CASE STUDY IN A CULTURAL SITE (MACHU PICCHU, TRIGLAV) WHEN WE APPLY PRICE DIVERSIFICATION, EXPLAIN WHY EQUITY AND PROFITS MAY BOTH INCREASE, THE USE AND ON USE VALUES

The basic economic theory of pricing access to a site is straightforward (Mourato S. and all, 2004):

> Given a demand curve for access to a given site, the economic value of access may be measured by the area under the curve. In many cases, it is possible to charge different prices to separate, readily identifiable, groups. In this case, the profit maximisation problem becomes one of selecting a number of different prices (corresponding to the number of different groups) to maximise the profit function. Such a policy is called profit maximisation with (third degree) price differentiation.

Mourato S. and all describe the Machu Picchu case. Machu Picchu attracts around 700,000 visitors per year, making it one of the largest tourist attractions in South America. Approximately 70% of visitors are foreign, mainly from other North America, Europe and other South American countries. But despite high numbers of tourists, profits from the site have been traditionally low. The standard entry fees were $10 for the Machu Picchu Citadel, and $17 for the Inca Trail. Comparison of the optimising pricing strategies with the current pricing strategy reveals that the latter did not come close to capturing the potential revenues from site. The contingent valuation (CV) method is a stated preference technique commonly used in environmental economics for this purpose. The results demonstrate that with a revision of pricing policies, profits could be increased over three-fold for the Citadel, and to over 15 times their original level for the Inca Trail.

Total economic value (TEV) is a concept in cost–benefit analysis that refers to the value derived by people from a natural resource, a man-made heritage resource or an infrastructure system, compared to not having it. It appears in environmental economics as an aggregation of the (main function based) values provided by a given ecosystem. Those include use (UV) and non-use values (NUV).

$$TEV=UV+NUV$$

Use Value – Can be split into *Direct* and *Indirect* use values:

- *Direct use value*: Obtained through a removable product in nature (i.e. timber, fish, water).

- *Indirect use value*: Obtained through a non-removable product in nature (i.e. sunset, waterfall).

Non-use value – Values for existence of the natural resource. For example, knowing that tigers are in the wild, even though you may never see them.

Option value: Placed on the potential future ability to use a resource even though it is not currently used and the likelihood of future use is very low. This reflects the willingness to preserve an option for potential future use.

Bequest value or *existence value*: Placed on a resource that will never be used by current individuals, dervied from the value of satisfaction from preserving a natural environment or a historic environment (i.e., natural heritage or cultural heritage) for future generations.

Consider an example: Triglav National Park (TNP) is the national park in Slovenia. It was established in its modern form in 1981 and is located in the northwestern part of the country, respectively the southeastern part of the Alpine massif. Mount Triglav, the highest peak of Julian Alps, stands almost in the middle of the national park. From it the valleys spread out radially, supplying water to two large river systems with their sources in the Julian Alps: the Soča and the Sava, flowing to the Adriatic and Black Sea, respectively. Finally, in 1981, Triglav National Park was officially established in the modern form. A rearrangement was achieved and the park was given a new concept and expanded to 838 km². In 2010, the park expanded to include the settlement Kneške Ravne (Tolmin), according to wishes of its inhabitants, thus the new park area amounts to 880 km², which is 4% of the area of Slovenia.

The park harbours over fifty nine species of ethnobotanical values, of these 37 species (which contribute 62%) fall under 4 major categories of medicinal plants as per the Official Gazette of the Republic of Slovenia such as H, Z, ZR and ND. Some important species such as Aconitum napellus, Cannabis sativa and Taxus baccata are not allowed to collect and use as per the Official Gazette of the Republic of Slovenia (Triglav site, 2016).

Waters in Triglav National Park consist of two watersheds: the Sava River watershed and the Soča River watershed. Many waterfalls can be found in the park, and most of them are located in the valleys of Soča River and its tributaries. The highest waterfall is Boka Falls (106 m). The lakes in the park are all of glacial origin. The largest among them is Lake Bohinj. Others are the Triglav Lakes (located in the Triglav Lakes Valley), Lake Krn, and Lower and Upper Križ Lake (Triglav site, 2016).

Extractive, or consumptive, use value: from harvest of minor forest products such as fruit, herbs, or mushrooms, and from fishing.

Non-extractive use value: opportunities for recreation (trails for hiking, areas for swimming, mooring points for fishing boats, and so on); outdoor biological workshops, creative workshops

and various educational programmes; research in the form of regular research and research projects; planned public relations activities, design and execution of diverse educational programmes, intended in particular for the young (Triglav site, 2016).

Non-use value: non-use value derives from the benefits that a site may provide which do not involve using the site in any way; the value that people derive from the knowledge that the site exists, even if they never plan to visit it (Pagiola, S., 1996, p. 3).

Referencing:

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