SUSTAINABLE TOURISM INDEX: A COMPARATIVE ANALYSIS OF DESTINATIONS IN KASHMIR VALLEY

Gowhar Ahmad Wani* & V. Nagaraj**

Abstract: This paper studied the status of sustainable tourism at the destination level. The key objective is to analyze the performance of destinations comparatively based upon the perceptions of tourism stakeholders: tourists, residents, and service providers. Perceptions of surveyed respondents are converted into individual weights by statistical operations proposed by Chakrabarty (2014) and Bhattarai and Rajan (2021) with further additions. EXCEL and SPSS were used for data entry, normalization, and other calculations. The weights calculated are normalized individually for each variable destination wise. A composite index methodology was followed to calculate the values of indicators and dimensions for each tourism spot. The score gained confirms the moderate performance, and however, it differs among the surveyed destinations. The performance of Kokernag is comparatively weak and is significantly lower for Yusmarg. Though Pahalgam confirmed the moderate status, specific indicators need further development. Srinagar and Gulmarg showed better scores than other destinations; however, the indicators of environment dimension demand further management and protection. Therefore, performance of destinations significantly differs and requires rectifications as per the issues and problems verified by the index results. As a policy outcome, it offered a dynamic approach to upgrade the status of sustainable tourism at destinations in Kashmir Valley.

Key words: Sustainable tourism; Tourist destination; Tourism policy (status); Strategic planning.

ÍNDICE DE TURISMO SUSTENTÁVEL: UMA ANÁLISE COMPARATIVA DE DESTINOS NO VALE DA CAXEMIRA

Resumo: Este artigo estudou o status do turismo sustentável em nível de destino. O objetivo principal é analisar comparativamente o desempenho dos destinos com base nas percepções dos atores do turismo: turistas, residentes e prestadores de serviços. As percepções dos entrevistados são convertidas em pesos individuais por operações estatísticas propostas por Chakrabarty (2014) e Bhattarai e Rajan (2021) com acréscimos adicionais. EXCEL e SPSS foram usados para entrada de dados, normalização e outros cálculos. Os pesos calculados são normalizados individualmente para cada destino de variável. Foi seguida uma metodologia de índice composto para calcular os valores dos indicadores e dimensões para cada ponto turístico. A pontuação obtida confirma o desempenho moderado, mas diere entre os destinos pesquisados. O desempenho do Kokernag é comparativamente fraco e é significativamente menor do que o de Yusmarg. Embora Pahalgam tenha confirmado o status moderado, indicadores específicos precisam de mais desenvolvimento. Srinagar e Gulmarg apresentaram pontuações melhores do que outros destinos; entretanto, os indicadores da dimensão ambiental demandam maior gestão e proteção. O desempenho dos destinos difere significativamente e requer retificações conforme as questões e problemas verificados pelos resultados do índice. Como resultado da política, ofereceu uma abordagem dinâmica para atualizar o status do turismo sustentável em destinos no Vale da Caxemira.

Palavras-chave: Turismo sustentável; Destino turístico; Política de Turismo (status); Planejamento estratégico.

ÍNDICE DE TURISMO SOSTENIBLE: UN ANÁLISIS COMPARADO DE DESTINOS EN EL VALLE DE CACHEMIRA

Resumen: Este documento estudió el estado del turismo sostenible a nivel de destino. El objetivo clave es analizar comparativamente el desempeño de los destinos en función de las percepciones de las partes interesadas del turismo: turistas, residentes y proveedores de servicios. Las percepciones de los encuestados se convierten en ponderaciones individuales mediante operaciones estadísticas propuestas por Chakrabarty (2014) y Bhattarai y Rajan (2021) con más adiciones. Se utilizaron EXCEL y SPSS para el ingreso de datos, la normalización y otros cálculos. Los pesos calculados se normalizan individualmente para cada variable en cuanto al destino. Se siguió una metodología de índices compuestos para calcular los valores de los indicadores y dimensiones para cada lugar turístico. El puntaje obtenido confirma el desempeño moderado y, sin embargo, difiere entre los destinos encuestados. El rendimiento de Kokernag es comparativamente débil y es significativamente menor para Yusmarg. Aunque Pahalgam confirmó el estado moderado, los indicadores específicos necesitan un mayor desarrollo. Srinagar y Gulmarg mostraron mejores puntajes que otros destinos; sin embargo, los indicadores de la dimensión ambiental exigen una mayor gestión y protección. El desempeño de los destinos difiere significativamente y requiere rectificaciones según los problemas y problemas verificados por los resultados del índice. Como resultado de la política, ofreció un enfoque dinámico para mejorar el estado del turismo sostenible en los destinos del Valle de Cachemira.

Palabras clave: Turismo sostenible; Destino turístico; Política turística (estado); Planificación estratégica.

1 INTRODUCTION

An inclusive idea of sustainable development emerged in the 1960s, and researchers defined are absolutely in the 1970s. Thereafter, it is considered an integral part and prime aim of every sector of the economy. In the 1990s, national and international agencies initiated the sustainable tourism drives as an extension of sustainable development in the tourism sector. It was considered a vital instrument to overcome the negatives of mass tourism. The core focus of sustainable tourism is to protect the environment, ensure social and economic benefits to tourism dependents and satisfaction to the visitors (Butler, 1999; Swarbrooke, 1999; United Nations, 2007; UNESCO, 2009; Bac, 2012).

*Doctoral Research Fellow, School of Economics, Central University of Kerala, India. PhD in Economics/CUK (2022). Masters in Economics/University of Kashmir (2016). Economics Subject Expert at ICA International Kasaragod Kerala India. Researcher ID: AFL-3107-2022. Orcid: https://orcid.org/0000-0001-7948-5239[gowharwani990@gmail.com]

** Assistant Professor, School of Economics, Central University of Kerala, India (2016). PhD, M.Phil and Masters in Economics/Anamalai University (2006). Gold Medalist and University Rank Holder in his Post-Graduation. Assistant Professor in School of Maritime Management at Indian Maritime University (2014). Research assistant in The Rajiv Gandhi Chair for Panchayati Raj Studies, Gandhi Gram Rural Institute, Dindigul, Tamil Nadu. Team member in the preparation of the Human Development Report for Trichy and Tirunelveli Municipal Corporations of Tamil Nadu. [arputham.nagu@gmail.com]

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UNWTO (2005) defined the term sustainable tourism as "Tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" (UNWTO and UNEP, 2005). It underlines that the functioning of the tourism industry, which is indispensable to meet the present and future needs of tourists, host community, and destination. For this, stable maintenance of culture and heritage, ecological functions, biological diversity and life support systems is mandatory at the destinations (Hunter & Green, 1995; Middleton & Hawkins, 1998; UNWTO 2004).

Accordingly, to ensure the present and future benefits of destinations and stakeholders, efficient functioning of the tourism sector is essential. It necessitates balanced growth, care and safeguarding the tourism resources. Otherwise, unsustainable practices of the industry may lead to degradation of quality and durability of pristine tourism resources. Therefore, there is a potential risk for natural, cultural and heritage resources (Neto, 2003). Therefore, proper supervision, precise guidelines, adequate facilities, and services are compulsory (NitiAyog, 2018; Luo, 2018).

At present, tourism spots that are important at the world level facing numerous sustainability Issues (Lizarraga, 2019). Performance of road and transport, public utilities, solid waste management, sewage treatment, security and governance are significant causes of the sustainability issues. Sustainability issues are deeply connected and intertwined with the basic structures and the service quality of the tourism industry. Deficient facilities, sub-standard services, and lack of technological augmentation are potential tourism countries' key challenges. It resulted in environmental imbalance, insanitary situations and intensified the sustainability issues at destinations.

Inadequate facilities and poor performance affect the air quality, causing ineffective solid and sewage management and eroding the destination's sustainability (Luo, 2018). Empirical investigations of international agencies also explored similar sustainability issues at tourism potential developing countries, especially in Asia (UN, 2007; UNEP, 2007; APEC, 2013). Further, tourism studies also underlined the connection between infrastructure, service quality, and industry sustainability issues (Khalid & Stephanie, 2010; Genc, 2018; Nepal, Irsyad& Sanjay, 2019). In the case of India, important reasons for the poor performance of sustainable tourism are lack of service quality and skilled human resources (Kaul & Gupta, 2009).

However, various states of India face tourism sustainability issues in overall planning and development, economic benefits, environmental, social and cultural, and governance (Ramyasri, 2021). Dimensions and intensity of sustainability issues differed among the destinations. Accordingly, it obliges region-specific indicators for the assessment and to conduct an inquiry on status of sustainable tourism at the destination level. With this background, the key object of the study is to analyse the performance of sustainable tourism at destinations of Kashmir Valley. It is expected that the study will help to identify the weak areas of performance and therefore, act upon accordingly for possible rectifications.

2 LITERATURE REVIEW

This section of the review of literature critically reviewed studies on sustainable tourism with diversified areas like (i) origination, conceptualisation and dimensions, (ii) issues, challenges and need of sustainable tourism, (iii) sustainable tourism practices through role of local products and host community, strategies and measurement.

The tourism industry significantly contributes to the world GDP and is imperative for jobs creation directly and indirectly. It is an amalgamation of multiple sub-sectors and therefore has broader competence to engage people from different communities. The progression of tourism proved to be remarkable to enhance the development of economies and significantly contributes to enriching the pillars of sustainable development, namely socio-cultural, economic, environmental and institutional dimensions.

As a result, the tourism sector has a significant competence to contribute to potential countries' sustainable development. The sector is economically viable, ecologically sound and socially sustainable compared to other industries. In most countries, tourism is the sole source of income and, therefore, a vibrant tool to alleviate the poverty of regions. That is why international agencies considered tourism as an effective tool for poverty eradication, employment booster, balanced development and a sign of peace.

Origination and development of sustainable tourism inform that it had emerged from the literature of sustainable development, and it was agreed and endorsed by the scholars and publications of international agencies (Swarbrooke, 1999; Butler, 1999; Heardy, Beaton & Pearson, 2002; UNESCO, 2009; Bac, 2012). Subsequently, the authors discussed whether the term sustainable tourism is a reality or merely a dream and focused on applying sustainable tourism in countries without conceptual clarity (Lansing & Devries, 2007; Liu, 2010). Following the conceptualization, scholars explored four dimensions of sustainable tourism: economic, environmental, socio-cultural, and institutions. However, indicators of each dimension varied among the studies of dimensions of sustainable tourism (United Nations, 2007; Huayhuaca et al., 2010; Luo, 2018).

The well-established trade-off between economic growth and sustainable development is fit for sustainable tourism also. A study conducted by Neto (2003) proved the economic benefits of tourism and negative impacts on environmental quality in developing countries, and the study recommended the need for sustainable tourism. Sustainable tourism initiatives depend on people's knowledge of the environment, sustainable tourism, and socio-economic characteristics. It became a challenge to sustainable tourism initiatives and establishments (Amuquandoh& Dei, 2008).

In addition, negative environmental impact due to over influx and inadequate management were important challenges faced by sustainable tourism initiatives (Khalid &Stephaine, 2010). Further, studies confirmed variation in sustainable tourism issues by dimensions and underlined the significant causes and requirements of a suitable sustainable tourism framework (European Parliament, 2016; Kaul & Gupta, 2009).

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Few of the studies scrutinized the issues of institutional dimension such as security issues and highlighted the impacts on sustainable tourism (Shah & Wani, 2013; Ajaz-ul-Islam, 2014).

However, reviewed studies didn't include the infrastructure and service factors to analyse issues and challenges in sustainable tourism. Few studies tried to include the infrastructure and service factors into the analyses, but the attempt is unclear and partial (European Parliament, 2016; Kaul & Gupta, 2009). So, excluding the positive and negative influence of infrastructure and services in sustainable tourism analyses is identified as a gap in reviewed studies.

Based on the strategies and indicators, sustainable tourism measurement was developed and applied in different regions and identified the need for locality specific initiatives in indicators and assessment (Johansen, Begert& Scherer, 2008; Foronda-Robles, Galindo, & Fernandez, 2020). Researchers had developed area specific indicators to measure sustainable tourism performance. Though, it was hampered by technical difficulties and hence favoured the development of comprehensive methodology (Delgado & Saarinen, 2014).

Studies analysed the role of sustainable tourism dimensions to enhance the performance of destinations through the perceptions of tourists and residents. It revealed that inference of each dimension differed among the tourists (Dias & Rodriguez, 2016). Similarly, Choi and Sirakaya (2005) tried to develop the host community-centric sustainable tourism indicators with attitude scale and validated the same.

Improvement in sustainable tourism measurement helped scholars prove the association between dimensions and their role in predicting the tourists' satisfaction, and the role varied by situations (Hussian& Ali, 2015; Cotrell, Vaskean& Shen, 2012). Mathurand Khanna (2017). Further, Mathurand Khanna (2017) proved the strong association between awareness of sustainability practices and tourists' satisfaction.

Subsequently, Ensetio, Kastemholz and Zelia (2011) measured the implications and impact of rural tourism on its sustainability with the help of established dimensions and methodology. On the other hand, studies established the links between products of the host community, local resources and positive millage to sustainable tourism (Kokkranikal& Morrison, 2002; Sims, 2008).

As an extension of sustainable tourism, the Host-guest relationship and its impact on the quality of life of the host community and government initiatives and host community perceptions are studied (Carneiro & Eusebio, 2015; Kruja&Hasaj, 2010) and suggested the necessity of comprehensive policies to generate sustainable tourism (Aall, 2014; Dahiya, 2018; Weave., Tang, & Zhao, 2020).

Reviewed literature of sustainable tourism practices and measurement covered the strategies adopted and analysed the role of dimensions in sustainable tourism performance, including tourists and host community perceptions.

Adopting an inclusive approach in sustainable tourism analyses requires configuring indicators and dimensions suitable to the regional specification. It is advocated and advised by empirical studies (United Nations, 2007; Kokkranikal& Morrison, 2002; Johansen, Biegert& Scherer, 2008; Mahony & Ferreira, 2009; Cotrell, Vaske& Shen, 2012; Delgado & Saarinen, 2014; Dias & Rodriguez, 2016; Mathur & Khanna, 2017; Choi &Sirakaya, 2005).

Studies specified lack of measurement of sustainable tourism at the destination level and based on the primary sources of data (Luo, 2018; UN, 2007; UNEP, 2007; APEC, 2013; Khalid & Stephanie, 2010; Genc, 2018; Nepal, Irsyad& Sanjay, 2019; Kaul & Gupta, 2009).

Therefore, it opens new study avenues to fill this significant research gap. In a nutshell, studies focused on building indicators, dimensions, sustainable practices, and regional features. However, the studies did not provide a comprehensive method for a holistic picture of sustainable tourism based on primary data. With this background, analyses of sustainable tourism focus on comparative analyses at the destinations.

3 METHODOLOGY

Primary data had collected through a field survey. For destination level analyses, this study adopted a multi-stage stratified disproportionate random sampling technique and details as follows:

i. At the first level, the researcher considered unique tourism products, tourism dependency, and sustainab-ility issues, for study area selection and selected Jammu and Kashmir (Bashir & Goswami, 2016).
ii. ii. At the second level, a researcher selected Kashmir Valley based on the number of destinations and the prevalence of sustainability issues.
iii. iii. Study selected five important destinations of Kashmir Valley at the third level based on the literature review. Past studies focused on regional level analyses, but the present study focuses on the destination level.
iv. iv. Most of the studies analysed sustainable tourism by individual stakeholders.

The present study included multiple stakeholders, and it stratified the sample groups as tourists (domestic and foreign), host community and service providers (govt. and private). To determine precisely the total number of population under the ambit of three categories is not clearly identified.

Data regarding tourists or residents could be identified and however, the actual number of service providers hardly to be verified. Therefore, to tackle such a problem the formula advised by Cochran, (1963), Israel, (1992) and Bartlett et al., (2001 for unknown population is used. Description of calculation of sample size is briefly explained as follows:

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$$n_o = \frac{Z^2pq}{e^2}$$

no = Sample size
Z^2 = Abscissa of the normal curve that cuts off an area α at the tails
1-α = Desired Confidence Level,
e = Desired Level of Precision
p= Estimated proportion of an attribute that is present in the population
q= 1-p

Here I assume p=0.5 with 95% confidence level and 5% Level of Precision.Then:

$$n_o = \frac{(1.96)^2 \, (.5)(.5)}{(.05)^2} = 385$$

The sample size chosen for this study is 450 with the intuition to ensure adequate sample size at each destination. The total sample size is equally distributed among five destinations and therefore from each destination 90 observations, which, by their turn, were equally distributed among the three types of respondents and therefore from each category 30 observations are surveyed. Details of sample size and its distribution among the respondents are given in table below:

Table 1. Particulars of Sampling Design of the Study.

S. N.	Destinations	Sample Group			All (N = 450)
		Tourists (n = 150)	Residents (n=150)	Service Providers (n=150)	
1.	Srinagar	30	30	30	90
2.	Pahalgam	30	30	30	90
3.	Kokernag	30	30	30	90
4.	Gulmarg	30	30	30	90
5.	Yousmarg	30	30	30	90
	Total	150	150	150	450

Note: Tourist comprises both domestic and international and similarly service providers include both government and private.

Source: own elaboration.

(ii) Variable Selection

An index developed relies on perceptions of tourism stakeholders and information gathered from tourism destinations. It adopted the conceptualisation of UNWTO (2016) and UNEP (2005) for indicators and dimensions. Similarly, it selected the variables from the past studies and reports of national and international tourism agencies (UNWTO, 2016; Ministry of Tourism - GoI, 2014).

Further, sustainable tourism is a multi - faceted notion comprising of different dimensions with diverse indicators. However, the indicators are broadly categorized as industry, economic and social benefits, ecological balance, and institutional competence.

Therefore, this analysis grouped the selected variables under industry, economic, environment, social, and institutional dimensions (Table 2) (UNWTO, 2004; UNEP and WTO, 2005; UNWTO, 2016; Butler, 2007; UNEP, 2005; Maftuhah&Wirjodirdjo, 2018; Delgado & Saarinen, 2013; Choi &Sirakaya-Turk, 2005; IISD & IIDD, 1993; Kisi, 2019).The dimensions, and indicators are briefly presented in table 2 and the variables selected are given in table 5 in appendix.

Table 2. Sustainable Tourism Dimensions, Indicators and Justification.

Dimension	Indicators	Justification
1. Industry	1.1 Tourist Arrival & Visits 1.2 Tourism Demand & Spending 1.3Features of Product & Services 1.4 Satisfaction and Rating 1.5 Culture andHeritage	The methodology proposed by international tourism agencies and researchers deals the tourism industry under five components (UNWTO, 2016; UNESCO & ETE, 2009; Ministry of Tourism - India, 2014; UNEP & UNWTO, 2005; UNESCO & UNEP, 2005; Aydin & Alvarez, 2020).
2. Economy	2.1 Income and Livelihood 2.2 Transport Structure 2.3 Infrastructure	The key objective of tourism is to offer sustainable economic benefits through employment, income and stakeholders' development. Further, the functioning of the tourism sector brings a vibrant change in transport and other infrastructure at destinations. (UNESCO & UNEP, 2005; UNWTO, 2016; UNDP & UNWTO, 2018; Manzoor et al., 2019; United Nations, 2017; ADB, 2007; Ministry of Tourism- GoI, 2014; Hussain & Ali, 2015; UNEP, 2005; Goal 11; European Commission & UNWTO, 2013; UNEP, 2005; Tuan & Rajagopal, 2019)
3. Environment	3.1 Water Supply and Sewage 3.2 Solid Waste and others 3.3 Energy Use & Pollution Control 3.4 Environmental Status 3.5 Environmental Spending	The environment constitutes a vital factor in the tourism industry. Subsequently, the environmental dimension is the most widely recognized part of sustainable tourism (Emaad, 2006; ADB, 2007; Raderbauer, 2011; UNWTO, 2016; UNDP & UNWTO, 2018; Ministry of Tourism- GoI, 2014; Blackstock, et al., 2007; UNEP & UNWTO, 2005; EU Commission & UNWTO, 2013; UNEP & UNWTO, 2005; Guerreiro& Seguro, 2019; Roberts & Tribe, 2008; Peral, et al., 2010; Perkumienė, et al., 2020; UNESCO & ETE, 2009; YES Bank & CII, 2017).
4. Social	4.1 Behaviour and Participation 4.2 Skill Development 4.3 Health Care 4.4 Security andSafety	The social dimension of sustainable tourism emphasis the progress of local communities and better quality of life. Thus, objectives of sustainable tourism cannot be achieved without the adequate support and development of host communities (Swarbrooke, 2003; UNEP & UNWTO, 2005; UNWTO, 2004; UNWTO, 2016; UNWTO, 2004; Delgadoab& Saarinen, 2013; Vilijoen, 2007; Blackstock et al., 2007; Farinha, et. al., 2019; Mir, 2021).
5. Institutional	5.1 Planning, Development & Mgt. 5.2 General Policy & Planning	Institutions or governance plays a major role in the implementation and enforcement of sustainable tourism. Policy, planning and local governments are essential to practice sustainable tourism (Anjos &Kennell, 2019; Pforr, 2004; UNWTO, 2007; UN, 2013; UNWTO, 2016; Ligay, 2011; UNWTO, 2004; UNWTO, 2005; Siakwah, Musavengane&Liewlenn (2019); Roxas, Rivera & Gutierrez, (2020).

Source: The dimensions and indicators are developed based on the past studies, reports of national and international agencies and geospatial characteristics of destinations.

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(iii) Sustainable Tourism Index

International agencies and various studies measured and analysed sustainable tourism based on the conception and dimensions. The researchers designed indicators of each dimension according to the social, economic, and spatial characteristics and needs. Further, tourism activity, economic, environmental, socio-cultural and institutional dimensions are considered key facets of sustainable tourism. However, dimensions and indicators developed by United Nations World Tourism Organisation (UNWTO) and United Nations Environmental Programme are treated as a base for the measurement and analyses (UNEP, 2005, UNWTO, 2016).

Further, researchers tried robustly to build up indicators applicable at the regional level and suggested the inclusive approach and pragmatic analyses (United Nations, 2007; Kokkranikal& Morrison, 2002; Johansen, Biegert& Scherer, 2008; Mahony & Ferreira, 2009; Cotrell, Vaske& Shen, 2012; Delgado & Saarinen, 2014; Dias & Rodriguez, 2016; Mathur & Khanna, 2017; Choi &Sirakaya, 2005; Guo, Jiang &Shengchao, 2019).

Accordingly, Luo (2018) assessed and analysed the performance of sustainable tourism of Zhangjiajie, China, through the dimensions of economy, efficiency, effectiveness and environment. For empirical verification, secondary data for the period of 2005 to 2009 is utilised.

Castellani and Sala (2010) developed the Sustainable Performance Index (SPI) for tourism policy perfection in Europe. It is an integrated index comprising twenty indicators and highly supports the European Charter for Sustainable Tourism in protected areas. In addition, Blancas et. al., (2016), applied the formula of the composite index for empirical verification of tourism sustainability in European destinations based on secondary sources of information.

Scientific pedagogy to assess the status of sustainable tourism based on primary data, especially qualitative variables were scanty. The Tourism Satellite Account (TSA) offered the assessment strategy and put forth a data set from the field survey at the introductory level. Further, the proposed method is applicable and reliable to assess sustainability at the regional or state level (NITI AYOG, 2018; Ali & Hussain, 2016; Cotrell, Vaske& Shen, 2012). In this context, the Economic Intelligence Unit studied the status of sustainable tourism in various countries.

A constructed index comprises 19 indicators which include both quantitative and qualitative. For this, indicators are weighted according to their relative significance. It collected quantitative information from official sources and sustainable tourism policies of the respective nations. In addition, for qualitative indicators, experts of the respective countries were interviewed (Economic Intelligence Unit, 2018).

Literature of estimation and analyses of sustainable tourism primely focused on conceptualisation, dimensions, indicators, and assessment.

Assessment and analyses are the evolution point of new indicators and dimensions. But it focuses on state, country and regional levels, specifically at the macro level. Functions and performance of tourism differ by destination and type, and it needs destination level estimation and analyses.

Data for destination level analyses are not readily available, and the comprehensive methodology for the assessment is also scanty and unclear. Therefore, a sustainable tourism index specific for destinations and based on primary sources of data is required. This study developed the sustainable tourism index in the Indian context at the destination level with this backdrop.

a) Transformation of Likert scale into Weights: The variables are transformed into questions and logically ordered in the interview schedule according to the dimensions and sub-categories. To obtain information in terms of ratio or interval scale for framed questions for sustainable tourism at the micro-level field survey is highly impossible. But the collection of information in the form of opinion or perceptions is possible. Thus, a five-point Likert scale applied to gather stakeholders' perceptions regarding the sustainable tourism variables. Information collected through the field survey is perceptions and ordinal scale in nature.

Averages of ordinal scale provide a neutral value to the respective perceptions. Sometimes, it may provide extreme values also. For example: If a moderate number of respondents choose the highest perception of the five-point Likert scale, the average value close to the highest perception and vice versa. Therefore, collected qualitative values are transformed into weights by the methodology proposed by Chakrabarty (2014) and Bhattarai and Rajan (2021).

The example is given below to understand the transformation of the Likert scale into weight. Collected responses are cross-tabulated to verify the number of respondents by category and destination. The codes assigned are in ascending order and ranges from '1' to '5'. Code '1' signifies very poor and '5' a sign of very good. After the cross-tabulation, scale values were multiplied by respective number of respondents in each category at all destinations.

It provides the cross product and same is presented in Table 3. Cross products were divided by the sample size of the destination (Tourists 30 + Residents of the destination 30 + Service Providers 30 = Total sample 90). It gave an average individual weight offered by a respondent to the question related to the performance of sustainable tourism at the destinations (Table 3 & 4).

It is applied to all the destinations independently by the sample stratification. Estimated individual weights are reloaded in the master table in the place of respective ordinal scale values. It reflects the real value offered by the respondent to the performance of sustainable tourism at the destinations.

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Table 3. Transformation of the Scale Values into Weights.

Sample Group	Extend of impact of tourism on local welfare (Likert Scale)					Total
	Very low (1)	Low (2)	Medium (3)	High (4)	Very High (5)	
Tourist	5	4	12	6	3	30
Resident	6	5	10	7	2	30
Service Providers	4	7	9	8	2	30
Total	**15**	**16**	**31**	**21**	**7**	**90**
Tourist	1 X 5 = 5	8	36	24	15	
Resident	1 X 6 = 6	10	30	28	10	
Service Providers	1 X 4 = 4	14	27	32	10	

Source: Computed.

Table 4. Transformation of the Scale Values into Weights.

Sample Group	Extend of impact of tourism on local welfare (Likert Scale)					Total
	Very low (1)	Low (2)	Medium (3)	High (4)	Very High (5)	
Tourist	5	8	36	24	15	
Resident	6	10	30	28	10	
Service Providers	4	14	27	32	10	
Tourist	5/90 = 0.06	0.09	0.40	0.27	0.17	1.0
Resident	6/90 = 0.07	0.11	0.33	0.31	0.11	1.0
Service Providers	4/90 = 0.04	0.16	0.30	0.36	0.11	1.0

Source: Computed

b) Composite Index Method and Construction of Sustainable Tourism Index: Sustainable Tourism Performance Model, Sustainable Performance Index, Composite Index Method, Sustainable Tourism Index and Sustainable Tourism Attitude Scale were referred for the methodology to construct the sustainable tourism index at the destination level (Luo, 2018; Castellani & Sala, 2010; Blanca et. al., 2016; Economic Intelligence Unit, 2018; Hsu, et al., 2020).

They have followed composite index method to compress the multiple indicators into dimensions and from dimensions into single index value. Therefore, to satisfy the objective of the analysis, the composite index method was applied for the construction of the Sustainable Tourism Index based on the applicability. The score of each indicator dimension and composite index ranges from 0 to 1. Following formula is used to calculate Sustainable Tourism Index (STI).

$$\text{Composite Index} = \frac{\text{Actual Score - Minimum Score}}{\text{Maximum Score - Minimum Score}}$$

In order to understand the computation of sustainable tourism index by the Composite Index Method, the economic dimension of sustainable tourism is taken as an example and an explanation is given. The economic dimension consists of three sub-sections namely 2.1 income and livelihood, 2.2 transport structure, and 2.3 infrastructure. Sub-section 2.1 income and livelihood contain three indicators namely a) employment locals, b) locally-made commodities, and c) accommodation at local. Similarly, sub-section 2.2 and 2.3 also have a set of variables. By using the specified formula each variable of the respective sub-category was assessed and transformed into the single index value which represents the concerned sub-section.

$$\text{Income and Livelihood} = \frac{\text{Employment to locals + Local Products + Accommodation at Local}}{3}$$

The same process applied to all the sub-sections of the economic dimension and the average of the subsections obtained as single indicators to represent the economic dimension of sustainable tourism.

$$\text{Economic} = \frac{\text{Income and Livelihood + Transport Structure + Infrastructure}}{3}$$

For the sustainable tourism index, the values of the industry, economic, environmental, social and institutional dimensions were divided by the number of dimensions. It provides a single index value that represents overall performance of sustainable tourism. It offered an opportunity to display the status of sustainable tourism in each destination and in Kashmir Valley. Further, it helps to understand the weak sections of each dimension at the destination level.

$$\text{STI} = \frac{\text{Tourism Industry + Economic+ Environment+ Social+Institutional}}{5}$$

4. RESULTS AND DISCUSSION

Results confirm that the performance of sustainable tourism differed among the surveyed destinations. Dimension wise analyses of sustainable tourism of destinations provide a comprehensive understanding of the tourism sustainability at destinations.

Pahalgam achieved the highest score in the tourism industry dimension, followed by Gulmarg and Srinagar. It is comparatively poor in the case of Yusmarg and Kokernag. In the economic dimension, the aggregate score achieved by the study area is (0.53). The economic performance of the Yusmarg and Pahalgam is minimal than other destinations. The score achieved by the environment dimension (0.53) is slightly lower than the average score of the sustainable tourism index (0.54).

The environmental dimension score is abysmal for Kokernag and Gulmarg, and Srinagar scored

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environmental performance close to the study area average. The status of the social dimension is slightly higher than the aggregate score of the overall index. However, it is comparatively poor in the case of Pahalgam and Kokernag. Performance of institutional set-up and governance is better compared to other dimensions and differs among the destinations. It is poor in the case of Pahalgam and Kokernag.

First part of analysis measured the perception of respondents regarding the performance of tourism industry. It comprises of twenty sub-indicators categorized under the five main indicators. For empirical verification, scores gained are calculated for five tourism destinations. The score achieved significantly differs in case of destinations. It is higher for Pahalgam followed by Gulmarg and moderate achievement could be seen at Srinagar. However, other destinations don't perform well and calls for further improvements. Results gained for each indicator by destinations discussed below:

4.1 Tourism Industry

The tourism industry comprises twenty sub-indicators, and they have grouped under the five leading indicators; namely, i) tourist arrival and visits, ii) tourism demand and spending, iii) products and services, iv) satisfaction and rating, and v) culture and heritage. The overall sustainability score of the study area is 0.49. The contribution of the tourism industry to sustainable tourism significantly differs among the destinations. It is relatively low in Yusmarg (0.16) followed by Kokernag (0.31).

4.1.1 Tourist Arrivals

Pahalgam (0.83) achieved the highest score in all the sub-indices of the tourism industry, followed by Gulmarg (0.62) and Srinagar (0.52). The first indicator, 'tourist arrival and visits', achieved a score of (0.47).

Performance differs among the destinations and is highly significant for Pahalgam, followed by a moderate score of Gulmarg and Srinagar, respectively. Performance of tourists' arrival and visits is very low for Yusmarg, followed by Kokernag, which is highly noticeable in the weak performance of its sub-indicators. Planning of destinations is comparatively better than the health and security of destinations.

The score achieved by growth of destinations and impact on local welfare is not satisfactory, and it needs further upsurge. Most of the respondents agreed on the positive effects of tourism on local welfare, growth, health and security and better planning. However, respondents are aware of the negative implications of tourism, such as minimum growth, minimum efforts to ensure local health and security, and poor planning. It confirms leakages in the distribution of tourism benefits to local welfare and other dependents of the tourism industry.

4.1.2 Demands for Tourism Spending

Demand for tourism and spending comprises three variables: effect on the cost of living, tourism demand, and ability to attract. Their aggregate score is (0.45). It is slightly lower than the tourism industry's first indicator, and Kokernag and Yusmarg are poor among the destinations. The cost of living is low, and it conveys that tourism

activities did not hike the price level at destinations. However, Srinagar faces the problem of price hikes followed by Pahalgam due to urban facilities and tourist intensity. In the case of tourist accommodation and related items, prices were volatile in urban centred and distant destinations like Srinagar, Yusmarg and Kokernag.

Products and services of the destinations play a vital role to strengthen the sustainability of the industry. Among the destinations, the score achieved by Pahalgam is relatively high in the study area. The number of tourist spots and natural tourism products enhanced the image of Pahalgam.

Similarly, the heritage and nature tourism products and culture-based tourism services helped Srinagar and Gulmarg to achieve a higher score. Due to the non-availability of services and distant locations, Yusmarg and Kokernag cannot perform similar to other destinations, though they are rich in tourism products.

4.1.3 Salient Features of Products and Services

Estimated scores of salient features of products and services are comparatively better than previous indicators, but it differs among the destinations. It consists of five sub-indicators: local businesses, destinations' prosperity, impact on nature, bundles of services, and sustainable practices. Achievements of Yusmarg are inferior, and Pahalgam showed higher performance, followed by Srinagar, Kokernag and Gulmarg.

Except for Yusmarg, all other destinations have a higher number of local business units. Along with local business units, the tourism industry improves the economic status of the backward destinations but is not comparable with developed destinations like Srinagar and Pahalgam.

However, it badly affects the environmental quality and natural resources. Similar to economic prosperity, tourism negatives also mismatch between popular and backward destinations. It is visible at the destinations in the form of solid waste and sewage issues, and pollution.

4.1.4 Satisfaction and Rating

The aggregate score of the satisfaction and rating is (0.48), and it is varied among the destinations by sub-indices. Including the advanced destinations like Srinagar and Pahalgam has gained lower scores in satisfaction and rating. Respondents cited unclean air, potable water, and outdated facilities and services as critical reasons for offering the lower score.

4.1.5 Culture and Heritage

Culture and heritage comprise three sub-indicators: status of culture and heritage, the stress of tourism, and inclusive planning to protect the culture and heritage of destinations. The score of the destinations differed by their reserves of culture and heritage. Both popular and unconditionally backward destinations obtained higher scores, Srinagar and Yusmarg, respectively. Especially, Pahalgam and Kokernag have potential cultural and heritage tourism products, but failure in policy concern deeply affect their sustainability and needs to promote and protect cultural values.

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4.2 Economic

The economic dimension analysed the performance of three major indicators, namely income and livelihood, transport structures and infrastructure. Income and livelihood comprise the three sub-indicators related to the intensity of local people in employment, the concentration of locally made commodities and local accommodation at destinations.

Similarly, transport structure is explained through transport intensity and its effect on the destination's host community and transport planning. Following transport, the third sub-index measures the infrastructure through destination development, infrastructure compatibility to the environment, pollution prevention technology and infrastructure planning.

The aggregate score of the economic dimension of sustainable tourism is (0.53) and confirms the moderate performance, and it differs among the destinations. The scores of sub-indices supporting the economic dimensions are also moderate and insignificantly deviating from the main index.

4.2.1 Income and Livelihood

A score of income and livelihood is poor than others, highlighting insignificant contribution to destination development. In the study area, more than 50 per cent of the local people were engaged in tourism. However, their role in the destination as an entrepreneur is negligible and native based products and services also meagre.

Its intensity is high in the case of Kokernag and Yusmarg due to low tourist arrivals, low quantity of local products and minimal capacity of tourism businesses to engage locals at these destinations. Srinagar performs better, followed by Pahalgam and Gulmarg. The highest numbers of locals engaged in the tourism industry, much quantity of local products sold and better local accommodation are vital reasons.

4.2.2 Transport Structure

Effect of transport intensity details the impact of transport on the host community and environment. The externalities of transport structure are manageable in normal period and create severe environment-related health issues during peak seasons. As a result, transport planning of the destinations is unable to support sustainable practices. In recent years few of the tourism spots developing the planned and environment-friendly transport system.

4.2.3 Destination Development and Infrastructure

A significant proportion of respondents raised positive concerns about infrastructure planning. Perceptions of infrastructure planning confirmed below-average performance, and it varied among the surveyed destinations. As compared to destination development highest performance could be noticed in environment compatibility of infrastructure and adoption of pollution prevention technology.

Infrastructure deficiency is comparatively higher in Pahalgam followed by Yusmarg according to their tourist arrival. It states that the overall development of infrastructure needs suitable augmentation. Though, Srinagar and Gulmarg performed well in case of performance of available infrastructure than other destinations.

A significant proportion of respondents raised concerns regarding constructing structures in ecological zones and the hazardous materials used. As a result, destinations need to establish better pollution deterrence technologies and a further improvement in development activities.

4.3 Environment

The environmental dimension of sustainable tourism covers five sub-indices: water supply and sewage, solid waste and others, energy use and pollution control, environmental status, and environmental spending. The index value of the environmental dimension (0.53) is very close to the index value of sustainable tourism (0.54).

Similar to other dimensions, the score of sub-indices has differed. The performance of environmental spending, water supply, and sewage is above the study area average. Other sub-indices required suitable intervention for improvement.

4.3.1 Water Supply and Sewage

At destinations, respondents appreciate sewage management; however, the grievances were registered in Yusmarg and Kokernag. Developed urban-like Srinagar and Pahalgam have sufficient sewage management facilities but can flow in freshwater areas without treatment.

4.3.2 Solid Waste and Others

In the case of solid waste management and cleanliness, the score achieved is lower than the study area average. However, it is slightly better for cleanliness than solid waste management. The non-availability of a solid waste management structure is prevalent in Kokernag and Yusmarg. Other efficiently functioning destinations need further improvement.

4.3.3 Energy Use and Pollution Control

Energy use and pollution control are comparatively poor in Kokernag and Pahalgam, and both needs further action to improve the same. Overall, the score achieved by energy use and pollution control was unsatisfactory for most of the destinations.

4.3.4 Environmental Status

Environment status achieved a score (0.44) lower than the average score of environment dimension (0.53). It is comparatively weak for Gulmarg followed by Kokernag and Srinagar. Yusmarg and Pahalgam signified better performance because of the protection of critical environmental resources and their maintenance. Damage to critical environmental resources is a critical concern in Gulmarg, and the lack of environmental awareness and maintenance of natural resources impoverished in Kokernag.

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4.3.5 Environmental Spending

The score achieved by environment spending is better as compared to other indicators of environment dimension. It is not satisfactory in the case of Kokernag and Pahalgam. Poor awareness and initiatives exist in destinations, insufficient pollution mitigation, and monitoring instruments to curb pollution.

4.4 Social Dimension

Four sub-indicators resent the achievements of the social dimension such as community behaviour and participation, training guidance and skill development, health care, and security and safety. The indicator of community behaviour and participation measures the involvement and attitude of hosts towards tourism and the spillovers enjoyed by the host community at tourism destinations.

Training, guidance and skill development consider the localities awareness about the negatives of tourism, awareness of sustainable tourism and prevalence of sustainability practices. Further, awareness about the impact of pollution and the available healthcare facilities is part of the healthcare indicator. However, security and safety measure the level of threats to host communities and the status of law and order at destinations.

The status of the social dimension is slightly higher than the aggregate score of the overall index. It signifies better performance than the other dimensions like the tourism industry, economic and environmental dimensions.

However, the performance differs in the case of destinations and weak performance noticed in Pahalgam and Kokernag as the destinations performed poorly in most of the parameters. However, the status of law and order is a concern for Srinagar, and Yusmarg demands a drastic change in hosts' attitude towards visitors.

Community behaviour and participation is serious concern in Kokernag followed by Yusmarg. Nevertheless, training, guidance, and skill development matter highly for Pahalgam and are partially weak in Kokernag, which showed low sustainability practices. Healthcare is not well established in Pahalgam, and pollution awareness is also a serious matter. Security and safety did not perform well in few destinations and gained a minimum score in Pahalgam followed by Srinagar.

4.5 Institutional and Governance

The institutional dimension measures the performance of two leading indicators: planning, development and management, and general policies and planning. The indicator of planning, development and management measures the performance of four selected variables.

These include local welfare assurance, role in management, planning of health and security and effectiveness of planning. However, under the domain of general policies and planning, the performance of government support, public healthcare and signs of tourism promotion activities are being assessed and monitored.

Performance of institutional setup and governance is better as compared to other dimensions of sustainable tourism. Both indicators achieved the same score and signified a balanced status, but there is a difference among the destinations. Respondents cited important reasons: Less assurance to promote local welfare, non-inclusion of hosts in planning and policies, inadequate healthcare and security issues and government role.

In Pahalgam, a significant proportion of respondents nullified government support to locals; confirmed low public healthcare and a significant proportion make grievances regarding the ill signs of tourism promotion activities.

Similarly, the respondents surveyed at Kokernag stated that the authorities and agencies are not trying to attract tourists and affect the tourist visit. In addition, in the case of Yusmarg, a significant proportion of respondents stated that the destination does not have public hospitals and related facilities, and initiatives are not taken to avoid such a gap.

4.6 Sustainable Tourism

The aggregate score achieved by Sustainable Tourism Index is (0.54), which underline the moderate performance of sustainable tourism. The performance of sustainable tourism differed among the surveyed destinations and in their dimensions.

The institutional dimension achieved the highest score, followed by the social dimension, and for other dimensions, the score achieved is lesser than the aggregate score of the sustainable tourism index. The performance of the tourism industry is comparatively weak than other dimensions.

In the case of Kokernag, the performance of sustainable tourism is weak and is comparatively lower for Yusmarg. However, moderate status is evident in the case of Pahalgam. For other destinations, the score achieved is better and however, certain indicators need further improvements.

Most of the tourism industry indicators, environment and social dimensions did not perform well in Kokernag. However, the Yusmarg showed that the destination is weak mainly in the case of indicators of the tourism industry and economic dimension.

Although Pahalgam achieved an average score, the status of social and institutional dimensions is unsatisfactory. Therefore, further changes are required to upgrade the status of those destinations that performed weakly in any one of the dimensions of sustainable tourism.

In total, each dimension of tourism sustainability varies among the destinations and study areas. It required destinations' specific sustainable development inclusive planning and guidelines. From the above-cited facts and figures, it is noticeable that the destinations performed weakly one way or the other in the case of factors under the domain of five dimensions.

A dynamic approach is needed to have deficiencies and upsurge the status of sustainable tourism dimensions of the destinations.

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Table 5. Sustainable Tourism at Surveyed Destinations in Kashmir Valley

S.No	Indicators	Srinagar	Pahalgam	Kokernag	Gulmarg	Yusmarg
1	Tourism Industry	0.52	0.83	0.31	0.62	0.16
2	Economic	0.76	0.52	0.54	0.62	0.20
3	Environment	0.52	0.67	0.23	0.52	0.69
4	Social	0.68	0.38	0.39	0.79	0.58
5	Institutional	0.75	0.30	0.45	0.90	0.59
	Aggregate	0.65	0.54	0.38	0.69	0.44
Average of Destinations = 0.54						

Source: Results are computed by applying composite index methodology on weights calculated based on Likert Scale.

The overall results infer that the sustainable tourism of the Kokernag and Yusmarg is relatively weak in the study area than other destinations. On the other hand, the tourism sustainability of Pahalgam, Srinagar and Gulmarg showed a moderate performance similar to the study area average. Each dimension of tourism sustainability differs among the destinations, and it recommends the destinations specific inclusive planning and guidelines for sustainable development. Therefore, a dynamic approach is needed to have deficiencies and upsurge the status of sustainable tourism dimensions of the destinations.

5 CONCLUSIONS

The prime agenda of sustainable tourism is to ensure the present and future economic capabilities, social wellbeing and environmental quality of destination, industry and tourism stakeholders. The functions of sustainable tourism did not consider social and economic sustainability as a counterpart of environmental sustainability. Instead, it is a multidimensional strategy that ensures industry, economic, social, environmental, and institutional sustainability in the tourism sector.

Accordingly, this analysis observes tourism sustainability and performance of each dimension by suitable indicators. The performance of tourism sustainability is moderate in the Kashmir Valley, and it is different among the surveyed destinations. Similarly, the performance of dimensions and their sub-indices also differed by destinations. Of the dimensions, institutional sustainability is relatively better, followed by social sustainability and other dimensions. Poor local participation in the supply of products and services to tourism affect the industry Sustainability. Yusmarg is the live example to observe the unconditionally low host community participation in tourism activities.

On the other hand, tourism helped the residents by providing livelihood opportunities, and they have agreed on the improvements of local welfare and growth due to tourism activities. At the same time, residents of the destinations facing the negative externalities of tourism in various areas of the study region, and it need suitable policy initiatives for improvement. In the case of tourism spending, tourism activities' cost of living of tourists and residents are slightly affected in urban centred destinations like Srinagar and Pahalgam but not in distant destinations.

The contribution of destination made products and services to the tourism market is moderate except Yusmarg and Kokernag. The intensity of destination-based products and services underlined the adoption of sustainable practices at the destinations. However, in the case of culture and heritage, Yusmarg achieved a better score than the Srinagar. However, it is relatively poor in established destinations like Pahalgam and others. It recommends adopting better inclusive planning for destination development.

In the case of economic sustainability, livelihood opportunities from tourism are low in Kokernag and Yusmarg than in others. At present, most residents are willing to offer the facility of paying guests a kind of local accommodation to the tourists. It achieved a relatively better score than the supply of products and services from the host community. Multiple tourism seasons positively influenced tourism transportation over the period, excluding Yusmarg.

Along with positive developments of transport sector creates numerous environmental issues and its intensity is severe in Srinagar. The environmental sustainability of the study area is moderate and appreciable in Pahalgam, and Yusmarg. Dearth of environmentally compatible infrastructure and environmental monitoring infrastructure at destination affect the environmental quality and sustainability. Mainly, sewage, solid waste management and water pollution are serious issues affecting environmental sustainability.

These issues are highly prevalent in Yusmarg, Kokernag, and Srinagar, which required a pragmatic plan and intervention. The score of the social dimension of sustainable tourism is slightly better as compared to industry, economic. However, lower-level positive spillovers of tourism activities to the society discourage the host community participation and support. It is visible in the tourism spots of Pahalgam and Kokernag. Further, tourism activities of peak season affect the regular activities of the residents. These phenomena adversely affect the social sustainability of the destination.

Institutional set-up and governance confirmed better performance among the dimensions of sustainable tourism. The indicators gained the same score and, however, differed among the destinations. It is weak in the case of Pahalgam and Kokernag because of skimpy initiatives to promote local welfare, less participation of hosts in policies, inadequate healthcare and unviable planning to ensure economic benefits. General policies and planning perform at a moderate level and connects all the avenues of tourism destination. However, it is unsatisfactory in Pahalgam. Policies regarding healthcare in connection with tourism activities need government support and local participation. Further, health care facilities of tourism activities are suitable to give extended service to residents.

As a whole, to improve sustainable tourism, a comprehensive and destination-specific pragmatic policy proposal is essential. It could downscale the tourism

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negatives and may guide sustainability in tourism activities at tourism destinations of Kashmir Valley.

Policy Suggestions i. Establish a strong association between Government agencies and tourism service providers to enhance the sustainable tourism at destinations. ii. All the tourism activities must focus on the sustainability of the tourism destinations. Further, it should be capable of providing awareness and obtaining association among the stakeholders. iii. The use of renewable energy sources in the tourism industry will improve the functioning and sustainability of tourism destinations. iv. Tourism agencies of the Government of Jammu and Kashmir need to provide sustainable tourism guidelines according to the character of the tourism destinations. It will help to enhance sustainable tourism at the destinations.

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APPENDIX

Table 6. Variables utilized for the Construction of Sustainable Tourism Index at destination level.

1. Industry	2. Economy	3. Environment	4. Social	5. Institutional
1.1 Tourist Arrival and Visits a. Impact on local welfare b. Health &safety c. Destinations' growth d. Planning of destination **1.2 Tourism Demand & Spending** a. Effect on cost of living b. Tourism demand c. Ability to attract **1.3 Product& Services** a. Local businesses b. Destinations' prosperity c. Impact on nature d. Bundles of services e. Sustainable practices **1.4 Satisfaction and Rating** a. Pricelevel b. Air and water quality c. Willingness to visit d. Quality of resources e. Infrastructure & services **1.5 Culture and Heritage** a. Culture and heritage b. Burden of tourism c. Inclusive planning	**2.1 Income and Livelihood** a. Employment to locals b. Local made commodities c. Accommodation at local **2.2 TransportStructure** a. Effect on host community b. Transport planning **2.3 Infrastructure** a. Destination development b. Infrastructure compatibility c. Pollution prevention technology d. Infrastructure planning	**3.1 Water Supply and Sewage** a. Sewage management b. Status of waterbodies c. Pollution in waterbodies **3.2 Solid Waste and others** a. Solidwaste management b. Cleanliness **3.3 Energy Use & Pollution Control** a. Use of renewable energy b. Pollution prevention initiatives c. Pollution control **3.4 Environmental Status** a. Critical environmental resources b. Environment awareness c. Natural resources maintenance **3.5 Environmental Spending** a. Awareness displays b. Pollution prevention initiatives c. Pollution monitoring instruments	**4.1 Behaviour & Participation** a. Host community's interest b. Host community's attitude c. Spill overs to society **4.2 Skill Development** a. Vigilance on negatives b. Awareness of sustainability c. Sustainability practices **4.3 Health Care** a. Pollution awareness b. Healthcare facilities **4.4 Security and Safety** a. Level of threats b. Status of law and order	**5.1 Planning, Dev. & Mgt.** a. Local welfare assurance b. Role in management c. Planning – health&security d. Efficacy of planning **5.2 General Policy & Planning** a. Government support b. Public healthcare c. Tourism promotion

Source: Past Literatures, UNWTO, 2005, and Ministry of Tourism Government of India 2014.

Table 7. Scores of the Variables of Tourism Industry Dimensions of Sustainable Tourism at destinations.

Sl. No.	Details		Destinations					Agregate Index Values
			Srinagar	Pahalgam	Kokernag	Gulmarg	Yusmarg	
1	Tourist Arrival	Impact on local welfare	0.41	0.99	0.00	0.52	0.05	**0.40**

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		Health &safety	0.63	0.97	0.24	0.64	0.00	**0.50**
		Destinations' growth	0.65	0.98	0.00	0.56	0.05	**0.45**
		Planning ofdestination	0.73	0.96	0.24	0.72	0.00	**0.54**
		Aggregate	**0.61**	**0.98**	**0.12**	**0.61**	**0.03**	0.47
2	Demandand Spending	Effect on cost of living	1.00	0.43	0.29	0.24	0.00	**0.39**
		Tourismdemand	0.48	1.00	0.00	0.64	0.13	**0.45**
		Abilitytoattract	0.62	1.00	0.00	0.75	0.15	**0.50**
		Aggregate	**0.70**	**0.81**	**0.10**	**0.54**	**0.09**	0.45
3	Productsand Services	Local businesses	0.95	1.00	0.67	0.83	0.00	**0.69**
		Destinations'prosperity	0.69	1.00	0.00	0.54	0.00	**0.45**
		Impactonnature	0.33	1.00	0.64	0.00	0.55	**0.50**
		Bundles of services	0.28	1.00	0.38	0.54	0.00	**0.44**
		Sustainable practices	0.18	0.00	1.00	0.73	0.09	**0.40**
		Aggregate	**0.49**	**0.80**	**0.54**	**0.53**	**0.13**	0.50
4	Satisfaction and Rating	Pricelevel	0.57	1.00	0.34	0.34	0.00	**0.45**
		Air and water quality	0.10	1.00	0.43	0.81	0.00	**0.47**
		Willingness to visit	0.59	1.00	0.11	0.63	0.00	**0.46**
		Quality of resources	0.00	1.00	0.29	0.29	0.45	**0.41**
		Infrastructure & services	0.95	1.00	0.45	0.66	0.00	**0.61**
		Aggregate	**0.44**	**1.00**	**0.32**	**0.55**	**0.09**	0.48
5.	Cultureand Heritage	Culture and heritage	0.66	0.00	0.51	0.98	1.00	**0.63**
		Burden of tourism	0.00	1.00	0.54	0.91	0.29	**0.55**
		Inclusive planning	0.55	0.21	0.00	1.00	0.48	**0.45**
		Aggregate	**0.40**	**0.40**	**0.35**	**0.96**	**0.59**	0.54
	TourismIndustry		**0.52**	**0.83**	**0.31**	**0.62**	**0.16**	**0.49**

Source: Computed.

Table 8. Scores of the Variables of Economic Dimensions of Sustainable Tourism at destinations.

S. N0		Details	Destinations					Index Values
			Srinagar	Pahalgam	Kokernag	Gulmarg	Yusmarg	
1	Income and Livelihood	Employment to locals	0.60	1.00	0.16	0.81	0.00	**0.51**
		Local made commodities	1.00	0.00	0.18	0.13	0.61	**0.38**
		Local Accommodation	0.74	1.00	0.00	0.47	0.26	**0.49**
		Aggregate	**0.78**	**0.67**	**0.11**	**0.47**	**0.29**	0.46
2	Transport Structure	Effecton host community	0.48	0.76	1.00	0.24	0.00	**0.50**
		Transport planning	0.57	1.00	0.64	0.49	0.00	**0.54**
		Aggregate	**0.53**	**0.88**	**0.82**	**0.37**	**0.00**	0.52
3	Infrastructure	Destination development	0.82	0.00	0.50	1.00	0.26	**0.52**
		Infrastructure compatibility	0.66	0.41	1.00	0.75	0.00	**0.56**
		Pollutionprevention	1.00	0.00	0.62	0.68	0.66	**0.59**
		infrastructureplanning	1.00	0.51	0.78	1.00	0.00	**0.66**
		Aggregate	**0.87**	**0.23**	**0.73**	**0.86**	**0.23**	0.58
	Economic		**0.76**	**0.52**	**0.54**	**0.62**	**0.20**	**0.53**

Source: Compute.

Table 9. Scores of the Variables of Environment Dimension of Sustainable Tourism at destinations.

S. N0		Details	Destinations					Index Values
			Srinagar	Pahalgam	Kokernag	Gulmarg	Yusmarg	
1	Water Supply and Sewage	Sewage management	0.81	1.00	0.00	0.59	0.14	**0.51**
		Status ofwaterbodies	0.00	0.88	1.00	0.84	0.71	**0.69**
		Pollution in waterbodies	0.00	0.62	1.00	0.54	0.85	**0.60**
		Aggregate	**0.27**	**0.83**	**0.67**	**0.66**	**0.57**	0.60
2	Solid Waste and Others	Solidwaste management	0.54	1.00	0.00	0.67	0.07	**0.46**
		Cleanliness	0.54	1.00	0.00	0.68	0.16	**0.48**
		Aggregate	**0.54**	**1.00**	**0.00**	**0.68**	**0.12**	0.47
3	Energy Use and Pollution Control	Use ofrenewableenergy	1.00	0.12	0.00	0.77	0.73	**0.52**
		Pollutionpreventioninitiatives	0.63	0.67	0.00	0.62	1.00	**0.58**
		Pollutioncontrol	0.31	1.00	0.00	0.11	0.62	**0.41**
		Aggregate	**0.65**	**0.60**	**0.00**	**0.50**	**0.78**	0.50

Source: Computed.

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