

Developing Sustainable Tourism Indicators for Kashmir-An Eco-Fragile Destination

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ABSTRACT

Tourism industry cannot be monitored in vacuum, but is inextricably linked to social, economic and environmental changes happening at a destination. Consequently, evaluation tools are needed to monitor areas where tourism interfaces with key sustainable tourism issues. This article describes the strategy of creation of assessment tools called sustainable tourism indicators for Kashmir valley. Monitoring through usage of indicators is crucial to all sustainable development strategies. In this article, a list of indicators, which provide the opportunity to assess the effectiveness of policies and actions, identify the most appropriate and successful ones, and draw attention to problem areas, is compiled using expert opinion, subject knowledge, researched work and past experiences. The proposed indicator exercise presented in this article shows a path of coordination with sustainable tourism policy framework, to operationalise the indicators, thereby guaranteeing the validity of the assessment and follow-up approaches in Kashmir valley. The article also provides an insight of unsustainable tourism development in Kashmir and the need to develop a list of sustainable tourism indicators, at the earliest. Furthermore, strategy to develop indicators and their usage are discussed at length with a backdrop of United Nations World Tourism Organization guidelines provided in UNWTO; A Guidebook, 2004.

KEYWORDS: *Sustainable Tourism Indicators. Kashmir Valley, Sustainability, Monitoring and Assessment*

Introduction

Tourism industry is a crucial engine of Indian economy. Its contribution to the Gross Domestic Product (GDP) for the year 2014, was almost 6.77%, through direct as well as indirect impact, according to a report by National Council for Applied Economic Research (Quartz, 2015). This figure indicates that the contribution of much hyped information technology's business process outsourcing industry's GDP contribution, which is around 7.5%, is almost equivalent to that of tourism industry. These economic benefits of tourism industry are translated into many jobs and constitute major sources of income for destination residents (Tanguay et al, 2009). In India, tourism industry's total contribution to employment was 8.7% in the year 2014 (WTTC, 2014), and those figures are expected to rise at a steady pace, according to various forecasts. Apart from economic and financial benefits, tourism industry in India has also benefited socio culturally, both intrinsically and extrinsically. This can be seen in a wider and greater dissemination of Indian local culture worldwide.

Despite its positivity and advantages, tourism phenomenon has various negative effects as well (Hunter, 1997) and this is true for India and all other world destinations. The activities which are undertaken by tourists in the name of tourism, result in degradation of various socio-cultural, economic and institutional dimensions, if not monitored properly (Hall and Lew, 1998). For example, a 1990 study by Thai institute for development and administration, Bangkok revealed that due to leakage, 40% of all money spent by tourists ended up leaving India. which for the first time exhibited a lack of sustainable approach to the tourism industry's policy formulation. Similarly, many institutional evaluations, independent researches and other endeavors have revealed the existence of a void in tourism industry planning framework. Different studies on various regions across India have discussed different social and environmental standpoints which range from decrease in quality of life due to excessive visitor volumes, to decrease in bio-diverse reserves (Akhtar and Shah, 2012). Therefore, sustainable tourism has to be developed in such a way, that all the benefits for the nation in general and region in specific are maximised and the negative impact on physical and human environment is minimised (Tanguay, Rajaonson and Therrien, 2011). In order to formulate such plans which support these focussed goals, a thorough analysis of the process has to be done which in the end, can provide a calculated feedback. Hence, all these aims, objectives and goals must be supported by evaluation tools which are called as sustainable indicators (Miller, 2001). And this research work aims to do that for an eco-fragile destination called Kashmir, which is on the disastrous path of environmental deterioration.

Expected Outcomes

- Before juxtaposing sustainable tourism development and sustainable tourism indicators to form a coherent force, a thorough understanding of the latter is undertaken.
- A perspective of unsustainable tourism growth in Kashmir is analysed through concepts, statistical data and previous researches, which is put forth in a clear and straightforward language for general audiences to understand.
- The most important part of this work is the development of a sustainable tourism indicator grid which proposes to work with tourism policy framework of Kashmir valley to achieve sustainable tourism growth.
- The other very important portion of this proposed work is the compilation of a list of sustainable tourism indicators based on five relevant case studies provided by United Nations World Tourism Organization in UNWTO-Sustainable Development of Tourist Destinations-A Guidebook 2004.
- In simple terms, the work proposes uncomplicated solutions for assessment of sustainability by narrowing down the complexity surrounding the subject matter.

Methodology

The approach to this work is a database of indicator pool provided in UNWTO guidelines for sustainable tourism development and the 5 specific case studies of planning and development through monitoring by sustainable tourism indicators. The research design of this paper involves collection of secondary data which has been retrieved mostly from literature reviews, case studies, J&K tourism department, research journals and, theoretical and conceptual paradigms of tourism systems.

A grid using simple tabulation method for the purpose of indicator compilation, has been used. This grid of sustainable tourism indicators for Kashmir valley can easily be interpreted and hence widens its scope to non- academia, non- researchers and common audiences which can include all stakeholders, policy formulators and all other related sustainable tourism development decision-makers.

Sustainable Tourism Indicators

According to Rajaonson and Tanguay, 2011, "Policy implementation usually entails the use of follow-up and assessment tools such as indicators". Indicators are part of the main recognised evaluation tools used to support sustainable tourism policy implementation (Choi and Sirakaya, 2006). They form a group of facts that help to analyse critical changes which can occur during development and management of tourism phenomenon. In other words, these tools are considered essential means of accounting for unexpected outcomes and measuring the consequences of action or inaction (Bell and Morse, 2008). Measuring the performance of entire tourism sector, at the local, national or global level, or even that of a particular tourism enterprise, has traditionally concentrated on its economic and financial dimensions (Vereczi, 2006). However, sustainable tourism indicators have been developed to guarantee that such developments will be sustainable socially, culturally, economically and environmentally in the long run. For all the stakeholders, indicators correspond to a diagnosis of internal and external factors that affect the structure of tourism industry (Tanguay, Rajaonson and Therrien, 2013). They help to identify priority actions by reflecting on the benefits and impacts of tourism phenomenon on their regions (WTO, 2004). For this purpose, all tourism operators and/or those who take decisions, accurate information is needed for the process of defining of effective indicators. This denotes that the indicators act as catalysts which support the planning process of any tourism development (Mascarenhas et al, 2010). In other words, indicators act as monitoring devices which help in measuring the accomplishment of aims and objectives. To consider an indicator in determining whether a plan meets the initially set objectives, it needs to promote precision along with illustration of inconsistencies in some of the cases (Bell and Morse, 2008).

According to Vereczi (2006), "In the context of sustainable tourism development, sustainability indicators are information sets that are formally selected for regular use to measure changes in assets and issues that are key for the development and management of a given destination". Sustainable tourism indicators can be considered as fundamental building blocks for tourism planning, management and monitoring process. The main goal of sustainable tourism indicators in sustainable tourism development is to offer a global assessment of the link between nature and society, to help decision-makers evaluate actions to undertake or not, and thus orient tourism and related activities towards sustainable development (Hunter, 1997).

Rajaonson and Tanguay (2013), quoted, "Sustainable tourism indicators are generally used in two distinct contexts I) comparisons between destinations using a series of common indicators. II) the scorecard or the use of a series of indicators specific to a destination according to specific objectives".

In the first context, a comparison based on performance in sustainable tourism develops a critical attitude towards a destination's own initiatives and this minimises passive attitude through competition from comparing destinations (European Environment Agency, 2007).

In the second context, destinations tend to develop their own indicators according to their particular needs (Holman, 2009). In other words, destination specific indicator series is compiled to make a scorecard which help in identification of sustainability related tourism issues. These indicators can be adjusted according to the sustainable development concerns and characteristics specific to each destination, therefore, is a preferred method for a lot of stakeholders (Bell and Morse, 2008).

To develop sustainable tourism indicators for a destination, an integration of scientific expertise and local experience is needed. As is a well known fact, developing a set of sustainable indicators is a difficult task to undertake. There is a good chance of inevitable subjectivity to get introduced at each step in the process of selecting of indicators till their interpretation (Wong, 2006). Many researchers have put forth different conceptual frameworks to build a concrete paradigm based on which sustainable tourism indicators could be constituted. The area of environment management in particular, has been guided well through various proposed approaches by many authors in the process of formulating indicators (Bell and Morse, 2008). To consider any sustainability indicators good, it should be easy to understand and, economically and technically feasible to measure (Vereczi, 2006). However, according to WTO (World Tourism Organisation), 2004 Guidebook, following are the main criteria for selecting sustainable indicators in tourism:

- Relevance – of the indicator to the selected issue.

- Feasibility- of obtaining and analysing the needed information.
- Credibility – of the information and reliability for the users of the data.
- Clarity- and under-standability to the users.
- Comparability- over time or between destinations or tourism operations.

Many a times, however, the set criteria for choosing sustainable tourism indicators might not be appropriate to use in a particular situation. For example, sometimes factors like cost or lack of technical know- how might cause a hindrance in using a particular indicator. According to Mascarenhas (2010), “While providing the necessary technical capacities and funds for the use of an indicator can be a development objective itself, it is important to use alternative or approximate measures in the meantime, to obtain at least some indications on the importance of the issue, even if it means limited accuracy”.

It is thoroughly understood fact that the road of reaching appropriate and feasible sustainable tourism indicator is tough process, however, the perks and overall advantages of good indicators takes over all the hardships and difficulties experienced during the process of indicator development. In the year 2004, United Nations World Tourism Organisation provided following main benefits of good indicators:

1. better decision-making - lowering risks or costs;
2. identification of emerging issues - allowing prevention;
3. identification of impacts - allowing corrective action when needed;
4. performance measurement of the implementation of plans and management activities – evaluating progress in the sustainable development of tourism;
5. reduced risk of planning mistakes - identifying limits and opportunities
6. greater accountability - credible information for the public and other stakeholders of tourism fosters accountability for its wise use in decision-making;
7. constant monitoring can lead to continuous improvement - building solutions into management

Kashmir- The Unsustainable Tourism Framework

The state of Jammu and Kashmir, which is in northern India, consists of three distinct regions: Jammu, the Kashmir valley and Ladakh. The state which is located mostly in the Himalayan mountains, is surrounded by international border of China in the north and east, by Afghanistan in the north west and by Pakistan in the west, and by the state border of Punjab in the west and Himachal Pradesh in the south (Wiki, 2015). The valley of Kashmir, often called as paradise on earth, has a unique geographical personality and is situated between 32 25 N- 34 55 N and 73 45 E- 75 35 E (Malik and Bhat, 2015). Undoubtedly one of the most beautiful places on earth,

this oval shaped valley with its lofty snow covered peaks, is a perfect resort for leisure tourism (Santek, 2006). The immense beauty of picturesque locations which includes large natural lakes, thickly populated pine forests with rivers flowing therein and the legacy of Mughal gardens have made Kashmir as an absolute famous international tourist destination.

In the year 2014, a whopping 11 lakh tourists visited Kashmir, experts say that a projected 10% growth in tourist traffic was expected for the year 2015 (Economic, 2015). Having pointed out the above success statement with unprecedented figures for Kashmir valley, it may be mandatory to look at the other side as well. With unexpected high numbers, the valley's sustenance has seen a downward trend in its environment. The soaring numbers in tourist arrivals are causing a negative relationship between all environmental dimensions and tourism industry. The elements of sustainable tourism development have never been on top priority list when planning and development of tourism happens in Kashmir. The authorities seem to have ignored the concept of introducing new and updated guidelines provided by UNWTO on a regular basis about sustainable tourism development practices. The current tourism policy for Kashmir valley which is still being drafted, has a myopic view on sustainable tourism development. However, in the entire country, on national level, a well developed tourism policy and a concentrated focus on sustainable tourism development does exist (Std, 2011). The various efforts put forth by India include STCI (Sustainable Tourism Criteria for India), Sustainable Tourism Indicators for Hotels and Tourism Operations, Market development assistance for sustainable tourism, educational programmes like seminars and workshops, Eco-tourism policy and guidelines, liaison and conferences with GSTC (Global Sustainable Tourism Council) and others (Gstc, 2014). There have been many success stories of various Indian destinations, which have been given as examples and case studies with positive outcome in books, research journals, internet etc. One such example is provided in UNWTO 2004 Guidelines Journal, which discusses the case study of 'Community Based Tourism in Corbett National Park', using APPA (Appreciative Participative Planning and Action) (Mason, 2007). Such success stories are non-existent in Kashmir valley. This eco-fragile destination is in desperate need of a well researched tourism policy and planning which should revolve around sustainable tourism development, with a special focus on sustainable indicators.

A lot has been researched on unsustainable tourism practices in Kashmir valley and most of them have pointed out that the magnitude of negative impacts is quite huge and magnanimous which completely wipes of the positives which the industry brings in. In his research paper, Malik, Bhat and Bhat (2013), mentions, "Pressure on natural resources, pollution and wastes, loss of biodiversity and harm to wildlife and

habitats etc are the main potential impacts of tourism on environment in Kashmir. This place gets filled with solid wastes during and after the peak tourist season of summer (Mir, 2014). Researchers from other interrelated disciplines like environmental studies and economics have also demonstrated through their work that there is damage to biodiversity, and contamination of water, land and air. The economic benefits gained, generally seep out of the sustainable system due to leakage. The unregulated flow of tourists is having severe impact on forests, glaciers, water sources and its implications can snowball into larger crisis in future (Syed, 2012). In tourist season, tonnes of garbage and wastes are seen lying on water bodies which finally flow in nearby rivers (Joshi, 2011). Therefore, it can be deduced that there is enormous amount of anthropogenic pressure because of unregulated and unsustainable mass tourism in Kashmir valley. The carrying capacity of main tourist areas in the valley either have exceeded the limits or are on the brink of exhausting the limits (Gadoo, Khan and Sofi, 2014). See table 1.

Table 1 : Destination wise Capacity Analysis of Kashmir

Destination	Existing Load (2010)	Carrying Capacity	Available Daily Capacity (persons) 2010	Estimated Load (2020)	Available Daily Capacity (persons) 2020
Nishat Garden	16868	6143	488	20684	-4304
Shalimar Garden	12682	4784	76	15577	-2819
Dal Lake	23667	16659	22980	46248	-6963
Dachigam National Park	131	342	554	248	437
Gulmarg	9093	11250	2157	23190	-11940
Sonmarg	5170	67500	62330	13002	54498

Adopted: Mohd Rafiq Gadoo, Farooq Ahmad Khan and Maraj Rehman Sofi - **Measuring the Sustainability Tourist Development in Kashmir**

As is a known fact, with it, tourism brings in benefits for the whole environment, which includes socio-cultural, ecological, political and economical dimensions. To combat unsustainable methodology of conducting tourism businesses, to bring in awareness to tourism planners, to optimise the rewards which this industry offers and to promote inter and intra- generation tourism development, the author of this proposed work puts together general and specific sustainable tourism indicators for Kashmir valley. The indicators developed for this case study, if implemented by authorities, can become central component of a broader participatory planning

process which aims at total sustainable tourism development for Kashmir. WTO has been promoting the application of sustainability indicators since the early 1990s. Over past three decades, debates and discussions related to approaching sustainable tourism indicator development for different destinations have had many successful cases (Fennell and Dowling, 2003). Hence, one can factually point out that the suggested procedure for indicator development for any tourism destination goes through a systematic process of research and development which is given below in a step wise manner: (Adopted- WTO Guidebook 2004)

Research and Organization

- Step 1. Definition/delineation of the destination.
- Step 2. Use of participatory processes.
- Step 3. Identification of tourism assets and risks.
- Step 4. Long-term vision for a destination.

Indicators Development

- Step 5. Selection of priority issues.
- Step 6. Identification of desired indicators.
- Step 7. Inventory of data sources.
- Step 8. Selection procedures.

Implementation

- Step 9. Evaluation of feasibility/implementation.
- Step 10. Data collection and analysis.
- Step 11. Accountability, communication and reporting.
- Step 12. Monitoring and evaluation of indicators application.

Strategy for Selection of Sustainable Tourism Indicators for Kashmir Valley

The indicator selection strategy used to obtain a list of workable, pertinent and operational indicators for Kashmir valley is based on the following successful case studies given WTO (World Tourism Organization) Guidebook 2004:

- 1) Gaspesie region – Canada
- 2) The Canary Islands- Spain
- 3) Corbett National Park- India
- 4) Villa Gesell – Argentina
- 5) Masakala guesthouse- South Africa

An exhaustive list of indicators was taken from WTO manual; *Indicators of Sustainable Development for Tourism Destinations: Guidelines 2004*. External competence, researched work, demonstrated knowledge and recommended expertise from other relevant destination was sought. Above mentioned case studies were vigorously and thoroughly examined and evaluated, and their strategy of success was analysed. A choice was made from among the recognised indicators, which led to the compilation of inventory of relevant indicators. Therefore, a

database of sustainable tourism indicators for Kashmir valley, which retains addressed factors that reflect dynamics similar to the above mentioned cases, have been created which are given in table:

Table 2: Proposed Indicator Exercise for Kashmir Valley

Main Issue	Indicator	Utility	Results
Condition of main environmental assets	<ol style="list-style-type: none"> 1. Number of visitors 2. uncontaminated picture of the area 3. organized tour 4. perception of cleanliness level of the area 5. overall condition of the area 	Environmental sustainability in terms of stress and values	<ol style="list-style-type: none"> 1. Extent of degradation 2. visitor perceptions 3. behaviour of visitors 4. visitor numbers 5. guided tour numbers
Involvement of local population	Employment statistics	Economic sustainability	Qualified tourism professionals
Economic stimulus and benefits	Amount spent per day per tourist	Benefits to local economy	Revenue percentage from all tourism activities
Authenticity of tourism product	Tourist satisfaction and perception of quality of tourism product	Sustainability of industry in general	Specific site/ product perception
Destination impression	Destination perception	Risk to the destination	Percentage of favourable/ unfavourable responses
Accommodation likeliness	<ol style="list-style-type: none"> 1. Price, cost/night 2. Repeat customers 3. Quality of service 	Sustainable accommodation	<ol style="list-style-type: none"> 1. Percentage of 'green' hotels 2. percentage of overall favourable establishments
Tourists in peak season	Tourist numbers per month	Stress on infrastructure	Concentration on fragile areas day/month wise
Seasonality for stakeholders	Hotels/ restaurants occupancy percentage by months	Cultural / economic impact	Percentage of permits for controlled/ fragile sites

Main Issue	Indicator	Utility	Results
Good relations between tourists/ residents	Attitude of locals towards tourists	Socio-cultural sustainability	Complaints about tourists/ satisfied community
Planning and policy	Existence of plan for destination	Level and impact of control	1. Provision of site plans 2. level of monitoring
Communication	1. Awareness to locals 2. cooperation amongst all	Evaluates level of integration	Percentage of aware residents
State of airports	Perception of airport condition by residents and tourists	Potential risk to the whole tourism product	Percentage of favourable/ unfavourable votes
Access routes like roads	Cost of well maintained roads	Potential impacts	Perception of access conditions

Source : Author's compilation

Discussion

Essential instruments for policy- making, planning and management processes of different destinations in Kashmir valley have never been seen till date. This natural beauty of India, which is fast deteriorating along all lines of different dimensions of environment, requires continuous monitoring, remedial action for already deteriorated part and action early in anticipation of impacts. For the purpose of this relative assessment, the author put together a list of sophisticated measurement tools, called sustainable tourism indicators, shown above in Table: II. This table breaks down the complexity surrounding the issue of achieving sustainability in Kashmir valley. By applying this comprehensive list of indicators, an automatic link between nature and society will be formed which will aid decision-makers towards sustainable planning and development. These indicators are the best documented ones and most widely used with a very high success rate. The main dimensions of sustainable development for Kashmir valley are systematically covered by these indicators and are consistent with national and regional policy framework.

For these sustainable tourism indicators to be effective there should not be a constraint of data availability related to specific issues, as substitute indicators have not yet been developed. This indicates that there is a precariousness of the availability of the statistical data related to sustainable tourism, and enables us to

target indicators about which the destination should provide more information. Furthermore, these indicators are applicable to all tourist areas/regions within Kashmir valley, they do not vary destination wise.

The current approach also, identifies and measures the entire range of impacts that tourism can have in any area of Kashmir valley. It does not concentrate on few particular impacts. There is a significant and increasing evidence to show that, over the last 10 years tourism systems have interacted with and altered the environment more than any other time during history in Kashmir valley. In the wake of this statement, the author is confident that if applied sincerely and methodically, the indicators will perform the function of most efficient monitoring system, that will contribute towards greater sustainability and higher quality in tourism, along with inter and intra generational integration.

Conclusion

The tourist areas of Kashmir valley are considered as favorite tourist destinations by many. However, these landscapes are particularly fragile and susceptible to degradation partly, because of unplanned mass tourism, which has threatened the sustainability of the industry. Identification of issues in Kashmir tourism industry and management of the same is indispensable and relies heavily on sustainability- focused tourism policy.

This paper presents the monitoring system which uses sustainable tourism indicators as the main strategy for sustainable tourism development. In other words, this paper focuses on selection of a series of sustainable tourism indicators which can be adopted by all the tourist regions of Kashmir valley. Furthermore, the formulations of these indicators have been compiled by the author for the whole purpose of support to the development of Kashmir tourism policy framework. These indicators can form the guiding principles in policy formulation and therefore crucial tools for all stakeholders at all levels enabling them to take action before critical thresholds are reached.

Besides supporting tourism monitoring and planning processes, indicators also act as important tools of communication. The complexity of stakeholders and interest groups is overwhelming, even at local level and all these groups need to understand the implications of tourism development. These indicators can provide them with necessary information so that they actively support and commit towards achievement of more sustainable tourism development. Therefore, the author proposes to submit the indicator grid of this paper to the regional authorities of Jammu and Kashmir Tourism department for analysis and implementation, if found feasible and relevant in terms of coherence to the policy framework.

Given the fact that the nature of complex tourism systems is unpredictable, the author acknowledges the fact that all the indicators are unlikely to be perfectly measurable and usable for the first time and therefore opens doors for further research on those indicators which show inaccuracy.

References

- Akhtar, S. and Shah, A (2012), Contemporary Approach Towards Evaluation of Sustainable Tourism Development: A Case Study of Goa, *International Journal of Research in Commerce and Management*, Vol.3, no.1, pp. 98-105
- Bell, S. and Morse, S (2008) *Sustainability Indicators: Measuring the Immeasurable?* London: Earthscan, 2nd edition, 228 p.
- Choi, H.S. and Sirakaya, E. (2006), Sustainability Indicators for Managing Community Tourism, *Tourism Management*, vol. 27, no. 6, pp. 1274-1289.
- Fennell, D. and Dowling, K. (eds) (2003) *Ecotourism Policy and Planning*, CABI Publishing, Wallingford. UK
- Gadoo, M.R, Khan, F.A and Sofi, M.R (2014) Measuring the Sustainable Tourism Development of Kashmir, *European Academic Research* Vol.2, no.3, pp-134-143
- Hall, C.M and Lew, A. A. (1998), *Sustainable Tourism: A geographical Perspective*, Wesley Publishing Company, N.Y., U.S.A.
- Holman, N. (2009) Incorporating Local Sustainability Indicators into Structures of Local Governance: a Review of the Literature. *Local Environment*, vol. 14, no. 4, pp. 365-375.
- Hunter, C. (1997), Sustainable tourism as an adaptive paradigm, *Annals of Tourism Research* Vol.24, no.4, pp. 850-867.
- Joshi, S (2011). Threat to the Natural Environment of J&K, *Greater Kashmir*, India
- Mason, P. (2007). The Effectiveness of Tourism Codes of Conduct in Black, R and Crabtree, A (ed). *Quality Assurance and Certification in Ecotourism*, CABI, Oxfordshire, U.K. pp.46-64
- Malik M.I., and Bhat M.S. (2015) Sustainability of tourism development in Kashmir — is paradise lost? *Tourism Management Perspectives*, vol.16, pp. 11-21
- Malik, A.R., Bhat, I.H. and Bhat, F. A. (2013) Impact of Tourism on Environment of Jammu and Kashmir, *International Journal of Advanced Research in Economics and Commerce*, Vol.1, no.1. pp. 15-22
- Mir, J.J. (2014) Environmental Security and Sustainability in Kashmir, *Dissertation Report*, Sikkim University, India
- Mascarenhas, A. Coelho, P. Vaz, P. Dores, A. and Ramos, T.B. (2011), A framework for regional sustainability assessment: Developing indicators for a Portuguese region, *Sustainable Development*, Vol., 18. No.4, pp, 211-219
- Miller, G. (2001), The Development of Indicators for Sustainable Tourism: Results of a Delphi Survey of Tourism Researchers, *Tourism Management*, vol. 22, no. 4, pp. 351-362.
- Syed, A. (2012). Playing with Nature, *Kashmir Life*, Srinagar, J&K India

- Tanguay, A.G, Rajaonson,J, Lefebvre, J.F and Lanoie, P (2009), Measuring the Sustainability of Cities: An Analysis of the use of Local Indicators, *Ecological Indicators* Vol.10, no.2, pp. 407-418
- Tanguay, A.G and Rajaonson J., (2011), Selection Strategy for Regional Indicators of Sustainable Tourism, *Teoros*, Special Issue, pp. 77-84
- Tanguay, A.G., Rajaonson, J, and Therrien, M.C. (2011), Sustainable Tourism Indicators: Selection Criteria for Policy Implementation and Scientific Recognition, *Cirano Report of Researchers*, Vol. 4, No.3, pp. 18-27
- Vereczi, G. (2006) Sustainability Indicators for Destinations and Operations in Black, R and Crabtree, A. (ed). *Quality Assurance and Certification in Ecotourism*, CABI, Oxfordshire, U.K. pp.101-115
- Wong, C. (2006) *Indicators for Urban and Regional Planning*. New York: Routledge. 217 p.

Electronic sources

- Economic, 2015 http://articles.economicstimes.indiatimes.com/2015-02-06/news/58878847_1_jammu-and-kashmir-kashmir-valley-tourist-arrivals
- European Environment Agency, 2007 http://www.eea.europa.eu/publications/state_of_environment_report_2007_1
- Gstc, 2014 <https://www.gstcouncil.org/en/about/news/965-india-advances-in-expanding-sustainable-tourism-knowledge-and-standards.html>
- Quartz, 2015 <http://qz.com/246377/tourism-contributes-as-much-to-indias-economy-as-the-entire-it-sector/>
- Santek, 2006 <http://incredibleindia.org/lang/images/docs/trade-pdf/surveys-and-studies/perspective-plans-of-states-UTs/jammu%20kashmir.pdf>
- Std,2011http://www.tourism.nic.in/writereaddata/CMSPagePicture/file/marketresearch/studyreports/Sustainable_Tourism_Report_for_MOT-GOI-%20FINAL%20APPROVED.pdf
- Wiki, 2015 https://en.wikipedia.org/wiki/Jammu_and_Kashmir
- WTO, 2004 <http://www.unep.fr/Shared/publications/pdf/DTIx0592xPA-TourismPolicyEN.pdf>
- WTTC, 2014 <https://www.wttc.org/-/media/files/reports/economic%20impact%20research/countries%202015/india2015.pdf>