Portugal

BEATRIZ FIDALFO \* [ bfidalgo@esac.pt ]

RAÚL SALAS \*\* [ rsalas@esac.pt ]

LÚCIA SALDANHA \*\*\* [ lsaldanha@esac.pt ]

**Keywords** | Forest Recreation, Stakeholders Involvement, Focus Groups, Spatial Planning, Municipality, Portugal.

**Objectives** | Recreation and tourism are often presented as excellent opportunities for development in rural areas where the landscape is dominated by forests. In spite of this, forest recreation planning has not deserved the same attention by the research community as other forest functions such as wood production or wildlife management.

In Portugal, spatial forest recreation planning examples occur at forest level or at regional level. At forest level recreational planning is focused on the location and maintenance of recreation infrastructures. At the regional level forest recreation is considered as one of the several functions that can be performed by forest ecosystems and is rarely regarded as the top priority.

The authors argue that in order to increase operationally, efficiency and integration, spatial recreational planning should also be done at the municipal level where land use policy options are developed, evaluated and decided.

From the methodological perspective, the main difficulties to deal with are the lack of spatial explicit data to express the recreation potential on one hand, and the lack of preference studies for recreation on the other hand.

The purpose of this work is to present a methodological approach to overcome these difficulties. Stakeholders involvement is used as a mean to improve the quality of the assessments by enriching our knowledge base with contextually acquired knowledge on how forest based recreation might be assessed, i.e. how to identify the main criteria to consider in spatial planning for forest recreation. These criteria will be further developed in a gis environment to produce a forest recreation suitability map.

**Methodology** | The research was developed using a case study area, the municipality of Cantanhede, located in central Portugal. The theoretical framework included several sequential steps starting with the local stakeholder's analysis to identify the relevant stakeholders. This process was undertaken by a steering group of six elements who identified a total of thirteen stakeholders groups. These groups were very heterogeneous, involving among others specialists in land use planning, architects, environmental workers, tourism specialists, recreation clubs as well as individuals not formally organized such as small non industrial forest owners.

\* **Doutorada em Engenharia Florestal** pelo Instituto Superior de Agronomia, **Professor adjunto** da Escola Superior Agrária/Instituto Politécnico de Coimbra.

\*\* **Doutorado em Ciências Florestais** pela Escola Nacional de Engenharia Rural de Florestas e águas (ENGREFE), França, **Professor Adjunto** da Escola Superior Agrária/Instituto Politécnico de Coimbra.

\*\*\* **Licenciada em Engenharia Florestal** pela Universidade de Trás-os-Montes e Alto Douro, **Colaboradora** da Escola Superior Agrária/Instituto Politécnico de Coimbra.

Given the expected differences between stakeholders the research team decided to use focus group discussions to carry on the research work.

The recordings obtained from the discussions were transcribed into a written text, which was then submitted to content analysis. The written text was segmented in small sentences expressing a relevant statement emerging from the discussions. Sentences were then classified according with a typology of main forest uses. In a second phase all the sentences classified under the recreation category were examined in order to establish groups of important issues that emerged from the discussions such as the main recreation activities to plan for and the criteria that should be used for recreational potential assessment.

**Main results and contributions** | Results showed a total of fifty eight sentences classified as being related to forest recreation. In 93% of the sentences recreation was directly mentioned and only in 3% of the cases forest recreation was indirectly referred when talking about the potential impacts of recreation in other forest uses.

In spite of the diversity of recreation users, the target population was identified as being constituted by local inhabitants and seasonal tourists for summer beach holidays or weekends.

From the spectrum of existing opportunities for outdoor recreation, walking and cycling were recognized as having more relevance.

At the end of the consultation process a set of four criteria emerged as relevant for forest recreation potential assessment: forest recreation suitability; landscape vulnerability, landscape quality and locations of special interest for tourism.

Forest recreation suitability represents the ability of forests to provide recreation opportunities and is linked to the intrinsic characteristics of the forest stands such as species composition, age and density.

Landscape vulnerability indicates concerns about the preservation of the environment. Two main types of concerns were identified. The first one was the negative impact of recreation activities in areas prone to erosion risk and in protected natural areas due to the fragility of its flora and fauna. The second one was the potential negative impact of fire on the recreational use of forests.

The landscape quality criterion represents the overall scenery value of the landscape and depends on its visibility, the visual diversity and the aesthetic value of the land uses.

Locations of special interest for recreation correspond to hotspots for recreation in the sense that their presence attracts recreational users and were grouped in natural and cultural sites. Natural sites correspond to natural protected areas and other native forests. Cultural sites comprise archaeological sites, protected heritage buildings, notable trees other touristic attractions, recreational infrastructures among others.

From the above we can say that results confirmed that recreational activities depend mostly on the use of natural resources of the area and particularly on forests.

Participants also found that the presences of places with a special natural or cultural interest greatly increase the demand for recreation, and thus they are considered as one of the main assets in the municipality.

Another important finding was that due to an exceptionally smooth topography, the diversity of landscape and sceneries provided by different agricultural and forest systems is one of the most valuable attributes determining the attractiveness of the landscape.

**Limitations** | Despite the satisfactory results that were achieved, it should be noted that this is an exploratory work that should be complemented in the future with preference studies for forest recreation in the study area. Understanding what visitors expect from a forest, where they prefer to go, what they prefer to see or feel, is indispensable to improve the methodological approaches for the assessment of the potential value of the landscape for recreation. However, preference studies will imply the use of more intensive data collection methodologies such as the use of surveys and inquiries, involving a larger number of participants, which in turns requires the allocation of more time and financial resources to the research.

**Conclusions** | The methodology was effectively used for the collection of relevant information for spatial explicit recreation planning in a context of absence of preference data. It allowed for the identification of the most relevant issues in recreational planning, the recreational activities that should be planned for and the criteria that should be considered in the spatial recreational planning enabling to structure the decision problem. Therefore, this methodological approach is particularly useful in an exploratory state of the research in a context of lack of spatial explicit information to use in recreational planning. Due to its flexibility, it is our conviction that it can be applied in other study areas with similar characteristics.