USING TOURISM EMPLOYMENT MULTIPLIERS TO EVALUATE DEVELOPMENT POLICIES: THE CASE-STUDY OF THE DOURO VALLEY

> Júlia Lourenço<sup>1</sup> Daniela Fantoni Alvares<sup>2</sup>

ABSTRACT: The discussion of tourism development policies considering some

quantitative indicators, such as employment multipliers is performed for a World Heritage

area that was recently classified in Portugal: the Douro Valley. The need for classified areas

to have a sustainable development, mainly in terms of preservation and tourism

development is addressed. The discussion over multipliers follows and the achieved results

are presented. Lastly, the detection of possible paradoxes on the evolution of the territory

culminates this attempt to integrate socio and economic analytical approaches.

**KEY WORDS:** World Heritage; local development, tourism employment multiplier.

1- INTRODUCTION

Several authors have argued that considerable care should be put in the interpretation of

tourism multipliers as they often display very substantial international variations. This

mathematical device using employment advanced for the first time by Kahn (1931) and

later modified using investment by Keynes (1936), summarises the direct, indirect and

induced employment generated by an additional sum of tourism expenditure in the

destination economy, or the ratio of the increase in direct employment to the increase in

overall employment. The higher the multiplier coefficient, the greater is the amount of

additional employment that will be created by a given increase in tourism expenditure.

Estimations of employment multipliers from 1971 until 2001 are presented for some areas

of the Douro Valley that are located between Oporto, in the mouth of the river Douro and

the border with Spain. A brief introduction to this territory and to some of its relevant technical bodies is herewith presented.

Porto historic centre is a huge medieval tissue located in the second metropolitan area of Portugal, an extended strip of the visual basin, along 2Km of the Douro river bank, facing the other bank where Port Wine is stored. After 1990 the area was enlarged to 90 ha. It was included in the World Heritage List in 1996.

Further way, 120 Km up the river, where Port wine is produced, another narrow strip of 20 Km was classified as a living evolutionary cultural landscape by UNESCO in 2001. The wine connections established since the 18th century are now enlarged by the tourism connections.

In Porto, CRUARB (Comissariado para a Recuperação da Ribeira-Barredo), a team of technical professionals of architects and engineers as well as historians, archeologists and social assistants among other professionals, has been working on site since 1974, first exclusively with national money and depending on the Portuguese Government, since the late eighties with European funding and depending on the Municipality of Porto.

In Douro Sul, a group of ten Municipalities has agreed, since the beginning of the nineties, on allocating funds for integrated tourism itineraries. Projects followed by the implementation of urban betterments especially in the nearby surrounding areas of selected sites: monuments, squares, sightseeing areas, have been taking place for more than a decade. In Pinhão, 140 Km from Oporto, a small village famous for being a transportation interface (rail-road-river) in Douro, a technical office at the image of CRUARB is being

installed in 2005 within an integrated and decentralised policy of management of the World Heritage area of Douro.

A *leit-motif* for landscape preservation, a tourist label association of two products: wine and landscape but also a magnet for tourism entrepreneurs, can Porto historic centre and Douro Valley survive the propaganda?

Effectively, conservation of a heritage is accompanied by financial and socio-cultural costs that must be openly debated. The standing point this paper departs from is that the local community is the most important actor in any classification as it must identify itself with the heritage and cherish it. Likewise, the changes of the present should not eradicate all traces of the former territory, attempting to avoid the threat that the globalisation of the economy and culture pose to diversity.

A presentation and debate on the policies for the Douro Valley follows in section 2. The use of employment multipliers is introduced and discussed at section 3. The next section analyses the adopted policies versus obtained results in the Douro Valley and section 5 puts forward the conclusions.

#### 2 – POLICIES FOR THE DOURO VALLEY

The Portuguese Tourism Plan of 1985 stated for the first time a philosophy of development and not merely a growth concept. The objectives stated in this Plan over passed the mere targeting of export-earnings and pointed also at imbalance of regional differentials and asymmetries, a better quality of life and protection of natural environment and enhancement of the country's cultural heritage, strategically pointing out key areas for

development (Lourenço, 1989:24). Although this Plan has not been effectively implemented, and many of the proposals remained written sentences as in previous Plans, it has left ideas and strategies that twenty years past, a multitude of actors is taking on. For example, the Douro Valley has tripled its accommodation capacity in the last decade and Porto is the assumed lynch-pin of the Northern Region of Portugal. The axis of three towns VRL (Vila Real, Régua and Lamego) located in the Douro is the second pole of tourism accommodation in the Region over passing coastal towns such as the urban axis Póvoa/Vila do Conde and even Braga, the second town of the Northern Region after Metropolitan area of Oporto.

Also, several routes have been designed and implemented, nowadays crossing national boundaries and connecting also to Spanish regions of Galicia and Castilla y Léon. The networking and institutional re-arrangement towards concentration and innovative management has been taking place slowly but on a consistent basis.

Many urban analysts will agree that the interactions between urban form and natural processes cannot be understood in isolation from economic and social structures and consensus has been arising on the importance of urban tourism to shape an historic town.

In the socio-cultural context, tourism can bring serious problems into the accepting community. According to Tofani (1999:9) the increase in the prices of goods, services, local taxes in tourist areas as well as the pressures on inhabitants to sell their properties, (...) has laid patterns of spatial segregation. Another economic cost can be seen: the demonstration effect. With the high demand for products and services and the desire to earn

more income with the tourists, there is a general price increase that is also reflected upon the local community.

In Porto, the Municipality has assumed both technical and financial help to the inhabitants. The problem was over population density in the area and some of the most recent inhabitants received social lodgement outside the area. The split of the community was a difficult problem to be handled thirty years ago, in the start of the process. But it stands as a goal of the urban rehabilitation process to keep the local population there. It is considered one of the most distinctive features of this medieval complex authenticity: houses influenced by the industrial revolution, traditional trade and workmanship, cultural tourism, intense life, businesses, local pride, identity and character (CRUARB, 2000: 139).

Also, another major problem is that due to the extension of the medieval area (90 ha comprised within the operation), once most of it is rehabilitated there is a need to start rehabilitating, again, the areas of the first phase. Furthermore, the rehabilitation processes have become more and more renovation processes with armed concrete due to the high costs of the previous operations, using old traditional materials.

Nowadays, the rules and especially the outcomes with infrastructures and equipments as well as a beautiful rehabilitated or renovated area have lessened the problems. Moreover, the gentrification process has been controlled by the Municipality and so, in some areas, the problem is to bring in shops or other activities. The former Mayor of Porto even displaced his office, in the late nineties, to one of the last rehabilitated areas trying to attract investors. In this case, it was one of the last areas where the typical situation of the seventies was still visible. But, nowadays, this specific area within the historic centre still faces the

possibilities of a different kind of ghetto: from prostitution and drug addiction area, to an area where children will ask tourists for money, where people cannot sleep at ease as bars keep open until late hours.

As such, the guidelines for the future in terms of strategies for the built environment encompass the need to involve the inhabitants as well as the private agents, the property owners, the shopkeepers so that all share the task to keep the historic centres as areas of heritage excellence and superior quality of life. Also, in the social aspects, in terms of endogenous recognition of the area's value by the population, there is a need to invest in programs of social conscience and awakening, support to the creation and keeping of associations, spread of knowledge on the value of the area, promotion of self-esteem and motivation of the inhabitants. These initiatives are very relevant towards the strengthening of the community and its culture.

In fact, in Porto, the existing cultural, recreational, sportive associations as well as newly formed ones such as for example Portus Cale are given protection by the local authorities. This Association shares a prime location river border area, next door to a helicopter tour enterprise. The space was rented freely to them while the private company has to pay a high rent.

This need for valorisation seems crucial as it reinforces the identity of a community, making it less prone to inappropriate external influences. Therefore, this topic should be addressed in various ways, from talks and campaigns to actions that promote knowledge, self esteem and motivation to cherish and maintain the local/regional differences instead of adhering immediately to the new and what is fashionable.

Porto historic centre has had the opportunity of having a specific public administration body (CRUARB) that assumed a pro-active role for the built heritage conservation and development of the area. But as the tourism sector starts assuming a leading role in the area, the shift of functions of this body remains to be seen. That is, the shift from the "hard" functions of locating activities, car parks, rehabilitating or renovating the area to the immaterial functions of coordinating multiple agents and launching initiatives that foster sustainable tourism development. Most possibly, strategic tourism, urban animation and visitor management policies will have to be designed in the near future. And while the former team of Expo-98 in Lisbon had these overall capabilities and Parque-Expo Society keeps managing the area within the new but long acquired "soft" competencies, the CRUARB experience in Porto never involved these dimensions. In all other Municipalities up the river, these dimensions are hardly thought over although arrangements between tourism accommodation industry and Municipalities start nowadays to be designed informally.

The Tourism Development Plan for the Douro Valley, openly presented in 2004, seems to address these dimensions in a perfunctory strategic way.

## 3 - THE USE OF EMPLOYMENT MULTIPLIERS

Due to the complexities involved in quantifying economic phenomena, regional planners even in countries possessing a long tradition of data collection and analysis, seldom incorporate the labour situation, apart from a general brief employment overview, on their plans and regional programmes. On the other hand, most economists have been seldom

concerned with the spatial dimension of economic development, the "where" as Friedman put it, especially when this means small urban territories whose boundaries do not match the statistical delimitations.

The working hypothesis under test in this paper is that employment in the tourism sector, considered as a basic/exporting sector, will be a prime mover of the local economy, having a multiplier effect in tourism-related activities, that is leading to creation of jobs in tourism-related activities and, thus, determining changes in the migration flows of the Douro Valley area.

The present study concerns the central area of this region and also a major urban axis Vila Real/Régua/Lamego, that is being fostered as a growth pole for the Interior North of Portugal. A very first choice concerned the use of employment, as unit of measurement. This variable was the only possibility to use as data as no other data is readily available. Value-added data, for example, is not collected apart from the manufacturing sector.

Employment has the advantage of being a target-variable for planners, and in this particular case, does not seem to covey two problems usually perceived:

- a change in the number of jobs in the basic sector may not reflect differing wage
   levels thus not carrying secondary expansionary effects;
- 2) employment often does not detect general economic expansion caused by technical progress, especially if there are technical innovations inducing labour-saving processes.(Lourenço, 1989:9)

After definition of the basic sector activities, the following expression was computed:

# BASE MULTIPLIER = CHANGE IN TOTAL EMPLOYMENT (year n, year n1) CHANGE IN BASIC EMPLOYMENT (year n, year n1)

Several local branches of activities including Financial-monetary Institutions, Consultancy & other business services, Recreations & Cultural Services, among others, were chosen as being partially export-oriented.

Secondly, after assigning these branches of activity, it was necessary to check the above established classification. Moreover, once the classification set, a definition of which part is export-oriented (if existent) still remained to be done.

Location quotients were computed applying the national employment structure without significant results. Taking into account the regional specificities and applying this technique on the context of the Northern Region of Portugal, allowed for more adequate results. Nevertheless, the employment structures of all Municipalities involved in the study were analysed and medians of all defined export-oriented branches of activity were computed. Moreover, in order to minimize the problem of assuming the stability of the basic over non-basic activities through time, the median was the average-measure for extremes of time periods in all involved Municipalities. The proportion of the employment found above the median percentage is considered export-related.

Finally, the chosen employment multiplier is calculated as the change in total employment over the change in the basic sector balanced with the location quotients (see Table 1). This dynamic analysis seems to be more appropriate than a static multiplier and is the most adequate in the present case as data exists just for ten year periods (see Table 2).

TABLE 1 - LOCATION QUOTIENTS FOR THE DOURO VALLEY

ECONOMIC BRANCHES SUB-REGIONAL/NATIONAL SUB-REGIONAL/REGIONAL

1.1 Agriculture	2.8	2.6
2.9 Extraction minerals	0.6	0.1
3.1 Food, beverages, tobacco	0.6	0.7
5.0 Construction	1.2	1.1
6.1 Catering & Whole sale	0.4	0.4
6.3 Restaurants & hotels	0.4	0.6
7.1 Transport & Storage	0.9	0.9
7.2 Communications	0.9	1.2
8.1 Banks & other institute	0.4	0.6
8.3 Consultancy & others	0.3	0.4
9.4 Recreation & Cultural services	0.2	0.4

Source: C.C.R.N

TABLE 2 – HIGHEST PARTICIPATION RATES BY SELECTED TOURIST-RELATED BRANCHES OF ECONOMIC ACTIVITY

YEAR	MUNICIPALITY (%)	BRANCH OF ACTIVITY
1970	35,3%	Building
1970	25,0%	Transportation
1970	13,2%	Restaurants and Accommodation
1981	94,1%	Building
1981	6,6%	Transportation
1991	60,5%	Building
1991	15,8%	Restaurants and Accommodation
1991	20,0%	Transportation

2001 50%	Building
----------	----------

2001 Restaurants and Accommodation

2001 17,3% Transportation

Source: Updated from Lourenço, 1989

The analysis of Table 2 shows that Building or the branch of activity of Construction and Public Works is the dominant sector, followed at a big distance by the Transports and Storage branch. Nevertheless, Restaurants and Hotels is the third branch of activity and its importance has been steadily increasing over time.

## 4 – POLICIES VERSUS RESULTS

As long as tourist activities are well planned and implemented, they can bring numerous benefits to the local communities. The local economy may be increased and diversified, offering more opportunities to the local community. The multiplying effect and the generation of jobs and rents to the local inhabitants are most effective benefits.

Inhabitants perceive a positive effect in the overall effects of tourism even if they resent the overcrowding of space, the traffic congestions and price increases caused by excessive number of tourists.

Local authorities also perceive these value-added inputs as they massively have been joining Associations and tourist routes. The following chart attempts to portray the linkages between tourism employment and associated causes and consequences (see Figure 1).

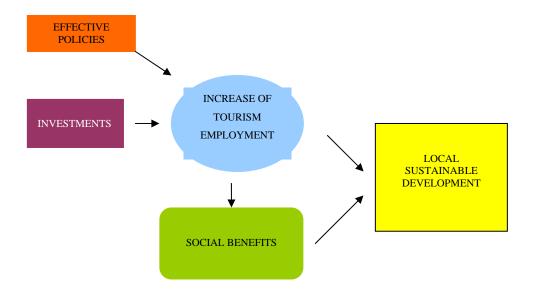


Figure 1 - The impact and linkages of tourism employment

The problem in terms of development policies lies in finding ways for an endogenous development of underdeveloped areas combining the fostering of the well-being of its inhabitants and a necessary process of economic growth.

The fiscal topic is also a most important one connected with redistributive policies. Effectively, the distribution of the received taxes through accommodation and other subsector developments, namely transportation, should be reinvested locally increasing the quality of life of the local population and consequently of the tourists and visitors. A specific example can be given for Douro: part of the taxes on transportation of tourists on river boats should be directly inverted on river banks landscape compensation or betterment.

Lastly, the end of physical decay and degradation of the historic areas can be a booming factor. And an immaterial but most important benefit for local inhabitants is the chance for self-esteem as the value they see in the tourists' eyes reflects upon their own perception of value.

#### **5 – CONCLUSIONS**

The analysis trough the use of tourism employment multipliers can contribute to indicate the progress underwent throughout time as well as to indicate the stage of tourism development. Specifically, the tourism activities in Douro Valley have been growing and this evident move is portrayed in the figures estimated with the tourism employment multipliers.

But also, several types of impacts have been occurring, positive or not so much. Likewise, a new question can be formulated: How much does it cost to reverse the negative economic impacts undergone by the communities of several tourist places? It is important to notice and take into account that it is not always possible to repair or minimize these costs. As such, it is very important to invest in sustainable development. This concept, although a central issue in tourism literature, is still being implemented in most historic centres rather empirically.

Local municipalities should try to recover full costs, taxing tourists and visitors at costprice and not making social prices for them. This measure seems to guarantee that the local authorities do not pay for the growth of the tourist sector. And it underlies policies of fairness and accountability that will promote tourism as a source of quality of life for all the parties involved: local inhabitants, tourism industry and the tourists themselves. Research and qualitative-quantitative tourism analysis is essential for the design of strategic policies for tourism development.

### **BIBLIOGRAPHY**

AEP, Associação Empresarial de Portugal. *Novas Estratégias para o Turismo. Recomenda ções e Propostas de Acção*. Porto: ON, CCRN, UE, 2000.

BARRETO, Margarita. *Turismo e Legado Cultural: as possibilidades do planejamento*. Campinas, SP: Papirus, 2000.

BORG, Jan van der. Sustainable tourism in cities of art: carrying capacity and control of visitor flows, 31-37, in Sociedade e Território, n° 28, 1998.

CRUARB, Comissariado para a Renovação da Ribeira-Barredo, Porto Património Mundial III. CRUARB 25 anos de Reabilitação Urbana, Porto:CRUARB, 2000.

HOJO, Yusaku. The Expansions of the Essays on Tourism Multiplier Model, 15-33, in *The Economic Journal of Takasaki City University of Economics*, 45 (1), 2002

LOURENÇO, Julia. Migration and Employment in the context of a tourist development strategy for the Douro Valley, ISS – UNFPA, 1989.

PIRES, Mário Jorge. Gestão de Cidades Históricas para o Turismo: questões teóricas e práticas. São Paulo, SP: Turismo em análise, 2003.

SIMÃO, Maria Cristina Rocha. *Preservação do Patrimônio Cultural em Cidades*. Belo Horizonte, MG: autêntica, 2001.

TOFANI, Frederico de Paula. Os Desafios do Desenvolvimento Sustentável em Comunidades frágeis sob o Impacto do Turismo. Belo Horizonte, MG: Editora UFMG, 1999.

<sup>1</sup> Doctor in Territorial Planning, Assistant Professor of the Civil Engineering Department at Minho University, E-mail: <a href="mailto:jloure@civil.uminho.pt">jloure@civil.uminho.pt</a>

<sup>2</sup> PhD Student at University of Minho, Postgraduate in *Tourist Planning* at Catholic University of Brasilia – UCB, supported by the *Programme Alban*, the European Union Programme, scholarship n° E04D046026BR E-mail: danifantoni@ig.com.br