

## **Impact of nature and cultural tourism in the Tua Valley**

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### **Abstract**

Nature and cultural tourism is a growing economic activity with great relevance in depressed regions, such as the interior of Portugal. In this paper the potential of tourism in the Tua Valley is evaluated by a combination of reviewing existing local development studies and interviewing mayors, town council officials and tourism agents. Tourism in the Tua is now responsible for 1.2% of existing jobs and generates profits of 2.1 Meuro/year. The main attractions are the beautiful landscape, with a rare combination of natural and human elements, and rich cultural heritage, from architecture and archaeology to gastronomy. We found the main hurdle impeding further touristy development is a lack of common ground and purpose among economic and political actors. We identified major conflicts with other types of development proposals, chief of which is the building of a large dam at Foz Tua: this would turn a nearly wild river into just another reservoir and destroy the unique Tua railroad. The majority of tourism agents and a minority of political actors see the dam as a major threat to sustainable tourism in the region - one example of incompatible development strategies. We verified that a nature- and culture-based touristy development creates 11 times more jobs per million euros invested, than the construction of the dam. Nature and cultural tourism is a key sector for the development of the region. Nonetheless, this should not be considered as a panacea that solves all problems, and requires unity of purpose, appropriate planning, investment and commitment.

### **Introduction**

Nature and cultural tourism has proved to be an economic activity with some relevance in depressed regions. These are areas that have a singular combination of wilderness and human landscapes, which due to the relatively light human occupation retain many natural and cultural values (Nyaupane, 2004). Tourism is gaining a growing space in development proposals of rural areas. However, despite encouraging prospects of the tourism sector, it is essential that its growth be sustained, both economically and environmentally. In some cases, the nature and cultural tourism may be adversely affected by other economic activities. In this sense, as advocates Ribeiro (2007), it is crucial that efforts be oriented towards the creation of innovative and diversified products and tourist services, at the same time preserving the environmental balance and the value of cultural heritage.

This paper presents a synthesis of a study that measured the potential of cultural and nature tourism in the Tua Valley. Tourism may be the driving force in changing local economic structure. Relations with other economic activities, such as the railway and the proposed dam, are also examined.



By 1991, parts of the railway line began to be decommissioned. Poor maintenance led to a series of accidents that eventually determined the shutdown of most of the line. By 2007, the national program of dams with high hydroelectric potential (known by its Portuguese acronym PNBEPH) endorses the creation of a large dam at Foz Tua. If this project goes ahead, the Tua railway will be partly flooded and cut for good.

The PNBEPH at large and the Foz Tua dam in particular generated a huge controversy in Portugal. The official environmental impact statement recognizes significant negative impacts (Profico-Ambiente/EDP 2008). The defenders of PNBEPH (INAG et al. 2007) claim that it will avoid greenhouse gas (GHG) emissions, decrease energy dependency and create jobs. Critics of the plan (e.g. Melo 2009, among many others) claim that the loss of natural and cultural heritage is unjustified, that energy efficiency is a much more cost-effective way to prevent GHG emissions and reduce energy dependency, and local-based development is a better way to create jobs.

For decades, dams had been largely considered a paragon of development in Portugal, despite occasional opposition by environmentalists or archaeologists. With the PNBEPH, a strong popular movement against many of the proposed dams emerged. Central to the discussion are the advantages and disadvantages of different regional development strategies, privileging either local values or the construction of dams. That is the debate that led to this research.

## **Methods**

The questions that framed our research were:

- a) What is the perception of tourist agents and local authorities on the perspectives for local development (tourism, infrastructure)?
- b) What impact (employment, economy, regional development) will have cultural and nature tourism in the Tua Valley?
- c) How does new and existing infrastructure (dam, railroad) influence the tourism options in the region?

Two major sources of data were employed: conventional literature, written and audiovisual documents and published reports; and collection of original data, using questionnaires to inquire touristic agents and local officials. In this paper, we shall focus mostly on results from the new data. More information can be found at Simão (2009).

Three sets of questionnaires were directed to the local actors:

- a) The five mayors of the municipalities under study were requested to concede a personal interview. Only the mayor of Mirandela acceded to this request. The other four invoked agenda difficulties to decline, or did not answer at all;
- b) The 103 Presidents of Juntas de Freguesia (administrative sub-units of the municipality, corresponding roughly to the parishes), in the five municipalities, were sent a written questionnaire, by e-mail or post. 32 returned answers (31%);
- c) 63 tourism agents (lodgment, restaurants and touristy animation), all those identified in the study area, were similarly sent a written questionnaire, by e-mail or post. 29 returned answers (46%).

## SWOT analysis

Based on the insights gained from the questionnaires and interviews, a SWOT analysis was performed to identify key opportunities and threats facing the development of cultural and nature tourism in the Tua Valley, as well as the strengths weaknesses (Figure 3).

<p><b>Strengths:</b> Wonderful gastronomy; fantastic landscape; the wilderness of the Tua river; a unique railway; traditional activities; rural tourism facilities.</p>	<p><b>Weaknesses:</b> Lack of enterprises that explore the potential of the river; little organization of touristic activity; lack of signs for points of interest.</p>
<p><b>Opportunities:</b> Growing demand for rural, railway, nature and cultural tourism; integration with the Spanish rail network; differentiated market in an urban society.</p>	<p><b>Threats:</b> Low Government investment; imposition of external development models; destruction of key elements of landscape and heritage; crisis and population loss.</p>

Figure 3 – SWOT analysis for nature and cultural tourism in the Tua Valley

## Perception of tourism benefits and constraints of dam

The results from the questionnaires revealed a clear divide of perception between the economic actors and the elected officials.

On the perception of the relevance of nature and cultural tourism to local development, tour agents perceive this as an activity more decisive, valuing it considerably more than the Presidents of Junta. Figure 4 clearly illustrates the difference in perceptions. This result was validated by a statistical test, using the Pearson correlation coefficient.

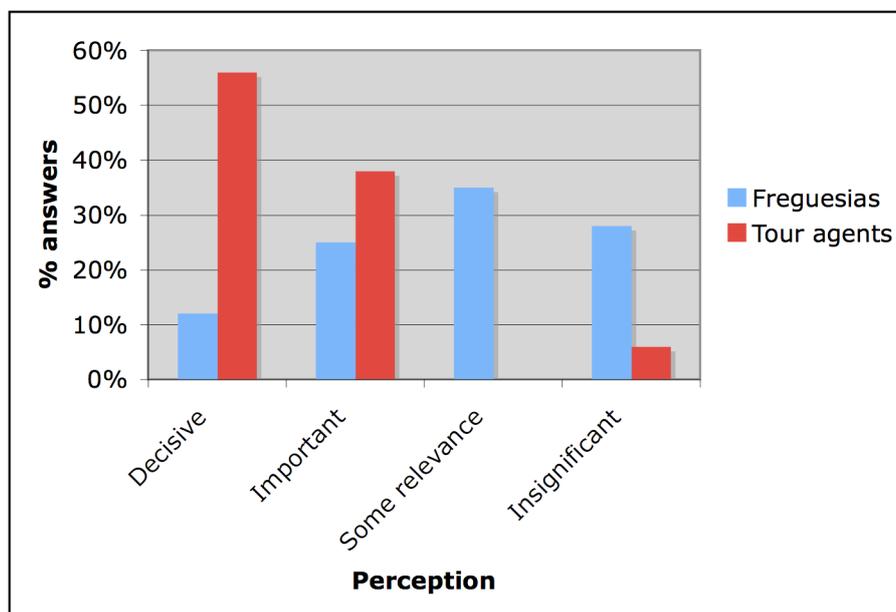
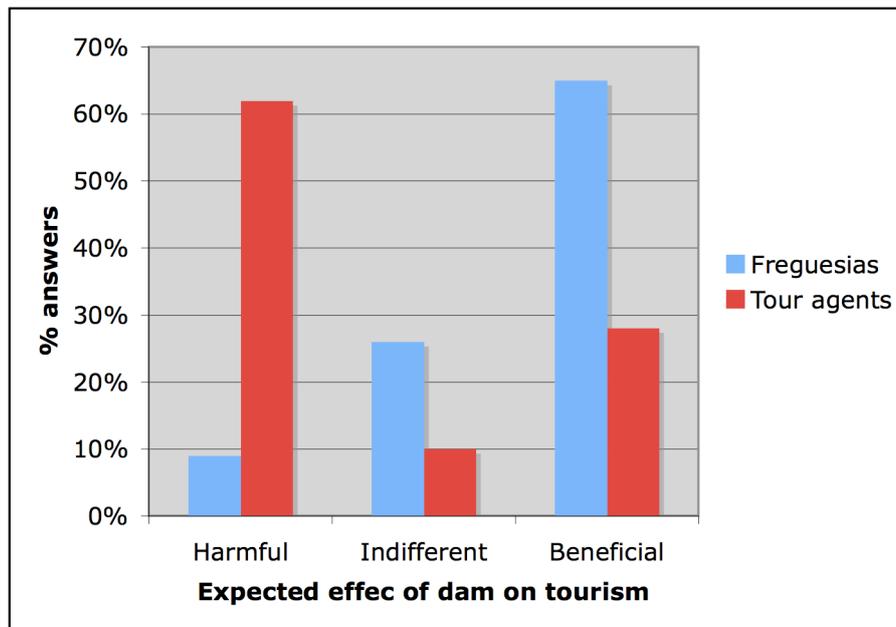


Figure 4 – Importance of nature and cultural tourism: perception of officials vs. tourism agents

This discrepancy in valuation can be one of the reasons for the lack of coordination observed in tourism business, e.g. can be the cause of poor signalization of local points of interest and lack of care of many remarkable points.

In relation to the question about the effects of construction of the dam on tourism, the responses are similarly divergent. Local officials discount the impact of the dam on tourism, viewing the project as beneficial, while most tour agents perceive the dam as a threat to the development of tourism (Figure 5). Again, this result was validated by a statistical test.



**Figure 5 – Influence of dam on tourism: perception of officials vs. tourism agents**

Both tourism agents and elected officials were asked to classify the expected benefits arising from the construction of the dam on a scale of 1 (nothing positive) to 5 (very good). The opinion does not vary significantly, e.g. for the various parameters respondents from both groups do not present relevant statistics differences. The aspects that approached level 4 were, in descending order, forest fire fighting (3.8) and less dependence on energy from abroad (3.8). The ones least quoted were related to employment, which scored under 3.

Both tourism agents and elected officials were asked to classify the expected constraints arising from the construction of the dam on a scale of 1 (nothing negative) to 5 (very negative). Here the answers of tour agents and elected official were significantly different. In two constraints – the declining of the natural area and the decrease in the number of visitors – tourism agents considered the dam substantially more negative (score 3.5) than the officials (2.4). Both consider the loss of the railway as a negative aspect of the dam.

### **Comparison of development strategies regarding employment**

Employment was one of the banners of the Portuguese Government, electric companies and some local officials to support the dam plan. We have reviewed available data on employment, contrasting two opposite development strategies: the hydroelectric dam at Foz Tua versus the tourism development plan proposed by IDP for the municipalities.

The Foz Tua dam will imply a construction investment cost of 300 Meuro (EDP 2010) plus about 40 Meuro in concession and other costs: a total of about 340 Meuro. According to official sources, the whole PNBEPH may create up to 48 500 jobs (Baptista, 2009), or 4850 jobs per dam. Assuming an average job duration of 2 years and an average career of 35 years, we obtain the equivalent to 277 permanent jobs. The cost of creating construction jobs at Foz Tua dam can thus be estimated at about 0.8 jobs/Meuro.

IDP (2009) proposed a development plan for the Tua Valley with tourism as a key component. Proposed investments include a choice of hotels, spas, shopping malls, waterfront works, rural villages, watersports, a fluvial park (aquatic zoo focused on rivers). Total investment would amount to 64 Meuro and would generate 577 permanent jobs. Thus the cost of creating tourism jobs based on local attractions can be estimated at 9 jobs/Meuro.

## Conclusion

The strategy proposed in this work, which was based on proposals of mayors, scientists and environmentalists, is to put the nature and cultural tourism at the service of development, driving local development. It is shown that tourism has a high potential to stimulate the development of rural areas like the Tua Valley, whose characteristics (gastronomy, landscape, natural environment) are increasingly valued and required. We find that this strategy is more interesting than an alternative one based on the construction of large dams, expressed both in the creation of jobs (cost-effectiveness in job creation 11 times better than building dams) and in the conservation of a unique natural and cultural heritage.

This research demonstrates that the Tua Valley has the potential to build development based in local values, with an emphasis on cultural and nature tourism. However, poverty, externally imposed development models, apathy and above all lack of common strategy have so far not allowed this fragile region to position itself in the global tourist market. To implement a dynamic, self-sustained development, dialogue between all stakeholders is essential, projecting a common future. For this strategy to become true, it is also essential to maintain the conditions that make this region unique.

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