



The contribution of economics to sustainable tourism research

Andrea Saayman & ShiNa Li

To cite this article: Andrea Saayman & ShiNa Li (2023) The contribution of economics to sustainable tourism research, Journal of Sustainable Tourism, 31:9, 2195-2215, DOI: [10.1080/09669582.2023.2224943](https://doi.org/10.1080/09669582.2023.2224943)

To link to this article: <https://doi.org/10.1080/09669582.2023.2224943>



Published online: 17 Jun 2023.



Submit your article to this journal [↗](#)



Article views: 1344



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 9 View citing articles [↗](#)



The contribution of economics to sustainable tourism research

Andrea Saayman^a  and ShiNa Li^b 

^aSchool of Economic Sciences, and Tourism Research in Economics, Environs and Society (TREES), North-West University, Potchefstroom, South Africa; ^bKey Laboratory of Sustainable Tourism Smart Assessment Technology, Ministry of Culture and Tourism, School of Tourism Management, Sun Yat-Sen University, Tangjia Wan, Zhuhai, China

ABSTRACT

This paper aims to identify and explore the interlinkages between sustainable tourism research and the study of economics with the goal of identifying main themes and gaps in the economics of sustainable tourism. It contributes to identifying the unique perspective that economics has contributed and can still contribute towards the sustainable tourism discourse. This review article retrieved and analysed 5593 papers using scientometric analysis. The findings indicate that economic theory and/or methods have had a clear influence on some, but not all clusters of sustainable tourism research. Clusters that are dominated by economic theory and methods include economic growth, climate change, the sharing economy and evolutionary framework. Current themes in economics, including migration, declining labour shares and rising inequality have not attracted attention in sustainable tourism research. Additionally, a much clearer focus on inter- and intragenerational effects, shadow prices and dealing with externalities deserves further scrutiny. Gaps also exist in terms of laboratory studies, field experimental studies and the application of behavioural economics. This article also launches the special issue – *the Economics of Sustainable Tourism* – which includes ten blind-peer-reviewed papers.

ARTICLE HISTORY

Received 29 November 2022

Accepted 8 June 2023

KEYWORDS

Sustainable tourism; tourism economics; sustainable development goals; scientometric analysis; sustainability; economic growth

1. Introduction

The realisation that economic progress is not always without costs leads to the concept of sustainable development. The Brundtland report World Commission on Environment and Development (WCED, 1987, p. 8) defines sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” and further the belief in “*a new era of economic growth, one that must be based on policies that sustain and expand the environmental resource base. And we believe such growth to be absolutely essential to relieve the great poverty...*” (p. 10). To improve the implementation and monitoring of sustainable development, the United Nations developed and adopted the 2030 Agenda for Sustainable Development during 2015, which stipulates the 17 sustainable

CONTACT ShiNa Li  lishina@mail.sysu.edu.cn  Key Laboratory of Sustainable Tourism Smart Assessment Technology, Ministry of Culture and Tourism, School of Tourism Management, Sun Yat-Sen University, Tangjia Wan, Zhuhai 519082, China. The article should have been included as the first paper in the Special issue “The Economics of Sustainable Tourism; Guest Editors: ShiNa Li, Andrea Saayman” (RSUS_31-09). This article was originally published with errors, which have now been corrected in the online version. Please see Correction (<http://dx.doi.org/10.1080/09669582.2023.2261091>)

© 2023 Informa UK Limited, trading as Taylor & Francis Group

development goals. These goals include, (i) the elimination of poverty, (ii) decent work and economic growth, (iii) reduced inequality, (iv) sustainable cities and communities, (v) responsible consumption and production, (vi) the preservation of life on land and below water, and (vii) action against climate change (United Nations, 2022).

It is widely accepted that the idea of sustainable tourism development is an application of the principles of sustainable development in the tourism industry (Butler, 1999). By tracing the origins of the concept of sustainability and, by implication, sustainable tourism, it becomes evident that its root and conceptualisation lie within the social science of economics. Several questions then arise, including: To what extent has the research in sustainable tourism taken cognisance of its economic root? To what extent have economic themes and methods influenced research themes in sustainable tourism? and Has economics shaped the research agenda in sustainable tourism? This paper aims to identify and explore the interlinkages between sustainable tourism research and the study of economics with the goal of identifying the main economic themes and gaps in the current tourism sustainability research. The contribution of this paper, therefore, lies in identifying the unique perspective that economics has contributed and can still contribute towards the sustainable tourism discourse.

The merging of sustainability and economics in tourism is a very broad area. To achieve the research aim, we confine the scope of the reviewed articles included in this paper to those that applied the theories, methodologies and application of economics that advances a critical understanding of sustainable tourism rather than merely used tourism as a context. Therefore, we emphasise literature that involves economics (not exclusively but together with theories and methods from other disciplines) in the discussion of sustainable tourism, and do not limit the analysis to research that focuses only on advancing economic theories or economic methods. Research that does not have a clear focus on and makes theoretically/methodologically contributions to *sustainable tourism* are therefore not included.

While a number of review papers saw the light over the past decade, none of these papers focused exclusively on how economics has shaped and contributed towards the sustainable tourism research agenda, and this research intends to fill that gap. We do this by implementing a scientometric analysis, which is the extension of bibliometric analysis through science mapping. Darko et al. (2020) assert that scientometric analysis aims to identify patterns and trends in the literature, which makes it suitable for the purpose of this paper. According to Klarin and Suseno (2021), this allows for a more holistic view of a specific research domain. Taking a holistic view has the advantage of providing a more complete picture of the research agenda in sustainable tourism. However, it also has disadvantages in that it does not present a detailed analysis of the contribution of one specific author or a group of authors, neither does it provide an in-depth analysis of a specific issue (e.g. environmental evaluation).

The remainder of the paper is structured as follows: The evolution of the influence of economics on the notion of sustainable development is first analysed. Then, the approach for retrieving articles is discussed, and the results of the scientometric analyses are presented. The analysis is followed by an evaluation of the influence of economic sciences on sustainable tourism research, followed by a preview of the contribution of the papers published in the special issue – *the Economics of Sustainable Tourism*. This paper finishes with a brief conclusion and the identification of future research directions.

2. How economics informed the notion of sustainable development

To provide a comprehensive definition of the study of economics and how it developed is beyond the scope of this paper. Instead, we aim to identify the phenomena that economics studies, how these are studied, and how this pre-empted the study of sustainable development. The literature and history are by no means exhaustive but are succinctly compiled to provide the necessary background for the analyses carried out in this paper.

Economics has traditionally been defined by the object of study, although this view has recently changed to rather focus on the principles that guide economic thinking (Zuidhof, 2014). The traditional definition was offered by Paul Samuelson, who defined economics as “the study of how societies use scarce resources to produce valuable commodities and distribute them among different people” concluding that “the ultimate goal of economic science is to improve the living conditions of people” (Samuelson, 1948, p. 4). Modern views on the study of economics by, among others, Mankiw (1997), altered the definition of economics towards solving world problems. In support of this view, Greenlaw and Shapiro (2017, p. 3) state that one should “think of economics as a collection of questions to answer or puzzles to work. Most importantly, economics provides the tools to solve those puzzles.” In any definition of the study of economics, the problem of scarcity remains a central theme, and also that economists aim to address social problems by studying human behaviour and decision making.

With the shifting focus towards solving problems by thinking as an economist, the so-called “tools” that Greenlaw and Shapiro (2017) talk about that are used in economics are (i) theories and (ii) models. The theories are based on assumptions about behaviour and are simplified representations that explain complex real-world phenomena, while the models are empirical representations of theories, used to test theories. The American Economic Association (AEA) (2022) summarises by stating “[U]sing theoretical models or empirical data, [economics] evaluate programs, study human behaviour, and explain social phenomena. ... their contributions inform everything from public policy to household decisions.” This use of mathematical models and numerical examples is what makes economics a unique social science (Krugman, 1994).

The study of economics evolved not only in definition, but also in the questions that it wants to answer. For example, the Classical Economics of the 17th to 19th centuries focused on how countries can develop, and how wealth can increase, i.e. an improvement in living conditions (Bardhan, 1993). This improvement in living standards is still the central question in development economics (Rodrik, 2008). However, the question of an improvement in living standards shifted from the centre of economic studies to the periphery as economies became more developed. Krugman (1994) contends that the inability of development theorists to articulate their ideas in models meant that development economics remained on the periphery until the work of Murphy et al. (1989), who formalised the ideas of increasing returns to scale, which brought new life to studies in development economics.

Development economics has since moved beyond the narrow view of only assessing income or income per capita, economic growth and poverty as measures of development. The Millennium Development Goals of 2000, which led to the Sustainable Development Goals of 2015, brought aspects such as inequality, environmental concerns and gender disparities to the fore. Some of the contemporary issues in the study of development economics include (i) the effect of climate change and environmental degradation on economic development and migration, (ii) the declining share of labour due to labour-saving technology as a source of economic growth, and (iii) the rising inequality in many economies (Chau & Kanbur, 2018). Rodrik (2008) further argues that the growth of experimental research in the realm of development economics has made a significant contribution, also to policy. Evans and Music (2020) agree with this view by indicating that the methodologies used in the latest research in development economics include randomised control trials, labs in the field, and event studies.

Similar to the concept of economic development, the idea that development must be sustainable has also been mentioned by economists, centuries before it was defined in the Brundtland report. Du Pisani (2006) traces the concept of sustainable use of resources in economics back to the German, Hans Carl von Carlowitz, who wrote *Sylvicultura Oeconomica* in 1713 about the sustainable use of forest resources. The famous theory of Robert Malthus (1976) on population growth and the threat to the use of natural resources followed in 1798, with Jevons (1977) drawing attention to the unsustainable use of coal resources in 1865. At the beginning of the twentieth century, Veblen (1917) and Pigou (1929) already spoke about what we now know as

sustainable development (Du Pisani, 2006). However, it was not until the 1970s that Meadows et al. (2018)'s *The Limits to Growth* placed the concept of sustainable development within mainstream economics, with the likes of Robert Solow and Joseph Stiglitz (1974) reacting to the paper's notion of depletion of resources on which economic growth depends (Pezzey & Toman, 2002). While the initial focus was on economic growth and resource constraints, it developed into intergenerational equity and resource allocation by the 1980s.

In the same year as the publication of the Brundtland report, Barbier (1987) published *The Concept of Sustainable Economic Development*, which emphasised not only the interconnectedness of the concepts of environmental sustainability, economic sustainability and social sustainability, but also the central role of poverty in this debate (Pezzey & Toman, 2002). According to Mitlin (1992), this highlighted the dual focus of sustainable development on (i) "helping the poor," and (ii) development that considers the environment and local social and cultural values, which link up with the three spheres of sustainable development (economy, environment and society). Mitlin (1992) subsequently divides the themes of sustainable development research into four areas (i) living resource conservation, (ii) economic growth, (iii) economic decision making, and (iv) Third-world development. These themes are also prevalent in the sustainable development goals.

To measure sustainability is not only a question of measuring the present, but also the future (Stiglitz et al., 2009). Economists have tackled the question whether it is possible that increased production and consumption today will not harm future generations' ability to consume. With the foundations laid by Solow (1974) in finding an optimal growth path that is intertemporally efficient, Dasgupta and Mitra (1983) show that this efficient growth path is consistent with positive levels of consumptions (as a measure of wealth) over time, even if resources are exhaustible.

Measuring wealth in current and future generations has, however, developed beyond measuring economic activity using the Gross Domestic Product (i.e. *beyond GDP*¹), since it does not consider sustainable resource use. Measures of wealth and societal well-being, such as quality of life and happiness, surfaced (Stiglitz et al., 2009). Arrow et al. (2013, p. 505) conclude that "wealth per capita and intergenerational wellbeing averaged over generations track one another exactly." Such a comprehensive measure of wealth should include not only physical capital, but also natural capital and human capital. A strong sustainability strategy entails a constancy in all three resources, while a weak strategy only requires sufficient increases in human and physical capital to counter natural capital losses (Stiglitz et al., 2009).

However, the value of natural resources is difficult to determine and often not correctly priced, with the cost of environmental degradation carried by future generations. Economists, such as Dasgupta and Mäler (2000) and Arrow et al. (2013) have contributed by estimating shadow prices for natural and human capital. Methods to derive shadow prices of especially environmental goods have evolved significantly (see for example Hoyos (2010) on discrete choice experiments) while policies in dealing with the negative environmental externalities benefitted from an application of Coase Theorem (see Cerin, 2006; Deryugina et al., 2021).

While economists have clearly entered the debate on sustainability, the question remains whether and how this has reached the discourse on sustainable tourism. In 1996, Brian Archer (1996) asked the question whether economists really care about sustainable tourism. He argued that economists were poorly equipped to measure and formulate policy to deal with the environment and socio-cultural factors, but that the measurement and modelling techniques exist and can be developed to answer questions in sustainable tourism development. With the progression of the study of economics to solving problems faced by societies, and economists possessing specific tools to solve these problems, one wonders to what extent economists and economic theory, methods and measures have endeavoured to contribute to the question of achieving sustainable tourism. Has research in sustainable tourism also benefitted from the advances in economic thinking and the renewed relevance of economic development? To understand the contribution of economics to research in sustainable tourism requires an analysis of the current body of research, which is the main research aim of this article.

3. Method

The process of collecting and analysing published research, proposed by Pawluk De-Toledo et al. (2022), is used in this paper and is depicted in Figure 1. The first step in the process is identifying the sources to include in the analysis. Similar to Klarin and Suseno (2021), the source used to identify the bibliographic information is Web of Science's (WoS) Core Collection (Clarivate Analytics, n.d.), since it accesses a wide variety of quality peer-reviewed journals, which is the main focus of this research.

The process followed to identify and collect the research articles is similar to that described by Rickly (2022), where a stepwise process is followed to collect and refine publications to be used in the analysis. It is impossible to exhaust all themes and directions related to sustainability and economics. To summarise key research themes for the economics of sustainable tourism, and propose future contributions to the tourism field, the keywords used in identifying the bibliographic information were "sustainable tourism" and "econom*," with only peer-reviewed journal articles considered for inclusion. The phrase, "sustainable tourism" is therefore viewed as an essential selection criterion for the retrieved articles, since these authors are actively contributing towards expanding knowledge in the field of sustainable tourism. This approach allows the inclusion of the retrieved articles that employed various methods and not limited to economic modelling to analyse themes related to the economics of sustainable tourism. The search was not limited to titles, keywords and abstracts, but the complete document was searched for these words to ensure a comprehensive bibliographic database. The full information of each article (including authors, title, keywords, abstract, references, and journal information) was exported to CiteSpace, which is a data visualisation and analysis program used for the scientometric analysis.

A number of aspects can subsequently be analysed. Yu et al. (2019) indicated that various avenues can then be taken to explore the patterns and networks between the research articles.

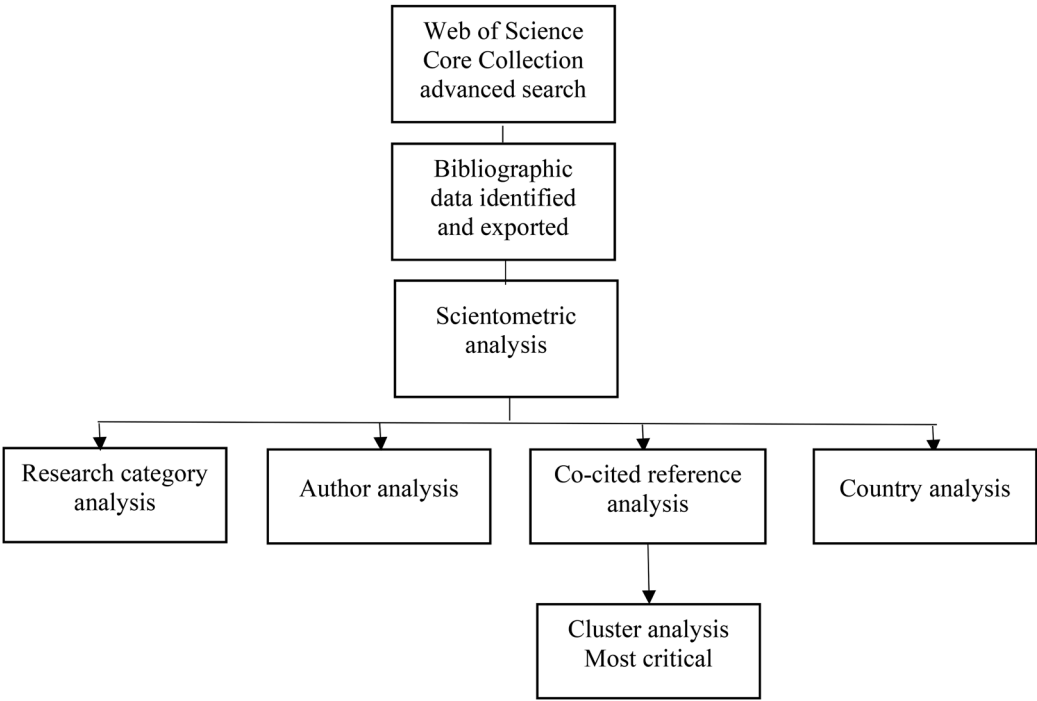


Figure 1. Components of the scientometric analysis.
Adapted from Pawluk De-Toledo et al. (2022).

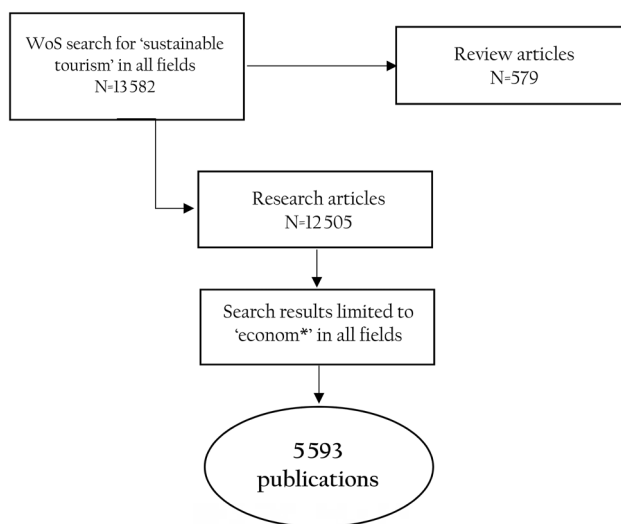


Figure 2. Process of identifying included publications for analysis.

Firstly, the research or subject categories analysis entails an exposition of the research fields and journals that publish research on sustainable tourism with economics. Secondly, the main authors that contribute to research in the field are identified. In addition, using cited reference analysis makes it possible to identify research clusters in the research field as well as the main authors and papers contributing to each cluster (Pawluk De-Toledo et al., 2022). Besides using citations, the main contributors and research articles can also be identified using sigma and bursts. Sigma refers to both the article's centrality in the cluster as well as its linkages with other clusters, while bursts refer to the sudden increase in attention to certain references. Finally, the main contributing countries can also form part of the analysis. The various analyses were completed using WoS and CiteSpace.

Web of Science's Core Collection delivered a total of 13 582 items when the search term "sustainable tourism" is used in all fields, of which 12 505 are article publications and 579 review articles. When the search is narrowed down with the inclusion of "econom*" as an additional search term, the result is reduced to 5 593 articles (see Figure 2 for a graphical representation of this stepwise process). The asterisk allows the term to have various options, including economy, economic, and econometric. Therefore, approximately 45% of all articles published in the research field of sustainable tourism contain some reference to economics, highlighting the importance of economics in this research area. The 5 593 articles that formed part of the study are subsequently included in the analysis, since the aim of the article is not only to identify key economics articles, but also how and whether economics informed and shaped research directions in sustainable tourism².

4. Results

4.1. Main research categories and journals

According to the Web of Science classification, the articles identified from the search were mainly published in the fields of environmental sciences (29%), hospitality, leisure, sport and tourism studies (26%), green sustainable sciences (26%) and environmental studies (22%). This is indicated in Table 1. Publications in economics (7.4%) and management research (6.3%) lag behind those in the Environmental research categories and one can therefore deduce that

Table 1. Distribution of publications in various research categories.

Research category	Number of publications	Percentage of total
Environmental sciences	1 634	29.15%
Hospitality leisure sport tourism	1 479	26.39%
Green sustainable science technology	1 476	26.33%
Environmental studies	1 274	22.73%
Economics	415	7.40%
Management	355	6.33%
Ecology	254	4.53%
Geography	233	4.15%
Business	188	3.35%
Water resources	171	3.05%
Geosciences multidisciplinary	162	2.89%
Regional urban planning	148	2.64%
Engineering environmental	128	2.28%
Geography physical	128	2.28%
Biodiversity conservation	123	2.195%

Table 2. Distribution of articles according to journals.

Journal title	Number of articles	Percentage of articles
<i>Sustainability</i>	707	12.61%
<i>Journal of Sustainable Tourism</i>	427	7.62%
<i>Tourism Management</i>	100	1.78%
<i>Journal Of Cleaner Production</i>	85	1.51%
<i>Current Issues in Tourism</i>	84	1.49%
<i>Ocean Coastal Management</i>	69	1.23%
<i>Tourism Economics</i>	63	1.12%
<i>Environmental Science and Pollution Research</i>	59	1.05%
<i>Worldwide Hospitality and Tourism Themes</i>	59	1.05%
<i>International Journal of Sustainable Development and World Ecology</i>	58	1.03%

environmental sustainability attracted the most research attention in sustainable tourism. This result remains the same, even when the analysis is conducted on the more narrowly defined sample.

Table 2 summarises the 10 most important journals in which research on sustainable tourism and economics is published, with the journal *Sustainability*³ leading the way at 12.6% of articles published, followed by the *Journal of Sustainable Tourism* (7.62%), *Tourism Management* (1.78%), *Journal of Cleaner Production* (1.5%), *Current Issues in Tourism* (1.5%) and *Ocean Coastal Management* (1.2%).

The distribution of journals indicates a substantial interest in these articles from tourism-related journals, with seven of the 10 most prevalent journals having a strong focus on tourism. It is also not surprising that the *Journal of Sustainable Tourism* remains a key outlet for research in this area and this result remains the same in the narrowly defined sample as well.

4.2. Author analysis

The authors who have contributed most in terms of the number of articles with research on sustainable tourism that refer to an aspect of economics within its text or context are indicated in Table 3. The analysis only indicates the number of articles from each author included in the analysis and not the impact of the research. The table shows the main contributors to be C.J. Léon, C.M. Hall, S. Gössling, X. Zarata and E. Schott.

The impact of an author's work on the field can better be presented by bursts, which is an indication of which authors and articles had the highest impact on the field in terms of citations

Table 3. Main contributors in terms of number of contributions.

Authors	Record Count
Leon, C.J.	30
Hall, C.M.*	28
Gössling, S.	24
Zarate, X.	23
Schott, E.	21
Zhang, Y.*	20
Escalona, N.	19
Liu, Y.	17
Arana, J.E.	15
Bekun, F.V.*	15

* indicates the authors that also appears in the narrowly defined article database.

Table 4. Main contributions according to bursts.

Bursts	Author and citation
13.59	Gössling et al. (2021)
11.80	Bramwell and Lane (2011)
11.51	Honey (1999)
11.49	Hall (2019)
11.15	Costanza et al. (1997)
10.77	Britton (1982)
10.70	Briassoulis (2002)
10.58	Dwyer and Kim (2003)
10.10	Clarke (1997)
10.08	Ritchie and Crouch (2003)

within a certain timeframe (CiteSpace Manual). Table 4 indicates the 10 articles and authors with the highest burst metrics.

From Table 4, it is evident that the recent article by Gössling et al. (2021) attracted extraordinary attention from other researchers in the field within a short time span. Other research outputs that have sparked research activity include the work by Bramwell and Lane (2011), Honey (1999), Hall (2019) and Costanza et al. (1997). From the titles, some clear economic themes can be identified, such as the political economy, common goods, and the question of property rights. However, many of the titles seem to be addressing broader issues in sustainable tourism. The only author that appears in both Tables 3 and 4, is C. Michael Hall. Interesting to note is that the *Journal of Sustainable Tourism* and *Annals of Tourism Research* published six of the 10 papers that instigated increased research activity.

Alternatively, the most citation counts can be used to identify the main contributing authors. When this measure is used, clearly the papers that have been around for a longer time (nine of the 10 papers were published before 2010, and four papers were published before 2000) are the most cited – an aspect that is countered by the burst measure. The lack of identifiable economic themes and economists in these titles and authors in Table 5 underscores the observation by Brian Archer (1996) that economics has not been the main contributor to sustainable tourism research, especially during the early years. Using only citations, the research by R.W. Butler made a significant impact, while Z. Liu and S. Gössling are the only authors that appear in both Tables 4 and 5. In terms of journals, it is again interesting to note that *Annals of Tourism Research* published four of the 10 most cited papers.

4.3 Country analysis

The subsequent results as part of the scientometric analysis are the exposition of the countries of the main contributing authors. Table 6 indicates that the People's Republic of China

Table 5. Main contributions according to citations.^a

Citations	Author and citation
156	Butler (1980)
119	Andereck et al. (2005)
113	Butler (1999)
110	Choi and Sirakaya (2006)
108	Fornell and Larcker (1981)
107	Liu (2003)
105	Buckley (2012)
86	Hunter (1997)
82	Saarinén (2006)
79	Gössling (2002)

^aIn the limited search, this list is vastly different and, for completeness, we include the main author contributions according to citations it in the Appendix.

Table 6. Contributions from different countries.

Countries/regions	Record count	Percentage
People's Republic of China	988	17.59%
Spain	653	11.63%
USA	595	10.59%
England	399	7.10%
Australia	395	7.03%
Italy	333	5.93%
Romania	226	4.02%
Turkey	208	3.70%
South Africa	206	3.66%
Portugal	200	3.56%

contributed 17.6% of the total number of research papers assessed in this analysis, followed by Spain (11.6%) and the USA (10.6%). It is also noteworthy that six of the countries that contributed in terms of research also fall within the top 10 most popular tourist destinations in the world, i.e. China, Spain, the USA, England, Italy and Turkey. Due to the importance of tourism in these economies, it is therefore not surprising that sustainability is a key concern to these countries. When just considering sustainability and economics (i.e. excluding tourism), the top four countries again take the top four positions, although Spain moves to the fourth position. Romania, Turkey, South Africa and Portugal disappear from the list and therefore these countries have a more specific concern with sustainable tourism research.

4.4 Co-citation analysis

To explore the main themes of the research, a co-citation analysis was undertaken. Using cluster analysis in CiteSpace with slices of one year, the main research themes emerging from the articles are clustered together and the main clusters are shown in Figure 3. The sizes of the nodes indicate the importance of the research articles in that cluster, while the links between the articles and the clusters are also shown. Although the clusters are identified as unique, Figure 3 shows that there are clear interlinkages between the clusters and some clusters are more closely related than other clusters.

4.4.1. Main research clusters

While more than 100 clusters can be identified, there are 13 large clusters with the following themes: (#0) residents' perceptions – the largest with 172 articles; (#1) economic growth*⁴ – 145 articles; (#2) governance – 121 articles; (#3) climate change – 101 articles, (#4) poverty reduction – 67 articles, (#5) sharing economy* – 61 articles, (#6) rapid assessment – 56 articles, (#7)

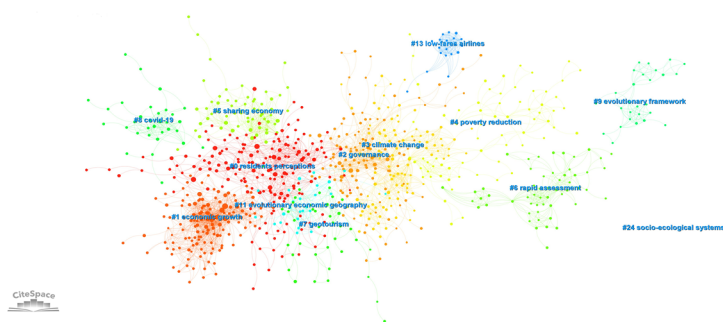


Figure 3. Research cluster themes.

geo-tourism – 38 articles, (#8) Covid-19* – 32 articles, (#9) evolutionary framework – 27 articles, (#11) evolutionary economic geography* – 25 articles, (#13) low-fares airline – 19 articles, (#24) socio-ecological systems – 9 articles.

These main themes compared well with those identified by Mitlin (1992) as themes in sustainable development research. The themes of climate change, geotourism and socio-ecological systems correlate with living resource conservation, while economic growth is clearly an important cluster in both areas of research. Economic decision making features as an important strand of research in sustainable tourism and the economy, with clusters such as residents' perceptions, the sharing economy, rapid assessments (including general equilibrium modelling and indicator development) and low-cost airlines. In terms of the focus on Third-world development regarding sustainable economic development research, the cluster on poverty reduction fits tightly with less-developed countries. The four largest clusters and the clusters that have attracted research focus recently (i.e. from 2018 onwards) are further scrutinised:

a. **Residents' perceptions**

While this cluster resorts under the main theme of residents' perceptions, it also includes keywords such as "quality of life" and "rural tourism," with "destination attractiveness" and the link between the economy and environment as a key concern. This cluster gained popularity during 2013/4 and has remained an important theme in the literature over the past eight years.

b. **Economic growth**

The second largest cluster is named "economic growth," although other pertinent keywords in this cluster are "renewable energy," "carbon emission" and "energy consumption." It is therefore not surprising that the Kutznet's curve, which describes the relationship between economic growth and environmental quality, features strongly in this cluster. The cluster gained popularity in 2015 and has remained one of the key concerns of researchers over the past seven years.

c. **Governance**

The third-largest cluster is identified under the heading of "governance" and includes aspects of tourism planning, economic growth (linking with the economic growth cluster) and the political economy as additional keywords in this research group. The research in this cluster relies on stakeholder theory and although it has been a strong cluster between 2010 and 2016, research interest in this theme has dissipated since then.

d. **Climate change**

Research on climate change in sustainable tourism took off during 2008/9 and remained an important theme in the literature up to 2016, when other themes became more

popular. The other main keyword included in this research cluster is *vulnerability*, and the research has a strong community-based influence.

- e. **Poverty reduction**
Research on tourism and poverty reduction gained momentum between 2007 and 2012, especially after the books by Susanne Becken and John E. Hay (2007) and Martha Honey (1999), who highlighted the plight of communities in tourism development. In this cluster, economic modelling is the main tool used in understanding the effect of tourism on poverty.
- f. **Sharing economy**
A more recent cluster that only really took off in 2016 is research on the sharing economy. Key terms such as “Airbnb,” “overtourism” and “urban tourism” also fall within this cluster.
- g. **COVID-19**
Unsurprisingly, a large recent cluster is identified as research centred on Covid-19, although other important keywords in this cluster include “crisis,” “resilience” and “tourism planning and management.” The broad theme of “shocks” is therefore also included in this research cluster.

4.4.2. *The evolution of themes*

The timeline of cluster activity shows an evolution of research themes over time, which have been driven by economic and social development stages of different countries, major events/ crises, the development of tourism, hospitality and leisure industries, and sustainable initiatives issued by governments and non-government organisations (see Figure 4). Some of the first research clustered around the themes of socio-ecological systems (i.e. conservation areas and poverty alleviation included) and evolutionary framework (including visitor and firm behaviour), followed by the rapid assessment of sustainability, where the development of sustainability indicators was a key component. These themes dominated research during the first decade of the 2000s.

By 2010, the focus of sustainable tourism research shifted to poverty reduction and 2011 saw a flurry of research on the effect of low-cost airlines, especially after the recession caused by the 2008 financial crisis. The effect of climate change, especially for vulnerable communities, remained an important theme during the latter part of the 2000s and the early parts of the first half of the 2010s. In addition, governance and its importance in tourism planning and economic growth emerged during the first part of the 2010s.

Renewed interest in the influence of geography and the geographical character of a destination for sustainable tourism emerged in 2016, with two clusters seeing increased research activity, namely geo-tourism and evolutionary economic geography. By 2018, the research shifted towards residents’ perceptions and quality of life as the main theme in sustainable tourism

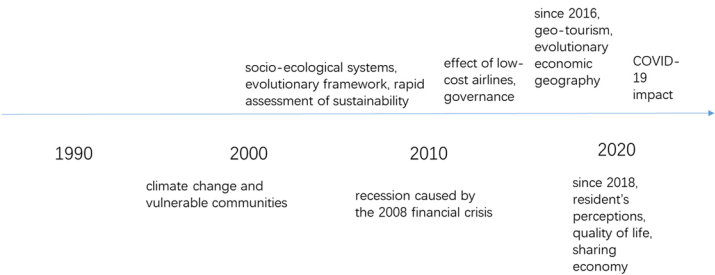


Figure 4. The timeline of cluster activity in the economics to sustainable tourism research.

research. This was accompanied by research into the sharing economy, especially driven by the surge of Airbnbs.

The Covid-19 pandemic, which caused a standstill in tourism around the globe, questioned the sustainability of tourism and emerged as an important cluster during 2020 and 2021. The negative economic but positive environmental effects of the pandemic also saw a renewed interest in tourism and economic growth, especially taking into account the effects of energy consumption and pollution due to tourism.

From the themes, it is evident that living resource conservation and economic growth, identified by Mitlin (1992) as important themes of sustainable development research, also form part of sustainable tourism research. In addition, many of these clusters align directly with the SDGs, especially the goals of poverty reduction, economic growth, sustainable communities, preservation of life on land and below, and climate change. This indicates that the research is relevant not only from an academic perspective, but also from a policy perspective.

However, some of the main research themes in sustainable development research, including economic decision making, as well as the SDGs that address inequality, decent work conditions and responsible consumption and production, have not yet surfaced as important themes in tourism sustainability research. Although more in-depth scrutiny of the clusters is beyond the scope of this paper, the keywords identified in the clusters also do not mention shadow prices, inter- and intergenerational effects or reference to Coase Theorem in dealing with externalities in tourism, indicating that there are ample opportunities to apply newer developments in economics within sustainable tourism.

5. Economic theories and methods in sustainable tourism research

Assessing the influence of economic theory and methods on tourism sustainability research requires a deeper investigation into the main theories and methods used in the different clusters of research identified. The main contributors and also the main research articles can be identified for each cluster, using sigma and bursts, with sigma referring to both the article's centrality in the cluster as well as its linkages with other clusters. As indicated above, bursts refer to the sudden increase in attention to certain references. The top five publications in terms of bursts were scrutinised in each cluster in the identification process, and the results are tabulated in Table 7.

The results indicate that, although economic theories and economic methodology to some extent contribute to the development of sustainable tourism research, the main theoretical contributions to the economics of sustainable tourism research are attributed to various disciplines, which highlights the multidisciplinary nature of tourism sustainability research. Specifically, from the theories, it is clear that research on sustainable tourism draws not only on economic theories, but that it also relies on an array of theoretical backgrounds, including psychology, sociology, mathematics, and business and ethics (Table 7). This is also evident from the authors who contributed most to the literature (see Tables 3 and 4), who, with the exception of C.J. Leon and L. Dwyer, are not economists. Have economists not taken an interest in sustainable tourism research? Has the contribution of economics moved beyond a mere recognition that tourism is important for the economy?

Table 7 provides some insights into the role of economics in sustainable tourism research. It is evident that some clusters are more founded in the economics literature than others, although most clusters have some theoretical foundation in economics. The exceptions are (i) residents' perceptions, and (ii) the poverty cluster, which are approached from a sociological and organisational perspective, rather than an economics perspective, although economic methods have proven to be an invaluable tool in the assessment of these impacts of tourism.

Table 7. Main theories and quantitative methods according to clusters.*

No.	Cluster	Theories	Quantitative methods
#0	Residents' perceptions	Social exchange theory Theory of reasoned action Stakeholder theory	Multivariate statistical analysis Regression analysis
#1	Economic growth	Resource-use intensity Tourism-led growth hypothesis	Autoregressive distributed lag models Panel data models Co-integration Qualitative methods
#2	Governance	Political economy Market mechanism versus government intervention/control	
#3	Climate change	Consumer behaviour theory Tragedy of the commons Free-riding (market failure)	Economic impact modelling Cost-benefit analysis
#4	Poverty reduction	Social exchange theory Stakeholder theory	Economic modelling
#5	Sharing economy	Theory of planned behaviour Theory of behavioural intention Self-determination theory Pro-social behaviour theory Quality of life theory Theory of two-sided markets Theory of collaborative consumption Neoclassical micro-theory Marxist theory Exchange theory Neoclassical growth theory Endogenous growth theory Trade theory	Regression models Spatial econometrics Difference-in-difference analysis Matching analysis
#6	Rapid assessment	Social exchange theory Theory of demand and supply Giddens' structuration theory Dependency theory Network theory Transaction cost theory Principal-agent theory Production theory	General equilibrium modelling
#7	Geo-tourism	Social exchange theory Theory of demand and supply Giddens' structuration theory Dependency theory Network theory Transaction cost theory Principal-agent theory Production theory	Indicator construction Value chain analysis
#8	Covid-19	Social entrepreneurship theory Service-dominant-logic Social psychoanalytic theory Black swan theory Stakeholder theory	Qualitative methods
#9	Evolutionary framework	Market efficiency Theory of value Welfare theory Industrial organisational theory (market structures) Consumer theory Reputation theory Markets with limited information Growth theory Game theory	Hedonic price models Mathematical models Econometric models
#11	Evolutionary economic geography	Theory of reasoned action Random utility theory Consumer theory Theory of value Public goods/externalities Entrepreneurship theory Stakeholder theory Convergence hypothesis Spatial diffusion Institutional economics	Contingent valuation Quasi-experimental methods Spatial econometric models

(Continued)

Table 7. Continued.

No.	Cluster	Theories	Quantitative methods
#13	Low-fare airlines	Lifecycle theory Innovation theory Industrial-organisational theory Contingency theory Social entrepreneurship theory	Qualitative methods
#24	Socio-ecological systems	Game theory General system theory Structuralist macro theory Theory of value (willingness to pay) Public goods/common goods	Agent-based modelling Multiplier analysis Regression analysis

***Bold text indicating economic theories and methods, although the authors acknowledge that many of the methods highlighted are not exclusively used by economists.**

#Corresponds with cluster number in [Figure 3](#).

[Table 7](#) also shows that the research drew on both macroeconomic and microeconomic theories. On the microeconomic side, consumption and production theories (including consumer behavioural theories), neoclassical micro-theory, theories of demand and supply, theories of value, cost theory and industrial-organisational theory are some of the most prevalent underlying research theories in sustainable tourism. On the macroeconomic side, growth theories, political economic theories, theories on market failures, principal-agent theory, trade theories, and Marxist and structural macroeconomic theories are some of the main theories that shaped research in this domain.

The initial growth in tourism sustainability research under the themes of socio-ecological systems, evolutionary framework and rapid assessment relied extensively on economic theory, are indicated in [Table 7](#). Both macroeconomic and microeconomic theories are prevalent in these clusters. During the early parts of the 2010s, after the financial crisis, political economy theories rose in importance, with market failures and the extent of government intervention playing an important role in the clusters addressing governance and climate change.

The second half of the 2010s initially saw an increase in spatial economic theories with the dependency and the spatial diffusion theories influencing tourism sustainability research. Political economic theories, such the principal-agent theory and institutional economics, remained important in shaping research direction, while microeconomic demand and supply as well as theories of value (i.e. contingent valuation) gained ground.

The theories of value link sensibly with consumer behaviour theories, including the theory of planned action, and the theory of behavioural intention. Together with other microeconomic theories, such as the theories of collaborative consumption and of two-sided markets, it informed research on residents' perceptions and the sharing economy during the latter part of the 2010s. The year 2020 saw a resurgence in interest in macroeconomic theories with the growing interest in economic growth in tourism sustainability research, during and after the pandemic.

[Table 7](#) also shows that quantitative methods used in economic research, including regression analysis, economic impact modelling, time-series econometrics (including ARDL models and cointegration), as well as panel and spatial econometric models are also prevalent in tourism sustainability research. The more recent clusters, the sharing economy and economic growth, use more recent methods in econometrics, including the difference-in-difference estimator, spatial econometrics, cointegration and panel data models. However, not all clusters benefit from the use of economic modelling techniques, with some clusters dominated by the use of qualitative methods. In addition, multivariate statistical and mathematical methods are prevalent in a number of clusters, again highlighting the multi-disciplinary nature of tourism sustainability research.

We can therefore conclude that economic theory and/or methods have had a clear influence on all the clusters of sustainable tourism research, although their influence has not been

equally strong in all clusters. Clusters that are dominated by economic theory and methods include economic growth, climate change, the sharing economy, rapid assessments, an evolutionary framework and socio-ecological systems. It is evident that current concerns in development economics, including migration, declining labour shares and rising inequality have not attracted attention in sustainable tourism research, indicating a lag behind contemporary development economics. Economists can therefore do more in terms of sustainable tourism research and shift the boundaries, which is the main reason for this special issue on the economics of sustainable tourism.

6. What the articles in this special issue contribute towards the debate

To encourage the theoretical and methodological contributions of economics to sustainable tourism research, we proposed this special issue *The Economics of Sustainable Tourism*. After several rounds of the abstract and full paper peer-review process, ten papers have been accepted for publication in this special issue. These papers cover various areas in terms of themes, concepts, theories and methods that can be linked to the clusters identified in this paper.

This special issue was organised over the COVID-19 period, so there is no surprise that the impacts of risks and crises on sustainable tourism obtain research interests with three articles published under this theme (Cluster 8, COVID-19). Firstly, in Liu, Wu and Li's study, titled "Do crises affect the sustainability of the economic effects of tourism? A case study of Hong Kong," they identified the "major event crises" regime and the "economic crises" regime. Using the Markov-switching vector autoregressions model, they found that crises can influence the sustainability of the economic effects of tourism and the economic growth and tourism industry in Hong Kong have a high level of stability and sustainability, which indicates that Hong Kong can recover from crises such as the COVID-19 pandemic quickly and then return to rapid economic and tourism growth. The stronger economic focus and econometric analysis add significantly to enhance the economic inputs into this cluster.

Secondly, from tourists' COVID-19 risk perception, Chen et al. applied both the knowledge-attitude-practice theory and the theory of planned behaviour to investigate the determinants of responsible tourism in their study titled "Can the COVID-19 risk perception affect tourists' responsible behaviour intention? an application of the structural equation model." Using a quantitative approach in modelling, they verified the linkages and feedback effects by showing that knowledge of travel risks, rather than COVID-19 perception, affects responsible behavioural intention, although COVID-19 perception can influence the formation of new knowledge in travel risk.

Thirdly, Carcia et al. used the decline in tourism to the Balearic Islands during COVID-19 to determine the pressure of tourism on natural resources. In their paper titled "Zero tourism due to COVID-19: an opportunity to assess water consumption associated to tourism," they compared water consumption during the tourist season of 2019 and 2020 with the decline in overnight stays over the same time period in different municipalities on the three islands. Their results indicate that tourists add a significant burden on water resources in water scarce areas, that calls for improved water management strategies to ensure tourism sustainability.

Tourism and poverty reduction (Cluster 4, poverty) is an important topic within the economics of sustainable tourism. Two papers included in our special issue also engage in an unusual way with the concepts of tourism and income inequality, broadening the scope of research evidence related to this cluster. Firstly, Kwabi et al. investigated "The impact of the media on tourism development and income inequality" in a panel of 88 countries. Their results show that press freedom reduces income inequality associated with tourism development. They ascribe this to

pressures placed on authorities by press freedom to ensure local communities are not exploited and fairly remunerated. Secondly, Chiu and Wang use a panel of 102 economies to investigate the role of financial development in the tourism-inequality nexus. In their study titled "Inbound tourism and income inequality the role of banking sector development," they found that a well-developed banking industry decreases income inequality associated with tourism development, although this relationship is not linear and varies depending on the level of economic development.

The relationship between environmental quality, economic growth and tourism development is a long-existing theme in the economics of sustainable tourism, but one that is attracting renewed interest (Cluster 1, economic growth), also in this special issue. In their research, "A worldwide tourism-extended Environmental Kuznets Curve (EKC). New approaches in a comparative analysis," Portoa, Pitettia and Ciaschib employed a conventional and tourism-extended environmental Kuznets Curve and extends current analyses with new approaches to examine the impact of tourism on the environment in 69 countries from three continents. They show that while America and Asia-Oceania comply with the EKC hypotheses, European countries do not.

The impact on residents' well-being is identified as the most popular topic (Cluster 0, resident perceptions), although this is one of the clusters that lacks a sound economic theoretical base. In a paper titled: "Resident well-being and sustainable tourism development: the 'capitals approach'," Dwyer identified the relationship between the capital stocks including economic, human, social, natural capitals and residents' well-being outcomes, and developed a conceptual framework to evaluate sustainable tourism development by emphasising the role that capital stocks play. This paper fills the theoretical void identified in the analysis and is a paper that links sustainable tourism with the theoretical developments in sustainability research by economists identified in the literature review.

In another paper, titled: "Modelling the economics of sustainable tourism," Inchausti-Sintes proposed a novel approach to modelling sustainable tourism from the perspective of the circular economy by assuming the use of land as both an input and output, i.e. an asset. The results indicated that, in the integration of the environment and the economic system, tourism can contribute to ecological preservation but, at the same time, reduce sectoral diversification and increase import dependence. With this, they contribute to Cluster #24, socio-ecological systems, by providing an alternative theoretical and empirical approach to link economic and ecological outcomes.

Apart from the tourism field, Mao, Yang and Zhou explore the economics of sustainable tourism in the hospitality field in their research titled: "Are GreenLeaders also performance leaders? An econometric analysis of TripAdvisor hotel certification of GreenLeaders." Their findings confirmed that GreenLeaders certification brought positive effects on hotel performance and this impact was moderated by hotel class and chain affiliation, enhancing the research on climate change and adaptation (Cluster 3) with an alternative perspective and modelling approach.

In addition to making contributions to the widely explored themes, efforts are also made to investigate concepts that start to gain research interests. With the widespread use of psychological theories in current research, venturing more rapidly into behavioural economics may be more natural in tourism sustainability research than in development economics research. In fact, the more narrowly defined analysis identifies behavioural economics as an important cluster under the theme of sustainable tourism and economics. In the study titled: "Lowering the harm of tourist activities: a systematic literature review on nudges," Souza-Neto et al. evaluated the theories, methods and application of nudge, which is one of the key concepts in behavioural economics. To reveal the relationship between nudges and tourism sustainability, Souza-Neto et al. systematically reviewed research on nudge interventions in sustainable tourism and proposed a model for designing nudges.

7. Conclusion and future research agenda

This paper aimed to identify and explore the interlinkages between sustainable tourism research and the study of economics with the goal of identifying the main economic themes and gaps in the current tourism sustainability research. Using scientometric analysis, 13 key themes were identified and explored, with some of these themes clearly linked to economic research. This paper contributes not only through the identification of the perspective that economics has contributed to tourism sustainability research to date, but also in identifying underexplored economic themes that can contribute towards the sustainable tourism discourse. In addition, the paper introduces the special issue on the *Economics of Sustainable Tourism*, which we trust will serve as an impetus for economists to contribute more actively towards the field of sustainable tourism.

Given the results of the analyses and the review of the main articles in each cluster, it is evident that the research has evolved over time and that it borrows from a variety of disciplines to solve questions in tourism sustainability. Economics remains a key discipline, and the root of sustainable tourism in economics is undeniable, as indicated by the large number of papers that include references to the economy, but research in the field also depends heavily on psychology and sociology. This is a distinct advantage of tourism sustainability research over economic development research, where behavioural studies only became a more recent trend and, as such, sustainable tourism research is well positioned to draw on and contribute to behavioural economics.

The newer clusters use techniques that are more in line with newer trends in development economics. However, compared to development economic studies, the research in sustainable tourism currently boasts limited randomised control trials, as well as experimental and event studies. The issue of inequality and how sustainable tourism development has the possibility to address inequality has also not emerged as a significant research cluster. Two studies on tourism and inequality are included in this special issue, which we trust will inspire more studies to follow. In addition, labour concerns have also not reached the research agenda in sustainable tourism research. It is also noteworthy that, although Cluster 1 includes the keyword “quality of life,” very few papers venture into newer measures of wealth as advocated by the *Beyond GDP* approach. In addition, shadow prices, inter- and intergenerational effects and newer approaches in dealing with environmental externalities in tourism remain absent as key themes or in the related keywords included in each cluster.

Given the aftermath of COVID-19 and the effect it had on the tourism labour force, the issue of working conditions and labour is expected to attract increasing attention in the quest for sustainable tourism. Climate change and sustainable solutions to climate change remain important themes and are expected to continue to dominate research discussions in sustainability. The recent pandemic and the increasing frequency of stress events in the tourism industry are already themes that have emerged in tourism sustainability research, and it is expected to continue. In addition, a gap in terms of laboratory and field experimental studies as well as events studies currently exists in the research, which could signal important developments in tourism sustainability research.

What does this imply for the *Journal of Sustainable Tourism* (JoST)? JoST targets five goals, (i) diversity and inclusiveness, (ii) empowerment, (ii) rigorous, novel and significant, (iv) accessible, and (v) impactful. As a key journal that contributes toward the development of the economics of sustainable tourism, it is suggested that diversified topics are well examined (diverse and inclusive), a community of authors and reviewers in this area is formed and ideas are exchanged (empowering), rigour in economic methods and analyses (rigorous), theoretical and methodological contributions are significant (novel and significant), and wider society contributions are demonstrated (accessible and impactful).

It is worth noting that, when the economics of sustainable tourism research is submitted to non-economics journals, such as JoST, many submissions closely follow the format and style

of papers published in economics journals. Given that the majority of readers of non-economics journals may not have a strong economics background, it is expected that papers are presented in a way that a wider range of readers can understand and appreciate. For example, the discussion section should go beyond reporting the economic results. There needs to be a coherent and cohesive set of arguments that go beyond the study to highlight the relevance of research findings in solving problems within the wider world.

Among the economics of sustainable tourism submissions, the majority of papers focus on economic growth and sustainable development, climate change and poverty reduction, with many using datasets collected before the COVID-19 pandemic. More diversified topics, including less explored areas such as economic decision-making, inequality, decent work conditions and responsible consumption and production, could be new directions to pursue. Moreover, submissions investigating less developed countries where some economics of sustainable tourism issues, such as poverty and inequality, are more prominent, are encouraged. It is understandable that macro-level data after COVID-19 may not yet exist. Nevertheless, as COVID-19 may largely affect economic and tourism development, it is suggested that the submitted manuscripts have the most up-to-date datasets that include data during and post COVID-19. When it is appropriate, comparing the results before, during, and after COVID-19 could be interesting.

It should also be noted that the scope of the article has some constraints. Since the theme of the review is specifically limited to the economics of sustainable tourism, we limited the selected and evaluated articles to those that focus on exploring the relationship between sustainable tourism and aspects of economics. We, therefore, excluded tourism economics papers that do not have a clear sustainable tourism focus. Future exploration may expand the constraint to include articles in wider areas. We also use a holistic approach and included all papers that mentions the search term “econom*” together with “sustainable tourism” in an article, although, for robustness, we limited the search also to keywords. However, this approach clearly includes a number of non-economic papers, and the next step would be to take a more focussed approach and identifying those key contributions in sustainable tourism that apply the newest concepts in economics.

Notes

1. See Dwyer (2020) for a discussion on *Beyond GDP* within the tourism development context.
2. To narrow down the search and as a robustness check, the search was also conducted when “sustainable tourism” is the theme and “econom*” only part of the author supplied keywords in the Web of Science Core Collection. This method identified 861 papers and while the main analysis in this paper focuses on the 5 593 papers, some reference will also be made to narrow search.
3. This journal is debatable – some researchers questioned its high publication charges and extremely high volume of published papers per year, but others argue that it follows a standard blind peer-review process.
4. The asterisk next to a cluster indicates that this cluster is also identified in the database of articles in the narrowly defined search. Besides these four clusters, the narrowly defined database also identifies the following four clusters (1) Environmental Quality; (2) TALC and Governance; (3) Behavioural Economics, and (4) Blue Economy.

Acknowledgments

The authors would like to thank the following persons: Firstly, Mr Lodewalt Venter who assisted with the use of CiteSpace; secondly, the anonymous reviewers who provided detailed comments and suggestions on how to improve the paper; thirdly, all the authors who contributed to this Special Edition. Without you, this edition would not have been possible. Any opinions, findings and conclusions or recommendations in the paper remain that of the authors.

Funding

This work was supported by the National Natural Science Foundation of China (Grant Number No.72172166)

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Andrea Saayman  <http://orcid.org/0000-0002-9506-8141>

ShiNa Li  <http://orcid.org/0000-0003-0701-9938>

References

- American Economic Association (AEA). (2022). *What is economics?* Retrieved 2022 August 16, from <https://www.aeaweb.org/resources/students/what-is-economics>
- Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research*, 32(4), 1056–1076. <https://doi.org/10.1016/j.annals.2005.03.001>
- Archer, B. (1996). Sustainable tourism – Do economists really care? *Progress in Tourism and Hospitality Research*, 2(3–4), 217–222. <https://doi.org/10.1002/pth.6070020303>
- Arrow, K. J., Dasgupta, P., Goulder, L. H., Mumford, K. J., & Oleson, K. (2013). Sustainability and the measurement of wealth: Further reflections. *Environment and Development Economics*, 18(4), 504–516. <https://doi.org/10.1017/S1355770X13000193>
- Barbier, E. B. (1987). The concept of sustainable economic development. *Environmental Conservation*, 14(2), 101–110. <https://doi.org/10.1017/S0376892900011449>
- Bardhan, P. (1993). Economics of development and development of economics. *Journal of Economic Perspectives*, 7(2), 129–142. <https://doi.org/10.1257/jep.7.2.129>
- Becken, S., & Hay, J. E. (2007). *Tourism and climate change: Risks and opportunities*. Clevedon, UK, Channel View Publications.
- Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, 19(4–5), 411–421. <https://doi.org/10.1080/09669582.2011.580586>
- Briassoulis, H. (2002). Sustainable tourism and the question of the commons. *Annals of Tourism Research*, 29(4), 1065–1085. [https://doi.org/10.1016/S0160-7383\(02\)00021-X](https://doi.org/10.1016/S0160-7383(02)00021-X)
- Britton, S. G. (1982). The political economy of tourism in the Third World. *Annals of Tourism Research*, 9(3), 331–358. [https://doi.org/10.1016/0160-7383\(82\)90018-4](https://doi.org/10.1016/0160-7383(82)90018-4)
- Buckley, R. (2012). Sustainable tourism: Research and reality. *Annals of Tourism Research*, 39(2), 528–546. <https://doi.org/10.1016/j.annals.2012.02.003>
- Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *The Canadian Geographer/Le Géographe Canadien*, 24(1), 5–12. <https://doi.org/10.1111/j.1541-0064.1980.tb00970.x>
- Butler, R. W. (1999). Sustainable tourism: A state-of-the-art review. *Tourism Geographies*, 1(1), 7–25. <https://doi.org/10.1080/14616689908721291>
- Cerin, P. (2006). Bringing economic opportunity into line with environmental influence: A discussion on the Coase theorem and the Porter and van der Linde hypothesis. *Ecological Economics*, 56(2), 209–225. <https://doi.org/10.1016/j.ecolecon.2005.01.016>
- Chau, N. H., & Kanbur, R. (2018). The past, present and future of economic development. In *Towards a new enlightenment? A transcendent decade*. BBVA.
- Choi, H. C. S., & Sirakaya, E. (2006). Sustainable indicators for managing community tourism. *Tourism Management*, 27(6), 1274–1289. <https://doi.org/10.1016/j.tourman.2005.05.018>
- Clarivate Analytics. (n.d.). Web of Science Core collection. Online.
- Clarke, J. (1997). A framework of approaches to sustainable tourism. *Journal of Sustainable Tourism*, 5(3), 224–233. <https://doi.org/10.1080/09669589708667287>
- Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O'Neill, R. V., Paruelo, J., Raskin, R. G., Sutton, P., & van den Belt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature*, 387(6630), 253–260. <https://doi.org/10.1038/387253a0>
- Darko, A., Chan, A. P., Adabre, M. A., Edwards, D. J., Hosseini, M. R., & Ameyaw, E. E. (2020). Artificial intelligence in the AEC industry: Scientometric analysis and visualization of research activities. *Automation in Construction*, 112, 103081. <https://doi.org/10.1016/j.autcon.2020.103081>

- Dasgupta, P., & Mäler, K. G. (2000). Net national product, wealth, and social well-being. *Environment and Development Economics*, 5(1), 69–93. <https://doi.org/10.1017/S1355770X00000061>
- Dasgupta, S., & Mitra, T. (1983). Intergenerational equity and efficient allocation of exhaustible resources. *International Economic Review*, 24(1), 133–153. <https://doi.org/10.2307/2526119>
- Deryugina, T., Moore, F., & Tol, R. S. (2021). Environmental applications of the Coase Theorem. *Environmental Science & Policy*, 120, 81–88. <https://doi.org/10.1016/j.envsci.2021.03.001>
- Du Pisani, J. A. (2006). Sustainable development – Historical roots of the concept. *Environmental Sciences*, 3(2), 83–96. <https://doi.org/10.1080/15693430600688831>
- Dwyer, L. (2020). Tourism development and sustainable well-being: A Beyond GDP perspective. *Journal of Sustainable Tourism*, 1–18. <https://doi.org/10.1080/09669582.2020.1825457>
- Dwyer, L., & Kim, C. (2003). Destination competitiveness: Determinants and indicators. *Current Issues in Tourism*, 6(5), 369–414. <https://doi.org/10.1080/13683500308667962>
- Evans, D., & Music, A. (2020). What's the latest research in development economics? A round-up from NEUDC 2020. Retrieved August 22, 2022, from <https://blogs.worldbank.org/impactevaluations/whats-latest-research-development-economics-round-neudc-2020>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283–302. [https://doi.org/10.1016/S0959-3780\(02\)00044-4](https://doi.org/10.1016/S0959-3780(02)00044-4)
- Gössling, S., Scott, D., & Hall, C. M. (2021). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>
- Greenlaw, S. A., & Shapiro, D. (2017). *Principles of economics 2e*. Online. OpenStax. <https://openstax.org/details/books/principles-economics-2e>
- Hall, C. M. (2019). Constructing sustainable tourism development: The 2030 agenda and the managerial ecology of sustainable tourism. *Journal of Sustainable Tourism*, 27(7), 1044–1060. <https://doi.org/10.1080/09669582.2018.1560456>
- Honey, M. (1999). *Ecotourism and sustainable development. Who owns paradise?* Island Press.
- Hoyos, D. (2010). The state of the art of environmental valuation with discrete choice experiments. *Ecological Economics*, 69(8), 1595–1603. <https://doi.org/10.1016/j.ecolecon.2010.04.011>
- Hunter, C. (1997). Sustainable tourism as an adaptive paradigm. *Annals of Tourism Research*, 24(4), 850–867. [https://doi.org/10.1016/S0160-7383\(97\)00036-4](https://doi.org/10.1016/S0160-7383(97)00036-4)
- Jevons, S. (1977). The coal question: An inquiry concerning the progress of the nation and the probable exhaustion of our coal mines. In E. Cornish, (Ed.), *The study of the future*. World Future Society. (Originally published in 1865.)
- Klarin, A., & Suseno, Y. (2021). A state-of-the-art review of the sharing economy: Scientometric mapping of the scholarship. *Journal of Business Research*, 126, 250–262. <https://doi.org/10.1016/j.jbusres.2020.12.063>
- Krugman, P. (1994). The fall and rise of development economics. Retrieved August 22, 2022, from <https://web.mit.edu/krugman/www/dishpan.html>
- Liu, Z. (2003). Sustainable tourism development: A critique. *Journal of Sustainable Tourism*, 11(6), 459–475. <https://doi.org/10.1080/09669580308667216>
- Malthus, T. R. (1976). *An essay on the principle of population*. Norton. (Originally published in 1798.)
- Mankiw, N. G. (1997). *Principles of economics*. Houghton Mifflin Harcourt.
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (2018). The limits to growth. In K. Conca, & G. D. Dabelko (Eds.), *Green planet blues* (4th ed., pp. 25–29). Routledge. <https://doi.org/10.4324/9780429493744>
- Mitlin, D. (1992). Sustainable development: A guide to the literature. *Environment and Urbanization*, 4(1), 111–124. <https://doi.org/10.1177/095624789200400112>
- Murphy, R., Shleifer, A., & Vishny, R. (1989). Industrialization and the big push. *Journal of Political Economy*, 97(5), 1003–1026. <https://doi.org/10.1086/261641>
- Pawluk De-Toledo, K., O'Hern, S., & Koppel, S. (2022). Travel behaviour change research: A scientometric review and content analysis. *Travel Behaviour and Society*, 28, 141–154. <https://doi.org/10.1016/j.tbs.2022.03.004>
- Pezzey, J. C. V., & Toman, M. A. (2002). The economics of sustainability: A review of journal articles. Resources for the Future. Discussion Paper 02-03. Washington, DC.
- Pigou, A. C. (1929). *A study in public finance*. MacMillan and Co.
- Rickly, J. M. (2022). A review of authenticity research in tourism: Launching the Annals of Tourism Research Curated Collection on authenticity. *Annals of Tourism Research*, 92, 103349. <https://doi.org/10.1016/j.annals.2021.103349>
- Ritchie, J. B., & Crouch, G. I. (2003). *The competitive destination: A sustainable tourism perspective*. CAB International.
- Rodrik, D. (2008). The new development economics: we shall experiment, but how shall we learn? Faculty Research Working Paper Series, RWP08-55, Harvard University.
- Saarinén, J. (2006). Traditions of sustainability in tourism studies. *Annals of Tourism Research*, 33(4), 1121–1140. <https://doi.org/10.1016/j.annals.2006.06.007>
- Samuelson, P. A. (1948). *Economics* (1st ed.). McGraw Hill Inc.

- Solow, R. M. (1974). Intergenerational equity and exhaustible resources. In *Review of economic studies, symposium on the economics of exhaustible resources*. Longman Group Ltd.
- Stiglitz, J. E. (1974). Growth with exhaustible natural resources: Efficient and optimal growth paths. In *Review of economic studies, symposium on the economics of exhaustible resources*. Longman Group Ltd.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2009). The measurement of economic performance and social progress revisited. Report by the commission on the measurement of economic performance and social progress, No 2009-33, Paris.
- United Nations. (2022). Sustainable development goals. Retrieved August 16, 2022, from <https://sdgs.un.org/goals>.
- Veblen, T. (1917). *An inquiry into the nature of peace and the terms of its perpetuation*. The Macmillan Company.
- World Commission on Environment and Development (WCED). (1987). *Our common future*. Oxford University Press.
- Yu, L., Wang, G., & Marcouiller, D. W. (2019). A scientometric review of pro-poor tourism research: Visualization and analysis. *Tourism Management Perspectives*, 30, 75–88. <https://doi.org/10.1016/j.tmp.2019.02.005>
- Zuidhof, P. W. (2014). Thinking like an economist: The neoliberal politics of the economics textbook. *Review of Social Economy*, 72(2), 157–185. <https://doi.org/10.1080/00346764.2013.872952>