

Mass tourism, biosecurity and sustainability challenges: prospects illustrated by the current COVID-19 pandemic

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Abstract

Purpose – Using COVID-19 pandemic as a more immediate empirical reference, this paper aims to understand the biosecurity risks arising from tourist activities and, through a more prospective analysis, to consider the relevance of public health issues in the context of tourism-sustainability nexuses.

Design/methodology/approach – The text assumes a hybrid format, incorporating elements resulting from empirical research and essayistic viewpoints. The collection of empirical elements was based on documental research in several sources, such as newspapers, international institutions of an intergovernmental nature and the discussion forum of the travel platform TripAdvisor.

Findings – By assuming mobility and large agglomerations of people from different origins, mass tourism has fostered multiple outbreaks of COVID-19 and the rapid global spread of contagion chains. The pandemic clearly exemplified the responsibility of tourism in the dispersion of biotic agents with severe ecological, economic, social and public health repercussions. It is, therefore, urgent to rethink the tourism growth trajectory and more effectively consider the biosecurity risks associated with mobility in discussions on tourism and sustainability. At the same time, tourism must be delineated in terms of the great aims of sustainability, and this transversal purpose to which it contributes should be considered an intrinsic condition of its own sectorial sustainability as an economic activity.

Originality/value – The biosecurity challenges posed by mass tourism are a very topical issue, still little considered in sustainability policies and on which there is a marked deficit in scientific research.

Keywords Mass tourism, COVID-19 pandemic, Biosecurity, Sustainability

Paper type Research paper

1. Introduction

Mass tourism produces a very negative ecological and social impact, and although it generates substantial economic benefits, they are generally unevenly distributed (Chong, 2019; Fang *et al.*, 2021). It could have been expected that the COVID-19 pandemic might have constituted a decisive tipping point for a deprioritising of the economy, considering the tourism system as a means to serve society and the sustainable development goals (SDGs) that foresee the viability of our common future (Gössling *et al.*, 2021; Higgins-Desbiolles, 2018). However, instead of considering the current crisis of the pandemic, together with the climate crisis, as imperative reasons for urgent structural changes in global mass tourism (Jamal and Budke, 2020), it is quite likely – among other possible scenarios of “survival of the fittest” (collapse), “business as unusual” (transition) and “responsible tourism” (transformation) (Postma *et al.*, 2020; Yeoman *et al.*, 2022) – that there will be a return to “business as usual” (growth) and the old normality of unsustainable tourism as soon as the health crisis is overcome (Hall *et al.*, 2020; Ioannides and Gyimóthy, 2020; Värzaru *et al.*, 2021). In fact, the dominant concern

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has been the profound negative economic impact of COVID-19, especially in regard to tourism (Sharma and Nicolau, 2020; Uğur and Akbiyik, 2020; United Nations, 2020; Yeh, 2021), with a constant reiteration of the urgency of resuming stimulating activity, based on a “boosterist”, expansionary and pro-growth motivation (Higgins-Desbiolles, 2021).

With this materialist immediacy, the fact that tourism is falling victim to itself as one of the main causes of the pandemic tends to be relegated to the background, being overlooked that he is suffering the consequences of a health crisis to which it contributed greatly. Something very similar has been happening for many years in the context of the climate crisis, which has also had very profound negative effects in the field of tourism, as the so-called pro-limits critics of tourism have been warning (Bramwell and Lane, 2011; Gössling *et al.*, 2021; Hall *et al.*, 2020; Higgins-Desbiolles, 2021). Inspired by these standpoints, I discuss here the role of mass tourism flows in the development of the COVID-19 pandemic and, from there, I try to reflect on the future of tourism’s sustainability. The theoretical framework of this analysis integrates several perspectives and contributions, predominantly sociological, that make up the so-called “critical tourism studies”: a set of approaches devoted to socioeconomic and political critique that seek to make tourism a more equitable and sustainable social space (Atejevic *et al.*, 2012; Pritchard *et al.*, 2011). Based on this conceptual lens, the analysis is guided by two central objectives: understand how tourism activities and mobility have contributed to generating epidemiological risks – raising enormous challenges in the field of biosecurity (Chen *et al.*, 2021; Iaquinto, 2020; Hall, 2015) – and projecting the urgency of give greater visibility to public health issues in discussions about tourism and sustainability.

The article is written in a hybrid format, incorporating both empirical research and essayistic viewpoints through which I seek to develop some prospective reflections on the public health challenges in the context of tourism sustainability. The empirical research was predominantly directed towards the collection of data on mass tourism as a vector of the rapid globalization of COVID-19. To this end, I chose documentary research – mainly secondary data analysis and policy research (Tight, 2019) – as the most appropriate methodological approach to collect data (documentary elements, statistical information, reports and written statements) that would enable sound analytical connections to be made between international tourism and biosecurity threats. Through this documentary research, I access mainly media sources (e.g. newspapers), information associated with large international institutions of an intergovernmental nature (e.g. World Tourism Organization [WTO]) and the discussion forum of the travel platform TripAdvisor. The triangulation of empirical content resulting from these sources enabled the development of sustained inferences about the tourism-pandemic nexus. At the same time, provided a factual basis for problematizing the challenges and conceptualizations around sustainability, seeking to show the relevance of including bio-risks and public health issues more effectively in this discussion. The aim is to point towards a desirable (and urgent) future in which the biosecurity risks associated with tourist mobility are consistently considered as sustainability risks, leading to policies and tourism governance strategies aimed at minimising these risks.

2. Tourism as a powerful contagion vector

In the 21st century, tourism has asserted itself as a strong sector in global expansion, in which more and more countries are investing to diversify or boost their economies, as well as promote rural areas in demographic decline (Cheer *et al.*, 2019; Croce, 2018; Khan, 2020). Immediately before the COVID-19 pandemic crisis and the consequent mobility restrictions, the year 2019 ended with a record of 1,460 billion international tourist arrivals – around 60 times more than in 1950 (WTO, 2021). Tourist mobility in 2019 represented 10.4% of the global gross domestic product (GDP), with a turnover comparable, for example, to that of oil production (World Travel and Tourism Council [WTTC], 2021). The economic performance of world tourism has been celebrated by many, namely by the major international organizations of the sector (e.g. WTO, WTTC), as an unquestionable success and reason to continue to grow, without giving the due attention to the multiple risks arising from tourism and its global expansion.

Some of these risks – for tourists and their respective places of origin and destination – are located in the field of biosecurity and public health, with particular emphasis on the spread of infectious diseases such as COVID-19 (Chen *et al.*, 2021; Gössling, 2002; Hall, 2015, 2019a; Hall and Baird, 2013; Iaquinto, 2020; Melly and Hanrahan, 2021; Sabin *et al.*, 2020; Sacramento, 2022). As highlighted by Gössling *et al.* (2021, p. 13), “tourism is about movement, and transport does act as a vector for the distribution of pathogens at regional and global scales”. Today tourism is, to a large extent, driven by global air transport networks which create conditions conducive to rapid and widespread contagion and epidemiological dispersion processes (Brockmann, 2018; Brockmann and Helbing, 2013). Air transport implies large concentrations of people, closed spaces and many health challenges (e.g. air filtration), generating increased risks in terms of transmission of infectious agents (Grout *et al.*, 2017). It can also facilitate the circulation of infectious arbovirus vectors, such as mosquitoes (Kraemer *et al.*, 2015; Wilson, 2020). Air mobility constitutes a powerful macro-vector for the amplification and acceleration of contagions, not only because of the material conditions of the transport itself but also because of the diversity of itineraries of those who cross at airports and planes (Brown *et al.*, 2016; Findlater and Bogoch, 2018; Tatem *et al.*, 2012).

Tourism and its associated transport networks are the results of socio-material, more-than-human assemblages, in which multiple actors (e.g. humans, non-humans, technology, institutions and natural resources) interact contingently, contributing to the generation of unforeseen vitalities that pose serious risks of biocontamination and can even create epidemic scenarios (Brito-Henriques, 2020; Hall, 2015; Lupton, 2021). The responsibility of tourism in the geographical dispersion of biotic agents is processed in two ways: (1) directly, through the tourists themselves, with luggage, food, transport and other material elements associated with the trip; (2) indirectly, because tourist activities are associated with industrial food production prone to outbreaks of zoonotic diseases, are responsible for the invasion of wildlife habitats and contribute to the emission of climate-changing pollutants that disrupt ecosystems (Gössling *et al.*, 2021; Hall, 2019a; Melly and Hanrahan, 2021).

In the last 20 years previous to the COVID-19 outbreak, there have been several cases in which there is a link between tourist trips and the occurrence of disease outbreaks, such as tuberculosis, SARS, flu, chikungunya, meningococcal diseases, MERS and norovirus (Ali and Keil, 2008; Khan *et al.*, 2010; Findlater and Bogoch, 2018; Sabin *et al.*, 2020). In 2002–2003, the outbreak of SARS – also caused by a coronavirus – was propagated by people traveling, who were the first to be infected and become the main responsible for the worldwide spread of contagions (Wilder-Smith, 2006). In fact, the Metropole Hotel, in Hong Kong, was the central ground zero for the spread of SARS to more than 25 countries. It was in this hotel where was staying Liu Jianlun, a doctor already infected from Guangdong province (China), the region where the first cases of the disease began, as would be confirmed later. Despite his short stay, this patient-zero in Hong Kong infected guests from several countries that would eventually spread SARS on a transnational scale (Chen and Wilson, 2008). Likewise, with regard to COVID-19, the epidemiological spread of the infection is quite often associated with tourist mobility. Here are some examples of cases from around the world, identified from newspaper reports, which highlight the role of tourism as a primary carrier of the virus, creating successive new infection outbreaks:

The Ministry of Health and the Directorate-General for Health confirmed this Monday the first cases of infection by Covid-19 in Portugal. One patient was on vacation in northern Italy and another in Valencia [Spain]. Both are hospitalized in Oporto (Diário de Notícias, 2020a);

On January 31, Italy detected the first two cases of Covid-19 in the country. They were two Chinese tourists from the birthplace of the new coronavirus, Wuhan, who had arrived on the 23rd and visited several Italian cities. That same day, on the remote Spanish island of La Gomera, in the Canary Islands, a German tourist became the first case diagnosed in Spain (Diário de Notícias, 2020b);

France confirms the first death in Europe from coronavirus. The death of an 80-year-old Chinese tourist in a Paris hospital was the first known fatality from the new virus outside Asia (The New York Times, 2020);

There have now been four reported cases of novel coronavirus infection found in Thailand: three Chinese tourists and one Thai (Bangkok Post, 2020);

Brazil confirms that a new strain [of SARS-CoV-2] detected in Japan is circulating in the Amazon. The variant arrived in Japan after four Japanese travellers visited the Brazilian Amazon and presented a series of unprecedented mutations (Público, 2021).

By accumulating large numbers of people from different origins in small compacted spaces and infrastructures with shared material elements, international tourism scenarios fostered multiple outbreaks of COVID-19 and boosted the rapid global spread of the infection, as has happened in other infectious disease events. Regardless of its scales, typologies and specific configurations, mass tourism presumes a high density of transit and coexistence of people. The “mobilities are made with the encapsulation of bodies in mobile closed spaces – planes, buses, cruises, etc. – and flows converge and compress as they pass through nodes – airports, hotels, congress centres, museums, etc. – that stimulate interactions and human contact with each other and with different forms of materiality” (Brito-Henriques, 2020, p. 207). It is precisely this intense density of movement that caused the most immediate physical conditions to make tourism a phenomenon inseparable from the instigators that boosted the COVID-19 pandemic.

From January 2020, up until the generalization of travel restrictions, there were several contexts in which tourist mobilities were intrinsically associated with the geographic expansion of contagion chains (Sacramento, 2022). As an example, I address one of these tourist contexts of super-spreading of SARS-CoV-2: the ski resort of Ischgl, in the Alps.

2.1 A paradigmatic tourism scenario of SARS-CoV-2 global dissemination: the Ischgl ski resort

During the 2020 and 2021 ski seasons, there were major outbreaks of COVID-19 in resorts in several countries, especially in the Alpine region (Austria, Switzerland and Italy) and North America. In the USA, the disease outbreaks in the first months of 2021 in around 15 resorts in the state of Colorado are the most noteworthy, particularly in Winter Park, which has recorded more than 100 positive cases of the disease among the respective workers alone (CPR News, 2021). In neighbouring Canada, the Whistler Blackcomb resort, the largest in North America, closed in late March 2021, was linked to 200 of the 877 cases of the “Brazilian variant” (P1) in the province of British Columbia, at the time the largest outbreak of this variant outside Brazil (The Guardian, 2021). Arguably the most problematic situation, however, occurred about a year earlier, in the first months of 2020, in the centre of the European continent, in the Alps, particularly in Ischgl (Paznaun, Austrian Tyrol). As such, this will be the example I give the most attention.

Before the outbreak of Covid-19, in the winter season of 2018–2019, the ski resort of Ischgl, famously known as the “Ibiza of the Alps”, registered 300,414 arrivals of tourists from different origins and 1,409,478 overnight stays (Tyrol Provincial Government, 2019, p. 28). Its association with the Samnaun resort (Ischgl/Samnaun Silvretta Arena) places this ski destination among the 10 largest in Europe and among the 50 largest in the world (Vanat, 2020). These resorts staged the scene of one of the largest global events of super-spreading of SARS-CoV-2. During the “peak” of the high ski season, between the end of February and the beginning of March 2020, it was estimated that more than 6,000 people from about half a hundred of nations may have been infected in Ischgl and transported the virus to their respective countries [1], quickly dispersing it worldwide. The initial contagion was so massive that, according to a serological study carried out by the Innsbruck University of Medicine, at the end of April 2020 more than 42% of residents in Ischgl already had antibodies to the virus (Van Laer et al., 2020). Not only because of the number of infections, but also because of the multinationality of the infected and the fact that contagions occurred at an early stage of the pandemic, Ischgl played a very significant role, along with other alpine resorts, to the speed with which COVID-19 took hold in the European continent and its spread worldwide (Correa-Martínez et al., 2020; Kreidl et al., 2020).

The specific question that remains is what socio-material conditions have fostered the viral outbreak in Ischgl and other ski resorts? There are immediate visible reasons of a structural nature, inherently characteristic to most touristic contexts: the sharp reduction in air travel costs and the

unconditional “open doors” positioning of destinations – presented as free territories ready to be consumed –, which led to a spiral of hyper-massification of tourism with the potential to create epidemic scenarios. The photographs that follow (Plates 1 and 2) illustrate the many directions that opened Ischgl to the rest of the world and brought thousands of people to it, who settled there in a compact and active way, living in (almost) “a state of exception” and transforming the resort into a “post-national zone”: “a space of which the traditional nation-state is not in complete control, meshing together, as it does, various kinds of ‘circulating’ populations with different kinds of ‘locals’. [...] a space densely and continuously connected to places beyond the nation” (Inda, 2000, pp. 92–99).

Plate 1 A “totem” pole celebrating Ischgl as a multi-national space



Source(s): MiS/IMAGO, in *Spiegel International* (2020)

Plate 2 Thousands of people at one of the usual concerts organised in the resort of Ischgl before the pandemic



Source(s): Ischgl.com® (2018)

Besides the more general and structural conditions related to the wide concentration of people from different geographic origins, common to many other tourist destinations, the set of specific circumstances directly responsible for the massive contagion processes in ski resorts has not yet been unequivocally identified. However, some possibilities are already considered as quite probable, such as (1) the high weekly turnover of thousands of tourists; (2) socially intense après-ski recreational activities, which presuppose close contacts, especially in closed spaces; (3) the long queues and crowds that form on cable cars, lift lines, restaurants, shops and many other facilities; (4) sharing accommodation between groups of resort employees and between groups of tourists, which often result in situations of high concentration of people in the same dwelling; (5) frequent physical contact with a wide variety of shared surfaces (e.g. cable cars, perches, rented equipment, handrails and doors), facilitating possible contagion through fomites; (6) the presence of nasal secretions on gloves resulting from constant cold-induced rhinorrhoea (Dalton *et al.*, 2020; Felbermayr *et al.*, 2021; Gianfredi *et al.*, 2021; Kreidl *et al.*, 2020).

The reports written in online forums are quite revealing of the physical and social conditions (e.g. organizational, recreational practices and daily life) that may have provided the epidemiological events of SARS-CoV-2 in Ischgl and other resorts. Below are excerpts from two public testimonies, taken from the TripAdvisor travel and destination review forum. They are both about Ischgl and, although with later dates, they refer to tourist experiences that took place in February 2020, precisely the time of the COVID-19 outbreak. The first excerpt has an illustrative title: “Glitzy party ski resort”.

Our only other comment is that it really is becoming too busy. You used to go out sure you'd not have to wait for lifts and sure the slopes would be safe. Last week (admittedly a holiday week when there was bad weather at times) there were times when the queues built up at bottlenecks and when some slopes were lethal because of the crowding, number of people on slopes they couldn't handle and general idiocy of groups of young lads skiing recklessly. It's also now really difficult to find a place to eat or drink for a pit stop - you have to reserve tables for lunch which never used to be the case and is really annoying. The self service restaurants are all far too busy. We'll not be going back at peak season (LondonFriday, Gurugram-Índia, 01/03/2020).

This resort is huge and caters to the glitzy and well-healed skiers who like the party scene. The huge line-ups for the gondolas (at the base) set the tone for our stay. Everything was busy (the runs, the lifts and the restaurants). We had a mixed bag of skiing largely dependent on weather-which is to be expected. Some of the runs and lifts were closed down due to bad weather which made it challenging to get down to the bottom. Some people got stuck on the Swiss side during a storm and had to take long bus ride back to Ischgl (Sue S., Kingston-Canadá, 26/04/2020).

From these excerpts, a set of rhetorical elements (short, but significant) stand out to characterize Ischgl as a tourist destination and, to a certain extent, to qualify the experience of the tourists themselves. Through brief discursive descriptions – “becoming too busy”, “queues built up at bottlenecks”, “crowding”, “restaurants are all far too busy”, “glitzy party scene”, “everything was busy” – the testimonies highlight several situations that describe a routine of crowd compression in the spaces and the constant frenetic atmosphere and partying, whether in large concerts with international bands (Plate 2, back) or in the day-to-day life in the various and not very large après ski bars existing in the resort. The result was a social ecology that turned out to be convenient for a pathogenic entity that, to a large extent, subsists and circulates based on what, ontologically, defines the human condition: proximity and interpersonal contact.

The analysis of the Ischgl ski resort case allows us to deduce that the rapid internationalisation and growth of mass tourism tends to exceed the ecological, social and organisational capacities of the receiving contexts in terms of welcoming tourist flows and providing unconstrained and pleasant stays for the visitors. This results in scenarios and challenges of over-tourism which, among many other impacts, generate biosecurity risks of a transnational scale and situations of health unsustainability, potentially responsible for severe public health emergencies such as the COVID-19 pandemic.

3. Biosecurity and public health: questioning tourism (and) sustainability

In the process of unbridled tourism growth, sustainability issues have almost always been treated as minor details. They have been subject to greenwashing strategies supported by tokenistic catchphrases that are vague, paradoxical and full of wishful thinking which do little to mitigate the multiple risks and expressions of unsustainability resulting from the continuous expansion of mass tourism (Cernat and Gourdon, 2012; Higgins-Desbiolles *et al.*, 2019; Sharpley, 2020; Zimmermann, 2018). In addition to this marketing makeup, the distortion of sustainability principles has become frequent, as a result of its subordination to economic growth criteria and appropriation by managerial logics of valuing resources and “eco-business” (Dauvergne and Lister, 2013; Hall, 2019b). This economistic bias, although masked by references to sustainability, is sponsored, from the outset, by major international organizations in the field of tourism, such as WTO, WTTC, Cruise Lines International Association (CLIA) and International Civil Aviation Organization (ICAO) (Gössling *et al.*, 2021; Higgins-Desbiolles, 2021; Sharpley, 2020). As Hall (2019b, p. 1052) points out regarding the WTO, “there has been a profound shift towards market values over time while retaining the guideline of sustainability”. The words of the current WTO Secretary-General, Zurab Pololikashvili, are revealing:

Around the world, in countries at all development levels, many millions of jobs and businesses are dependent on a strong and thriving tourism sector. Tourism has also been a driving force in protecting natural and cultural heritage, preserving them for future generations to enjoy (in <https://www.unwto.org>);

Tourism is far more than tourism alone. From infrastructure and communication to food production and transport, tourism’s considerable economic weight gives it the responsibility and the power to play a key role in the sustainable and responsible development of economies and societies. Not only has tourism been a sector of consistently above-average growth for eight straight years, with 1.3 billion international tourist arrivals recorded in 2017, but the sector’s cross-cutting nature and wide global reach make it an effective tool to contribute to all of the 17 Sustainable Development Goals (in Fair Observer, 2019).

In the boosterism that characterizes the approach of the WTO and other entities and agents, the evaluation of tourism (and its success) is almost always done according to the numbers that reflect its expression as a market force and its influence on economic growth (e.g. GDP, % of total exports), assuming that the continuous expansion of tourist activities automatically assures a factor of well-being, development and sustainability (Higgins-Desbiolles, 2021). However, this assumption is based more on wishful thinking than on real measures, results and concrete situations beyond those that fulfil a merely tokenistic function, as was the case of the proclamation of the International Year of Sustainable Tourism for Development, in 2017, by the United Nations (UN). In fact, “the idea of tourism being a responsible and sustainable industry is still a far-to-reach goal, as some of the game-changing and promising attempts quickly face the harsh reality of a highly competitive market” (Stankov *et al.*, 2020, p. 708).

In general, the sector has shown the little capacity and/or willingness to implement structural changes and adopt procedures to face the great contemporary ecological and social challenges, thus becoming less and less sustainable as it expands economically (Andria *et al.*, 2021; Hall, 2019b; Moscardo and Murphy, 2014; Scott *et al.*, 2019; Sharpley, 2020). The inertia in truly facing the many negative impacts of tourist activity results, in the first place, from the blindness induced by market logics and by the unconditional search for growth. But it also results from the semantic complexity of the notion of “sustainable tourism” and the consequent divergence of understandings between academics, tourist agents and technicians about sustainability and the respective forms of operationalization and evaluation (Andria *et al.*, 2021; Cernat and Gourdon, 2012; Gibson, 2012; Sørensen and Grindsted, 2021).

Despite the general consensus on the three main pillars of sustainability (ecological, social and economic) and the existence since the 1990s of specific WTO policy documents and guidebooks (e.g. WTO, 1993, 1998, 2004), the concept of sustainable tourism is still subject to several disputes and complex formulations – with many typologies, indicators and forward-looking suggestions – not always aligned with the SDGs (Buckley, 2012; Postma *et al.*, 2017; Rasoolimanesh *et al.*, 2020;

Tanguay *et al.*, 2013). In the context of the numerous proposals around the concept, even before the COVID-19 pandemic, some premonitory analyses were developed on the need to consider the biosecurity and public health risks associated with tourist mobilities in discussions on sustainability, with special emphasis on the works of Hall (2005, 2011, 2015). This author even referred to “biological exchange and invasions” [2] as a possible “missing dimension in sustainable tourism” (Hall, 2015), warning that

the potential for disease spread will only increase further as international tourism expands in terms of the number of tourists that travel, as well as the distance travelled. In addition, the risk of biological invasion is only likely to increase further in the future as a result of climate change [. . .], while the potential lag between invasion, population growth on the new range, and impact on indigenous species and the physical environment, may mean that the effects of the rapid growth in tourism mobility from the late 1960s on, may only now be starting to become obvious in some destinations (p. 89).

As we have seen above, based on the example of the Ischgl ski resort, the responsibility of tourist flows in the rapid spread of the COVID-19 pandemic unequivocally proves the relevance of drawing attention to the fact that tourism induces multiple risks of biosecurity and is responsible for the dispersion of organisms with severe ecological, economic, social and public health repercussions at local and transnational scales (Hall, 2015; Hall and Baird, 2013; Kim *et al.*, 2022; Mackay *et al.*, 2021; Melly and Hanrahan, 2021; Robinson and McNeill, 2022). Given the evident role of tourism in the viral globalization of SARS-CoV-2, it is to be expected that the biosecurity challenges raised by tourist mobilities will gain greater attention and be subject to more consistent and effective policy frameworks at international, national and local levels (Melly and Hanrahan, 2021). To this end, it is essential to consider biosecurity and public health as even more relevant dimensions in the SDG (Kim *et al.*, 2022), bringing to the forefront of the debate on (tourism) sustainability the biohazards generated by mass tourism and valuing health issues as another important pillar to consider in the conceptualisation of sustainability and in the respective policies. At the same time, it is fundamental to question the relationship between tourism and sustainability, assuming that “with the magnitude of the COVID-19 pandemic, there is an urgent need not to return to business-as-usual when the crisis over, rather than an opportunity to reconsider a transformation of the global tourism system more aligned to the SDGs” (Gössling *et al.*, 2021, p. 15).

Recognizing the responsibility of tourist activities in the production of risks and perverse impacts should lead to a rethinking of the tourism-sustainability nexus. In this sense, it is essential to start by clarifying whether tourism and its sustainability (i.e. future viability, mainly economic, in a given context) are an end in themselves or a means of transversally promoting the sustainable development of societies (Butler, 1999; Postma *et al.*, 2017; Saarinen, 2020; Simão and Partidário, 2012). Given that tourist activities are, by definition, manifestations densely embedded in the social fabric, they must be viewed clearly as part of a much larger whole and positioned in their proper place, “at the service of local communities and societies. Tourism is not an end in itself; thus sustaining tourism is not the ultimate goal” (Higgins-Desbiolles, 2021, p. 565). Only in this way, through its contributions to face the great contemporary social and ecological challenges can tourism truly assert itself as an agent of sustainability; and this transversal purpose to which it contributes is an intrinsic condition of its own sectorial sustainability as an economic activity (Postma *et al.*, 2017).

The COVID-19 pandemic showed us these links in their most negative manifestations: tourism played a decisive role in the rapid viral circulation on a global scale, which, in turn, implied a kind of shutdown of tourist activities as a strategy of virus containment. The unsustainability of tourism in terms of biosecurity contributed significantly to a scenario of health crises that, in a reverse effect, ended up severely affecting the economic sustainability of the sector. For all these reasons, the eventual critical reconsideration of the tourism growth trajectory (i.e. more tourism equals more benefits) and its greater convergence with the SDGs could even be considered as one of the few “positive aspects” resulting from the pandemic crisis (Gössling *et al.*, 2021). However, will the post-COVID in fact constitute the end of over-tourism (Koh, 2020) and the emergence of meta-economic modes of tourism, organized primarily according to the social and natural contexts of which they are a part? If something has indeed been learned over the last two years of the pandemic, an increased concern for sustainability issues and responsible tourism

models is quite likely (Postma and Yeoman, 2021). In this sense, and taking into account the four post-COVID-19 scenarios for global tourism in 2025 that Yeoman *et al.* (2022) outlined, let us hope that will come true the scenario of “responsible tourism”, characterised by “A rethinking of the relationship of tourism with the ecosystem; a sustainable and balanced future; a conscious, well-informed and responsible holiday behaviour; rethinking capitalism” (Yeoman *et al.*, 2022, p. 186).

4. Conclusion

Tourist mobilities are one of the greatest expressions of the fluidity of the contemporary world system that SARS-CoV-2 took advantage of to quickly reach large distances and spread into a pandemic. Increasingly associated with a broad global structure of air mobility, international tourism has become an influential socio-technical vector in the process of the sudden spread of the virus on a planetary scale (laquinto, 2020). This was due to the fact that it provided contexts of epidemiological risk resulting from the formation of large transnational clusters of people who, in a matter of days, covered distances of thousands of kilometres and came into close contact with hundreds of other people between the contexts of origin, transit and tourist destination. The case of the Ischgl ski resort presented here – as an example of the coronavirus super-spreading – is paradigmatic of tourism’s ability to mobilize and concentrate large numbers of people from multiple origins in rotation in the same destination, providing social configurations and complex more-than-human assemblages with obvious implications in terms of biosecurity, among many others.

Mass tourism is undoubtedly a relevant phenomenon in the multiplicity of causes of the initial spread of the virus, despite it being portrayed in various discourses as (singularly) one of the main socio-economic “victims” of COVID-19. Prior to suffering the profound and serious impacts of the pandemic, it contributed decisively to this same pandemic. For the future, it is essential to avoid head-in-the-sand behaviour and keep this perspective in mind. If we limit ourselves to looking at COVID-19 as an exogenous manifestation, lingering on the outer limits of the tourist economy with its values and practices, we run a serious risk of perpetuating situations that lead to new epidemiological emergency scenarios and postponing impingent changes (Sigala, 2020). Therefore, an effective (self)criticism of tourist activities is required to assess their social, environmental and biosafety impacts, while seeking to build tourism models that generate economy(ies) at the service of the common good, in which poverty, climate change, biosecurity and health and well-being constitute factors to be considered unconditionally as a priority. Only in this way will it truly be possible the alignment with the SDGs goals and, inherently, the sustainability of tourism itself. If it persists in clinging to the old obsessive spiral of unrelenting growth, tourism will hardly have a future.

Notes

1. The estimate of the number of people infected in Ischgl is based on data from the Consumer Protection Association (VSV), which is coordinating a class action lawsuit against the Austrian government for negligence in terms of public health responses to the COVID-19 outbreak. The signatures of more than 6,000 tourists from 47 countries who believe they have been infected with the virus in Ischgl have already been gathered (The Guardian, 2020).
2. Dissemination of pathogens, disease vectors and animal and plant alien species.

Journalistic sources

Bangkok Post (2020), “First Thai infected with coronavirus”, January 22, available at: <https://www.bangkokpost.com/thailand/general/1841199/first-thai-infected-with-coronavirus> (by Apinya Wipatayotin).

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