Applying multipliers in tourism

How the PPSE project in Kosovo developed multipliers to report the wider impacts of interventions

Case study

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1. Assessing the wider impact of interventions in tourism

Programmes using a market systems approach aim to make market systems more efficient and inclusive. Most projects develop a monitoring and results measurement (MRM) system that helps them to track and report these changes.[1] Such projects assess and report the impact on the sectors that they are targeting, often defined in net additional income and jobs. A better functioning market system in one sector has an affect on other sectors, but it is often found to be too challenging for a project to both assess and report this using quantitative indicators.

Projects active in the tourism sector often aim to increase the number of tourists and to prolong their stay, thus resulting in "more dollars spent" in the country. This not only creates additional income and jobs in the tourism sector, but also in other supporting sectors. For example, farmers produce more vegetables for more tourists to consume in restaurants, which leads to growth in the agricultural sector, the building of new hotels leads to more jobs in the construction industry. The effect of interventions in the tourism sector on other sectors is often not reported, implying that projects under-report their impact. Their project cost-benefit-analysis is thus not correct, as wider benefits are not captured in the equation. Reporting the wider impact can highlight the importance of tourism for the economy, and lead governments to develop more supportive policies.

Multipliers are often thought of as being an easy way to report wider impacts. However, projects have little experience in developing and using them. Sometimes, multipliers appear to be available. Yet, the multipliers might not be suitable for the purpose and context of the project. Developing multipliers is often challenging, given the lack of statistical data readily available and the specific expertise required to develop them.

Box 1
If x jobs are created in tourism, it leads to y jobs created in other sectors. The multiplier quantifies that ratio. If 10 jobs created in tourism lead to 2 additional jobs being created in other sectors as a result thereof, the multiplier is 0.2.

However, if multipliers were available, projects could easily report the wider impact as a result of their interventions in one sector, without the need for intensive assessments. Of course the project still needs to assess the direct impact in a robust manner to arrive at the additional jobs and income in the targeted sector. Only then can multipliers be applied to achieve the attributable wider impact.

The Promoting Private Sector Employment (PPSE) project has developed multipliers for the tourism sector in Kosovo. Although the methodology is still in an experimental phase, it appears to be feasible. Other projects could adapt the source and methodology to report on the wider impacts of their interventions in the tourism sector.

"Always verify if existing multipliers are valid for the project and sector. Is the infrastructure similar? Multipliers derived from urban settings are rarely appropriate for rural settings. Are regions comparable? A multiplier developed for Germany can't be applied to the Balkans. Is the multiplier still up to date? If the study was done in the 1990's, it's probably no longer valid in 2016. Maybe the method is, but data needs to be updated." *Aly Miehlbradt.*

1 For more information see the DCED Standard for Monitoring and Results Measurement.

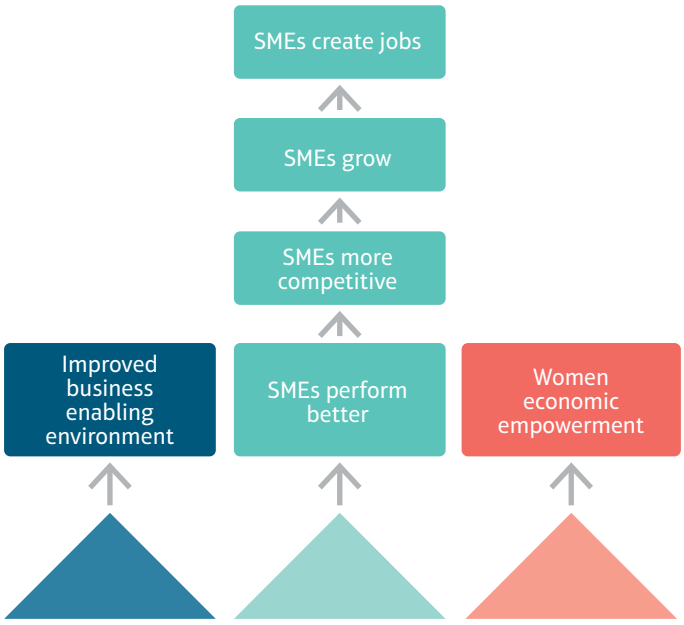
2. Introducing the project and the sector

Introducing PPSE

The market systems development (MSD) project Promoting Private Sector Employment (PPSE) aims to encourage sustainable employment for men and women in Kosovo. It works with public and private partners to improve private sector competitiveness and growth in selected sectors.

PPSE is funded by the Swiss Agency for Development and Cooperation (SDC) and implemented by a consortium of Swisscontact, Riinvest Institute and PEM Consult. The present phase runs from November 2014 to November 2017, with a total budget of US$6.14 million (5.98 million CHF,) of which some US$472,000 (460,000 CHF) is available for interventions in the tourism sector. The project is also active in the food-processing sector and in transversal themes such as governance, gender and minorities. The project aims to create 800 jobs (full-time equivalent – FTE) by the end of the current phase.

Figure 1. PPSE's intervention logic

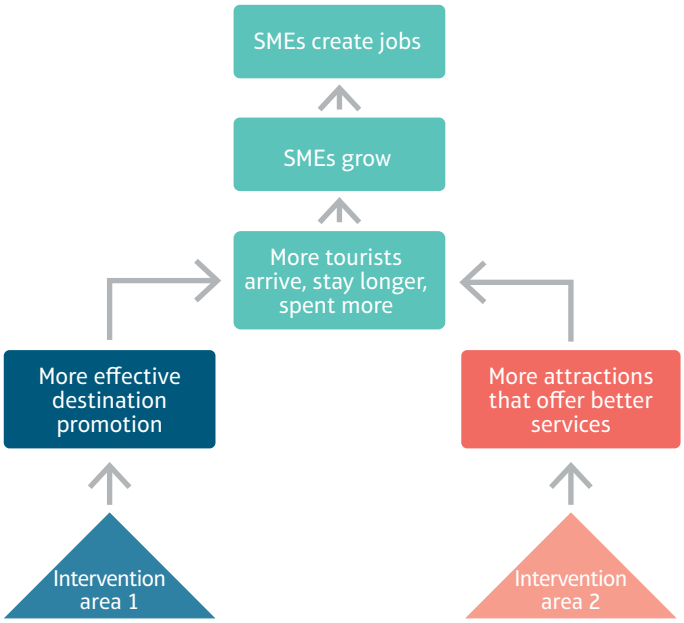


PPSE is staffed by a relatively small team of experts, two staff members per sector, supported by two monitoring and results measurement (MRM) experts for the PPSE portfolio. In tourism, PPSE has implemented six interventions to date.

Introducing tourism

Tourism is a relatively small and emerging sector in Kosovo, but with good potential for growth. The key constraints are the limited range of tourist attractions (things to see) and activities (things to do), coupled with poor quality facilities, poor services, limited marketing, and low efforts and efficiency in destination promotion.

Figure 2. PPSE's intervention logic in tourism



The project has so far targeted Western Kosovo, although a number of interventions are not limited to Western Kosovo and promote the whole country as a destination. At present, PPSE is investigating if and how to expand its coverage area. Western Kosovo is a mountainous area, with potential for many outdoor activities. Most interventions aim to increase the range and quality of tourist attractions in the region.

Figure 3. PPSE's focus for tourism is Western Kosovo

3. Developing multipliers

Why PPSE developed the multipliers

PPSE aims to apply a monitoring and results measurement (MRM) system in line with the DCED Standard. PPSE assesses, among other things, the net additional income and jobs created by each intervention. Their interventions often aim to improve the supply-side: partner with private sector actors, to develop better tourist facilities that will then trigger more tourists to stay longer, and lead to better performance among the partners, which leads to growth and more jobs. Jobs are reported and aggregated in full-time equivalents (FTEs).

> **Box 2**
> FTEs are easier to aggregate seasonal, part-time and full-time jobs. They are calculated on the basis of 240 days per year and 8 hours a day for one FTE.

If other activity providers crowd-in, replicating or adapting the business model, PPSE assesses and reports the additional FTEs created. However, if more tourists arrive and stay longer, they will spend more time and money in hotels and restaurants. In tourism, hotels, restaurants and other businesses source a wide variety of products and services. The impact of tourism on other sectors is greater than in other industries like agriculture. PPSE had clear signals that this wider impact was happening, and wanted to assess and report it.

How PPSE developed the multipliers

PPSE had no experience with multipliers. They searched online and via their network of projects, donors and consultancy firms to see what their experiences were, yet found there were only a few examples. Publications by the United Nations World Tourism Organisation (UNWTO) and the World Travel and Tourism Council (WTTC) were screened, but they revealed little information on Kosovo.

> **Box 3**
> Swisscontact manages an increasing number of tourism projects, and has created a global working group, comprising of representatives from these projects. The objective is to share experiences and develop common practices. Assessing impact is one of these practices.

Two studies[2] reveal how multipliers were developed and used to assess job creation in tourism in the UK. The studies aimed to link the growth of the tourism sector (increased turnover) to the number of jobs created as a result of that growth. The method appeared promising, so PPSE decided to apply the same method, by combining information from its own MRM system with information provided by the World Travel and Tourism Council (WTTC) for the Balkans.

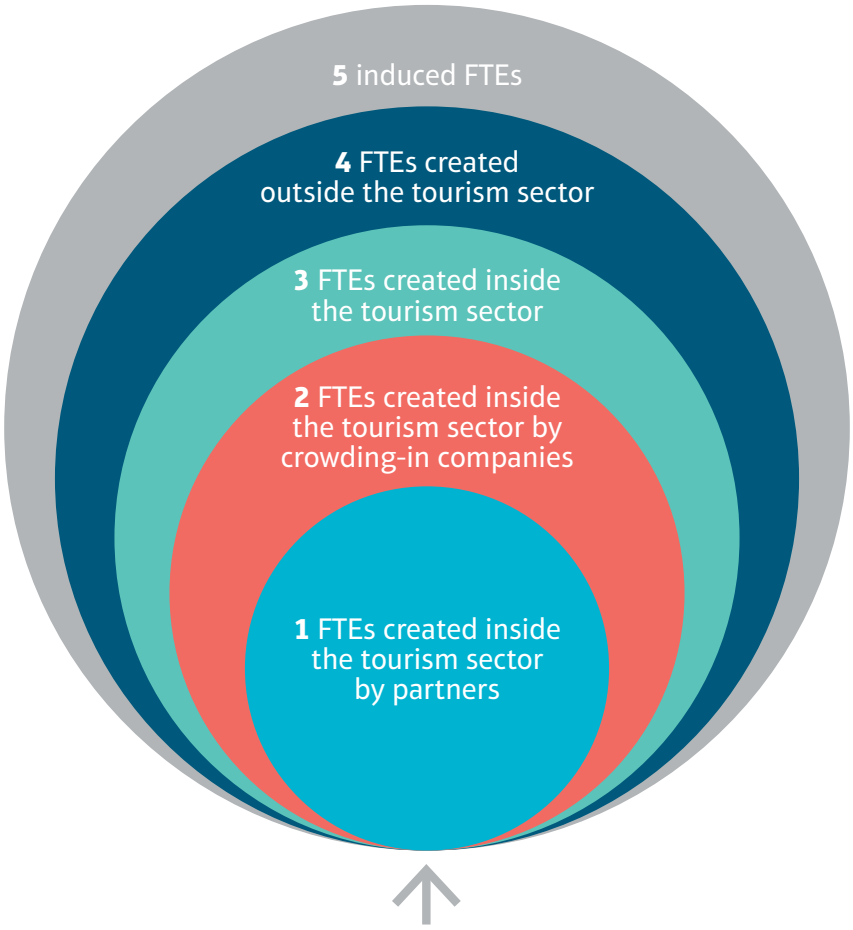
> **Box 4**
> The World Travel and Tourism Council (WTTC) is the forum for business leaders in the travel and tourism industry. WTTC produces reports and forecasts of the economic and employment impact of travel & tourism for 184 countries and 25 geographic or economic regions in the world.

2 Employment generated by tourism in Britain, Caledonian Economics Ltd, 2003 and Tourism: jobs and growth, the economic contribution of the tourism economy in the UK, Deloitte, November 2013

4. The multipliers

PPSE has developed three multipliers. The first helps to assess the total number of additional FTEs created in the tourism sector. The second multiplier assesses the total number of additional FTEs created outside the tourism sector. The third multiplier helps to report the total number of induced FTEs.

Figure 4. PPSE's categories of FTEs created



PPSE has placed additional FTEs in to five categories:

1. FTEs in the tourism sector as a result of the individual interventions, often assessed through a combination of company records and in-depth interviews with PPSEs partners
2. FTEs in the tourism sector as a result of crowding-in, often assessed through in-depth interviews with the crowding-in company and verification of the impact thereof
3. FTEs in the tourism sector, as a result of the interventions, but beyond the partner and crowding-in companies, estimated with the **first multiplier**
4. FTEs outside the tourism sector, as a result of the growth of the tourism sector, estimated with the **second multiplier**
5. Induced FTEs, as a result of the additional FTEs created, due to additional spending by the additionally employed people, estimated with the **third multiplier.**

The first multiplier: additional jobs within the tourism sector

Rationale. Additional spending by tourists due to improved supply and marketing leads to the creation of additional FTEs, beyond the partner and crowding-in companies. For example, if the performance of an activity supplier improves and leads to tourists staying longer, this generates FTEs within other companies such as hotels, restaurants and transport. The FTE multiplier is based on additional revenues due to the intervention and additional income in the tourism sector.

How. Each year, PPSE surveys the tourism sector in Western Kosovo to assess the supply-side. This survey includes the activity providers, the hotels and restaurants in the area. This survey provides them with the revenues and the FTEs for the tourism sector on an annual basis. By comparing two consecutive years, PPSE can assess the relationship between additional earnings and additional FTEs over time. The increase itself is of course not attributable to the project interventions, it only provides the multiplier. This multiplier is very specific: it is applicable to the Western Kosovo region, not to other regions.

Figure 5: Defining the multiplier for additional jobs based on marginal revenues

PPSE assesses the additional revenues that were created by its intervention partners through its regular MRM system. These additional revenues are attributable to the project. Applying the FTE multiplier to these additional attributable revenues then provides the additional attributable FTEs within the tourism sector.

Caution. This method takes into consideration the marginal growth necessary to create a new job. It would be wrong to only take the ratio per year and assume that additional FTEs would be created in a linear fashion. Restaurants do not hire more people if there are a few more guests, they ask their cook to prepare more food. Hotels do not hire more receptionists, they just have to serve more clients. So the marginal revenues that trigger FTEs need to be estimated. In the example reflected in figure 5, it takes USD $25,000 to create one FTE, not $10,000 or $12,500.

Box 5
Marginal expenditure impacts is the additional expenditure required to create an extra job, i.e. the amount of spending required to generate that job.[3]

Key assumptions. The FTE multiplier is based on additional incomes. In other words, assuming that FTEs are created as a result of changes in income, and not because of other factors. It is an assumption that is likely to hold, but needs to be verified in the field. A question to ask might be, are there distortions such as subsidies that lead to additional jobs? PPSE will monitor this through their regular interaction with market and public players.

There cannot be one multiplier for all actors in the tourism sector. For example, if an intervention targets activity providers only, is their additional revenue similar to the additional revenues created by an intervention targeting hotels, and does it create the same number of FTEs? Probably not. In other words, the bigger the variation among the tourism players, the less appropriate the one multiplier, and the bigger the attribution challenge. PPSE has therefore developed two multipliers: one for accommodation and one for restaurants. Additional case studies and more solid analysis of the variation are needed, which are likely to lead to more multipliers for each type of actor.

PPSE will track attributable additional revenues and FTEs created by the interventions through its MRM system. Comparing those FTEs with the multiplier-based FTEs will provide more evidence on the appropriateness of the multipliers. The demand-side survey also includes questions that help assess the reasons for increased income, to triangulate and possibly confirm attribution. PPSE continues to survey visiting tourists at the destination, which will help to assess whether additional income is attributable.

Correct for overlaps: PPSE needs to deduct for overlaps. The multiplier provides the total number of FTEs created, so the already assessed FTEs at partner and crowding-in company level need to be deducted to report the total of the third category of FTEs.

Table 1. Example of reporting FTEs per category

The result of applying multiplier one		**50 FTEs**
Deduct:		
FTEs assessed and reported at partner level	(category 1)	5 FTE
FTEs assessed and reported from crowding-in	(category 2)	15 FTE
FTEs created within the tourism sector	(category 3)	30 FTEs

3 Source: Tourism: jobs and growth, the economic contribution of the tourism economy in the UK, Deloitte, November 2013

The second multiplier: additional jobs outside the tourism sector

Rationale. Growth of the tourism sector, i.e. more income and more FTEs, leads to additional income, growth and FTEs in other sectors. For example, restaurants will serve more food, hence will purchase more agricultural produce, leading to increased agricultural production, thus creating jobs in the agricultural sector.

How. The WTTC collects an impressive amount of statistical data and produces annual reports that, among others, provide the total number of direct and indirect jobs. This relationship can be used to define the second multiplier: using the number of jobs within the tourism sector to estimate the number of jobs created outside the tourism sector. However, the multiplier is only applied to the total number of FTEs created by PPSE within the tourism sector in Western Kosovo not outside it. PPSE cannot use the total number of FTEs created in the tourism sector, since those FTEs are not created as a result of PPSE interventions.

Key assumptions. The studies by WTTC use "jobs" as a unit: the total number of seasonal, part-time and full time jobs, and it does not use FTEs as the unit of analysis. Although the multiplier is based on "jobs" in the WTTC report, the multiplier can be applied to the FTEs reported by PPSE for Western Kosovo, and when these are multiplied, this results in FTEs created outside the tourism sector in Western Kosovo. It is assumed that there is a linear relationship between WTTC's jobs-to-jobs ratio and PPSE's FTEs-to-FTEs ratio.

Table 2. Terminologies

Impact	MSD/DCED	WTTC
The jobs created as the result of the implementation with the partner in tourism	Direct in FTEs	Direct in jobs
The jobs created as the result of crowding-in by other companies in tourism	Indirect in FTEs	Direct in jobs
The jobs created in other sectors as the result of created FTEs in tourism	Indirect in FTEs	Indirect in jobs
The jobs created in other sectors as the result of spending income by created FTEs in tourism	Induced in FTEs	Induced in jobs

The WTTC studies are produced by Oxford Economics and the methodology is explained in the Travel & tourism economic impact research methodology, WTTC/Oxford Economics, 2016. The data collection and analysis makes use of several sources, and is by nature dependent on data provided by various national and international sources. PPSE assumes that the data is reliable.

Caution. The number of indirect FTEs is likely to be created later than the direct FTEs. PPSE considers it too challenging to assess how long it takes before an indirect FTE is created. Neither the WTTC nor the Deloitte Tourism: jobs and growth study provide entry points on how to assess the time factor. PPSE will respond to this by reporting the resulting FTEs one year after the direct FTEs have been created.

An additional challenge is that the WTTC country report for Kosovo is not available. WTTC does not produce an annual country report for Kosovo. There is insufficient reliable data at country level, not only for the tourism sector, but for all sectors. The case study, Capacity building for market systems development, shows why Kosovo doesn't have the statistical data and how

PPSE aims to contribute to better statistical data in the tourism sector.

However, the WTTC provides country reports for other Balkan countries. PPSE decided to assess if and how these reports can help to construct multipliers for Kosovo. PPSE analysed country reports for Albania, Macedonia, Montenegro and Serbia. The countries were selected because they are direct neighbours of Kosovo, and their economies are relatively similar (three of them being part of former Yugoslavia). Other Balkan countries, such as Slovenia and Croatia, were not taken into account since their economies are probably too different (they are EU member states). For the four selected countries, the number of direct and indirect jobs were collected for each of the past five years. Then the direct/indirect multiplier was calculated for each country and for each year. PPSE found that variations were considerable between countries, and between years.

Rather than taking the averages, PPSE decided to further analyse what were the key factors that influenced this direct /indirect job ratio. The WTTC considers two key elements:

1. The effect on supply chains. This is highly influenced by the import/domestic production ratio: the more a country imports, the less jobs are created in the country. PPSE used the imports as a percentage of GDP to compare Kosovo with the other countries.
2. The effect of government promotion. The more a government promotes tourism, the more jobs are created due to promotional activities. PPSE used their opinion to judge the efforts of promotion to compare Kosovo with the other countries.

PPSE then compared Kosovo with each of the four countries based on these proxy-indicators, and found that Montenegro was the most similar neighbour: scoring higher on promotion, a bit lower on imports, and much lower on their doing-business rank. Moreover, Montenegro is the country with the lowest direct/indirect ratio, and applying this ratio to Kosovo leads to conservative results. In addition, PPSE averaged the direct/indirect ratio to flatten-out incidental variations.

Table 3. Comparison of Kosovo with its four neighbouring countries using three proxy-indicators for indirect jobs.

	Montenegro	Serbia	Macedonia	Albania	Kosovo	Average
Direct/ indirect	0.33	0.42	0.70	0.69		0.53
Import percentage of GDP	60%	53%	65%	53%	70%	
Promotion	high	high	medium	medium	low	
Doing business ranking	46	59	12	97	66	

The third multiplier: induced jobs

Rationale. The increase of FTEs leads to more employees earning salaries. Their spending will result in economic growth, hence creating more FTEs.

How. PPSE use the data produced by the WTTC, similar to the way data was derived for the second multiplier. The total number of direct FTEs estimated to have been created within the tourism sector by PPSE interventions (for Western Kosovo) will be multiplied to arrive at the total number of induced FTEs. Again, PPSE takes a conservative approach: it only takes the direct jobs, not the direct and indirect jobs as the input to define the multiplier.

Key assumptions. The same assumptions, reliability and appropriateness of the FTE/FTE versus jobs/jobs ratio apply, while the time lag for induced jobs is probably even longer. PPSE will report them in the third year, two years after the creation of direct FTEs.

The same additional challenge applies, as the WTTC country report for Kosovo is not available. PPSE compared the data for the four neighbouring countries, and calculated for each country and each year the multiplier based on the data provided for direct and induced jobs. Variations were also considerable between countries, and between years, as shown in Annex 2.

PPSE further analysed the key factors that influence this direct /induced employment ratio. The WTTC states in its methodology paper that it is mainly influenced by wage levels and import percentages. PPSE thus compared the purchasing power parity (PPP) and imports as a percentage of the GDP to compare the five countries.

Table 4. Comparison of Kosovo with its four neighbouring countries using two proxy-indicators for induced jobs

	Montenegro	Serbia	Macedonia	Albania	Kosovo	Average
Direct/ induced	0.73	1.04	2.13	1.91		1.45
Import percentage of GDP	60%	53%	65%	53%	70%	
PPP	16.12	13.67	14.01	11.3	9.54	

The comparison suggests that the most similar countries are Macedonia and Albania. The two countries have the highest multiplier for induced jobs, almost double the multiplier for Montenegro, the lowest of the four. PPSE, maybe arbitrarily, opted to use the lowest multiplier, again taking a conservative approach.

5. Conclusion

Puzzle or juggle? Reaching multipliers that capture impact

Projects should not over or under report the impact they create. Multipliers are an instrument that can help projects report wider impact due to their interventions. However, incorrect application of multipliers may lead to reporting impact that is not due to the project.

The development of the PPSE multipliers is based on a methodology applied by others for the tourism sector in the UK. The first study by Caledonion did not take into account the marginal increase in turnover, yet the second study by Deloitte did. PPSE applied the Deloitte methodology, and assumed that this is a more correct (and more conservative) approach.

> **Box 6: Tip**
> Always document how the multipliers are developed, why it is appropriate to apply them in the project's context, and what the limitations are.

Given the reputation of WTTC, PPSE also assumed that the data provided by WTTC was correct. The transformation from regional multipliers to multipliers for Kosovo, using a few short cuts, might raise some eyebrows. However, a conservative approach has been applied. It seems to be a rare case of 'good enough' in the absence of better alternatives.

The importance of MRM

All three multipliers are based on the revenues and number of FTEs created at the intervention level. This stresses the importance of assessing the impact for the interventions. The MRM system must lead to rigorous assessments. Annual surveys are crucial to provide reliable data. Without a sound and solid MRM system, PPSE could not apply the multipliers.

The information on the wider impacts, i.e. indirect and induced jobs, is important for reporting only. The information is not used for managing the interventions. PPSE monitors the individual interventions to assess what works and what does not, and why. The resulting FTEs then lead to indirect and induced FTEs. PPSE cannot really influence that ratio through its interventions.

Benefits

PPSE is able to report indirect and induced FTEs that are created as the result of their interventions in the tourism sector in Western Kosovo. Without multipliers, this is likely to be very challenging in terms of resources and attribution. As a result, PPSE would be severely underreporting, and governments might not realise the importance of tourism for the economy.

The FTEs that are created within the tourism sector are assessed by a combination of 'hands-on MRM' combined with a multiplier based on annual surveys. Without these, PPSE would not be able to develop the multipliers.

Limitations

The multipliers have been developed by PPSE. This requires a certain level of in-house expertise that might not be available in other projects. The multipliers are partly based on data provided by others. It is assumed that this data has been collected according to good research practices. A number of assumptions have been made, such as the comparability between Kosovo and neighbouring countries, yet these comparisons are not backed by sufficient evidence. Finally, the reported FTE numbers are no more than an indicator of jobs created: they do not provide information on what types of jobs are created and how these contribute to poverty reduction.

Recommendations

This case study describes one option to develop and apply multipliers for tourism. Other projects could review if and how the methodology can be applied in their context. Countries for which the WTTC provides country reports, may find it easier to develop new multipliers.

Annex 1: Resources

Employment generated by tourism in Britain, Caledonian Economics Ltd, 2003
http://www.tourisminsights.info/ONLINEPUB/VISITBRITAIN/VB%20PDFS/VISITBRITAIN%20(2003),%20Employment%20Generated%20by%20Tourism%20in%20Britain,%20VisitBritain,%20London.pdf

Tourism: jobs and growth, the economic contribution of the tourism economy in the UK, Deloitte, November 2013
https://www.visitbritain.org/sites/default/files/vb-corporate/Documents-Library/documents/Tourism_Jobs_and_Growth_2013.pdf

Travel and tourism: economic impact research methodology, WTTC/Oxford Economics, 2016
https://www.wttc.org/-/media/files/reports/economic%20impact%20research/regions%202016/world2016.pdf

Annex 2: Employment contribution tables

Employment contribution: Montenegro

Year	2009	2010	2011	2012	2013	2014	Average
Direct	13	11	12	13	14	15	**13**
Induced	4	4	4	4	4	5	**4**
Indirect	10	9	9	9	9	11	**9**
Total	28	25	25	27	27	30	**27**
Induced multiplier	0.34	0.36	0.33	0.33	0.31	0.32	**0.33**
Indirect multiplier	0.75	0.80	0.73	0.73	0.68	0.70	**0.73**

Employment contribution: Serbia

Year	2009	2010	2011	2012	2013	2014	Average
Direct	33	32	32	34	35	35	**34**
Induced	13.77	13.26	13.77	14.11	14.62	14.79	**14**
Indirect	34.02	32.76	34.02	34.86	36.12	36.54	**35**
Total	81	78	81	83	86	87	**83**
Induced multiplier	0.42	0.41	0.43	0.42	0.42	0.42	**0.42**
Indirect multiplier	1.03	1.02	1.06	1.03	1.03	1.04	**1.04**

Employment contribution: Macedonia

Year	2009	2010	2011	2012	2013	2014	Average
Direct	7	6	7	7	8	9	**7**
Induced	5	5	5	5	6	6	**5**
Indirect	15	14	14	15	17	18	**16**
Total	27	25	26	28	31	33	**8**
Induced multiplier	0.69	0.75	0.67	0.72	0.70	0.66	**0.70**
Indirect multiplier	2.12	2.29	2.04	2.20	2.13	2.02	**2.13**

Employment contribution: Albania

Year	2009	2010	2011	2012	2013	2014	Average
Direct	59	51	49	46	49	51	**51**
Induced	40	36	33	32	34	35	**35**
Indirect	111	99	93	90	94	96	**97**
Total	209	187	176	169	177	182	**183**
Induced multiplier	0.67	0.70	0.68	0.70	0.69	0.68	**0.69**
Indirect multiplier	1.88	1.94	1.90	1.95	1.91	1.89	**1.91**