

Diversification of the tourism offer in rural and natural areas: the implementation of a Dark-Sky Reserve in Portugal

Apolónia Rodrigues¹, Áurea Rodrigues²

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The tourism sector plays an important role in Portugal, representing about 15.7% of the GNP and providing employment for approximately 19% of the country's active population (World Travel & Tourism Council, TSA Research 2008 cited by Blanke & Chiesa 2009). The relevance of the sector is reflected not only by its economic impacts, but also by its consequences on a social, cultural and environmental level; namely by its potential to balance inter-regional development, to value and help preserve cultural and environmental heritage as well to enhance the well being of the resident's local population, aiming at a sustainable development of the destination (Rodrigues & Kastenzholz 2007). Tourism in Portugal is being mainly concentrated in Algarve and structured around the "sun and sea" product. Large rural and natural areas of its relatively deserted hinterland are still mostly neglected by tourists, as well as by residents and politicians. Although, natural and cultural attractions abound and show a potential of sustainable tourism development, which may help these areas in maintaining some economic activity and thereby fixing its young population ?? Fixing? (Rodrigues & Kastenzholz 2007). In 2005 a dam was built in a hinterland region of the country that resulted in the largest artificial lake in Europe – Alqueva. The country gained a new valuable resource with a huge potential for tourism development. The dam has as length of about 83 km which runs next to the municipalities of Moura, Mourão, Portel, Reguengos de Monsaraz and Alandroal, whose margins comprehend about 1.160 km. The lake has a surface of 250 km². In this area a natural protected area was created and a Dark-Sky Reserve with some distinctive objectives to preserve the natural environment, promote sustainable use of electric power, implement sustainable development measures in the region and develop a distinct tourism offer in Portugal.

With the implementation of the Dark-Sky Reserve, the strategy is based on a contact with the territory in a sense that the night is geared towards the enjoyment of the stars and the night landscape, winning another life when it gets dark. The Dark-Sky Reserve is a tourism product that can make a difference in the destination since there is no similar project in southern Europe while the absence of light help to preserve the biodiversity of the region. Light pollution is the excessive use of artificial light. The International Dark-Sky Association defines light pollution as: "Any adverse effect of artificial light including" sky glow " trespass, mild confusion, decreased visibility at night. It obscures the stars that exist in the night sky for city dwellers (Chalkias et al. 2006), interferes with astronomical (Pedani 2004), and, like any other form of pollution, disrupts ecosystems (Bourgeois et al. 2009) and has adverse effects on health (Pauley 2004, Kerenyib et al. 1990).

In this article we intend to present a case study of developing a tourism product in a protected natural area and a rural region that as well as being innovative, is also able to attract markets with purchasing power and allows for clear commitments under the sustainability in economic and environmental field. The immediate result is reduction of the energy bill and a privileged position with new markets resulting in positive economic impacts.

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¹ GENUINELAND, Évora, Portugal, genuineland@gmail.com

² University of Aveiro, Aveiro, Portugal, ISPGAYA, Gaia, Portugal, aurea@ua.pt

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