Treehouse tourism: issues and way forward

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Abstract

Tourism is a major global sector relevant for many economies, however it is also recognized that tourism brings various negative social, cultural, economic and environmental impacts. This is particularly the case of conventional/mass tourism. Different forms of so called - alternative tourism - are supposed to offset these negative impacts and to promote a more sustainable development. Treehouse tourism (TT) fits within these new sustainable and experiential trend. We must also recognize a grooving need to provide unique, specific travel and accommodation experiences by the tour operators and hoteliers, in order to be competitive with others. This, in turn, leads to an overuse of the term sustainable, in the situations which are not sustainable at all. Still, though the TT is widely recognized by world tour operators, the academic literature and associable debate on this topic is almost non-existent.

The present article focuses on specifics, gaps and challenges of TT from biological, social and environmental perspective. At the end, most remarkable recommendations are provided – including the general TT model. Because of lack of previous literature, debate and the comparable statistics, the paper should be considered more as a start of debate, than a comprehensive analysis.

Keywords: *treehouse, treehouse tourism, ecotourism, alternative tourism, community-based tourism*

Rezumat. Turismul în căsuțele din copaci: probleme și perspective viitoare

Turismul este un sector global major relevant pentru multe economii, cu toate acestea, se recunoaște, de asemenea, că turismul are diverse efecte negative sociale, culturale, economice și de mediu. Acesta este în special cazul turismului convențional/de masă. Diferite forme ale așa-numitului turism alternativ ar trebui să compenseze aceste impacturi negative și să promoveze o dezvoltare mai durabilă. Turismul în căsuțe din copaci (TT) se încadrează în aceste noi tendințe durabile și experiențiale. De asemenea, trebuie să recunoaștem nevoia crescândă de a oferi experiențe unice, specifice de călătorie și cazare de către operatorii de turism și hotelieri, pentru a fi competitivi cu ceilalți. Acest lucru, la rândul său, duce la o suprautilizare a termenului de durabil în situațiile care nu sunt deloc sustenabile. Cu toate acestea, deși TT este recunoscut pe scară largă de către operatorii de turism mondiali, literatura de specialitate și dezbaterile asociate pe acest subiect sunt aproape inexistente.

Prezentul articol se concentrează pe specificul, lacunele și provocările TT din perspectivă biologică, socială și de mediu. La final, sunt oferite cele mai bune recomandări – inclusiv modelul general al TT. Din cauza lipsei literaturii de specialitate pe acest subiect, a dezbaterilor și a statisticilor comparabile, lucrarea ar trebui considerată mai mult un început de dezbatere, decât o analiză cuprinzătoare.

Cuvinte-cheie: *căsuță în copac, turism în căsuțe din copaci, ecoturism, turism alternativ, turism comunitar*

"Tourist studies saw neither the forest nor the trees"
(Cohen & Fennell, 2019, p. 600)

Introduction

Tourism is known to be a major global sector. The accommodation tourism 'subsector' is also much relevant. Worldwide on-going tourism rapid development has impacted on the growth of the "number of starred hotels and other accommodations as the main support in tourism activities" (Sari et al., 2019, p. 852). Tourism is "an indispensable industry for both economic and social development" and while it can have positive impacts (i.e. employment), it can also have its negative effects on the environment (Kişi, 2019, p. 1). Negative effects from tourism are of big concern and need to be addressed quickly

(Zolfani et al., 2015). When not properly planned or managed tourism may permanently damage "the physical, social, cultural, and economic environment of a tourist destination" (Kişi, 2019, p.1). Tourism can negatively impact the natural environment through the damage of wildlife, pollution and the generation of waste, thus having an undesirable impact on the local population and compromising destination competitiveness (del Rosario, & René, 2017, p. 72; Dlużewska, 2019).

Mass tourism environmental and socio-cultural negative impacts on localities make to realize "that to minimize costs in destination areas, future tourism developments should be sustainable" (Ioannides, 1995, p. 583). However, although the concept that

"mass tourism is 'a bad thing' is perhaps rather simplistic; it has been suggested that controlling the volume of tourism might control the situation" especially because many tourism destinations are located in fragile and peripheral environment (Kilipiris & Zardava, 2012, p. 45). As a matter of fact, it is obvious what is mentioned in a UNEP & UNWTO (2005, p. 2) document on sustainable tourism, that all forms of tourism should be sustainable. The concept of carrying capacity also become important, given that it "is one of the key principles of sustainable tourism" (Sabokkhiz et al., 2016, p. 105). New solutions to make tourism more sustainable need to be investigated and, at the same time, better management of current known tourism development strategies, such as carrying capacity, should be implemented. Tourism in whatever form should be comprehensively sustainably managed, thus considering its impacts on social, economic, environmental, and cultural contexts.

The investigation of alternative tourism development models and practices and their relationship with "the environment, host societies, responds to the need of building other tourism models, more sustainable and more ethical" (Theng, Qiong & Tatar, 2015). Dissimilar from "conventional mass tourism, the alternative of sustainable tourism is supposedly environmentally and culturally friendly since it relies on small, locally owned and managed facilities and activities" (Ioannides, 1995, p. 583). Augmented attention in alternative tourism forms "is perceived as a response to the emphasis placed on exploitation associated with mass tourism, especially in developing countries" (Kilipiris & Zardava, 2012, p. 45). In this context it must be inscribed that the search for a different types of holiday experiences is not a new occurrence (Kilipiris & Zardava, 2012, p.5). The literature (Zolfani et al., 2015, p. 1) noted that for "the majority of scientists 'sustainable tourism development concerns an economic, social and environmental tourism development that aims at the continuous improvement of tourists."

The tourist taste trends must be considered and linked so that social-cultural, economic and political changes that happen globally to influence tourism. Tourism changes can, for example, be seen from the desire of tourists "to forego the lacklustre destinations of the past in favour of exploring new places where few tourists go and where new and unusual experiences can be sought" (Timothy & Teye 2009, p. 239). People want "to stay in innovative and novel forms of accommodations that can offer something beyond the ordinariness of resorts, hotels, motels, hostels, or inns" (Timothy & Teye 2009, p. 239).

Numerous significant "nature destinations have begun to develop 'tree house hotels' and lodges" (Timothy & Teye 2009, p. 243). However, "tourists' desire for secluded and scenic accommodation may result in increased clearance of natural areas" (Kasim, 2006, p. 3). Within the lodging sector, voluntary actions can also become fundamental (as much as voluntary actions are probably not enough and more stringent binding rules should be present). Recognizing tourism negative impacts and "lax or non-existent environmental regulation, any environmental actions that a hotel implements are voluntary and implemented in order to obtain different benefits for the organization, stakeholders, and the environment" (del Rosario, & René, 2017, p. 72). It is fundamental "for hotels to adopt sustainability innovations not only to increase competitive advantage but to reduce society's overall environmental impact" (Horng et al., 2017, p. 50). The adoption of "sustainability innovations can act as a transformational innovation that can dramatically reshape the way hotels and companies provide products and services and contribute to society's progress toward integrating sustainable lifestyles" (Horng et al., 2017, p. 50).

In this context, the issues of maintenance, enjoyment of landscape, sustainability and visitor wellbeing/enjoyment are all proposed to be present in treehouses. "Treehouses permit creating a unique and valuable space for tourism in nature parks and other protected areas. They are easy to supplement and use both seasonally and throughout the year, highlighting local natural landscapes with minimal environmen¬tal impact" (Babris & Bratuškins, 2019, p. 112). Beyond it has been also proposed that, p.

A treehouse makes for the ultimate safari lodge - there's nothing quite like a giant fig tree spiralling through your suite to make you feel totally immersed in the wonder and romance of Africa. And the best part, p. many of these camps are semi-permanent, meaning that everything can be totally removed to leave the landscape exactly as it was before (go2africa, no date).

"Tree house hotels respond to the human urban dweller's need to reconnect with nature and allow its restorative power to reinvigorate our bodies and refresh our minds" (Sloan, Legrand & Kinski, 2016, p. 54). For the tourists/visitors, the treehouse is not just an accommodation but it is also an attraction. The attraction is the treehouse itself and its surrounding environment - including canopy of other surrounding trees, blue spaces (water bodies), green spaces (forests, parks and so on) and the specific type of ground/soil and flora/fauna in treehouse surrounding terrain. Backed up by a mix of people childhood memories and new tourism demand trends towards more experiential, exclusive and unconventional locations (and accommodations), and not last, awareness about negative social-economic and environmental impacts of tourism treehouse lodging is becoming popular.

At the same time, beyond the usual accommodations context, it should be recognized that TT can have an impact on the local natural environment and local communities. Treehouses, being usually elevated – at possible various highs – from the terrain, can also have impact on aerial landscape and nature, for example occupying spaces previously used by some animals. All these matters should be kept in mind. In addition, even if could be a rare occurrence, while a treehouse itself can support a favourable landscape scenery for its occupant it could, at the same time, obstruct the view to others. Following these issues, in specific setting treehouse density could be seen as a major limitative factor.

This paper aims to enhance a research strand dedicated to analysis of 'new' subtypes of tourism accommodation – the treehouse hotels. Together with underground hotels or ice hotels, the treehouse hotels are well recognized by world leading travel agencies, e.g. Online Travel Agencies (OTAs) such as Hotels.com. The OTA Hotels.com already in 2017 wrote about the increase in demand of treehouses accommodation by stating, p.

Travelers can now live the luxury treetop dream with a little help from the Hotels.com® Loved by Guests awards and the millions of genuine guest reviews they're based on. Ten amazing hotels have been crowned winners in the brand new Best for Treehouse category, and they'll be climbing straight to the top of your wish list. Today's travellers are aiming high and dreaming of a vacation in the sky, as the travel experts at Hotels.com saw almost a 30% increase in demand for treehouse hotels last year. With treetop luxury (33%) proving more popular than sleeping in a spaceship (28%), checking into a hotel made of gold (24%) or bedding down in an ice hotel (23%), Hotels.com reveals the best-of-the-best Loved by Guests award winners.

Still, the academic literature and comparable data on this topic are essentially but no existent. This was also the case of underground hotels or ice hotels, that nowadays have been already presented in a small number of articles (for example, p. Avilova, Kazakova & Gozalova, 2014; Gelter, 2010). The scarcity on specific TT literature should not be confused with its possible unimportance. Treehouse tourism is likely to specifically utilize very sensitive and fragile landscapes and environments; thus more studies are certainly welcome. A growing popularity of treehouse hotels in travel agencies, encourage to undertake the discussion, despite the difficulty to write about something completely new and the absence of comparable data / previous debate. While in its infancy, and with extremely few academic sources that can be found, this paper can offer the opportunity to investigate a feature – the treehouse – that could contribute to future specific landscape changes. Thus, amongst others, architecture, design,

size, geographical location and position of one or foreseeably more treehouses will contribute to, and become part of, new landscapes where treehouses can have various degree of significance.

Keeping the above in consideration this paper will investigate issues related to TT in order to propose a possible way forwards on TT development aiming to contribute to the literature on alternative tourism development and more specifically also on new types of tourism. The paper is based on academic literature on alternative tourism, community-based tourism, sustainable tourism, wellbeing and other. Regarding the treehouse section, it was based on different organizations/institutions documents, internet and professional treehouses builders' documents (and websites).

In this context, issues as sustainable tourism and carrying capacity will be utilized. However, as much as the importance of debate of these topics is recognised, this article will not much enter in these topics debate per se, but it will connect these various issues to present a model of TT. Within its specificity on treehouses, the present paper will consider issues relative to 'tree well-being', mentioning construction and botanical matters related to treehouse buildings, and its specific location usually being within a forest or a green landscape.

The paper is composed of five sections. First we started with the basic notes on building treehouse from a biological perspective. Due to the very special requirements about the use of trees for accommodation purposes (including the risk related to improper construction) this section is necessary to start the debate about further challenges and impacts. The second section is dedicated to the analysis of sustainability in different forms of alternative (New) tourism. We focus here on most important clichés (e.g. ecotourism and it's – always – positive impact). In the third section we try to frame TT into new tourism discussion. The section includes existing data on TT and Treehouse hotels (such as available in different websites).

Section four is dedicated to the way forward for treehouse tourism (including existing gaps and challenges). We propose here a TT model, and our key recommendation to develop TT in a sustainable way.

Basic notes on building treehouses

The construction of treehouse can be categorized into three main groups, p. solutions created by amateurs and enthusiasts; constructions developed by companies specializing in the construction of standardised treehouses; and treehouses developed by individual architecture office projects (Babris & Bratuškins, 2019, p. 108). Specific requirements and considerations should be taken into account to build treehouses. First of all, when building a treehouse,

the selection of the tree is a fundamental step. Nelson (2014) indicates that a treehouse can be built on a single tree or on multiple trees and it is the tree that will determine what treehouse can be built. Selection of the tree is fundamental given that "the crushing strength of the wood is the limiting factor, a hardwood tree like an oak, hickory, walnut, or cherry will support more than a pine, spruce, yellow poplar, cedar, or redwood" (Tree Top Builders, no date, online). However, this doesn't mean that it is not possible to build a treehouse in a tulip poplar or white pine, p. it just means that treehouses should be built accordingly, for example be lighter (Tree Top Builders, no date, online). Regardless of what type of treehouse is going to be built, it is imperative to start with strong and healthy trees (Nelson, 2014). Nelson (2014) indicates a list of ideal and less ideal tree where to build a treehouse. Thus, ideal trees include all maples, almost all oaks, apple, ash, beech, cedar, chestnut, cypress, douglas fir, elm, larch, London plane, monkeypod, redwood, sycamore and spruce (Nelson, 2014). Whereas acceptable trees where to build a treehouse include avocado, catalpa, basswood, cherry, eucaluyptus, walnut, magnolia and mulberry (Nelson, 2014). The treehouse guide (a, no date) also indicates oak, beech, maple, fir and hemlock as excellent tree where to build treehouses. On the other side bad trees where to build a treehouse include cottonwood, box elder, juniper, aspen and alder (Nelson, 2014).

Factors to consider when building a treehouse include the high of treehouses from the ground, the weight of the treehouse, the dimension of the tree and branch thickness, the growing and the movement of the tree (see Nelson, 2014; The treehouse guide, a, no date). It is especially important "to accurately determine the diameter of the trees at a different height, their exact position, angle and rotation in relation to other trees" (Babris & Bratuškins, 2019, p. 107). For example, in relation to the size of the tree it has been mentioned that usually bigger tree is better (Nelson, 2014), and that for a typical "sized treehouse of 8'x8' a trunk diameter of 12" or more is recommended if using a single tree" (The treehouse guide, b, no date). However, trees can "adapt to applied mechanical forces by building more wood in areas of higher stresses. This means the foundation of a tree house that uses living trees for support can get stronger over time" (Rainer, 2019, p. 50). The possible specific technological improvement related to treehouse construction must also be recognized, thus latest "advances in hardware and techniques have made building tree houses more practical. These advances have allowed for heavier, safer, longer life structures while allowing room for future tree growth" (Rainer, 2019, p. 50).

All this fundamental issues related to the tree make clear that it is crucial to have botanical knowledge of the tree where to build, this to understand at best all the possible variable and dynamics that can be encountered when building a treehouse so to prevent the treehouses to deteriorate or collapse and to prevent the tree to suffer or possibly die. The attention to the 'healthiness' of the treehouse should not be of greater attention to the 'healthiness' of the tree. Knowledge of the tree will also guide how to build the treehouse based on, for example, the rate of growth of trunks or, in relation to tourism, the type of soil that the tree requires (this is important because to have a treehouse for tourist will imply that a number of people will walk in close proximity of the tree therefore affecting the soil – and the human impact on each type of soil can be different).

It is assumed that 'bad trees' for treehouses should be avoided to build on. Thus, for example, amongst the above proposed good tree where to build a treehouse, "Red maples are fast-growing and can reach 40 feet to 90 feet tall and 150 years of age. Trunks grow up to 30 inches in diameter. The crown is rounded when mature and spans 25 feet to 40 feet in width" (Sciencing, no date). Some of the larger maple species have hard and valuable timber, particularly Sugar maple in North America (often known as "hard maple") and Sycamore maple in Europe (Sciencing, no date). Beeches that are related to the oaks and chestnut trees are wood that is used in any kind of hydraulic or maritime work, for being as resistant as the Oak Wood (Ecured, no date). Other trees, the Beech trees, are tall, wide-spreading, slow-growing but can live to 400 years or more (Britannica, no date). Other example includes most maples which are fast trees growing to a height of 10–45 m (33–148 ft.), others are small trees, rarely shrubs, deciduous or, more rarely, perennial and also some species has a certain semi-perennial character (Árboles Ibéricos, no date). Firs are perennials, long live trees with straight trunk and conical crown that can reach 40-80 m high. Their wood is light, resistant and highly flexible being able to withstand strong winds without breaking (Revistacienciasunam, no date). It is therefore understandable that a treehouse need to be built in accordance with the specific characteristics of each tree as various carefully considerations are important to avoid problem.

Examples of treehouse tourism (meaning the presence of treehouse for tourism purposes) can be seen in Africa such in Congo, Tanzania and South Africa (Go2africa, no date), Costa Rica (Madry, 2021), Italy (Morello, 2018), Canada (Simpson, 2021), Japan (Wortley, 2021), United States (Roadtrippers, no date), Malaysia (Foo, 2019), and United Kingdom (Wanderlust, 2020) amongst other places. These examples clearly show the presence of treehouse tourism around the world. A variety of tree has been used to build treehouse. The African Baobab can be protagonist as indicated by a Tanzanian example.

The Baobab Bar and main lodge area at Tarangire Treetops are built around an ancient old baobab tree or 'Tree of Life' as it is sometimes known in Africa. Tarangire Treetops is located in a private wildlife concession in Tarangire National Park. Your lofty position from the treetop suites – which are built on wooden platforms among the highest branches of the surrounding baobab, mopani and wild fig trees – give you glimpses of Lake Manyara and the Rift Valley wall (Go2africa, no date).

A bed & breakfast treehouse in United States "has an observatory that is 100 feet above ground and sitting in a fir tree" (Roadtrippers, no date), in Malaysia a treehouse for tourists is a double-storey treehouse built from recycled materials (wood and bamboo) and it "is fitted around an old durian tree" (Foo, 2019) while in United Kingdom a fairy-tale treehouse has been built "in a cluster of sycamore trees" (Wanderlust, 2020). These examples show that treehouse tourism is present and scattered around the world. There seems not to be a specific country or region of the world devoted to it. It is however obvious that an increase of treehouse tourism can be noted in forest areas as treehouse imply the need of trees. Furthermore, accommodation within the safari lodge tourism, adventure tourism and ecotourism seems major protagonists in treehouse tourism

Special care should be observed "with trees with fragile wood, like willow and aspen where pests and softwood failures are also more likely to be found. Construction is not recommended in birch and other tree species with dense wood, yet poor resistance to trunk damage" (Babris & Bratuškins, 2019, p. 107). Thus, when selecting a tree "particular attention should be paid to the analysis of the trees used. When selecting the trees for construction, the tree species and possible health and mechanical damage are important. Attention is also to be paid to the shape of the tree crown and the distribution and transmis¬sion of the load on the tree roots" (Babris & Bratuškins, 2019, p. 107). In addition, care "should be paid to trees placed adjacent to water bodies. Presence of several fallen trees in the vicinity of a body of water is a sign that similar risk of falling exists for other nearby trees" (Babris & Bratuškins, 2019, p. 107). It is important to recognize that it is unmanageable to think "to cause no damage at all, but trees have evolved several techniques to tolerate damage and remain healthy" (The treehouse guide, c, no date), however attention to the treehouse construction in relation to the tree(s) should be paramount. A poorly designed treehouse can damage the tree (The treehouse guide, c, no date). Trees are living organism, therefore the following points should be always considered (from The treehouse guide, c, no date), p.

• They can be infected by bacteria and viruses, causing loss of branches or death to the whole tree;

• They slowly grow larger over time, increasing the diameter of their trunk every year;

• They use a process called compartmentalization to isolate damaged or infected areas;

• They will compensate for a changed weight distribution

A treehouse is going to introduce numerous environmental changes that will have impact on the trees, the most important is foot traffic that can compact the soil thus should be confined to specific paths (Tree Top Builders, no date, online). In addition, it is fundamental "to remember that tree roots often extend 2-3 times farther from the trunk than their branches do, so think carefully about any digging, tree removals, or other environmental changes that are close to your treehouse tree" (Tree Top Builders, no date, online).

It must also be recalled that a treehouse is not only (or not much) about ground landscape but it also includes aerial landscape meaning that a treehouses occupy space 'on the air' thus specific attention to the aerial environment (such as wind, possible consequences on other close by trees, consequences on animal using the tree, consequences on view pollution to third parties, and so on) where the treehouse is located also need consideration. Attentions on various issues are important. In relation to the high of treehouses from the ground this will affect the aerial, ground, blue and green spaces within which the tree is located and its surrounding. For example, trees where treehouses can be build could also be used in various ways by animals, such as squirrels, thus based on the house specific position attention need to be given to not damaging both the flora and fauna lives and habitat in the treehouse surroundings.

Because of these problems and factors to take into account, it is important that treehouses are built by experts. Thus, a professional arborist (or other professionally qualified tree expert) evaluation is recommended (Tree Top Builders, no date, online). Otherwise said, p. "Once you think you know which tree you want to use for your treehouse, consider getting an arborist to verify the health of the tress" (Nelson, 2014).

'New' tourism and sustainability

The argument about negative impacts of tourism (essentially conventional/mass tourism) in general and specifically to developing countries is one of the strand from which "much new tourism takes its cue, in an attempt to redress the impacts of tourism and establish forms of (new) tourism that are environmentally, economically and culturally sustainable" (Mowforth & Munt, 2003, p. 11). The tourism sector "needs a new direction in order to

address the flaws of its conventional (mass) form" (Kasim, 2006, p. 6). Thus, new types of tourism supposedly offer "a change from the environmentally and culturally degrading mass tourism to a more 'gentle' tourism that supports the whole notion of sustainability" (Kasim, 2006, p. 10). Against the negative issues related to conventional/mass tourism, alternative tourism and new tourists represent, indubitably, current tourism trends and have their own characteristics. New tourism has been proposed to be based on various issues such as experience something new, want to be in charge, see and enjoy but not destroy, just for the fun of it, being understanding, like sport and nature, and being adventurous (Poon, in Mowforth & Munt, 2003, p. 54). The alternative tourism approach "is a consumer choice that is outside regular tourism channels" (Santana-Talavera & Fernadez-Betancort, 2015, p. 1). Looking at developing countries, new tourists are connected to the "desire to experience 'indigenous cultures'—the Third World otherness—that is a major driving force of their travels and results in the search for 'off-the-beaten-track' or 'less visited areas'" (Mowforth & Munt, 2003, p. 67). There is no doubt that the tourism industry has adjusted to the new trends. New/alternative tourism has produced changes in the tourism sector. It can be observed that under the motivational and market coverage of "alternative", innovation and entrepreneurship have been emphasized in mature destinations promoting the creation of multiple micro-products, encouraging new forms of tourism businesses and opening up new territories (Santana-Talavera & Fernadez-Betancort, 2015, p. 3).

However, debate and criticism about new tourism is, since time, very much present (see for example Mowforth & Munt, 2003). It is also fundamental to underline that the distinction between mass and alternative tourism "is in fact inaccurate because the new form of tourism is essentially an excuse for a continuing colonization and control of a destination and all its resources. In other words, these new forms of tourism have been used merely to legitimize and prolong the mainstream industry" (Kasim, 2006, p. 10). Thus, "many of the areas identified by such [alternative] tourists (Mediterranean coast, the Caribbean, Southeast Asia, Macaronesia) have now been developed by the tourism industry, and some of these tourists have settled and become business owners" (Santana-Talavera & Fernadez-Betancort, 2015, p. 3). Advocates "of alternative tourism argue for a move towards social and environmental responsibility in tourism practices, if these tourism ventures are managed within neoliberal paradigms that promote endless growth, tourism's sustainability will inevitably be undermined" (Chassagne & Everingham, 2019, p. 1909). The recognition that neoliberal system has led to social inequalities, imply

"that these same mechanisms should not be relied on to try to solve inequalities" (Scheyvens & Hughes, 2019, p. 1065). The departure "from top-down sustainable tourism approaches requires bottom-up community-based tourism initiatives that can ensure that tourism ventures are not only environmentally sensitive, but that the local communities are actually benefiting economically and socially" (Chassagne & Everingham, 2019, p. 1912).

Global competition and global issues such as financial crisis and terrorism also remain fundamental and, within them "circumstances, innovation and creativity have been very important in the services sector, and particularly in the tourism sector" (Timothy & Teye 2009, p. 246). Agreed that tourism markets are extremely 'fragile and risky' tourism businesses must "be innovative and to diversify their goods and services. Thus, innovation and diversification in tourism are pivotal for promoting a competitive advantage" (Weidenfeld, 2018, p. 2). Hjalager (2010) acknowledges that in the course of history, tourism has been characterized by "immense innovativeness" and as Timothy & Teye (2009) note "innovation pervades all sectors of tourism and is a key driver." Current socio-demographic tendencies, such changing lifestyle, ageing population and climate changes "have forced tourism to adapt to new market demands. Market and product diversification strategies encourage growth through the development of new and authentic products" (Weidenfeld, 2018, p. 7). In this context the "commodification and marketing of natural resources is a necessary intermediate function that transforms the resource into a product" (Hjalager, 1997, p. 36).

Innovation is also a component of a diversification strategy (Nair, Veeresh & Eagar, 2011, p. 49). Diversification signify "novelty, versatility and multi-dimensionality. Thus, […] diversification is an important part of sustainable tourism" (Ergüven, 2015, p. 226). The diversification of products "can also encourage 'alternative' products that potentially are more socially and environmentally sustainable for destinations" because business is locally owned or products are small scale (Benur & Bramwell, 2015, p. 2014). The "product diversification elevates the profile of lesser known destinations and improves the standard of living for local people […] because rural properties are now redeveloped into tourism accommodation and therefore this encourages community based tourism to grow" (Nare, Musikavanhu & Chiutsi, 2017, p. 2).

The Sustainable tourism context possess three elements, p. social justice, economic development, and environmental integrity and "is committed to the enhancement of local prosperity by maximizing the contribution of tourism to the destination 's economic prosperity, including the amount of visitor spending that is retained locally" (ILO, 2010, p. 48). In "order

to achieve sustainable tourism, its social dimension including employment must be considered" (ILO, 2010, p. 49). Sustainable tourism can be linked to carrying capacity. Within a sustainable tourism development context, carrying capacity should be comprehensive in nature going beyond visitor numbers, therefore defining what is the carrying capacity of tourism destinations may be indispensable long term sustainable development (Marsiglio, 2017, p. 633). Thus, "while carrying capacity sets a maximum number of tourists for a sustainable tourism activity, this number may not be the optimal level as visitors bring costs as well as benefits; the optimal level of visitors should be related to securing optimal environmental, social and economic gains for the location being visited" (Marsiglio, 2017, p. 633). This thoughts are in line with the historical evolution of the concept of tourism carrying capacity that initially "was concerned with environmental considerations, but later on with evolution of theory and practices on sustainable tourism and with the need for a multidimensional approach combining simultaneously social, economic and environmental dimensions was taken much emphasis" thus, including physical carrying capacity, social carrying capacity, and economic carrying capacity (Pasko, 2016, p. 166). The analysis of tourism impact in specific location include three dimensions, p. "physical environment (natural and man-made including infrastructure), social (population and social structure and dynamics) and economic (including institutional and organizational)" (Pasko, 2016, p. 166). From an environmental perspective "carrying capacity is a complicated concept and shows the relationship between visitor and environmental conditions" thus the increase of visitor number have greater negative impacts such as "soil compaction, reduced soil surface and vegetation density" (Kourandeh & Fataei, 2013, p. 63). The position of treehouses, often in fragile and sensitive natural environment, make environmental carrying capacity particularly relevant such as in relation to the soil compaction and vegetation density. The concept of ecological carrying capacity has also been mentioned (Kourandeh & Fataei, 2013, p. 63). The ecological system will collapse when tourism demand exceeds the carrying capacity, thus for sustainable ecotourism a proper balance between tourism demand and carrying capacity, is necessary (Lee, 2011, p. 1297). The role of government become fundamental. Governments must step up to the challenge of guaranteeing that "more sustainable forms of tourism will be supported and to reassure investors and players in the tourism sector that government will support and encourage sustainable tourism management and development" (Trong Tuan, 2011, p. 8). Treehouse tourism should be at the centre of this relationship framework, thus including all various issues. A model of TT should therefore include all these above mentioned matters about sustainable tourism, carrying capacity and governments roles.

Treehouses and (new) tourism

Treehouses, human development and environmental matters can be seen connected.

As human development and its associated problems of environmental degradation continue to grow, environmentally conscious humans are searching for means of living which minimize environmental burdens. Tree houses that use tree trunks and their roots as the foundation of an elevated living space are a growing niche worldwide that fits into this category (Rainer, 2019, p. 50).

Treehouses were already present in ancient and roman times (Ramos, Bowling & Barker, 1999, p. 24). The building of a structure on tree "have been built since antiquity, by primitive tribes hiding in trees from predatory beasts and floods" (Babris & Bratuškins, 2019, p. 106). With time "more stable dwellings have been favoured and the ability to build shelter in treetops has survived in just a few tribal traditions in Papua New Guinea and Indonesia" (Babris & Bratuškins, 2019, p. 106). Changes on treehouses use has been noted and currently "the growing interests of alternative life styles have led tree houses to develop into the tourist lodging and hospitality business" (Ellisa & Andriani, 2015, p. 125). Consequence "to the de¬velopment of nature-cognitive tourism and economic growth, both in America and in Europe, the tradition of building wooden structures has been unearthed for cognitive, artistic, cultural and hospitality applications (Babris & Bratuškins, 2019, p. 106). Always more tourists "are driven to travel by a personal and interpersonal desire for escape, socialisation, freedom and discovery in natural contexts or by the allure of green, wide-open spaces and/or pristine environments" (Brochado, 2019, p. 312). These same tourists "are also being pulled by nature-based product and service improvements. Many travellers are thus turning to natural environments for their recreational pursuits" (Brochado, 2019, p. 312). Tourists are also currently more "concerned about the environment, particularly the use of less carbon-intensive products and are looking for sustainable travel packages that include recognition of social and environmental issues, of —green tourism services and of the principles of —eco-tourism" (ILO, 2010, p. 43). A study indicates that "All the tree house hotels in this survey were built to the highest sustainable standards, using local wood and building materials but offer all the comforts of modern life" (Sloan, Legrand & Kinski, 2016, p. 54). However, the private consumption of nature become the essence of TT where individuals consume the

treehouse (and the tree upon which the treehouse is built) and the natural ground and aerial surrounding.

At the same time the fashion of treehouse has been (arguably always) connected to child memory. Treehouses is connected to otherness and childhood dream. A treehouse "constructed around, next to or among the trunk on mature trees is mostly identic with romantic images of childhood memory of play and adventure" (Ellisa & Andriani, 2015, p. 125). Tree houses "offer uniquely intensive experiences and a feeling of being one with nature, which can trigger nostalgia rooted in guests' childhood" (Brochado, 2019, p. 311; about treehouse and childhood also see Stasch, 2011, p. 79). As noted, p. "We probably all had the fantasy of living in a treehouse during our childhood years. Some of us might have been lucky enough to have had a treehouse, or a friend with one, when we were younger. The imagination can run free in a forest, and fantasies can turn into reality. Treehouses aren't just for children, either" (Parker, 2017, p. online).

New tourist markets taste trends and childhood memory together can be linked to visitor experience and sustainability as the experiences and satisfaction of tourists "in nature-based tourism contexts are essential to the long-term success of this type of product and the sustainable management of tourism destinations" (Brochado, 2019, p. 310). A study on visitors' experiences in tree houses in Costa Rica indicates that the treehouses experiences "are recalled as the best part of trips, and positive experiences with locals appear to improve the host country's brand image for guests" (Brochado, 2019, p. 321). This finding strongly link the nature (treehouse/forest) and the social (interaction with locals) aspects of the visitor experience.

Current trends in social and demographic context "as well as changing values in society and consumer perceptions promote the development of new opportunities and products in the hotel, catering and tourism industry" (ILO, 2010, p. 35). With the continuous growing of the environmental ethics movement "in tourism, hotels, resorts, guesthouses, inns, hostels, campgrounds, cruise lines, and other accommodation providers will continue to realize that reducing their carbon footprint on the environment translates into good business" (Timothy & Teye, 2009, p. 261). Along this lines and despite definitional problems on the classification of the several types of accommodation "it is likely that new forms of accommodation will continue to appear on the tourism scene" (Timothy & Teye, 2009, p. 261). Creative people have started to exploit "tourists' propensity toward oddness, curiosity fulfilment, unusualness, otherness, being 'the first', and seeking titillating experiences. The establishment of ice hotels, sand hotels, lighthouse lodges, cave and underground hotels, and tree house lodges attests to

this" (Timothy & Teye, 2009, p. 261). "It's also no longer bizarre to find travellers who would rather sleep in treehouses, book activities using sharing economy platforms, or look for hosts instead of tour guides" (Ascolese & Llantada, 2019, p. 29). Treehouses can "take this quality of architectural otherness to a special extreme. Their status as an anti-type to global publics' ideas about normal housing is attested by their prominence in such popular works of imaginative literature and film as The Swiss Family Robinson, Peter Pan, Winnie the Pooh, Tarzan, Return of the Jedi, and Avatar" (Stasch, 2011, p. 79).

In this context it is possible to include the concept of 'glamping', expression resulting "from the combination of two English words "glamour" and "camping"" (Filipe, Santos & Barbosa, 2018, p. 114). Amongst other accommodation types (such as yurts and safari tents) with "unusual accommodation options with strong innovative design components" Glamping include treehouses (Filipe et al., 2018, p. 114). Glamping link the features and services of a luxury hotels "with the privileged contact with nature in which people search for authenticity, customized service, and closer attention to the client, along with genuine interaction with the local community, a rare thing in urban environments" (Filipe et al, 2018, p. 114). Glamping has the capability to attract visitors "who search for an alternative accommodation and lifestyle, and for whose tangible assets are an essential part of the experience" (Filipe et al., 2018, p. 114). Treehouses accommodation usually fall under Glamping label (Brochado, 2019, p. 311). Treehouse tourism also named "Treehouse glamping is one of the most famous types of glamping [...] Treehouses cover the true definition of glamping as they are unique, comfortable, and luxurious" (Grand View Research, 2021).

Another relevant issue, also linkable to the above, is wellness/wellbeing tourism market. The wellness tourism market, "which was initially a niche product in many Northern and Western European countries, has transformed into an essential tourism product as a sub-branch of health tourism for over 15 years" (Ergüven, 2015, p. 224). Tree house hotels fit very well with the concept and philosophy of wellbeing. First, many of them are located near the water, so they use both green and blue spaces. It is widely recognized that green spaces (such a forests, parks, gardens etc.) and blue spaces (lakes, sea, rivers) have a positive impact on physical and mental wellbeing (Bell et al., 2014; Dlużewska, 2016). There has been much research about the impact of planning green spaces in the cities on wellbeing (Conniff & Craig, 2016), impact of particular species on the wellbeing of particular people (Chang et al., 2016), impact of exercise in the outdoor green space on teenager's cognitive development (Ward et al., 2016),

the relationship between greenspace and the mental wellbeing of adults (Houlden et al., 2018) and many others (Bell et al., 2014). When analysing tree houses hotels/wellbeing relationship, it is worth paying attention not only to health (physical and mental) aspects. First of all, staying on the tree (house hotel) arises the feelings of adventure and fun – typical for children. Consequently, it improves the hedonic fulfilment, and - definitely raises the subjective wellbeing. Tree house are a kind of phenomenon. This can be used in the marketing of such facilities.

Touristic products are successful if they answer "the needs of the tourists. In this context, both the tour operators and the destinations are in search of continuous and new touristic products" (Ergüven, 2015, p. 224). On wellness tourism has been written, p. "Think, p. Trek through nature at sunrise, visit village artisans, meditate in a treehouse, and then move to ocean cliffs for hours of treatments. Spas have long adopted the language of the "journey" but with little actual journeying; now concepts are appearing befitting the term" (Global Wellness Summit, 2018, online). For example, the forests environment "have long been associated with recreational and touristic experiences worldwide" (Conti, 2019, p. 1) thus, there can be a relation between forest and wellbeing, when a "situation can be observed when it comes to experiential products more closely related to health and well-being, in which a stronger connection between the forest itself and the experiential themes associated with it can be highlighted" (Conti, 2019, p. 10). In this context, for example, in Ödeshög (Sweden) a tourism firm has "10 huts and treehouses that can be booked by guests, each hosting between 1 and 4 people. They offer activities for guests (only groups) centred on food and ancient forest food culture, alongside basic woodman skills, such as chopping wood, lighting a fire and sharpening an axe. Most of these activities are rather basic, and oriented towards detoxifying and the rediscovery of healthy human sociality" (Conti, 2019, p. 11; on the relation between forest and wellbeing see also Ohe et al., 2017).

The 'glamping' and wellness market seem to posit treehouse within the context of expensive, luxury or high-end tourism. The novel and post-modern accommodation types "offer exclusive opportunities but also, many of them, especially the most extreme and bizarre, come with bragging rights. To be able to claim that one has spent a night or two in a hotel made of ice, for instance, is well worth a high price for many people who have an interest in doing things 'off the beaten path' and which most of their acquaintances might never even have dreamed of doing (Timothy & Teye, 2009, p. 239). Certainly this specific contextualisation of TT as an elite tourism should be seen negatively as everybody should be able to have treehouse experiences (same as holiday should be available for everybody) as educational, leisure and wellbeing experience. In addition, the elite contextualisation of TT also seems to contradict the – certainly at least on paper – more 'democratic' perspective, their interest in community inclusion and so on of the new tourists.

The consumption of nature must also be kept into account. A study on thatched huts identify those as cultural icons key elements of the tropical 'tourist gaze' (Sierra-Huelsz & Kainer, 2018, p. 9) as treehouses can be seen cultural icon – a Robinson Crouse escape. Differently to common claims that tourism, and ecotourism in particular, decrease consumptive use of biodiversity a study "demonstrate many ways in which tourism drives increased consumption of biodiversity" (Sierra-Huelsz & Kainer, 2018, p. 9). There is the risk that tree houses could follow similar pattern if proper rules and conditions are not (compulsory) enforced and attended to.

While treehouse tourism should be still considered a very small niche market its presence is certainly tangible, and always more visible and widespread around the world (making relevant, given the still essentially inexistent literature, to start to open the debate about treehouse tourism). The global treehouse tourism market, recognised as a treehouse glamping market was USD 186.3 million in 2020 and "is expected to expand at a compound annual growth rate (CAGR) of 8.7% from 2021 to 2028" (Grand View Research, 2021). The specific market segment of treehouse tourism (or treehouse glamping) is dominated by the 18-32 age group that share more than 40% of the market in 2020 and it is expected still to rapidly grow. Millennials and female solo travels and also couples without children are all protagonist in treehouse tourism making (Grand View Research, 2021). At the same time it is also ntoednoted that the "33-50 age group segment is projected to expand at a CAGR of 8.5% from 2021 to 2028" (Grand View Research, 2021). The European continent "dominated the global market by accounting for over 45.0% share in 2020". (Grand View Research, 2021).

Treehouses have become a 'media' phenomenon such as the treehouses of the Korowai and Kombai in New Guinea (see Stasch, 2011 for an in-depth analysis of this phenomenon and its local consequences) or thanks to television programme such as Treehouse Master (hosted by P. Nelson, also author of Nelson, 2014). Treehouses tourism around the world is growing and many treehouses on various trees of many shapes and sizes are present (or planned) for accommodation or other visitors' activities. A wide range of recreational structures in trees and with different functions are present. Treehouse examples can be found worldwide and as the book (see Nelson, 2014) from a treehouse builder shows treehouses have reach incredible level of architecture, design, engineering and functionality.

Beside treehouses for family uses, treehouses are now built for a several of purposes such as treehouse SPA, treehouse guesthouse and a treehouse brewery (see Nelson, 2014). Just to mention that the SPA treehouse in Texas (USA) is 200-square-foot oak-bound construction also include a full bathroom with a state-of-the-art steam shower (Neson, 2014). A research (Babris & Bratuškins, 2019, p. 109) that analysed publicly accessible treehouse for tourists, it proposes that the most common usage of 210 examples that has been found, are as follow, p.

- hotels, accommodation – 130;
- dwelling houses in trees – 37;
- objects of interest, sightseeing platforms, attractions – 18;
- tents in treetops, glamping – 9;
- restaurants, cafes – 7;
- outdoor camping platforms – 7;
- office spaces – 3;
- outdoor cinema – 1.

In Nigeria in the Okomu National Park a treehouse for game viewing is a major attraction, it is "about 43m high with 73 steps and it is built on a silk cotton tree (Ceiba pentandra)" (Ijeomah, Nwanegbo & Umokoro, 2015, p. 234). The Nigerian treehouse "has a sit-out at the base and at the peak of the tree to ensure comfort of the tourists while viewing games. Climbing the tree house gives a lot of excitement. Many tourists hardly get to the last step of the tree house" (Ijeomah, Nwanegbo & Umokoro, 2015, p. 235). Within a National Park context, the South African National parks authority has proposed treehouses as investment opportunity. In its (South African National Parks) catalogue about investment opportunities, the South African National Parks indicated two opportunities for Treehouse products writing, p.

Opportunities exist for two unfenced camps within the tree canopy. The camps could be either fully catered or self-catered depending on market demand. Each camp will have a maximum of 15 tree houses, with three small clusters of five tree houses each offering privacy. Services will be provided from a central point. It is anticipated that the one camp will be suitable for families with children while the other will allow for a discreet, more exclusive experience (South African National Parks, 2017, p. 43).

Along the same lines the Almaty-Bishkek Economic Corridor (ABE) Tourism Master Plan in relation to Republic of Kazakhstan and the Kyrgyz Republic under the diversification of touristic activities section proposes that with limitless of types of "luxury camping sites all over the world, glamping, portmanteau of glamorous and camping, is a trend that can appeal all types of travellers. Eco-friendly and connected with nature, there are all sorts of types of glamping, such as tree houses, yurts, domes, or cabins" (Asian Development Bank, 2019, p. 59). The Costa Rican "tourism industry has recently responded to a renewed interest in tree houses, which offer not only opportunities to experience a different lodging alternative but also a chance for visitors who care about forest conservation to sleep out in nature" (Brochado, 2019, p. 315) and there are various "incredible treehouse vacation rentals, lodges, and hotels in Costa Rica, Nicaragua, Panama, and Belize that will excite your childhood self, while also satiating your adult needs" (Parker, 2017, p. online).

Treehouses can also be a part of community development project linked to community-based tourism development. An example from Ghana indicated that the tree house project goals "were to provide a unique overnight tropical forest experience for adventurous tourists and generate economic benefits for conservation efforts in Kakum in general and the Mesomagor community in particular" (Mensah, 2017, p. 88). Recognising that numerous "authors are of the view that the problems encountered with the community-based tourism approach stem from the methods and techniques used in their implementation" (Mensah, 2017, p. 86), the Ghanaian project indicate that one "aspect of the project was capacity building through training to empower community members to eventually take control of the project. The project afforded tourists who visited the community the opportunity to sleep overnight in a treehouse, hike through the forest, embark on farm tours, watch cultural performances by the Bamboo Orchestra, and to be accommodated in a guesthouse" (Mensah, 2017, p. 88).

However, treehouses accommodation or experience is also becoming – leaning to become (if ever was a real alternative tourism is also arguable) – part of the more conventional/mass tourism products. For example, one of the proposal at Meetings, Incentives, Conferencing and Exhibitions (MICE) trends in Africa in 2019 (see Daily News, 2019, p. 6) will be an increase demand for unconventional spaces "to make the event experience more memorable through the use of open and unusual spaces in and outdoors, like tree houses and rooftops, along with seating plans in favour of minimalistic sets and funky furniture such as director's chairs, bean bags and soft sofas" (Daily News, 2019, p. 6). The risk to co-opt or re-elaborate specific form of, supposed, alternative tourism by conventional mainstream mass tourism seems well under way. As previously mentioned, p. "these new forms of tourism have been used merely to legitimize and prolong the mainstream industry" (Kasim, 2006, p. 10) and "many of the areas identified by such [alternative] tourists (Mediterranean coast, the Caribbean, Southeast Asia, Macaronesia) have now been developed by the tourism industry, and some of these tourists have settled and become business

owners" (Santana-Talavera & Fernadez-Betancort, 2015, p. 3).

A way forward for Treehouse Tourism

The sustainability of treehouses is fundamental as it is the health of the tree and improvement of building techniques go hand in hand with the tree health. Treehouses depend "on a healthy living tree for success. Building tree houses will likely result in expanded knowledge and techniques for maintaining health and longevity of trees despite the cohabitation of humans" (Rainer, 2019, p. 51). Beyond these issues, a treehouse built for tourism needs to consider the location and other aspects that are related to the tourism market. The treehouse must not just be sustainable and take care of the tree(s)/forest but it must also appeal to the tourism market to be economically sustainable. In addition, the general issues that tourism, especially alternative tourism,

should be projected to work to alleviate poverty and inequality and remain more locally controlled (and benefits the local population) should also be considered as TT is – should certainly be/remain – an alternative types of tourism. Social issues and measures to enhance social responsibility and sustainability should be present. Therefore, in relation to TT environmental (this include the tree botanical characteristics and the construction techniques), social and economic issues, all need to be considered. In this context issues of carrying capacity which favour sustainable TT development must be considered. The adherence to specific parameters of carrying capacity can be connected to sustainability. Consequently, three general issues, with specific attached components, should be seen in relationship each other forming a general TT model (see Figure 1) aligned towards sustainability.
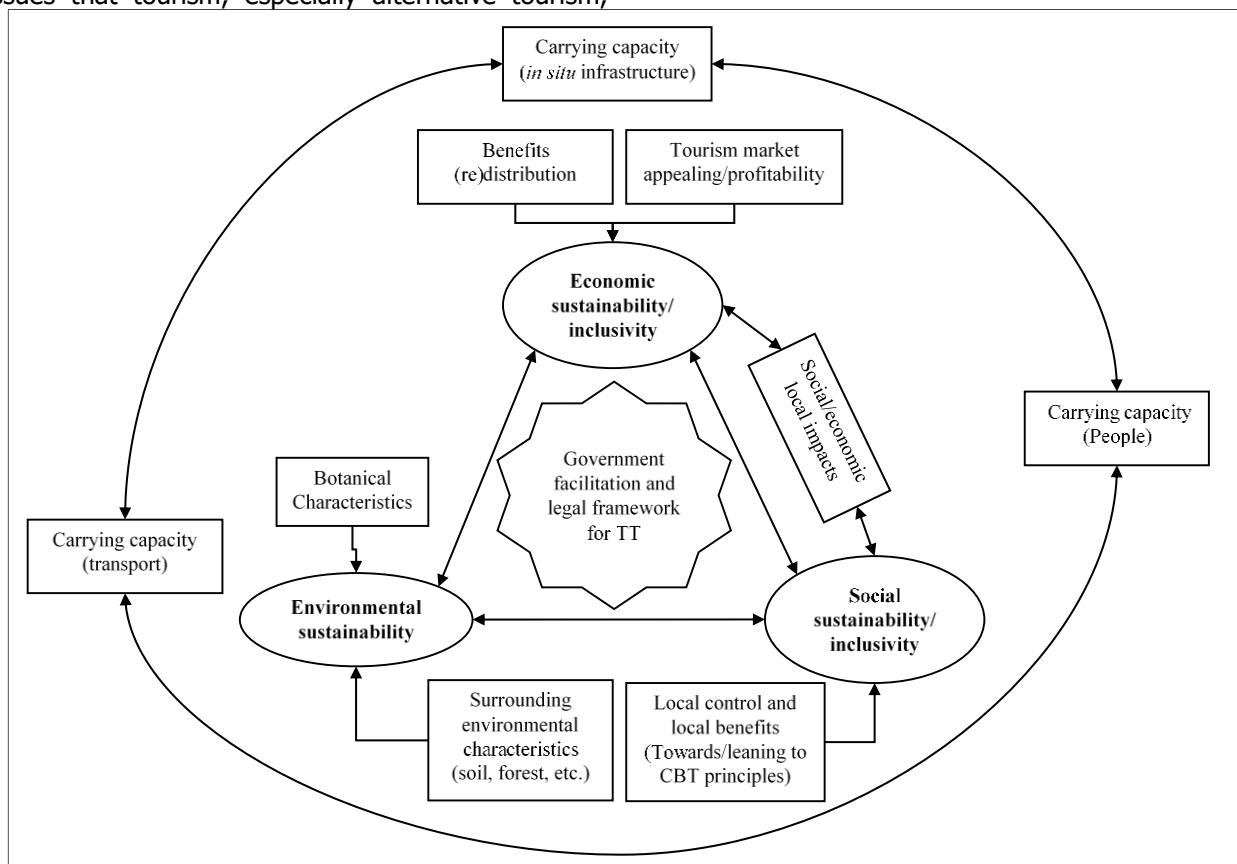

Fig. 1: The general TT model (source: Authors elaboration)

Within this general sustainable TT model, various issues must be considered and can contribute or pose challenges to the sustainability of the treehouses. The three main issues are:
• Small scale / low density - From a business perspective it seems obvious that the treehouse should be economic sustainable, it must make profit.

However, carefulness need to be applied in the management of the number of treehouse customers. The building of a treehouses is, more often in specific forest or landscape that need protections (they are also the products upon which tourism itself is based) thus the increase of treehouse customers number need to be strictly balance with the specific local

environmental characteristics – including aerial, blue, green and ground contexts. For example, too much walking around a tree can provoke the compaction and/or erosion of soil. In this respect, it seems obvious that TT will struggle to become mass tourism, this to avoid environmental disruption. Low density of treehouses and low number of customers should be guarantee (these will change based on each tree/local environment characteristics).

This will help social-economic inclusivity. Due to the low volume, it is supposed to be small scale, thus being an accommodation type that local people (also disadvantaged community members when proper facilitation/assistance is given) can be able to manage and control and where required investment can be much lower than in large accommodation. Financially entry level requirement can be much lower.

However, currently TT seems more based on high-end/luxury structures seemingly making this types of tourism more related to high level of investment and with a clientele generally belonging more to the upper classes. This article, instead, proposes that this state of affairs should be inverted or, at least rebalanced, where TT become a more affordable investment and affordable holiday for the majority of people.

• Inclusivity – inclusivity should be understood in two aspects. On one side ownership, management and benefits from TT should be structured to favourably lean towards local community members (with special focus on the disadvantaged people in society). Thus, moving TT towards a CBT or other genuine forms of inclusive tourism approach can be a possible solution. Alternatively, government can advance new solutions to attract companies to be more involved in social-economic and environmental issues such as through the Investment Redistributive Incentive Model (IRIM) thus favouring, by means of incentive, the restructuration of companies' ownership and management and the implementation of any other measures that can have local positive impacts (Giampiccoli & Mtapuri, 2020). Other new solutions can certainly be proposed to favour a more redistributive approach in TT (as tourism in general). Other solutions can be for companies to do local development projects and improve the workers/employees working conditions.

• Environmental problems and challenges – following from the low density requirement above explained the need to foster environmental suitability and awareness become clear. The presence of botanical/forestry experts should be a legal requirement in the construction of treehouses. Attention need to be given to the four (blue, green, aerial and ground) spaces to consider the comprehensive environmental sustainable impact.

It is already proposed that whereas "tourism stakeholders such as government institutions, destination marketing organizations, and national and international non-profit organizations are interested in CSR implementation, economic incentives such as tax credits could provide an avenue to increase participation (Baniya, Thapa & Kim, 2019, p. 9). In this context the IRIM (see Giampiccoli & Mtapuri, 2020) proposed just above can be an option favouring companies to implement measures to promote local positive impacts.

It is here proposed that private sector voluntary code of conducts or CSR will not be enough to guarantee social, economic and environmental sustainability therefore government regulations should be legally enforceable. Social and environmental requirements are seen fundamentally necessary. Government should also favour the establishment of specific limit on carrying capacity and facilitate the involvement of local people, meaning facilitate the local control of TT.

A final important issues is to favour the inclusion of all social categories in the benefits (not only economic) from TT. Treehouse tourism should not be confined to the luxury market allowing only the wealthy to participate but should have a more open approach where all social categories can have the benefits (welling, health, education and so on) from participating in TT. Inclusivity is not just about monetary benefit from tourism (in this case TT) but it must be understood holistically otherwise reproduction of inequality of tourism/leisure consumption, also in supposedly alternative tourism – will continue to exist.

From social perspective this new product diversification is linkable with new tourists' market trends, it should take opportunity to place itself at the vanguard also from a social perspective, thus fostering and facilitating local community inclusion (specifically in reference to disadvantaged community members living in proximity of the tourism facility – the treehouse). This social inclusion could certainly also enhance more the attractiveness of the treehouse facilities that, beside to the environmental, otherness and general experiential attractiveness could add the social value.

From an environmental perspective, TT should be also at the vanguard. Its usual localization in fragile, pristine or sensitive natural contexts and its impacts on various spaces (green, blues, ground, and aerial) make TT a type of tourism in 'extreme' need to be sustainable. Thus, TT can serve technologically and managerially to possibly find new solutions and advance new possibilities to later include the wider tourism sector.

Conclusion

This paper has attempted to discuss main gaps and challenges related to TT, and finally to put forward a general TT model to better understand the

various components that need to be considered when building a treehouse for tourism purposes. Thus, while strongly recognizing the environmental aspects, the TT model also include social and economic aspects and advance that the government should be protagonist in facilitating and regulating the TT. The TT model underlines that social and economic aspects related to inclusivity and redistribution are fundamental. The paper also underlines the possible impact of TT on four spaces (green, ground, aerial and blue spaces), thus its possible inclusion of landscape and its 'extreme' need to be sustainable within specific parameters of carrying capacity. The proposed TT model follows the carrying capacity direction to advance a more holistically sustainable and inclusive and just tourism sector.

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