The Regional Spread, Social and Economic Effects of Supported Tourism Development Projects in The South-Transdanubian Region

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Abstract

The background to the first part of this study was a Hungarian Government-commissioned review (in which the author participated) into how tourism-related ROP (Regional Operative Programme) projects for 2004-2006 had affected socio-economic life, equal opportunities and the quality of the environment. The review embraced not only a report on these effects but also recommendations of suitable directions for further projects for the period 2007-2013. The broad results of this (national) investigation are reported, together with concerning developments in strategic thinking for tourism in an essentially peripheral Region (South Transdanubia). Inextricably linked is the approaching "mega-event" for the one major city of the Region – Pécs – since 2010 will be the year in which Pécs holds the title of "European Capital of Culture".

The relative success of a number of these ROP projects led rationally to the strategy devised in the Region to focus on exploiting one of the few natural resources found in Southwest Hungary – thermal water with distinctive healing and therapeutic properties. The two specific development targets (tourism attractions and tourist accommodation) also link the City of Pécs to much of the Region and could support, in a very practical way, not only the actual ECoC year in the City, but also (more significantly, perhaps) the critical, follow-up period.

Unfortunately, progress in respect of the ECoC year is very limited and the prognosis is not at all encouraging. The reasons are many and varied, but failure would almost certainly have a damaging effect on the whole Region in terms of its development strategy.

Key Words: ROP, Tourism Attractions, Tourist Accommodation, Multiplier Effect.
JEL Classification: O50, R10

1. The tourism-development strategies of individual regions and the coherence of the supported projects

During 2007, a new tourism development strategy was prepared for all Hungarian Regions (that is to say, for the EU's "traditional" NUTS-2 planning-statistical Regions and also for Hungary's two Touristic Regions – Balaton and Lake Tisza In a search for consistency between the projects actually supported and the development aims laid out in the strategic plans, we compared the statements made in the strategy, the designated development directions, with the types of project supported.

At the outset, however, two points should be made:

- Since the data released from the EMIR (Hungarian Standard Information System) database contain information relating to the 7 statistical planning regions (South

Transdanubia, West Transdanubia, Central Transdanubia, Central Hungary, North Hungary, the Northern Great Plain and the Southern Great Plain), this particular analysis was carried out on the same basis

- Due to the number of supported projects per region (ranging from a minimum of 13 to a maximum of 32, (see *Table 1*) there may be some unavoidable distortion in the comparison. It is possible that a region considered to be strategically important was not given the funding requested (which would have underlined its strategic importance) due to one or more defective applications. It could also, quite simply, be the case that the area submitted no applications.

Table 1: Number of successful applications – according to Region or Measure (1.1 or 1.2)

	Southern Great Plain	**South Trans-danubia**	Northern Great Plain	North Hungary	Central Trans-danubia	Central Hungary	West Trans-danubia	Total
1.1.	8	**5**	10	8	6	5	6	48
	15	**17**	13	24	7	8	10	94
1.2.	23	**22**	23	32	13	13	16	142

Source: Author's own calculation based on EMIR data

Below is a brief description of how the strategic aims of the South Transdanubia Tourism-Development Programme accord with the types of programme supported.

1.1. South Transdanubia[1]

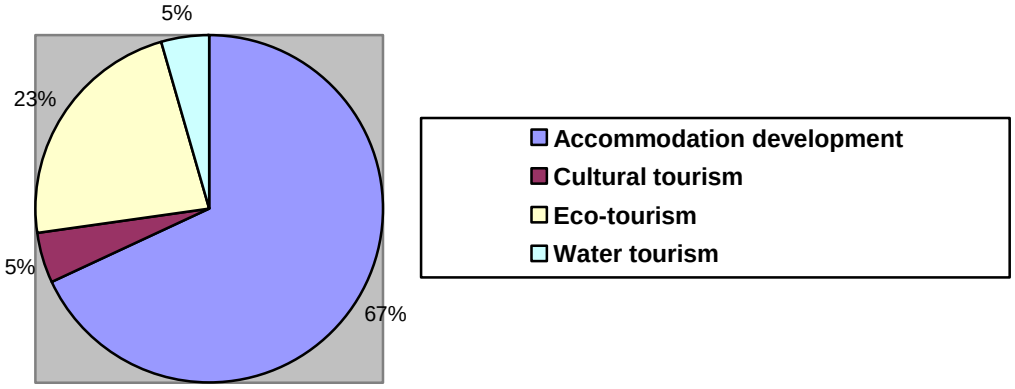
The region (cf. the Tourism Development Strategy of the South Transdanubia Touristic Region, 2006) considers the most important directions for the development of tourism to be those which at the same time define both the tourism supply and the image of the region:

1. Medicinal and Thermal tourism ,
2. Cultural tourism,
3. Event tourism
4. Wine and gastronomic tourism,
5. Conference tourism,
6. Village tourism,
7. Active tourism (eco-tourism, water-tourism, riding, hunting, cycling).

The last is the field where the scope of supported projects is the narrowest, with projects from only four areas actually supported (see Chart 1).

Chart 1: The distribution of supported projects in South Transdanubia (%)

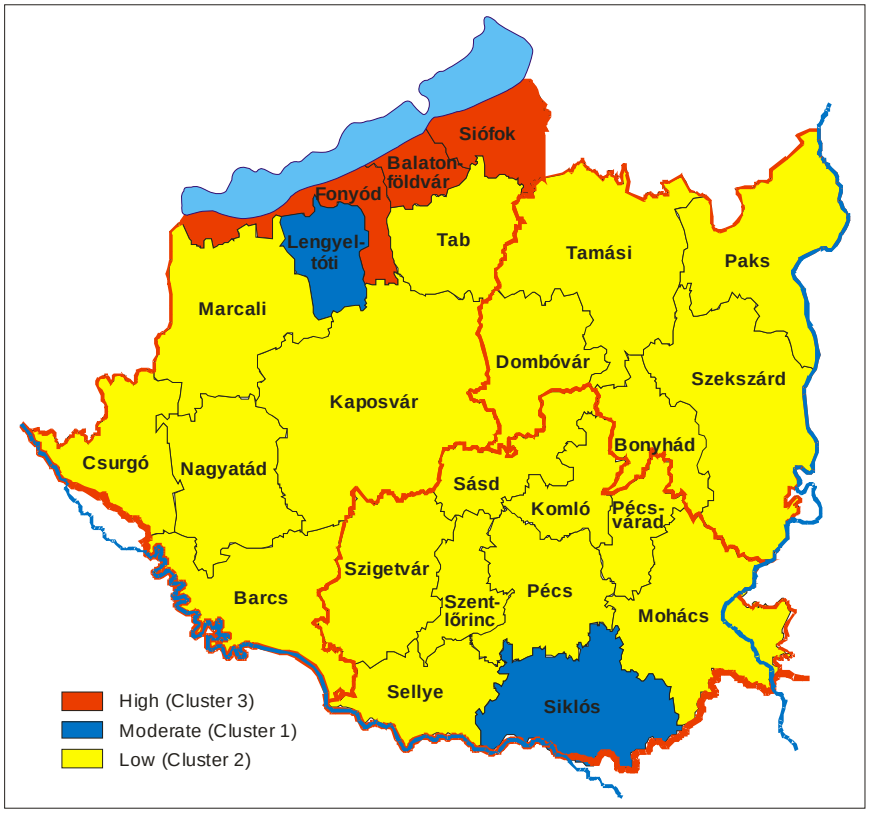
[1] For the most part we deal with this region in more detail since the series of programmes to be realised in the regional centre, Pécs (a Cultural Capital of Europe in 2010) feature as the crowning events of the foreseeable future. Further, with an initially projected investment of 36 billion forints into 5 large projects, it would reflect badly on the image of Hungary if accommodation were lacking in either quantity or quality. One further reason is that the team commissioned to carry out the research consists of Pécs-related experts, with a wider knowledge of South Transdanubia than of the other 6 (or 8) Hungarian Regions.



Source: author's own calculation according to EMIR data

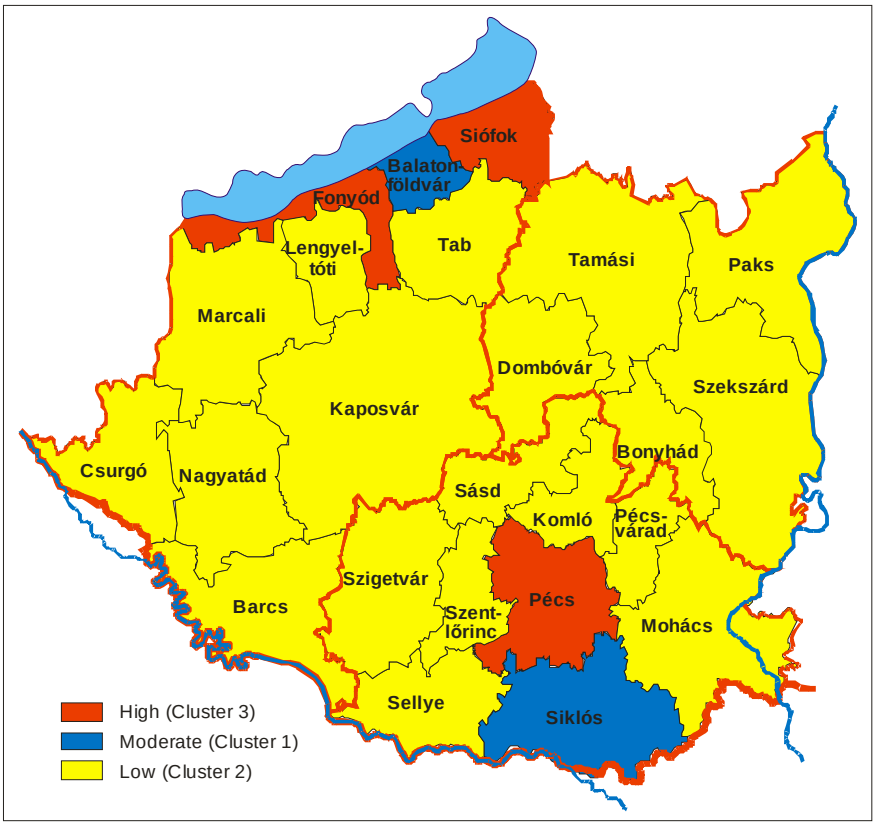
The high incidence of eco-tourism among the projects supported is a welcome development, and cultural tourism and active tourism (the latter thanks to water-tourism) also feature in the strategy. An essential part of Accommodation Development – to which two-thirds of all support is directed—is utilised in villages and settlements with spas or thermal baths (Csokonyavisonta, Dombóvár-Gunaras), and so overall the supported projects are in line with the set strategic aims. Equestrian and Gastronomic Tourism (including Wine Tourism) are not among the supported projects. *Here we have to consider one of the major NTS (National Tourism Strategy) goals, which aim to decrease or eliminate regional disparities,* and we would wish to support this with the results of a cluster analysis produced from tourism data supplied by the Central Statistical Office (CSO) for the period 2000-2003. These results are shown in the following maps (*Charts 2 and 3*).

Chart 2: The tourism categorisation of the South Transdanubian micro-regions based on the results of the cluster analysis. Version 1



Source: As postulated by the author (Factors used: aggregated numbers of annual averages of bed-occupancy, available bed-places per 1,000 inhabitants and average length of visitors' stay).
Designed: by Valéria Fonyódi, 2005.

Chart 3: The tourism categorisation of the South Transdanubian micro-regions based on the results of the cluster analysis. Version 2



Source: As postulated by the author (Factors used: aggregated figures of the annual averages of tourist arrivals, available bed-places per 1,000 inhabitants and average length of visitors' stay). Designed: by Valéria Fonyódi. 2005.

The first map, which was prepared on the basis of the analysis, shows that, besides the three sub-regions on the southern shore of Lake Balaton, two others - with centres in Lengyeltóti and Siklós - show an outstanding tourism performance due to their more developed tourism infrastructure (tourist beds per 1,000 inhabitants). This factor is lower than expected in the case of Pécs, the largest city of the region and the 10th most visited city in Hungary by domestic tourists[2]. We can, therefore, conclude that the city's tourism performance might well be improved with an increase of available accommodation in terms of quantity and quality. Until 2007 Pécs was the only provincial city without a four-star hotel, although today there is such a hotel in the centre of Pécs which is the result of a Pécs-based enterprise's successful application submitted in 2005. Guests are primarily business tourists. This small enterprise opened in April 2007 and since then has steadily increased its bed occupancy rates, indicating that the project is moving in the right direction. This is supported by CSO data for 2006, which shows the largest number of guest-nights to have been spent in Pécs - at 257,000, more than the figure for the Siklós micro-region (222,000) a traditionally important touristic area embracing Harkány and Villány.

The results of the second version of the cluster analysis show, in the case of Pécs, that the number of visitor-nights has growing importance among the three variables analysed.

[2] CSO prior data, 2006.

However the majority of tourists who visit the city stay here only for a few hours or book rooms in commercial accommodation for no more than one or two nights. *An increase in tourism-related revenue would obviously be produced by a simple increase in the length of stay – that is, the number of visitor-nights per person.* In respect of the ECoC programmes for 2010, it is vital that a city which builds on cultural and heritage tourism should have a hotel network with plentiful accommodation of superior quality, and, in fact, applications in respect of a new South Transdanubian Regional Operative Programme were invited in October, 2007 with the main aim of expanding accommodation capacity [1].

2. Evaluation of the socio-economic effect on the supported projects

All tourism-related investment – through the multiplier effect – initiates a spiralling influence since an expansion of output and of employment are involved, and this expansion is generally greater than the original order of investment.
The research team's task – taking into account the limited data available - was to quantify these effects as far as possible. Several factors, however, made the task more difficult. For example, ,most projects had not ended by the time when the research was due to be completed – that is, at the end of September and so we had relatively few final reports to evaluate during our work. Figures from the latest progress reports made up the database on the basis of which we made our calculations. We did not consider the funding contract data as relevant, since most projects underwent modifications - some five or six times and others even more frequently - in which the original objectives, including those expressed in figures such as the number of jobs to be created, the quantity of new, renovated or refurbished accommodation (in relation to touristic capacity development) were significantly modified.
Moreover, the major part of these effects appears over the longer-term. Whilst an accommodation development project might cause serious demand acceleration even in the short term (if an area has appropriate attractions suitable for receiving tourists, and if the earlier bottleneck was caused only by the limited supply of accommodation) then the real influence of opinion-shaping activity, of an eco-tourism reserve or national park, can only be shown over the much longer-term by nurturing the environmental consciousness of visitors and a more environmentally-sensitive way of life of the majority of residents.
In some cases measuring the effects is impossible and eco-tourism projects are typical examples of this.
A sufficiently detailed, comprehensive and generally accepted methodology for the precise measurement of the effects of tourism does not yet exist, and for this reason the research team used two approaches:

- one was based on an examination of the types of project funded and the phrasing of the general hypotheses – both region-by-region and over Hungary as a whole. This is a fairly “soft” and largely subjective approach where the effects can be influenced by an extremely high number of unforeseeable or unpredictable factors.
- the second followed GKI (the Economic Research Institute) which in October 2004 had, through an operating subsidiary, completed a study entitled “The Macro-Economic Role of Tourism” containing precise data regarding the spiralling multiplicator effects of tourism-related investment. These figures we considered as authoritative in quantifying the potential effects of investments in ROP 1.1 and 1.2 projects. Compared to previous approaches this is a “hard” type of examination, although the results should not be accepted totally without question.

At this point, however, it might be useful to define the current role of tourism in the Hungarian economy. Just as in Europe in general, tourism plays an important part in the economy of Hungary. The consumption of foreign visitors amounted to 822 billion forints in 2004, 596 billion of which was accounted for by tourism. Apart from this, Hungarians spent 385 billion forints on tourism services, which meant that the income from tourism exceeded 980 billion forints. The GDP of the tourism sector was 877 billion forints, some 5% of Hungary's total GDP; although this figure rises to approximately 8.5%, if we take the multiplier effect into consideration.
The number of people directly employed in the tourism sector in 2004 was 389,000, 8.9% of the total number employed nationally. When the multiplier effect is taken into account it is clear that every 8th job in Hungary is generated by tourism (Table 2).

Table 2: The economic importance of tourism in Hungary, 2004

	Direct effects		Indirect effects	
	Billion ft	%	Billion ft	%
GDP	877	5.0	1390	8.5
	1,000 people	%	1,000 people	
-Employment	398	8.9	490	12.5

Source: www.itthonotthonvan.hu. Tourism in Hungary in 2005. Hungarian Tourism Ltd.

The various effects of tourism (such as on income generation, employment and investment) are greater than on most sectors of the national economy in Hungary. The production increase effect of the tourism sector defined in statistical terms (such as Accommodation Provision and Catering Industry, as in the CSO's collection of data) exceeds the average through its links with other industries, occupying 8th place in the list of all 25 sectors of the national economy. The unit demand for the domestic product of these tourism industries generates 1.96 units of production through these links – or 2.96 units, if we take into account the spending of payment generated and accumulated revenue. It also generates a 5.78-fold increase effect on direct and indirect employment[3]. These tourism industries, therefore, have a stimulating effect on the economy, although their relatively modest weight means that the growth which takes place in these industries only accounts for a minor part of total growth.
The size of the tourism sector in the national economy is, in fact, highly significant. In 2002[4]

- tourism (the sector of Accommodation and Catering, but excluding workplace and public catering services) statistically provided 1.22-1.59% of the gross value added produced in the national economy. The number of people employed in the sector was 2.8% of the total.
- the whole of the direct tourism sector (including the performance of other companies with direct links with tourists) made up 3.58-4.66% of the value added in the national economy. 7.1% of all people employed in the national economy worked in this sector.
- the whole of the direct and indirect tourism sectors (the latter including the activities of companies with direct links to the total direct tourism sector and contributing to it as

[3] Based on these numbers and proportions, we attempt to give values in forints for all the effects of the developments generated by the applications (the probable increase in income in the Hungarian economy based on the number of jobs; the effect of expanding accommodation, which should result in an improvement in income and taxes etc) in the final research report. Due to a lack of time, there was no possibility to mention these in the interim report. However, we must add that the results of the calculations are not totally suitable for precise conclusions to be drawn, since concrete, numerical result indicators are available for scarcely 20% of the projects.

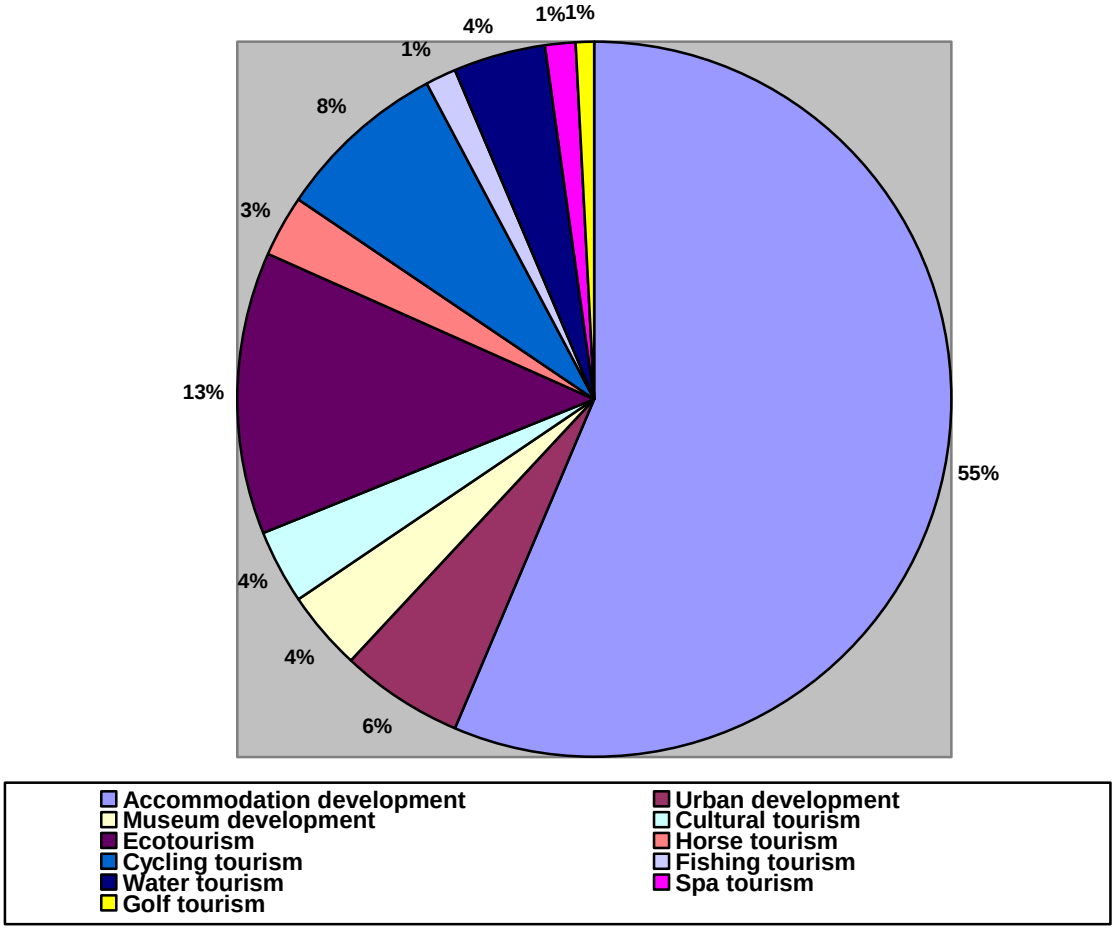
[4] Moreover, the year 2002 was the weakest in the recent past in terms of tourism, mostly due to the international terrorist attacks of 9/11/2001.

suppliers) accounted for 6.73-8.76% of the gross value added in the national economy. Employment here, amounting to 328,000 people, made up 12% of the total.
Tourism statistically contributed about 50 billion Forints to the state budget - if we calculate based upon the rules of 2002 - whilst the whole of the direct and indirect tourism sector contributed around 200 billion Forints.
The funds spent on providing accommodation and the development of catering are far more effective if we consider the multiplier effects (4th of the 25 sectors examined, following only building, machinery and financial services) than the national average in terms of GDP growth between 2005 and 2010. Tourism plays no more than an average role in the growth of demand for imports and in the ability to increase profits, whilst it is above average in terms of increasing earned income.
In the years to come, EU subsidies will provide many opportunities for tourism development. This current study also analyses the effects of utilising EU funds and domestic joint finances.
Based on model calculations, the sectors of Accommodation Provision and Catering are approaching the national average, thanks to the maturing of previous investments and other ongoing, business-based developments. The fundamental reason for this is that production and infrastructural investments (roads, information technology etc) are prioritised in the development of the national economy. This, however, does not mean that improvements in Accommodation Provision and Catering could not be dynamic in themselves, as the constantly growing consumer and entrepreneurial demand towards tourism and the "pull effect" of the expanding supply (which produces demand growth) play a part.

2.1. The probable effects of the projects examined, on the basis of project type

The various sub-types of tourism which were supported and which make up the 142 projects involved in Hungary can be seen on Chart 4.
The projects relating to accommodation development received by far the most support, with more than half of these projects belonging to this category. Central Transdanubia (where only 37% of the supported projects are investments in accommodation development) and North Hungary (with 70%) represent the extremes. Ecotourism is next in line (13% of the total of supported projects), followed by cycling tourism (8%) and urban development projects (6%). Museum development, cultural tourism and water tourism each feature in 4% of the supported projects.
In this way there is a relatively wide range of businesses which were accepted as worth support by the decision-makers. The effects of accommodation development (the most widely supported category) will probably be the first to appear in the economy of the given regions. This will be due to increasing business turnover and to increased tourist tax revenue for local authorities, to the improvement in employment and in income in these regions through the demand for labour, to the resulting improvement in the financial situation of those employed, and to the job creating effects of construction-work and general investment.

Chart 4: The sub-types of tourism supported within the ROP 1.1 and 1.2 measures in Hungary



Source: Author's own calculations based on EMIR data.

2.2. The assessment of successful and unsuccessful applications from the point of view of spatial distribution

The range of basic ideas for projects was much narrower than might have been expected from the 572 applications examined (*Table 3*). Even the Hungarian Standard Information System (EMIR) does not contain data on 11 applications, and so these also must be omitted from further analysis.

Table 3: Aggregated data of applications submitted by Measure

	Number of applications	Number of assessable applications	Number of ideas for applications*	Number of urban development applications**	Support applied for Billion HUF	Planned investment, Billion HUF
1.1.	147	145	115	78	68	73
1.2.	425	416	372	240	32	83
1.	572	561	487	318	100	156

Source: Author's own calculations on the basis of EMIR.
Notes: * by filtering near-identical applications, submitted with similar content
**location: city

Among the applications are numerous concepts which were rewritten and resubmitted with the help of the application assessment mechanism and the experience gained by virtue of the assessment points scoring system. Although most of these applications were given a new

reference number, the Regional Development Agency accepted modifications which do not relate to the title of the application, the amount of the subsidy applied for and the name of the applicant and so overlaps can easily be observed. On this basis, 74 applications can be filtered out (only on the basis of the applicant, the location of the project, the title and the budget) which found their way into the system in a different form, with various modifications, as a new application (*Table 3*). Six ideas for an application were submitted three times, and half of these finally succeeded. It did happen that an applicant still withdrew from the execution of the modified project, and it also happened that an application did not succeed in winning the subsidy even with amendments (44 cases), whilst in 24 cases the necessary modifications produced the hoped-for result.

The large number of applications submitted provided a good broad base for support to be awarded, even if many projects which included formal errors or which could not be supported for other reasons found their way into the system. Of the short-list of project ideas, 29% of the applications submitted were successful, whilst of the total number of projects the proportion was 25%. Most applications (74%) targeted Measure 1.2, and in this case only 23% succeeded, whilst, in the case of Measure 1.1, 33% of the (many fewer) applications succeeded.

Table 4: Aggregated data of successful applications by Measure

	Number of successful applications	Percentage of successful applications 1	Number of successful applications for urban development2	Percentage of successful applications for urban development 3	Success rate of urban development applications 4	Success rate of communal development applications 5	Average percentage of support 6
1.1.	48	33	30	63	39	27	97
1.2.	94	23	56	60	23	22	95
1.	**142**	25	86	61	27	23	95

Source: Own calculations on the basis of EMIR.

Notes: 1 as % of applications submitted
2 in accordance with project location
3 as % of all successful applications
4 number of successful applications for urban development as % of number of all such applications
5 number of successful applications for village development as % of number of all such applications
6 grants awarded as % of total sum applied for

Applications for funding totalled three times the value of that actually available (*Table 3*). With the help of a 30.7 billion HUF subsidy, which was awarded within the two Tourism Measures, 142 projects were executed in Hungary, generating a total of 45.2 billion HUF for development (*Tables 4-5*).

Table 5: Tourism Applications by Measure

	Subsidy awarded (HUF bn)	Total final investment (HUF bn)
1.1.	22.3	23.1
1.2.	8.4	22.1
1.	30.7	**45.2**

Source: Own calculations on the basis of EMIR.

4% of the total funding available under National Development Plan I. and 25% of that provided within the ROP were directed to the two tourism measures, which figures could have been greater still in the case of such a well-justified development area as tourism. Many project ideas were worthy of support but were refused due to an overall lack of funds or to a perceived lack of appropriate project-generating expertise. The clear inference of this was that, in the future, funding devoted to subsidising the development of tourism could certainly be increased both in terms of market potential and the effective absorption of support.

43% of all applications submitted - if realised - would have satisfied village development (*Table 3*), although the proportion of successful village applications decreased to 39%. In respect of Measure 1.1, applications relating to towns showed a 39% success rate whilst only 27% of village development projects succeeded. Of the 88 applications submitted by local authorities, 52 came from urban authorities (of which 35% succeeded), whilst, in the case of villages the percentage was 27%. It did happen that applications were submitted by an association of local authorities or by a local authority itself, and so the published data does not show an accurate picture of the whole activity in the field of applications by local authorities, but it seems that urban management is better prepared to apply for funding from the EU than rural or village management[5].

In respect of Measure 1.2, a few applications only can be found from a local authority or from a local government institution; most applications are submitted by companies. With regard to the success rate, the differences between towns and villages are also disappearing (*Table 4*).

To assess efficiency in utilising the support funds, the two measures should be treated separately. In respect of Measure 1.1, in most cases the subsidy relating to a particular investment materialised and every 100 HUF of this subsidy produced a total investment of 104 HUF (*Table 6*). The nature of the measure itself: the fact that the local authority was the target, the specificity and even the structure of the invitation to apply in part explain the reason for the minimal "own resources" proportion of the funding.

Table 6: Product of 100 HUF of subsidy by Region and by Measure, in HUF

	Southern Great Plain	**South Trans-Danubia**	Northern Great Plain	North Hungary	Central Trans-danubia	Central Hungary	West Trans-danubia	Total
1.1.	103	**104**	103	104	103	104	107	104
1.2.	214	**234**	256	239	395	333	352	263
1.	127	**148**	155	145	147	176	156	148

Source: Own calculations on the basis of EMIR.

At the same time it is thought-provoking that, in the West Transdanubia region, a 100 HUF subsidy produced an average of 107 HUF, and so efficiency can clearly be improved. 30% of the applications submitted in this region were successful, and so the number of applications from which the best could have been selected, did not exceed the average.

Table 7: Average subsidy per project by Region and by Measure, (HUF m)

5 To support this, the factors which local authorities applied, the amount of support and how successful they were on completion could all be topics for further investigation.

	Southern Great Plain	**South Trans-danubia**	Northern Great Plain	North Hungary	Central Trans-danubia	Central Hungary	West Trans-danubia	Total
1.1.	449	**672**	308	680	520	257	400	464
1.2.	66	**103**	121	98	78	73	60	89
1.	199	**232**	202	244	282	144	188	216

Source: Own calculations on the basis of EMIR.

Table 8: Average amount of investment by Region and by Measure, (HUF m)

	Southern Great Plain	**South Trans-danubia**	Northern Great Plain	North Hungary	Central Trans-danubia	Central Hungary	West Trans-danubia	Total
1.1.	464	**696**	318	706	536	267	427	482
1.2.	142	**241**	311	235	310	244	212	236
1.	254	**344**	314	352	414	253	293	319

Source: Own calculations on the basis of EMIR.

In respect of Measure 1.2 – as a result of the structure of the invitation to apply - support efficiency should be assessed on a different basis, since several smaller projects were completed with lower levels of subsidy. There was, in fact, a total investment of 263 HUF resulting from every 100 HUF of subsidy. The Central and West Transdanubian Regions show far higher amounts (respectively 395 and 352 HUF), whilst the Southern Great Plain Region (214 HUF) lags behind (*Table 6*). Although the average rate of subsidy in the two Transdanubian regions was above the average (*Table 7*), the differences were by no means as large as with Measure 1.1., and so this was not a differentiating factor. It is important to mention that the support level offered could be a maximum of 50% or 30% according to the terms of the invitation.

To summarise, the more developed regions (which had had from the outset a lower amount of subsidy) performed better in terms of support efficiency in relation to both Measures, even if we take into account the different conditions set out in the invitation relating to the two groups of regions.

Arising from the differences between the invitations, higher budget projects were undertaken within the scope of Measure 1.1, and smaller projects within Measure 1.2. The lowest level of subsidy within the framework of Measure 1.1 involved a museum development project, and the smallest related to improving access to a nature reserve, each receiving little more than HUF 100m. The largest subsidy supported a mammoth 1.5 billion HUF project, the development of the World heritage Site in Pécs. This is also the largest development within the framework of the two ROP measures relating to tourism (*Table 9*).

Investments of 900 million and one billion forints were also made within the scope of Measure 1.2 due to the higher budget resulting from the provision of greater accommodation capacity or due to the particular settings (monuments, castles), whose budgets were as great as those mentioned earlier. The smallest investment related to a project to build a smaller holiday home, while the smallest subsidy related to the development of the tourism services of a local authority.

Table 9: Minimum and maximum values of successful applications

	Smallest subsidy, million HUF	Largest subsidy, million HUF	Smallest investment, million HUF	Largest investment, million HUF	Smallest percentage of subsidy	Largest percentage subsidy
1.1.	101	1,468	105	1,510	57	100
1.2.	8	300	16	1,186	71	100
1.	8	1,468	16	1,510	57	100

Source: Own calculations on the basis of EMIR.

As the fundamental aim of the Regional Development Operative Programme is to assist the balanced local development of the regions and to reduce disparities, the question of regional distribution and the local effects of the successful tourism development applications related to the two Measures do merit further research [2].

Conclusion

As the study specifically highlighted the ROP projects in South-Transdanubia, 67 percent of which comprised accommodation facilities, the author attempts to summarise their shorter-term effectiveness. Although from the economic point of view we cannot evaluate the profitability of accommodation projects on such a basis (the return on investment can be realistically evaluated only after 5-10 years) there are some current trends (continuous decrease in visitor numbers, higher demands in terms of quality) in the world and consequently in the national economy which indicate that the tourism centres of the region are already saturated in terms of tourist bed-capacity and so need no further expansion. The main task of the tourism specialists of the region must be to offer attractive programme packages (including the special opportunity of ECoC 2010 for the Region as a whole) so as to provide the highest possible occupancy level of the existing accommodation capacity.

Reference Literature:

[1] Bakucz, M. (2005): Tourism as a Tool to Develop the City and its Region. Ph.D. Thesis. For publication, 2010. Doctoral School of Regional Policy and Economics, Faculty of Business and Economics, University of Pécs, 2005.

[2] A Regionális Fejlesztés Operatív Operatív Program (ROP) „1.1 Turisztikai vonzerők fejlesztése” és „1.2 Turisztikai fogadóképesség javítása” intézkedések hatékonyságjavítását célzó értékelő tanulmány (Final research report) alapján. Készítették: Bakucz Márta, Erdős Katalin, Mezei Cecília, Raffay Zoltán. MTA RKK Dunántúli Tudományos Intézete (Hungarian Academy of Sciences, Transdanubian Research Institute of Regional Studies).