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引言

本文旨在讨论可持续发展观念对中国发展的意义及其在中国的实施情况。可持续发展的概念最早出现于 30 多年前，但是它的具体涵义至今仍在讨论中。研究者从不同的角度出发，对可持续发展的定义也就不同。一般来说，可持续发展的概念涉及自然、社会、经济、科技等多个方面。

可持续发展倡导将自然资源公平和合理地运用在各种开发领域中，使社会、经济、文化、科技都能取得平衡、健康的长期发展。它反对为追求发展而过度开发自然资源、破坏生态多样化、污染环境等手段，要求保护和加强环境系统的生产和更新能力，采取更清洁、高效的发展技术，既能增加当代人的福利，又不会减少后代的福利。

根据世界旅游组织预测，到 2020 年中国将会成为世界上最大的旅游目的地国家，接待游客超过 1 亿名。对于中国经济而言，旅游业占据的地位越来越重要。旅游业不但产生了可观的经济效益，而且对环境的影响绝对不小。景点开发、基础设施建设、旅游管理服务等方面仍会对自然环境产生一定的负面影响。根据中国的自然环境综合情况、经济发展的需求来看，旅游业必须走可持续发展的道路。有效保护自然资源与环境，是实现旅游业可持续发展的基础。不能只顾发展而忽略了对自然环境的保护，要努力实现生态效益和经济效益的双赢。

旅游业和自然环境之间存在紧密的联系，因为旅游业的发展很大程度上依靠当地自然环境的吸引力。即使一个地区拥有得天独厚的自然旅游资源，也仍然需要当地政府部门用正确、环保的方式来开发和保护环境，才能达到吸引游客的目的。否则，当游客看到原本优美的风景被污染破坏，会对该地区的旅游业十分失望，严重影响了当地旅游业的发展前景与口碑。

一个地区的旅游业发展必需考虑两个重要的方面，即环境承载力与经济效益。

第一，环境的承载能力是有限度的，如果有关部门管理不善，旅游业会对生态环境造成较严重的破坏。发展旅游业需要对外宣传，扩大知名度，必定会吸引来大量的游客。一旦游客的数量超过该地区的承载能力，随之而来的破坏便不可避免。其中，水资源、空气资源和土壤资源首当其冲。景区里的人群和商店会产生大量生活垃圾，渗入到附近的水源与土壤中，造成难以清除的破坏。过多的旅游业车辆也会排出超额的废气，污染空气。所以，环境的承载力必须成为旅游业发展的一个重要考虑因素。

第二，要考虑旅游业为当地社会带来的经济效益。旅游业能推动落后地区的经济发展，但同时也需要大量的投资。如果一个经济落后的地区拥有丰富的旅游资源，而缺少足够的资金投入旅游业中，那就很可能吸引外地资本加入，共同开发当地旅游资源。因为开发旅游业会占用本地社会的资源，因此可持续发展的原则要求本地社会也能收获公平的效益，而不能让绝大部分旅游业的收益都流入外地投资者的口袋中。

总的来说，遵循可持续发展的原则对旅游业而言非常重要。不仅因为可持续发展体现了人类对保护生态环境的责任感，还因为可持续发展与旅游产业的经济效益紧密相关，它能实现真正长久的持续收益，一边发展经济，一边保护环境，形成健康良好的循环。

论文一共分为三章。第一章主要介绍了可持续发展的概念，以及围绕它意义和解释的争论。这一章分别从经济、社会、文化、环境的角度探讨可持续发展的涵义。其中，论文还讨论“弱”和“强”可持续发展这两种概念。在第一章的最后一部，论文还通过解释环境的承载力和场所感，进一步讨论旅游业的可持续性。

第二章的重点是中国的旅游业发展情况，分别从正面与负面的角度探讨了旅游业对中国社会、经济、文化和环境的影响。本章从两种不同的旅游现象出发，即讨论自然风景旅游地与文化遗产旅游地的区别和各自的问题。

第三章讨论了中国如何开发自然旅游资源，重点分析了中国的环境保护区与国家公园。本章将以张家界国家森林公园为例，研究中国对旅游业的管理和保护自然环境的情况。张家界国家森林公园成立于 1982 年，位于湖南省西北部张家界市境内，至今已经经历了 30 多年的发展。作为中国第一个国家森林公园，它具有典型性和代表性，可以从中窥探中国旅游业几十年来的演变轨迹。由于张家界自然景观丰富独特，吸引了大批游客，近年来当地旅游业发展十分迅速，带来了可观的经济收益。但是，在快速开发旅游资源的同时，景区内部也产生了较严重的污染问题，一定程度上破坏了当地的生态环境。在这种情况下，遵循可持续发展的原则就显得格外重要，要做到在保护自然旅游资源的前提下，合理开发文化旅游资源，维护好张家界国家森林公园的旅游口碑，努力实现人与自然和谐相处。

总而言之，论文以中国的张家界国家森林公园为例，探讨大众旅游对社会、环境等方面产生的影响，并阐述可持续发展原则对中国旅游业的重要意义。中国虽然拥有丰富的旅游资源，但是旅游业的发展仍存在许多问题，需要格外重视合理、长效的发展途径，增强保护环境与可持续发展的意识。

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Introduction

Sustainability has emerged since the 1980s as a sensible approach to nature, society and the economy. The development achieved through industry and other human activities has had to come to terms with the necessity of a rationally planned growth and exploitation of the limited resources available. Therefore, sustainable measures have started to appear in all fields of development, advocating for an environmentally-friendly and socially equitable growth. The debate on sustainability has been riddled with conceptual issues, resulting in heterogeneous operationalisations. Two major approaches epitomize this heterogeneity: weak and strong sustainability, based on different conceptions about the finitude and usability of natural resources, as well as about the value which should be recognized to nature (i.e., intrinsic in the case of strong sustainability, and instrumental in the case of weak sustainability).¹

With 8,8 trillion dollars generated globally in 2018 (China being the top spender), an employment rate equal to 10% of Earth's population, and a 10,4% contribution to global economy, tourism is now becoming one of the largest economic sectors in the world. Its economic consequences are evident. Its environmental and social impacts, however, may not be as manifestly visible as in other industries, as they are multifaceted and multi-scalar, being expressed through different activities (such as transportation, accommodation and related services), whose effects differ in size and content.² Ever since the negative impacts of tourism have begun being recognised, the tourism industry has started being flanked by sustainable practices as well.

Tourism and territory share a close relationship, as tourism needs a clean and healthy environment to be functional and attract visitors, while on its part the environment can potentially sustain damages due to that same touristic exploitation. Contextually, tourism may also inspire preservation practices and environmental behaviours, specifically because of its dependence on the territory. This sometimes-conflictual way tourism activities and ecological resources interact make it clear that tourism needs a well-thought planning. Tourism is now a global phenomenon and an economic activity that can hardly be stopped or contained with traditional measures. Therefore, sustainability in the touristic sector asks

¹ KUHLMAN, Tom, FARRINGTON, John, *What is Sustainability?*, Sustainability, 2010, pp. 3436-3448.

² WORLD TRAVEL AND TOURISM COUNCIL, *Travel & Tourism Economic Impact 2019*, WTTC, London, 2019.

for a balanced development that so much as possible prevents negative effects on those same resources that constitute the premise of its development and maintenance.³

Against this background, this work seeks to explain the relationship between tourism and sustainability. Its core objective is to understand whether it is possible for tourism to become a vessel of sustainability and influence practices on the environment and the society. To do so, natural tourism is taken as a case study. This is a choice made in order to more closely analyse the pressures of tourism and the environmental response in the sustainability framework. Moreover, natural tourism has been known as a locus for experimentation of innovative tourism models, based on a more balanced relationship between tourists, places, and local communities, both human and more-than-human.⁴

The work is structured as follows. In the first chapter, the concept of sustainability and the debate regarding its interpretation are introduced. Sustainability is then explained through its multidimensional nature binding environmental, social, cultural and economic aspects. Weak and strong sustainability visions are also presented as possible interpretative paradigms on the theme of natural resources exploitation and more in general about human-nature relations. In the second part of the chapter, sustainability implications of tourism are discussed, framing them through the complementary concepts of carrying capacity and sense of place implications.

The second chapter focuses on the case of China as a touristic country, by first giving a panoramic view on the historic development of this industry in China, highlighting the political and cultural consequences that resulted. The discourse then moves to the identification of tourism impacts in the country, specifically its effects on economy, society, culture and environment. A distinction is also made between the two principal types of tourism, namely natural and cultural tourism, which are distinct declinations of a single phenomenon.

Finally, the third chapter deals with natural tourism in China, in the specific case of Zhangjiajie National Park. An introduction is made on the development of nature-based tourism and nature reserves in China, and the Zhangjiajie National Park is then considered from its temporal development, environmental exploitation, community involvement and economic consequences. One of the oldest protected natural areas in China, the Park has

³ ZOLFANI, Sarfaraz Hashemkhani, SEDAGHAT, Maedeh, MAKNOON, Reza & ZAVADSKAS, Edmundas Kazimieras, *Sustainable tourism: a comprehensive literature review on frameworks and applications*, Economic Research-Ekonomska Istraživanja, 2015, pp. 1-30.

⁴ FREDMAN, Peter, TYRVÄINEN Liisa, *Frontiers in Nature-Based Tourism*, Scandinavian Journal of Hospitality and Tourism, 2010, pp. 177-189.

significantly evolved during the years, and numerous studies have been conducted on its soil. Its unique landscape and local ethnic culture attract masses of tourists every year, making it one of the most relevant destinations of mid-western China. For these reasons, Zhangjiajie has been chosen as a representative case to point out the evolution of Chinese tourism and its relation with the application of sustainable practices.

Finally, conclusions summarise the main findings of this work, putting forward their implication for research and practice.

Given the complexity and heterogeneity of the elements and actors involved, and the multiple analysis methods available, the discussion on tourism sustainability in this work is by no means exhaustive. The focus on nature-based tourism constitutes an additional limitation. The objective set was to further raise awareness on the theme of sustainability with the specific declination of tourism, especially in a country that more than others has witnessed a need for environmental measures and rationalised development.

Materials used for the purpose of this thesis include scientific and grey literature (reports, etc.), both in English and Chinese language. Moreover, observations taken during a site visit in the case study area of Zhangjiajie have been employed as well to draft the third chapter.

1. The concept of sustainability

1.1. The debate on sustainability

With the rapid development of communication technologies and the expansion of international trade, the world is becoming increasingly interconnected and globalised, and national interests are more and more linked to fortunes located beyond country borders. This enhanced interrelation at international level is, however, a double-edged sword. The undoubted benefits it brings – communication, information exchange, economic development, and international commerce – are accompanied by negative social and environmental effects, which impacts go well beyond national boundaries.

The increasingly evident environmental impacts of human activities around the globe and the concerns about its socio-political consequences stimulated an ecologically-oriented discussion. The discourse around economic development, environmental exploitation and resource management has introduced some innovative concepts, among which the idea of sustainability appeared⁵. Sustainability has become the main goal of many environmental policies, in particular from the second half of the 1980s.

The first official definition of sustainability was given in 1987 by the World Commission on Environment and Development (WCED), with the release of the Brundtland Commission report on global environment and development. In this document, sustainable development was defined as a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”⁶. Thanks to this report, the concept of sustainable development was introduced and became a theme of discussion in political discourse. *Our Common Future*, that is the official name of the Brundtland report, also represented the first overview of our planet’s condition that put the economic, social and political development under the perspective of environmental impacts⁷.

Sustainable development has indeed become a popular theme in modern development discourse. Despite the popularity and collective attention it accumulated with time, though, it still appears unclear what this concept exactly entails and how it concretely relates to development.

⁵ Sustainable development appeared as a consequence of environmental debates starting from the 1960s. Before the Brundtland report broadly defined it, the concept of sustainability was already circulating in intellectual circles of scientists, biologists and ecologists. For a more detailed analysis, see KIDD, Charles V., *The Evolution of Sustainability*, Journal of Agricultural and Environmental Ethics, 1992.

⁶ WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, Oxford University Press, Oxford, 1987, p.44.

⁷ REDCLIFT, Michael R., *Sustainable Development (1987-2005) – an Oxymoron Comes of Age*, Problems of Sustainable Development, 2009, pp. 33-50.

The interpretations attributed to sustainability in the course of the years have multiplied, with a great deal of theoretical explanations and attempts to put them into practice. Only in 1992, with the Earth Summit in Rio, a series of initiatives and proposals were put forward in order to pave the road to a practical and operational realisation of sustainability. The different positions that emerged from related literature can be broadly ascribed into three groups of thought. The first group focuses on the relation between sustainability and the natural environment, in the sense that the development of human activities is limited by environmental conditions, such as the availability of natural resources, the ambient carrying capacity, and the protection of biodiversity. A second group of interpretations considers instead the quality of life and social equality. Sustainability as a concept is here accompanied by that of equal income distribution. The third group of definitions refers instead to intergenerational equity, a principle that grants future generations the same opportunities of social and economic growth from which we benefit today. At the root of the varying meanings assumed by sustainability there are assumptions of different nature: an ecological concern, so as to preserve natural resources and avoid ecological disasters; an economic meaning, in the sense that development should be as beneficial as possible; and a moral argument, since the current generation has a moral obligation towards the future ones⁸. The concrete definition of sustainable development is not easily pinned down, and since it identifies a series of behaviours and levels of responsibility, and it spans on a multidisciplinary field, it cannot be given a univocal meaning.

The same term of “sustainable development” has been seen by some as a glaring oxymoron, arising on one hand from the needs of growth and development, and on the other from the imperatives of environmental, social and economic sustainability^{9,10}. The ambiguity lies in the absence of conceptual and semantic clarity, causing a variety of different interpretations, and in the fact that resource conservation and economic development are traditionally regarded as incompatible concepts. In the field of neoclassical economics and traditional deep-ecology approach, the technocentric view to development (supporting

⁸ BERARDI, Stefania, *Principi economici ed ecologici per la pianificazione di uno sviluppo turistico sostenibile*, FrancoAngeli, Milano, 2007.

⁹ ROBINSON, John, *Squaring the circle? Some thoughts on the idea of sustainable development*, Ecological Economies, 2004, pp. 369-384.

¹⁰ There is also some confusion around the term *sustainable development*. It is not unusual, even in the academic field, to regard the terms sustainability and sustainability development as synonyms. According to some authors, though, the two terms entail a basic conceptual difference. Gray (2010), for instance, argues that sustainability is the objective or goal of a process called sustainable development. In light of this vision, while sustainability indicates a condition of being, sustainable development defines the process that leads to this state.

economic growth through resource substitution) is traditionally opposed to the ecocentric vision (refusing the exploitation of natural resources).¹¹ An author suggested to analyse sustainable development by breaking it down into its basic components, and assessing them separately. In this way, the combined study of development theory and sustainability principles, despite simplifying the notion, could help conceptualise and assess its principles.¹²

In any case, the interest in sustainable development has been steadily increasing, and so has the need to address the difficulties around it. For this reason, the necessity of giving a clear expression to such a vague and broad concept has been strongly felt, but the lack of relevant and practical tools has made it a difficult challenge. In order to shift from a theoretical perspective to a more practical application of sustainability, it is necessary to at least delimit this concept and explain its key features.

Starting from the most cited definition given by the Brundtland report, two are the key themes that are taken into consideration: the notion of needs, especially prioritising those of people struggling with poverty, and the limits set by technology and social organisation on the capacity of the environment to satisfy current and future needs. Besides this, the concept of cross-generational equity should also be highlighted: this notion is important, but creates interpretational issues, since it is not easy to determine and conceptualise what the needs of future generations will be. Clearly, needs change as per definition, so it is likely that future generations' necessities will differ from those of today¹³.

Contemporary sustainability theories try to prioritise what the essence of sustainable development is. One concern is that of preserving and passing on the conditions for living, meeting human aspirations and needs while taking care of the planet as a whole. This is translated into an integrated approach to social, environmental and economic frameworks, which address growth challenges in a way that continues to be beneficial to people. In order to achieve this objective, economic models work to gather resources and exploit the natural and financial assets in a sustainable way; from an ecological point of view, the focus is on the conservation of biodiversity and environmental quality, while social models try to develop better political, educational, health and cultural systems, and improve the general quality of life.

¹¹ These visions, connected to the concepts of weak and strong sustainability, are later discussed.

¹² SHARPLEY, Richard, *Tourism and Sustainable Development: Exploring the Theoretical Divide*, Journal of Sustainable Tourism, 2000, pp. 1-19.

¹³ ROBINSON, *op.cit.*

The second concern regards cross-generational equity, or the duty to bequeath acceptable living conditions to future generations. This is defined as having sufficient care of the present state, so as to pass it on without jeopardising the future, allowing resources to continue to exist for others. This argument can be considered by analysing the three aspects of sustainable development, i.e. the economic, environmental and political dimensions, which will be discussed in a later section¹⁴.

To sum up, the definition provided by the WCED report initiated a debate and instilled political interest around global sustainable development. It created an approach to growth that allows society to interact with the environment without compromising the resources for the future. It provided a conceptual paradigm that demands an improvement of the present living conditions while paying attention to the environmental challenges the ecosystem faces.

That being said, the concept does not only revolve around ecological sustainability concerns, but it also relates to human development objectives. From this perspective, sustainable development emphasises the need to engage in positive socio-economic activities, with the intent of reaching an equilibrium between social wellbeing, economic production and environmental integrity in decision-making process¹⁵.

The suggestions proposed by the WCED report became the principal themes of the Rio Summit debate, held in 1992. The resulting outcomes of the discussion on sustainable development were organised in a document called Agenda 21, which underlined the need for sustainability in the international political discourse, and urged national governments to promote strategies addressing sustainable development in its economic, social and environmental dimensions.

The Rio Summit and Agenda 21 identified a rising concern with international environmental problems: an awareness that led to the creation of a variety of institutional mechanisms to keep in check and manage environmental problems more efficiently: it had become evident that global ecological issues, above all climate change and biodiversity loss, were problems that went beyond the existing institutional frameworks of politics and science, and their ability to solve problems. Environmental issues were difficult to control with traditional institutional instruments, and most had evaded the national system. Another fundamental assumption of the Rio Summit was a shared global commitment in protecting

¹⁴ BLOWERS, Andrew, BOERSEMA, Jan, MARTIN, Adrian, *Is sustainable development sustainable?*, Journal of Integrative Environmental Sciences, 2012, pp. 1-8.

¹⁵ MENSAH, Justice, *Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review*, Cogent Social Sciences, 2019.

the future economic development while simultaneously ensuring the preservation of the environment.

The international effort toward sustainability has not yet stopped. In 2002, a summit known as Rio+10, the World Summit on Sustainable Development (WSSD), took place in Johannesburg. Its aim was to check progress made in applying the outcomes from the Rio Summit. The Rio+10 Summit created a plan known as the Johannesburg Plan, to implement the actions presented in Agenda 21, and also proposed a series of multi-stakeholder agreements to carry out sustainable development.

The 2002 Summit additionally highlighted an expansion of the definition of sustainable development, with the introduction of the three so-called “pillars” of sustainable development: economic, social, and environmental. It was stated that the three pillars were mutually interdependent and that it was a collective responsibility to reinforce and strengthen them both at a local and global level¹⁶.

Twenty years after the Rio Summit, in 2012, the Rio+20 Conference, also called the United Nations Conference on Sustainable Development (UNCSD), was held once again in Rio. The conference outcome report drafted in this occasion, *The Future We Want*, reaffirmed the global importance of sustainable development. This conference prioritised two themes in the sustainable development context: achieving green economy and an internationally coordinated institutional framework for sustainable development. Outcomes of the Rio+20 Conference included the identification of sustainable development as one of the five key priorities of the United Nations action agenda, stressing the key role it should play in both international and national development policies¹⁷.

1.1.1. Indicators of sustainability

The difficult definition of sustainable development can be approached in different ways. A possible method to delimit its meaning is understanding how to measure it. The issue at hand here is not that of finding a theoretical definition, but to find the sense of the term in the way it is measured. The question centres around how to evaluate the claim that a certain action is environmentally friendly, and which criteria are to be used to measure and compare the outcomes of that action. The need to identify a way to grapple with these

¹⁶ ROBERT, Kates W., PARRIS, Thomas M., LEISEROWITZ, Anthony A., *What is Sustainable Development? Goals, Indicators, Values, and Practice*, Environment: Science and Policy for Sustainable Development, 2005, pp. 8-21.

¹⁷ MENSAH, *op.cit.*

problems led to efforts in the research of social and ecological sustainability indicators, and many attempts in applying them to jurisdictions¹⁸.

Sustainable development is not easily measurable, being a very broad evolutionary process, and it is not directly detectable, given the different interpretations of what it concretely consists in. Thus, having to deal with the ambiguity the definition of sustainable development entails, defining and measuring effective indicators is not an easy task either. Many were the efforts expended in the creation of indicators lists, combining local, national and global processes. The inherent elasticity of the term sustainable development, the need to coordinate politically the measurement efforts, and the different aspirations of the stakeholders involved, are reflected in the large list of items demanding attention. Indicators are however important tools for sustainable planning, implementation and monitoring, giving information about the ecological, economic and social conditions, and providing the means for assessing the real efficiency of implemented actions.

It has to be noted that the final list of indicators is neither exhaustive nor complete, nor is there a unique set of successful indicators. Given the evolutionary character of human-nature relations, and the regulatory nature of sustainable development, indicators' development process is not to be seen as a systematic improvement toward a fixed optimum, but as a constant revision and adjustment. Indicators will constantly change and evolve in concert with data and knowledge advancements, adjusting themselves to emerging priorities and norms. For this reason, they must always be updated and adapted, and appropriately applied to the specificities of each case¹⁹.

Paragraph 40.6 of Agenda 21 presented the development of sustainability indicators as a fundamental condition to lay the foundation for achieving a sustainability-oriented decision-making process. The definition of sustainable strategies requires the identification of active methods and strategies to measure sustainability in each productive sector. Indicators should ensure policy integration between different sectors (like energy, transportation, agriculture), and make sure that environmental progress is taken into consideration in the process. As such, they monitor and measure the efficiency of environmental policies, providing valuable data to policy makers. In regard to decision-making, sustainability indicators are useful in a number of ways; first, they provide information on environmental issues, enabling policy makers to evaluate and counteract the problems; secondly, by identifying the main causes of environmental strain, they help setting

¹⁸ ROBINSON, *op.cit.*

¹⁹ ROBERT, *op. cit.*

goals and priorities in policy development; thirdly, they keep a check on the effects of policy implementation. Furthermore, they can be used to create a public understanding on environmental issues, giving insight on how human and environmental systems function and affect each other, and providing information on how human activities impact the dimensions of sustainability. Educating on policy drivers, consequences and responses can be a way to raise awareness and gain public support for policy actions²⁰.

When governments decide to walk the path of sustainable development, they will need to make decisions aligned with sustainability goals. For this purpose, measures of the progress toward sustainability will be needed. However, given the roles indicators play in policy development and sustainability understanding, indicators development is not only a political task. They are a tool meant to monitor the effects of policy decisions, but their role is intrinsically connected to that of sustainability achievement. The identification and development of effective sustainability indicators, then, does not only involve decision-makers, but it must also be backed by scientific knowledge.

According to Rametsteiner, the selection and measurement of indicators is “a process of both scientific knowledge production and of political norm creation”²¹, so both dimensions should be considered when designing sustainability indicators. The actors simultaneously involved in the process are scientists, decision-makers, bureaucrats, and citizens committed to sustainability. On one hand, indicator sets proposed by researchers are usually too complicated to be accepted by policy-makers, but on the other hand an approach legitimated only by political objectives sacrifices the neutrality and credibility of indicators. As a consequence, the design of indicators requires the support of both scientifically competent agents, and the negotiation of political forces. As a consequence, to concretely apply indicators a balance must be found between simplicity and accuracy. Indicators must be simple enough to be correctly understood by decision makers and operational enough to be applicable in reality, and at the same time must be articulated enough to address all relevant problems.²²

In order to accomplish their role as planning and performance assessment tools, indicators must possess explanatory, analytical and communication qualities. The choice and use of a certain set of indicators is subjected to the objective to be achieved. According to

²⁰ SMEETS, Edith, WETERINGS, Rob, *Environmental Indicators: Typology and Overview*, European Environment Agency, Copenhagen, 1999.

²¹ RAMETSTEINER, Ewald, PÜLZL, Helga, ALKAN-OLSSON, Johanna, FREDERIKSEN, Pia, *Sustainability indicator development—Science or political negotiation?*, Ecological Indicators, 2009.

²² TORRES-DELGADO, Anna & SAARINEN, Jarkko, *Using indicators to assess sustainable tourism development: a review*, Tourism Geographies, 2014, pp. 31-47.

the Organisation for Economic Development and Cooperation (OECD)²³, the key purposes of indicators are: to reduce the number of measurements and parameters normally used in evaluating policy work; and to simplify the communication process of the results to interested users. Moreover, the selection and validation of indicators should guarantee three fundamental prerequisites: relevance, analytical soundness and measurability. Indicators should be relevant and representative of environmental issues, also with regard to the ability to communicate immediately and sensitively the variations of the monitored phenomena. Measurability, i.e. prompt availability of necessary data, is another important characteristic of good indicators: such condition requires documented statistical quality, scientifically validated and periodically updated. Data must be systematically collected and linked to local and global sustainability issues.

Actually, in order to confront indicators' sustainability, benchmarks or reference values need to be identified. In certain cases (e.g. water and air quality, pollution level etc.), reference values are juridically defined on national or international level. For qualitative values, instead, determining quantitative benchmarks can be harder. It should be noted, in fact, that not all sustainability indicators are quantitatively measurable, so in these cases a qualitative analysis should be made (with the help of eventual quantitative parameters). Indeed, the objective of indicators is not to identify absolute values, but to measure the distance or proximity of a certain human activity to a sustainable model, evaluating the entity of changes and the new tendencies arising with time.²⁴

In general, there are two types of indicators, simple and complex (or indices), chosen dependently on the quality and quantity of information available. Simple indicators are based on simple field data and directly provide statistics, while complex indicators are formed by the combination of many simple indicators. The information linked to each kind of indicator is different, and so does its utility. Simple indicators can assess particular impacts and provide partial solutions to problems, while complex indicators give a more integrated and comprehensive view. Between simple and complex indicators, sets of indicators could be located. Indicator sets are a compilation of simple indicators organised in order to meet particular research goals and provide an original perspective on a specific phenomenon.²⁵

²³ ORGANISATION FOR ECONOMIC DEVELOPMENT AND CO-OPERATION, *OECD Key Environmental Indicators*, OECD, Paris, 2008.

²⁴ BERARDI, *op. cit.*

²⁵ TORRES-DELGADO A. & SAARINEN J., *op. cit.*

Many attempts have been made to try and classify indicators; some examples can be noted. One list of indicators is that compiled by the European Environment Agency (EEA)²⁶, which at the moment comprises 122 indicators, including 13 environmental themes. The indicators are classified in five categories as descriptive indicators, performance indicators, efficiency indicators, policy-effectiveness indicators and total welfare indicators. Additionally, indicators are organised in sets, each of which aims at assessing a particular problem (e.g. energy indicators, water indicators, climate state indicators etc.)²⁷. These indicators are used, among others, in the drafting of State-of-the-Environment Reports (SOE), periodically measuring the conditions of European ecological systems. The EEA indicators thus reflect the need, felt by the European Community, to develop a common system of environmental monitoring.

Other sets of indicators are those developed by the OECD. These are used to assess national environmental performance and to check the implementation of the OECD Environmental Strategy in the member countries. In order to simplify the reporting process, OECD states report on environmental issues have started to use a reduced number of indicators, called “key indicators”, chosen from more elaborate sets²⁸.

Given the flourishing and success of indicators sets, it is becoming increasingly difficult for policy-makers to navigate the realm of indicators and understand their importance and meaning. While science academics usually try and gather large amounts of data, policy-makers wish instead to reduce their number and condense them in a limited number of essential key indicators. Key indicators should be able to capture the fundamental issues and represent the different dimensions of sustainability: environmental (ecological impacts, use of resources, biodiversity, environmental quality), social (human rights, equity, public participation, work conditions), and economic (profit, productivity, investments). Indicators systems should integrate and connect these dimensions, not considering them as separate units. The effort of synthesis of indicators is to be intended in this sense, to avoid the creation of broad lists of elements by creating integrated indicators, able to capture as many topics and dimensions as possible²⁹.

²⁶ The complete and updated list of EEA environmental indicators can be found at:

https://ec.europa.eu/eurostat/documents/1798247/6812352/Environmental+indicator+catalogue_pdf/

²⁷ EUROPEAN ENVIRONMENT AGENCY, *EEA indicators*, <https://www.eea.europa.eu/data-and-maps/indicators/about>. Accessed October 2019.

²⁸ OECD, *op. cit.*

²⁹ BERRINI, Maria, *Gli Indicatori per lo sviluppo sostenibile*, in *Valutazione d’Impatto Ambiente*, dossier: Indicatori per la Valutazione Ambientale, Edicom Ed., 2004.

Experience has shown that environmental indicators are effective tools to monitor sustainability progress, to assess policy performance and obtain feedback on the condition of the environment. Indicators make sustainable development a more tangible and achievable concept. It is then unsurprising that the request for such tools has intensified; continuous efforts are underway to develop indicators in all policy spheres, and to promote the mutual transfer of knowledge and experience between countries and international groups³⁰.

Of course, the development of indicators alone does not assure that environmentally sustainable practices will be implemented. However, they do represent an important step forward in the definition and applicability of sustainable development. The passage to a more sustainable society wouldn't be as feasible without the regulatory efforts made in the indicators' development field.

1.1.2. The four “dimensions” of sustainability

Sustainability is a multidisciplinary concept, touching environmental concerns, political applications and intergenerational equity. Traditionally, when talking about sustainability, three are the main areas concerned in the discourse. It was the 2002 World Summit on Sustainable Development that officially defined the three-dimensionality of sustainability, marking the distinct (but interconnected) spheres or domains of sustainability, which illustrate the multifaceted implications of sustainable development. The Johannesburg Declaration explicitly mentions the need of integration and strengthening of the “interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection”³¹. These are in fact the three dimensions that describe sustainability in its environmental, economic and social aspects.

The three pillars mark a set of concepts, that represent the fundamental concerns related to development, and the basic ground legitimating related actions and decisions. The impact of human activities is actually not only limited to the environment, but it also has implications for the wellbeing of society and economy. In this perspective, sustainable

³⁰ TANGUAY, Georges A., RAJAONSON, Juste, THERRIEN, Marie-Christine, *Sustainable tourism indicators: selection criteria for policy implementation and scientific recognition*, Journal of Sustainable Tourism, 2012.

³¹ World Summit on Sustainable Development, *Johannesburg Declaration on Sustainable Development*, Johannesburg, 2002.

development translates to a positive transformation concerned with economic, social and environmental factors³².

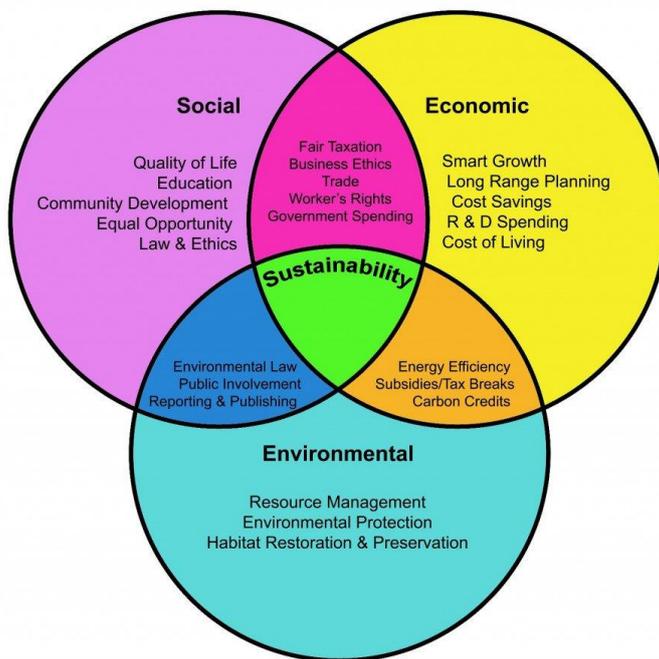


Fig. 1
Relationships among the three domains of sustainability.
Source: Wanamaker 2018

The concept of the three dimensions was quickly adopted, but the terms to their definition were not universally accepted, with the most pronounced differences found in the social pillar. This model is nowadays the prevalent approach to sustainability, but it is imperative to point out that another trend of thought has appeared next to it. According to this second vision, culture must be added to the classic model, as the fourth dimension of sustainability. Then, the representation of sustainability would appear as such.

³² ROBERT, *op. cit.*

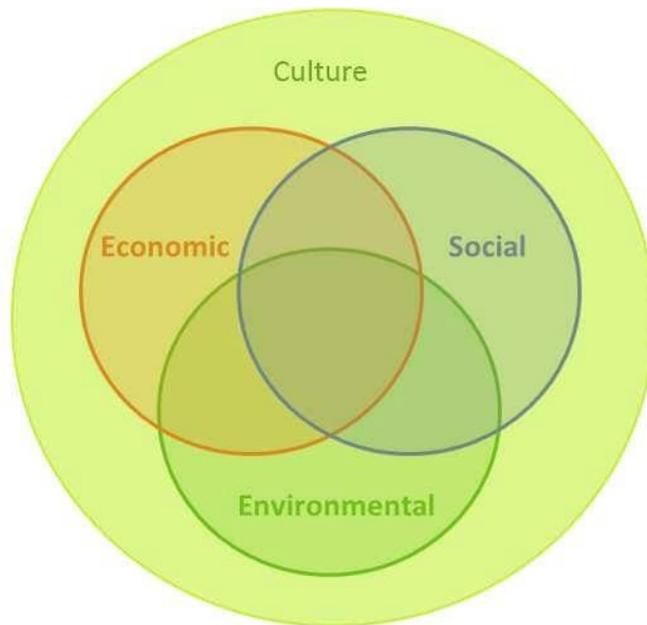


Fig. 2
Four-dimensions model of sustainability.
Source: Eco Steps 2018

The role of culture as the fourth dimension of sustainability will be discussed in a later paragraph.³³ Meanwhile, an overview of the main characteristics of the three traditional pillars is here presented.

To begin with, the concept of economic sustainability identifies a productive system with the ability to meet current consumption necessities without jeopardising future needs. Historically, economists assumed that the availability of natural resources was infinite and that the market, together with the help of steadily advancing technologies, would have been able to exploit and replenish them efficiently in the production process. Though, it quickly became clear that natural resources are not unlimited, and not always renewable. The enlargement of the economic system placed strain upon resource availability, causing economists to reconsider production claims. Therefore, since human life depends on a limited supply of natural resources, which cannot be indefinitely replenished, growth and consumption cannot go unbridled. Policy-makers cannot focus only on market development and economic growth, but should instead be concerned about the destructive impacts such activities have on the environment.

Projects and decisions made within an economically sustainable framework should be fair and financially secure, should consider far-sighted benefits and objectives, without overlooking the other dimensions of sustainability. Many initiatives could support economic sustainability; for instance, promoting an intelligent growth through sensible urban planning and introducing subventions for eco-friendly development. Financing education centres,

³³ See par. 1.3.4, The “sense of place”.

research and development also plays a role in economic sustainability. Finally, attention should be placed on the reduction of unnecessary expenses, and the simplification of bureaucracy. Economic sustainability can then be defined as the capacity to reach an ecological efficiency based on a sensible and long-sighted use of natural resources, and a prudent approach to non-renewable resources.³⁴³⁵

A second pillar of is that of environmental sustainability. This concept refers to the ability of the environment to maintain the quality and renewability of natural resources, and successfully sustain human life and biodiversity over a long period of time. Decisions made in this framework should seek a balance with the natural system, and foster an eco-friendly growth, trying to avoid as much as possible any disturbance to the environment. The ecological impacts of a decision should always be taken into consideration before making any move.

Environmental sustainability refers then to biodiversity preservation and natural carrying capacity; this assumption implies that natural resources should not be consumed faster than they can be renewed, and waste should not be produced quicker than it can decompose. The planet maintains its precarious natural equilibrium within limits to growth, which human development is overstressing. However, the consequences of human activities are finally showing, raising concerns on the state of the environment. It is therefore advisable, for the sake of biodiversity conservation and ecosystems integrity, that societies adapt to emerging issues in a sustainable way. Environmental sustainability is an important dimension, as it has implications for the productive stability of the environment and its resilience to support human life³⁶.

The third domain of sustainability is that of social sustainability. It is based on the idea that decisions should be made in a way that improves the condition of society. It is the ability to provide access to fundamental needs (safety, health, education) in an equitable way in today's and tomorrow's generations. This concept includes notions such as equity, participation, empowerment, institutional stability, cultural identity. Social sustainability aims at the betterment of society, alleviating poverty, providing healthcare and education, giving everyone the possibility to live a peaceful and meaningful life. Nevertheless, the

³⁴ MENSAH, *op. cit.*

³⁵ WANAMAKER, Christopher, *The Environmental, Economic, and Social Components of Sustainability: The Three Spheres of Sustainability*, 2018, <https://soapboxie.com/social-issues/The-Environmental-Economic-and-Social-Components-of-Sustainability>. Accessed October 2019.

³⁶ MENSAH, *op. cit.*

realisation of this process does not justify the destruction or overburden of the environment; the sensible use of the existing resources, instead, should be at the base of any action³⁷.

It has been noted³⁸ that social sustainability, given the elusive definition of the social dimension, is not simple to achieve. Differently from the economic and environmental spheres, where cycles and flows are easily noted, social dynamics are not tangible and cannot be easily shaped. According to Murphy³⁹, four are the main objectives of social development: equity, awareness for sustainability, participation and social cohesion.

Equity is a fundamental social concept which implies a fair allocation of welfare goods and life chances on local, global, and intergenerational levels. A fair distribution entails that everyone, no matter the gender, should get the same opportunities to survive and achieve their self-realisation. In policy terms, it refers to a broad variety of themes, including access to food, employment, education, lodging, basic medical care, and a clean environment. It also promotes a society free from gender, religious and racial discrimination. Awareness for sustainability refers to educating people on the concept of sustainability, promoting green, sustainable consumer behaviours. It is implemented through specific campaigns, projects and events, raising public awareness on sustainable development. Such initiatives stimulate citizens to adopt sustainable behaviours and to understand environmental laws. The third concept, participation, has the objective of allowing as many social groups as possible to take part in decision-making processes. In this way, citizens feel more socially included and easily accept the legitimization of government policies. Social inclusion encourages stability and social sustainability. Finally, the fourth objective social cohesion, promotes happiness and wellbeing. Its aims are to reduce conflicts and crime, to fight antisocial behaviours and promote trust between individuals. Social cohesion translates the need to minimise conflicts, promote a common sense of purpose, and to strengthen networks within the community.

Understanding how social dynamics work is essential to define social sustainability. Success in the social sustainability field is not about meeting everyone's needs, it is rather about providing everyone with the basic conditions enabling them to meet their needs.

Decision-makers should always be aware of the relations between these pillars, and consequently make decisions in the interest of sustainable development. When the three spheres are applied and decisions are environmentally, economically and socially sustainable, then everybody wins. The environment is safeguarded, resources aren't wasted, the economy

³⁷ MENSAH, *ibidem*.

³⁸ ROBERT, *op.cit*.

³⁹ MURPHY, Kevin, *The social pillar of sustainable development: a literature review and framework for policy analysis*, Sustainability: Science, Practice and Policy, 2012, pp. 15-29.

suffers no consequences and the wellbeing of society is improved or preserved. The best decisions are made when taking into consideration all three aspects of sustainability. To walk in this direction, key players on the international scene have the responsibility to educate and legislate so that development is sustainable, and everyone is conscious of what it entails⁴⁰.

The conclusion to this discussion is that the concept of sustainability requires interdisciplinary thinking, a multifaceted approach that integrates ideas and creates synergies between different fields. Governments, civil societies and economic forces are all involved in the process, and should cooperate in the definition and implementation of positive strategies, together with the academic community.

However, while there will always be the need for theoretical and methodological definitions in relation to sustainability, the innate multidimensionality of the concept means that there won't be a single, universally accepted conceptual way to define it. Theoretical refinement will continue to develop, but the final test to its exactness can only be done by seeing the results of its practical application in the world⁴¹.

1.2. Strong and weak sustainability

As discussed so far, it appears that sustainable development is not an absolute standard, but it identifies a wide range of behaviours and responsibilities. Sustainability means ensuring the wellbeing of today without encumbering the future. It is an approach based on a long-term vision, which emphasises the need to maintain good ecological conditions. Human activities can prosper thanks to the resources provided by the environment, and the same human presence on Earth is intrinsically bound to it. For its role in our survival, we share a special bond with the environment, a relation that is interpreted differently in every person. The approach people have towards the planet influences their behaviours and views in how to treat and exploit it. Such different modes of envisioning the environment are discussed in this chapter. However, it is first necessary to introduce the concept of capital, and its different declinations.

Capital is basically defined as a stock that produces flows of services and/or goods that contribute to the production process. The main distinction to be made in terms of types of capital is that between human/manufactured capital and natural capital. Human capital refers to the availability of human resources, comprising labour force, knowledge and

⁴⁰ WANAMAKER, *op. cit.*

⁴¹ ROBINSON, *op. cit.*

organisational patterns. Manufactured capital includes reproducible materials and tools made by humans to help in the production process.

The last category is natural capital. Natural capital is essential to the survival of human society. It indicates all elements of nature (exhaustible and renewable natural resources, ecosystems, biological processes) that contribute to our life. Natural capital embodies all raw materials used in production sectors, becoming food, fuel, construction material etc. It also represents biological processes that reabsorb production and consumption waste. Its contribute to human productivity is undeniable, but natural capital's role is not only limited to production. Its presence is most importantly essential for the survival of life, in the form of fundamental life-support functions (for instance biogeochemical cycles, ensuring climate and ecosystems' stability, and protection from UV radiations through the ozone layer). Additionally, the beauty of natural sceneries also contributes to human wellbeing, bringing amenity and pleasant feelings. All these functions are autonomously produced by environmental capital, but production processes and human activities can have an influence on it⁴².

Wealth creation processes employ the different kinds of capital in order to produce goods and services needed by people, but production levels can be maintained only if the capital stock is maintained. The question here is whether, if one type of capital diminishes, another type can be used to substitute it. If that was feasible, sustainability would be possible as long as the decline of one type of capital was compensated by the increase of another. In this case, the following question would be whether substitution within capital stock is allowed regardless of the type of capital, or, whether there are some parts of it whose unique role cannot be substituted. Such issue of capital substitutability will be examined later.

Given the definition and role of capital in its different declinations, it is now necessary to analyse how people approach and view it in the context of production and wealth creation. Turner⁴³ identified four ways to envision sustainability in relation to growth and natural capital, ranging from very weak sustainability, which supposes full substitutability, to very strong sustainability, which claims substitutability is not possible and natural capital must be preserved as it is. The two middle categories are weak sustainability and strong sustainability. Strong and weak sustainability are two opposing concepts in the challenge to

⁴² EKINS, Paul, SIMON, Sandrine, DEUTSCH, Lisa, FOLKE, Carl and DE GROOT, Rudolf, *A Framework for the practical application of the concepts of critical natural capital and strong sustainability*, Ecological Economics, 2003, pp. 165–185.

⁴³ TURNER, R. Kerry, *Sustainable Environmental Economics and Management*, Belhaven Press, London, 1993.

give an operational dimension to sustainability. The issue is, which one is most fit to describe reality.

Weak sustainability assumes that welfare does not depend on a specific type of capital and that it can be sustained through the substitution of natural capital with manmade capital. In this perspective, sustainability means reaching a non-decreasing total capital stock. Such feat is achieved by assuming the total substitutability of natural and manufactured capital, thus giving no special priority to environmental capital.⁴⁴

Weak sustainability can be discussed as a consequence of the growth theory with exhaustible resources. The research done in this field was aimed at studying the way limited resources would allow a continuous flow of production. This theory showed that, as long as capital types could be substituted with one another, with the help of technology, growth could be theoretically unlimited. Evidently, this view assumes the possibility of complete substitutability between natural and manufactured capital, and gives an essential supporting role to technological change, considering them as the fundamental forces to counterbalance the limits to development set by exhaustible resources.⁴⁵

So, this kind of growth model developed primarily by economists Hartwick and Solow in the second half of the last century, postulates the preservation of total capital stock through time, assuming infinite substitutability between all capital categories (natural, manufactured and human), and claiming that technological change can increase production of natural capital more quickly than it is consumed. Technological advancement is here given the task to continuously generate technical solutions to the ecological problems caused by the intensive production of goods and services. Weak sustainability promotes reactive strategies, stressing research and development's capability to limit uncertainty and guarantee sensible resource usage. Decisions would then be made with cost-efficiency and technical analysis in mind. The only concern for supporters of this position is the maintenance or, better, increase of the total stock of capital, thus prioritising monetary rewards over environmental degradation.⁴⁶⁴⁷

The paradigm opposing to weak sustainability is that of strong sustainability. Strong sustainability derives from the perception that natural and manmade resources cannot be

⁴⁴ TURNER, R. Kerry, *Sustainable Development and Climate Change*, Working Paper, Centre for Social & Economic Research on the Global Environment (CSERGE), 1995.

⁴⁵ CABEZA GUTES, Maite, *The concept of weak sustainability*, *Ecological Economics*, 1996, pp. 147-156.

⁴⁶ PELENC, Jérôme, BALLEST, Jérôme, DEDEURWAERDERE, Tom, *Weak Sustainability versus Strong Sustainability*, Brief for Global Sustainable Development Report, 2015.

⁴⁷ DIETZ, Simon, NEUMAYER, Eric, *Weak and strong sustainability in the SEEA: concepts and measurement*, *Ecological Economics*, 2007, pp. 617-626.

completely substituted with one another, considering the uncertainty, irreversibility and unique characteristics that environmental capital possesses in its contribution to welfare. These not substitutable functions of natural capital are called critical natural capital.⁴⁸

Strong sustainability supports the concept of a non-declining natural capital. According to this view, natural capital cannot be regarded as a simple stock of resources useful for making profit. There is more to nature than exploitation for economic growth. First of all, ecosystems are providers of life-support services, fundamental for the preservation of life, and cannot be in any way replaced by manmade instruments. If we were to lose or compromise these essential environmental assets, the damage would be irreversible (e.g. climate change, species extinction, fossil fuel consumption). So, the decrease of critical, non-substitutable natural capital is a sign of mounting unsustainability.

The risk of irreparable environmental degradation and the uncertainty around its future consequences, combined with the intrinsic functional value of ecosystems, prompts strong sustainability supporters to safeguard and bequeath critical natural capital, adopting the precautionary principle. Strong sustainability advocates promote proactive measures to avoid the loss of natural capital, stressing the need for a cautious approach in order not to burden future generations with unwanted environmental costs. Natural capital preservation and the implementation of a safe minimum standards approach are then important elements in a strong sustainability vision. Since environmental damage and loss of natural capital may irreversibly affect future generations' development and survival, the restoration and preservation of today's critical natural capital is crucial, and should be prioritised over the flows of income depending on it.⁴⁹

Strong sustainability, however, does not necessarily mean that all ecosystems have to be maintained forever unchanged. Assessments must first be carried out to identify the natural services playing important roles for human life and wellbeing, and to adjust sustainability policies accordingly. The lack of knowledge and uncertainty around ecosystems and their functions, though, make it very hard to distinguish critical and non-critical services.⁵⁰

As discussed so far, the two visions of weak and strong environmental sustainability represent opposite interpretations on the theme of growth and resource exploitation. The

⁴⁸ EKINS et al., *op. cit.*

⁴⁹ TURNER, *op. cit.* (1995).

⁵⁰ PELENC et al., *op. cit.*

main issue around which debate is centred is that of substitutivity of capital types. Substitutivity is, according to some, a restrictive concept because limited by many factors.

Firstly, the qualitative difference between manufactured and natural capital must be made clear. The first is reproducible and its destruction is rarely irreparable (it would occur only if the human capital, or knowledge, used to create it was lost as well). On the other hand, natural capital's consumption is irreversible, it being a product of nature with fixed or limited availability. While it is true that some manmade materials could be used to substitute in part natural raw materials, critical natural capital gives a unique contribution to human welfare. Natural resources like water, air, energy, minerals, space, together with the complex relations existing between them, ecosystems, biosphere and life-support services, essential to life, cannot be replaced by manufactured products. Also, manufactured capital production requires natural capital, so manmade elements cannot be a complete substitute for natural resources.⁵¹

Additionally, given our insufficient knowledge about how natural systems operate (like global carbon or biogeochemical cycles), we cannot know for certain what the consequences of natural capital's destruction on human wellbeing will be. Unless society was totally indifferent to it, the acknowledgment of risk, uncertainty and ignorance itself should be a call for caution in the use of natural capital.⁵²

It appears that complete substitutivity as assumed by weak sustainability seems improbable, at least with the present knowledge and technologies. The faith reposed in technological advancements must also be prudent. Considering the current level of scientific knowledge and technologies development, weak sustainability's assumption of the role of technology in creating natural resources is quite far-fetched. For one, there is the empirical problem of substitutivity of natural resources with technology. It is unclear whether technological development will go in the right direction, and whether it will be able to find appropriate solutions to environmental problems. Besides, it cannot be completely excluded that technological change itself will not have negative impacts on the environment as well.⁵³

So, weak and strong sustainability identify two ways of considering the environment and its functions, one focused on monetisation, convinced that even nature has a price and can be sold, the other believing that some things are priceless, and cannot be used as a base for economic profit.

⁵¹ EKINS et al., *op. cit.*

⁵² NEUMAYER, *op. cit.*

⁵³ CABEZA, *op. cit.*

1.3. Sustainability applied to tourism

What discussed so far highlights the complexity in the definition and application of sustainability. It describes a multifaceted paradigm that can be used in different ways to create a relationship with environment, economy and society. The general discourse on sustainable development can be applied and declined to any productive sector, and sustainability as a goal can be read in relation to different economic fields. In the current analysis, the tourism industry will be taken under consideration.

The tourism industry is an interesting example to consider. In the words of the World Tourism Organisation (WTO), “tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes”⁵⁴. Tourism is truly a global economic activity, one of the greatest contributors to the world’s economy, with trillions of dollars annual profits generated, stimulating investments and exports, and with the power to create jobs and wealth. According to the data gathered by the WTO, in the first decade of this century, international tourists worldwide have increased from 675 million to 940 million, and tourism’s contribution to global gross domestic product (GDP) settled around 9%. This trend is still on the rise: in the first semester of 2019, international visits grew 4% in comparison with the same period last year.⁵⁵

Tourism has become an important player in the global economy; however, tourism is not a standard industrial classification, as its activity and impact are not as clearly evident as in other industries. Its activities are “hidden” inside other industry activities (transportation, lodging, communications etc.), making tourism an “industry without chimneys”⁵⁶. Despite this definition, tourism does not come without impacts. Development in the touristic field, as in all economic sectors, is not necessarily clean and environmentally sound. Since tourism relies greatly on the quality and attractiveness of destination environments (natural, built and socio-cultural), the tourism industry has the potential to contribute to the debate on sustainability.

⁵⁴ WORLD TOURISM ORGANISATION, *Tourism Satellite Account: Recommended Methodological Framework*, Eurostat, OECD, WTO, UNSD, 2001, par. 1.1 and 2.1.

⁵⁵ WORLD TOURISM ORGANISATION, *World Tourism Barometer and Statistical Annex, September 2019*, <http://www2.unwto.org/publication/unwto-world-tourism-barometer-and-statistical-annex-september-2019>. Accessed October 2019.

⁵⁶ HSIEH, Hsin-Jung, KUNG, Shiann-Far, *The linkage analysis of environmental impact of tourism industry*, *Procedia Environmental Sciences*, 2013, pp. 658-665.

For these reasons, tourism will be here analysed from its sustainable perspective, defining some fundamental concepts and relating them to the possibility of achieving a sustainable development in the tourism industry.

1.3.1. Sustainable tourism

Touristic development contains an intrinsic contradiction: while on one hand tourism can, through the use and exploitation of unique places of interest, lead to reach socio-economic objectives, on the other hand it can also (if not properly managed) cause the destruction and degradation of natural and cultural resources. Tourists, by their same presence, transform and impact the surrounding environment. Inevitably, introducing tourists to areas previously rarely visited by outsiders places new demands on the environment, and changes its relationship with local communities and visitors. Change is usually welcome by actors involved in tourism, as it can bring improved conditions to their existing situation. Tourists seek a change from everyday life, trying different experiences in new places, entrepreneurs wish to make a profit from the increased touristic flows, while local residents may want to improve their life condition through the jobs, opportunities and income inflow generated by tourism.⁵⁷

The potential negative impacts of tourism on the social and natural environment create a conflictual relation between tourism and environment, even though in many cases tourism, through its restoration and redevelopment efforts, is the only way to promote natural and cultural resources' preservation. Negative effects should not be taken as a justification to refuse tourism, but as an incentive to rationally contextualise the problem, proposing solutions that guarantee equally distributed development. It is in the interest of tourism operators to safeguard natural and cultural resources, since, if the environment was damaged, visitors would choose different destinations, also shifting the economic focus.

Sustainability as a concept has been applied to tourism, creating an approach to touristic activities defined as sustainable tourism. Inspired by the discussion on sustainability, sustainable tourism advocates a comprehensive long-term vision aimed at improving local communities' quality of life and providing a satisfying experience to visitors, while maintaining a good social and environmental quality. The number and diversity of the actors and interests involved, though, make it hard to reach consensus among all parties, and also to concretely realise this model.⁵⁸

⁵⁷ WALL, Geoffrey, *Is ecotourism sustainable?*, Environmental Management, 1997, pp. 483-491.

⁵⁸ BERARDI, *op. cit.*

It was stated that, to apply the principles of sustainability to tourism means creating an adaptive paradigm, which results in a dynamic framework legitimising a range of approaches according to the specificity of circumstances. Worldviews on development differ greatly and encompass management strategies and ethical attitudes (as discussed about weak and strong sustainability) and consequently, flexibility of interpretation goes hand in hand with the inevitability of diversity. Such differences allow the applicability of sustainable principles according to the specific characteristics of the destination, and involve different trade-off decisions between the elements of sustainability.⁵⁹

As it happened with the definition of sustainability, sustainable tourism too has been interpreted in a number of ways. The difficulty of giving an operational definition created a tremendous variety of interpretations, sometimes conflictual with one another. The slipperiness of the term has made it adaptable to the economic and political needs of interested parties, who change and interpret it as a concept, a process, a marketing gimmick, an ideology, a political catchphrase. For the tourist industry, it is a justification of development, for environmentalists, it validates environmental protection, for politicians, it is a way to evade action through words. It is improbable that there will ever be a single universally accepted definition of sustainable tourism, because of its multidimensionality, and because of the diversity of parties involved.⁶⁰

The generally accepted meaning of sustainable tourism is that it is

“tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an infinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and wellbeing of other activities and processes.”⁶¹

If tourism was to be called sustainable, then, it would have to be multidimensional and holistic in its form, including different fields in its approach. In the same way as it was explained for general sustainability, tourism development cannot be uniquely seen from an economic point of view. Sustainable tourism too entails the joint involvement of natural, economic and social components. Also, since it is unlikely for tourism to be the sole consumer of resources of a territory, a multisectoral trade-off between tourism and other

⁵⁹ HUNTER, Colin, *Sustainable Tourism as an Adaptive Paradigm*, *Annals of Tourism Research*, 1997, pp. 850-867.

⁶⁰ BUTLER, Richard W., *Sustainable tourism: A state - of - the - art review*, *Tourism Geographies*, 1999, pp. 7-25.

⁶¹ BUTLER, Richard W., *Tourism - an evolutionary perspective*, *Tourism and Sustainable Development: Monitoring, Planning, Managing*, 1993, pp. 27-44.

existing and potential activities must be found. Conforming to the principles of sustainability, sustainable tourism is viewed as positive approach that reduces the tensions arising from the interaction between tourism industry, tourists, environment and locals.⁶²

Tourism development should meet the qualitative demands of tourists, without diminishing those of local residents' and damaging socio-cultural and natural values. Indeed, sustainable tourism focuses on limiting natural and socio-cultural impacts, maximising long-term wellbeing and growth for the destinations involved, and achieving visitors' satisfaction. Empirically, the concept has a double significance, since it touches both the physical and human environments. Touristic flows can impact human resources (social, cultural), as well as physical ones (plants, animals, air, water, landscape etc.). So, on one side is the ecological value, referring to the conservation of natural functions and equilibriums between components of natural environment. On the other side is the anthropological value, which refers to long-lasting enjoyability of this environment, also in its socio-cultural components, for residents and tourists alike, both in the present and in future perspective. This vision also outlines the need for responsible consumers, tourists aware of their role and impact, and not only passive users.⁶³

The understanding on sustainable tourism went from trying to theoretically define it, to spending energies in finding practical ways to move towards sustainability. The debate on the most adequate definition of sustainable tourism is still ongoing, as sustainable tourism as a concept is still evolving. What needs to be discussed now are some specific features of tourism, connected to the practicability of sustainable tourism development, namely mass tourism (versus small-scale tourism), and carrying capacity. They represent the real challenges to a successful application and acceptance of sustainable development in tourism.

1.3.2. The increasing impacts of tourism

An easier access to transportation and economic capacity, coupled with the appearance of new large markets (notably India and China) have allowed a growing number of people to tap into a variety of places. Mass tourism is identified as a large-scale kind of tourism, linked to mass consumption of touristic destinations and for this reason it is frequently held responsible for tourism-related damages. Consequently, it is usually deemed incompatible with sustainable practices, which, by contrast, appear more viable in small-scale tourism.

⁶² WALL, *op. cit.*

⁶³ BOTTERO, Marta, CIMNAGHI, Elisabetta, *La capacità di carico turistica di un'area protetta: confronto tra due diversi modelli di calcolo*, XXX Conferenza italiana di scienze regionali, 2009.

The aforementioned idea is refuted by some authors, who argue that large-scale tourism is not automatically unsustainable, in the same way as small-scale tourism is not always sustainable. Mass tourism is an established trend which demonstrated a continuous growth and is not likely to stop. The key for achieving sustainable tourism then does not lie in reducing the dimension of the phenomenon, which is arguably out of our control, but to learn to make existing mass tourism as sustainable as possible. Several poorly managed small-scale developments can be as detrimental and unsustainable as a single large-scale development.⁶⁴

The evolution of the relationship between mass tourism and sustainability has been extensively studied by Clarke⁶⁵, who identified a chronologically sequenced four-steps process in the understanding of sustainable tourism. According to the author, the first understanding of sustainable tourism was that of conceiving it as a polar opposite of mass tourism, viewing them as two incompatible concepts. Mass tourism was seen as the sole responsible for negative impacts at touristic destinations, while small-scale tourism alone operated on sustainable bases. The second position, which emerged in the 1990s, advocated not a dichotomy, but a continuum between tourism types, where one form could be adapted to the other. However, it still defined scale as the attribute that made tourism sustainable. These first two positions were criticised for being too simplistic, failing to see the dynamic and complex nature of tourism, incapsulating it into boxes of right and wrong.

A third position started to see sustainable tourism as a goal rather than a possession of certain types of tourism, and as such it could be potentially achieved by any scale of tourism. Such a position could be accepted at the time it was formulated, but in today's age of global warming, it can hardly be applied anymore. No matter the form it assumes, tourism always produces gas emissions, damaging to the environment and inducing climate change. The way to achieve a truly eco-friendlier tourism today would be to reduce touristic flows or locally limiting them, but controlling tourism is not an easy task either.

Anyway, for the sake of research and comparison, this position will be here presented. Mass tourism became a subject to be improved, not just criticised, and operational measures and guidelines to encourage sustainable practises were drafted. If well managed, mass tourism could even bring positive effects; for instance, given its dependency on environmental quality, it would be in its interest to protect this asset against other industries.

⁶⁴ BUTLER, *Sustainable tourism...*, *op. cit.*

⁶⁵ CLARKE, Jackie, *A Framework of Approaches to Sustainable Tourism*, *Journal of Sustainable Tourism*, 1997, pp. 224-233.

Large-scale operators possess a greater marketing and influencing power, and could direct their efforts in persuading customers and suppliers to foster interest and adopt sustainable practises.

The last position is convergence, regarding sustainable tourism as a goal that is applicable to tourism of any form and scale. It recognises that sustainable tourism as a concept is still evolving, and that the absence of its precise definition is not as important as the journey towards it. Sustainability is not a possession or product of a certain type of tourism, but an objective to be reached implementing current knowledge and developing operational strategies.

A further position on sustainable tourism could be added to these: the awareness that with time, the context for sustainable tourism has changed as well. The way tourism's impacts on the surrounding environment are perceived have also changed. Early promoters of sustainable tourism claimed that tourism would protect areas from other industries and as such, tourism was seen as an essentially benign industry. However, it has now become clear that even tourism does not lack impacts on local environments, economies and populations. Additionally, the perception of tourism scale has changed. While Clarke argued that sustainability could be applied to small and large-scale tourism, it is now believed to be attainable even at local, regional, national and global levels.⁶⁶

An additional element to be discussed in relation to mass tourism is its relation to local specificities: this form of tourism has been criticised for standardising tourism experience, levelling local differences and cultural nuances into easy and comfortable tours ready for consumption. Mass tourism experience is seen as commodified and limiting, and mass tourism destinations too are regarded as inferior to other places, given the destructive impacts of mass tourists. Even in this discourse mass tourism is juxtaposed to the becomingly popular alternative, local forms of tourism. However, it must be noted that this idea assumes a homogenisation of mass tourism, viewing it as a uniform horde of people with similar behaviours and consumption styles. Mass tourism as a whole is a dynamic combination of different large-scale forms of tourism with different characteristics, motives and organisational structures. What characterises mass tourism is the desire to travel farther and cheaper, which mobilises large numbers of people. Since it cannot be precisely quantified, the best way to understand this phenomenon is envisioning it as a socially contextualised concept, where mass does not necessarily mean good or bad. In some cases (like in places

⁶⁶ HARDY, Anne L. & BEETON R.J.S., *Sustainable Tourism or Maintainable Tourism: Managing Resources for More Than Average Outcomes*, Journal of Sustainable Tourism, 2001, pp. 168-192.

with exceptionally fragile natural environments), the mere existence of touristic activity might already be seen as mass presence, and as such, damaging. In other instances (like places already accustomed and organised to sustain touristic presence), it might not be considered as such.⁶⁷

Hence, mass tourism as a phenomenon must be objectively contextualised and reviewed in light of local tourism perception and carrying capacity.

1.3.3. Carrying capacity

The contradiction existing between economic exploitation and environmental protection caused the need to identify specific tools to determine whether a certain destination would or would not be able to sustain intense touristic flows. In this vision, the notion of limits becomes particularly important. Sustainable development itself contains the idea of limits. Usually, this is expressed as carrying capacity of an area, the limit beyond which resources fail, and sustainability is no longer possible. The main issue in defining carrying capacity is the identification of the critical threshold delimiting the ability of the environment to sustain human pressures, and that is the limit to irreversible degradation. These limits are thus based on the ability of physical and human resources to absorb the needs of tourism, allowing it and other industrial activities to be maintained over time.⁶⁸

For tourism, carrying capacity assumes the specific features of touristic carrying capacity, and refers to the analysis of impacts and resource consumption caused by tourism activities. The WTO defined it as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors' satisfaction”.⁶⁹ In other words, it is the number of tourists that a place can withstand, maintaining appropriate natural standards and service quality.

Once this limit is exceeded, a series of things occur, usually negative effects appearing at different times: they might take a while to show themselves (like environmental quality changes), or be more immediate (like shifts in resident attitudes). Pressures are created on the natural and cultural environment, draining resources, affecting local social patterns, economic activities, and land usage. In almost every context there is a limit in terms of number of visitors and development that the place can bear. As a result, the nature of tourism

⁶⁷ VAINIKKA, Vilhelmiina, *Rethinking Mass Tourism*, Tourist Studies, 2013, pp. 268 –286.

⁶⁸ BERARDI, *op. cit.*

⁶⁹ WORLD TOURISM ORGANIZATION, *Sustainable Development of Tourism, a compilation of good practices*, World Tourism Organization Publications, 2000.

and the destination itself would change, leading to a reduced attractiveness and (consequently) viability of the destination, and tourism would become unsustainable. If overexploitation and overdevelopment continued unrestricted, then any kind of tourism in that destination might become concretely impracticable. Such concerns on tourism, nature and local communities increase consideration to these issues, asking for sustainable measures where tourism development is the central issue.⁷⁰

That being said, it must be noted that it is difficult to define carrying capacity in precise numbers. It would be more appropriate to define the notion as an interval in which tourism sustainability is possible. The upper limit delimits intensive usage of the destination, beyond which development becomes unsustainable for the territory and resources available. This sort of situation is found where investors aim at maximising profit (as in the cases of Costa Brava and Balearic Islands). The lower limit of the interval, instead, defines forms of alternative “soft” tourism, with a conservative approach to territory, that interpret tourism as a threat to the environment instead of a resource, hence trying to limit its development to a minimum. Below this minimum limit, tourism is refused and local communities cannot rely on it for sustaining themselves. Between these two limits of maximum exploitation and minimum interest for tourism lies the correct approach to carrying capacity, defined as operationalisation of sustainable tourism. Studying carrying capacity is thus a way to determine the condition of sustainability of a locality, intended as its ability to sustain certain flows of tourists over time, and the consequent utilisation of resources.⁷¹

Defining and applying carrying capacity is part of the planning process for sustainable tourism, which provides decision-makers, residents and planners with a framework of principles, guidelines, objectives and measures to guide local development on the basis of the place’s distinctive features. The limits to be set on tourism activity are part of a local development strategy, and require a democratic participation of the community as a whole. Consultation with major actors and stakeholders is fundamental. This makes the measuring of carrying capacity a dynamic process, one which is not likely to lead to an exact number of visitors allowed. Carrying capacity is not a fixed, unchangeable limit, it is rather a guidance to be complemented with other criteria in the development of tourism and management techniques. Also, carrying capacity can considerably change according to the specific context where it’s applied, since the relation between consumption and consumer’s satisfaction level varies together with the touristic product examined. For instance, the

⁷⁰ BUTLER, *Sustainable tourism...*, *op. cit.*

⁷¹ BOTTERO, *op. cit.*

expectations of a tourist visiting natural areas will not be the same as one traveling to densely urbanised places. Each touristic area has a specific carrying capacity, based on its ecological profile and socio-economic aspects (tourists' and locals' expectations, perception of tourism, opportunities and disturbances it creates etc.).⁷²⁷³

In the same way as sustainability is built on three pillars, carrying capacity also revolves around three fundamental issues: physical (including natural and manmade infrastructures), social (population, social patterns and dynamics), economic. The impacts of tourism can also be analysed by looking at these distinct, but interrelated dimensions. Physical carrying capacity represents the limit to environmental damage, resource loss and air, water and noise pollution. It also includes the level of congestion of facilities and areas, and the availability of related services.

Socio-cultural carrying capacity indicates the social aspects, important for local communities, influenced by tourism growth. As it happened for the social sustainability pillar, social carrying capacity is the most difficult to evaluate, since it cannot be easily quantified, it requires social analysis, and is subjected to judgements. For instance, tourists and local communities tend to gradually modify their attitude and adapt to changing conditions, resulting in different social responses over time. Social carrying capacity identifies the level of tolerance to tourism of the local community, as well as the quality of visitors' experience. It refers to the number and type of tourists that can visit a place without altering the local identity, culture and social activities. It also represents the level of tourism that is acceptable for host communities, and providing a satisfactory experience for visitors.

Finally, the economic dimension refers to tourism's influence on local economic activities and structures, and its competition with other sectors. It is expressed in the amount of revenue generated by tourism and its distribution locally, and in the level of tourism specialisation and employment in relation with other local sectors and human resources availability.⁷⁴

These different sets have to be considered when planning a destination's sustainable growth. Together with them, the specific features of the locality (resources availability, population size, natural vulnerability, cultural heritage etc.) determine the basic structure for

⁷² COCCOSSIS, Harry, MEXA, Alexandra, *Defining, measuring and evaluating carrying capacity in European tourism destination*, Environmental Planning Laboratory of the University of the Aegean, Athens, 2002.

⁷³ The practical way to calculate carrying capacity was defined by the United Nations Environment Programme (UNEP, 2002; Priority Action Plan/Regional Activity Centre PAP/RAC, 2003). It must be noted that this consists of a series of guidelines and instructions rather than a roundly defined calculation model. Carrying capacity must be calculated independently, interpreting each touristic destination's specificities.

⁷⁴ COCCOSSIS, *op. cit.*

tourism development and the destination's resilience to pressures. The form of tourism developed also conditions tourists' behaviours and their approach to local communities. Tourism types depend on the reason for visiting a place, the duration of stay, the activities involved; different categories of tourists have different expectations, behaviours and, consequently, impacts on a place. The relationship between tourism and environment evolves around these factors, and is constantly changing together with tourism impacts and/or environmental change.⁷⁵

Sustainability, as previously discussed, need to be measured. For this reason, sustainability indicators are needed. Performance indicators and a committed monitoring system are necessary to evaluate progress towards tourism sustainability. Sustainable tourism can be successfully implemented if aided by coherent, comprehensive and reliable sustainability indicators, to measure tourist impacts. Destination-oriented indicators (rather than project-oriented) are useful to determine quantitative and qualitative measurements of different touristic planning frameworks. Among them carrying capacity, visitors experience, acceptable change and visitor impact are included. The implementation of carrying capacity can thus be supported and checked with coherent indicators sets.⁷⁶

One of the first projects conducted to research tourism and indicators was the European Community Models of Sustainable Tourism (ECOMOST); carried out by the International Federation of Tour Operators in 1994, it collected a list of indicators to measure long-term sustainability and the profitability of tourism. In 1995 and 2004, the WTO further contributed to orient indicators research by publishing *What Tourism Managers Need to Know: A Practical Guide to the Development and Use of Indicators of Sustainable Tourism* (WTO, 1996), and the *Guidebook on Indicators of Sustainable Development for Tourism Destinations* (WTO, 2004). The drafting of sustainable tourism indicators has now become a common strategy for many institutions.

One of the challenges in the design of indicators is deciding the level of analysis: usually, municipalities or limited administrative regions are taken as spatial units in the indicator research. Larger spaces (country level) are more difficult to handle, given the diversity of problems to manage, and the need for extensive information. Instead, smaller special units like individual resorts or hotels may not offer a comprehensive view of sustainability issues. Administrative borders have thus become the main focus of the

⁷⁵ BERARDI, *op. cit.*

⁷⁶ LU, Jiaying & NEPAL, Sanjay, *Sustainable tourism research: an analysis of papers published in the Journal of Sustainable Tourism*, Journal of Sustainable Tourism, 2009, pp. 5-16.

research on tourism in a sustainable perspective. In fact, local changes are the most evident effects of tourism, and a focus on the local scale can be useful to monitor the impacts and the management system. Such challenge of finding the right scale to place indicators assessment is to be considered together with the need to overcome theoretical proposals and reach practical application for sustainable development.⁷⁷

The process of defining indicators is dynamic, since carrying capacity is not a fixed concept. The resulting set of indicators can be seen as a guidance tool for decision making and implementation towards sustainable tourism, and as an instrument to measure performance and notice eventual violations of carrying capacity limits. Changes in the environment would then call for changes in indicators and carrying capacity limits too.⁷⁸

The successful implementation of sustainable policies depends on general commitment to impose and respect limits to the way tourism develops, for instance containing touristic flows to a destination in order to protect it (for example introducing an entrance fee or limiting access). In this context, coherent institutional measures and committed actors are essential to reduce tourism negative impacts. An agreement on the definition of carrying capacity and the goals of tourism development is critical. Carrying capacity itself must be dynamic and reflect the characteristics and transformation of the area it covers. A monitoring system and a constant flow of data and information are also needed to implement carrying capacity.⁷⁹

In conclusion, tourism is a phenomenon that, if not properly managed, can cause great social, ecological and economic damages while, if appropriately handled, can represent an important opportunity of growth. Closely observing reality, it becomes evident that the world is a constantly changing and evolving system, influenced by a variety of forces. Tourism as a phenomenon is inevitable, and so are its impacts. The transition to a conscious sustainable tourism is then essential to provide adaptive strategies and manage impacts in a more sensible way.

Bearing in mind the complexity of environmental, socio-cultural and economic impacts of tourism worldwide, and the very real possibility that tourism will keep growing in the next years, a preventive, operational sustainability approach to tourism (with particular attention to mass tourism development), is clearly needed. The reasons to focus efforts in this direction are mainly two: firstly, in this day and age it would be inappropriate not to

⁷⁷ TORRES-DELGADO A. & SAARINEN J., *op. cit.*

⁷⁸ BUTLER, *Sustainable tourism...*, *op. cit.*

⁷⁹ COCCOSSIS, *op. cit.*

strive for sustainability in touristic destinations. Residents deserve to be considered, and so are the environments of the destinations and the tourists coming to appreciate them. Secondly, if these destinations' attractiveness declines because of poor management and development, visitors will abandon them and look for new attractions elsewhere. If the sustainability lesson was not learned, the same cycle will repeat itself until there will not be any more quality destinations left.⁸⁰

1.3.4. The “sense of place”

So far, sustainability discourse has been focused mainly on economic and ecological issues. There is though a dimension which has not been overviewed extensively yet, and that is the cultural and aesthetic dimension. Culture itself is a difficult concept to grasp and delimit, but that does not make it less important in sustainability discussions. Culture is deeply embedded in all spheres of human life. It is both a tangible and intangible factor of cohesion, that shapes the core of people and brings communities together. At the same time, it is multifaceted and multidisciplinary, as it divides and differentiates people and nature's relationships, creating imageries and guiding behaviours. Connected to the concept of culture is the notion of cultural capital, indicating not only the artistic and literary heritage, but also the patterns of behaviours, norms, knowledge and relationships as a whole that are commonly accepted as behavioural standards of a society. Culture is not to be seen as a static element, but as retaining a highly dynamic nature, prone to exchanges and mutual influences with external and internal cultural and transformation processes.⁸¹

Traditionally, the cultural dimension has been associated with the social pillar of sustainability, but culture as an individual dimension has not been thoroughly reviewed. Society and culture are interrelated concepts to some degree, in the sense that they shape and influence each other, but their distinct constituencies allow separate social and cultural dimensions in sustainability. The importance of culture in the sustainability discourse has been greatly re-evaluated in recent years, assuming its own importance as cultural dimension, rather than being a subsidiary of social development. Since the publication in 2001 of

⁸⁰ FARRELL, Bryan & TWINING-WARD, Louise, *Seven Steps Towards Sustainability: Tourism in the Context of New Knowledge*, Journal of Sustainable Tourism, 2005, pp. 109-122.

⁸¹ UNESCO, *The cultural dimension of development. Towards a practical approach*, UNESCO Publishing, Paris, 1995.

cultural analyst Jon Hawkes' book, *The Fourth Pillar of Sustainability*, culture as a sustainability domain has become more and more recognised in the academic world.⁸²

Some authors⁸³ argue that there are three fundamental ways to approach culture's role in sustainable development: culture *in* sustainable development, culture *for* sustainable development and culture *as* sustainable development. The first role of culture is parallel to that of the three pillars of sustainability, meaning that cultural elements claim more individual consideration in sustainable development research and decision making, and must be thus taken into account alongside economic, ecological and social factors. Arts and values can very effectively be inserted in sustainability implementation. Artistic and creative values, for instance, can be used as evaluation criteria to judge how sustainable a certain activity, company or policy is. Aesthetic and cultural standards qualitatively assess cultural and natural heritage, arts and built infrastructure, and could be useful tools in the design of indicators.

Culture, being involved in all fields of human life, can also act as a mediator between the other three pillars, facilitating decisions toward sustainable development and promoting a transition toward a society where sustainability is part of culture. Working through communication it can help find a balance in conflicting demands and provide a social and human meaning to sustainable practices. The transition toward sustainability has to go through a change in society, accompanied by a new understanding of the role of humans in the world and their relationship with it. This is followed by a new vision, new values that drive collective actions, engaging people in discussions about the world they want and the way to achieve it. Culture here represents those processes of social learning that enable sustainability as a collective thinking, concerned with issues and values through which society can continue to exist.

Culture as a new paradigm for sustainability requires a cultural shift in norms and values. In order to be effective, public planning should include an evaluation framework for cultural matters alongside those of economic, ecological and social impact measurement. Cultural sustainability requires each community to find their own definition for sustainability, as it best applies to their own values and perspective. A shared decision-making process

⁸² DUXBURY, Nancy & GILLETTE, Eileen, *Culture as a Key Dimension of Sustainability: Exploring Concepts, Themes, and Models*, Creative City network of Canada, Centre of Expertise on Culture and Communities, Working paper 1, 2007.

⁸³ DESSEIN, Joost, SOINI, Katriina, FAIRCLOUGH, Graham, HORLINGS, Lumina, *Culture in, for and as Sustainable Development. Conclusions from the COST Action IS1007 Investigating Cultural Sustainability*, University of Jyväskylä, Finland, 2015.

empowered by community participation would have to meet the cultural, economic, social and environmental needs of the group.⁸⁴

This dimension of sustainability can then find different practical applications, as many are the ways culture and sustainability can be translated into. It can mean preserving a connection with the past, not only by maintaining and passing on material heritage, but also using and developing intangible practices such as cultural traditions and behaviours, folklore, events and perceptions. In the discussion at hand, however, the most relevant aspect of cultural sustainability is relating culture and what is called sense of place.

Humans have a way of responding to the environment, natural and built, as the way a place presents itself in a person's mind is not the same for everyone. The stories and memories a place hold, individuals' perception of its meaning, geography and history are ultimately woven into a unique tapestry of experiences that affect the spirit of the residing community. Culture exists within places in terms of holding important memories or serving as identity touchstones. They may be antique places rich in ancient history, or landmarks of recent construction, or even sites whose importance was officially recognised by national communities (like the European Capitals of Culture). There may be places of proud celebration and remembrance, commemorating sad events, or celebrating the foundations of community identity. Places can unite and divide, as their meaning can be interpreted differently depending on the point of view they are seen from. People and places are interrelated through feelings of socio-territorial belonging, environmental and cultural participation. The sense of memory, heritage and identity evoked by a place are also important. A community recognises itself in the sensed identity of a place, that is in turn influenced and shaped by human experiences and memories. Places become particular and distinct, and people respond to their identity in the same way as they would do with a person. Human interactions with places are not lost, they accumulate and are assimilated in the collective memory, becoming emotional, intangible parts of that site. The way people give subjective cultural meanings to a place, is what is usually called sense of place.⁸⁵

Sense of place and sustainability have often been linked together, meaning that the implementation of sustainable development can be facilitated by inspiring communities to rediscover their connection with place, prompting people to take action in support of sustainable development, as a response to threats to their sense of place. Policies sensitive

⁸⁴ DESSEIN J. et al., *op. cit.*

⁸⁵ BINDER, Regina, *Sense of Place in Sustainable Tourism Development*, 16th ICOMOS General Assembly and International Symposium: 'Finding the spirit of place – between the tangible and the intangible', Quebec, 2008.

to culture contribute to ensure that citizens recognise themselves in the place they live in, and thus collaborate on its positive development, maintenance and transformation.⁸⁶

Tourism as an activity can be a threat to the survival of communities' sense of place, their authenticity and sustainability. When tourists visiting a place lack understanding of local sense of place, it may result in a conflict between community needs and tourist interests. The perception of a place is a complex mixture of destination flavours, landscape, history, architecture, as well as social patterns and relations. Usually, what tourists perceive is different from what residents, as well as those who have visited it more times, feel about the place.⁸⁷

Given its importance in defining community identity, it is crucial to pay attention to sense of place, especially in tourism destinations. The pressure of touristic demands creates changes in the community that are to be managed keeping sense of place in mind. Development should then be integrated and enhanced with communities' tangible and intangible values, promoting local involvement and limiting potentially negative effects of development.⁸⁸

⁸⁶ DUXBURY N. & GILLETTE J., *op. cit.*

⁸⁷ SMITH, Stephen, *A sense of place: place, culture and tourism*, Tourism Recreation Research, 2015, pp. 220-233.

⁸⁸ BINDER, *op. cit.*

2. Tourism in China

China as a touristic destination has a lot to offer: with its millennia of history and ancient culture, it does not lack spots of authentic natural beauty and architectural interest. People attracted by the Far East have been visiting China for centuries, and such trend has not stopped in modern times. Actually, the tourism industry in China has been watched with attention for its recent exponential growth. Following the opening of the country, the introduction of laxer restrictions and the emergence of a well-off middle class, Chinese inbound and outbound tourism have been constantly on the rise.

China is now fourth, after France, Spain and the USA in the ranking of most visited countries in the world, with 60.7 million inbound visitors in 2017. According to Chinese news agency Xinhua, by 2030 China will likely surpass France and become the world's most visited tourism destination. Domestic and international touristic flows have been steadily rising, with a 10% increase of international visitors in 2018 compared to the previous year, two times the global average. The economic inflows account to 9.94 trillion yuan, contributing to 11% of the GDP and employing 10% of the population.⁸⁹

Outbound tourism has also been increasing, as in 2012 Chinese people became the global top spenders for international tourism, and are still the main investors in outbound travel. Chinese tourists' spending increased from 24 billion dollars in 2006 (amounting to 3% of total global spending) to 261 billion dollars in 2016, that is 21% of the global international tourism expenditure.⁹⁰

Given the sheer size of the Chinese tourism market, the potential it has and the way it can influence development, China has here been taken as a significant example to analyse the role and impact of tourism when viewed in a sustainable perspective. To start with, tourism in China will be analysed from an historical point of view, in order to understand the ideas that guided its evolutionary process and identify what key features emerged and are still present in today's China tourism industry.

2.1 Evolution of Chinese tourism

Tourism development does not follow a fixed path in every country, but it is deeply influenced by the local conditions and sentiments. In the case of China, modern tourism

⁸⁹ XINHUA NET, «Shichang yanjiu yuce Zhongguo 2030 nian cheng quanqiu zui re luyoudi» “市场研究预测中国 2030 年成全球最热旅游地” (“Market analysis forecasts China will become the world's most popular tourism destination in 2030”), XINHUA NET, 8th November 2018, http://www.xinhuanet.com/world/2018-11/08/c_129988213.htm. Accessed November 2019.

⁹⁰ WORLD TOURISM ORGANISATION, *Penetrating the Chinese Outbound Tourism Market – Successful Practices and Solutions*, WTO, Madrid, 2017.

has followed a tortuous road through political upheavals and economic interests that shaped it into the way it is today. Contemporary China presents a complex political and economic situation, reflecting its turbulent past. As the country strives to achieve modernisation, three opposing forces face themselves in the process: a strict socialist influence, traditional conservatism and the demand for economic development. The three elements have different characteristics and goals, but all are a peculiar part of the Chinese scene. Tourism in China has appeared as a possible mediating tool to synthesise some of the differences and to some degree ease tensions among these three forces. In fact, tourism is a significant contributor to modernisation, it employs and develops cultural and natural heritage, while also being useful in reaching some socialist goals.⁹¹

Even though today's China is one of the most important tourism destinations of the world, for almost thirty years (from 1949 to 1978) the majority of travellers were not allowed to enter the country, and even national travel was limited. In this period, foreigners were not welcome and tourism policy was wary and negative. Political relationships between China and foreign countries were not at their best, and only few openings were allowed. Only after the 1970s did the situation start to change, with China becoming one of the leading destinations for travellers.

The importance and impact of tourism, especially in its economic dimension, were rather visible during its worldwide development in the 1970s and 1980s. Despite having gone through a number of changes since the foundation of the People's Republic of China in 1949, China's most evident period of economic growth coincided with the last thirty years, and was flanked by the development of tourism. Tourism is basically about groups of people moving across countries, something that could well be used to reach political objectives, alongside its role in providing economic benefits. In addition to this, domestic tourism may assist in meeting cultural objectives, like instilling a sense of national pride and boosting national integration. Thus, the growth of domestic Chinese tourism could be seen as part of a larger process of historical evolution and transformation in China. Tourism is not a new concept in China's modern development, but it must be viewed as a revitalisation and rebirth of an economic activity with deep historical and cultural roots. Swift tourism development in China in the late 1970s was owed to a top-down advocacy that made tourism a priority in the growth of industry, as it was also used to facilitate China's opening to the world. The concept of travel in China followed the evolution of

⁹¹ SOFIELD, Trevor H.B., LI, Fung Mei Sarah, *Tourism Development and Cultural Policies in China*, *Annals of Tourism Research*, 1998, pp. 362-392.

Chinese society and culture, and together with tourism it played and plays an essential role in many instances of China's history and growth.⁹²

2.1.1 Pre-Maoism

Considering that China has been inaccessible to the outside world for a long time, foreigners usually believe that tourism in China is a new phenomenon. Actually, the development of tourism as an international industry is quite recent, but in Chinese history it has roots that go back for more than four millennia. Hence, in order to understand internal tourism in China it is important to take it into consideration from an historical viewpoint, dating back to the times of imperial tours, travelling philosophers and wandering artists. This is one of the first characteristics of Chinese domestic tourism, having developed over a four-thousand-year-old tradition about travel and heritage sites and being long since deeply embedded in the Chinese psyche.

Imperial pilgrimages, starting from Shang Dynasty (1350-1050 BC), represent the first form of travel in China. Emperors and their court were to regularly pay homage to a number of ancestral gods and animistic spirits residing in mountains, rivers, lakes and other natural places. The most significant sites in ancient times were nine, in particular: five sacred mountains (Taishan in the east, Hengshan in the south, Huashan in the west, Hengshan in the north and Songshan in the centre) and four rivers (Huanghe, Changjiang, Huaishui and Jishui).

The places of interest multiplied over the centuries and with the introduction of Buddhism even more places of religious pilgrimage and prayer were added. Temples were built to provide accommodation, and shrines offered a sacred space for praying. Travel in ancient times in China was thus mainly for pilgrimage, imbued in the beliefs of otherworldly spirits and god-kings. The role of culture and the tradition of pilgrimage and heritage tourism became a unifying aspect in the long history of Chinese travel. Imperial pilgrimages and offerings to gods and goddesses constitute an unbroken streak of journeys that followed the imperial system for four millennia, until the political upheavals following the downfall of Qing Dynasty and the declaration of the Republic in 1911.⁹³

During Zhou Dynasty, which replaced Shang Dynasty in the 11th century BC, Confucianism appeared around 660 BC as a new central aspect to Chinese culture. In this era the new class of Mandarins emerged, educated scholars who took on important

⁹² GUO, W., TURNER, L.W., KING, B., *The emerging golden age of Chinese tourism and its historical antecedents: A thematic investigation*, Tourism Culture & Communication, 2001, pp. 131-146.

⁹³ SOFIELD, LI, *op. cit.*

administrative roles for the emperors. In this period, social status was achieved by obtaining an education and then serving in the administration of the state. From then on, Confucian ethic greatly influenced the Chinese way of life. Confucianism required Mandarins to find truth in the landscape, letting it guide and inspire them in the externalisation of their artistic talent. The environment assumed then an important role as a source of inspiration for poetry, paintings, calligraphy and philosophy. Mandarins began to travel to seek inspiration from the natural world, and it then became a widely spread lifestyle for them to spend several years journeying across different sites in order to pursue a greater wisdom and understanding of the world. The figure of the traveling bureaucrat/poet became common throughout China.

Figures like Li Bai (701-762 AD) and many other Tang Dynasty poets and artists like Wang Wei (701-761 AD) have inspired with their works generations upon generations of Chinese and they are still immediately familiar to Chinese people. The way they influence Chinese culture is not only limited to their contribution to poetry and arts, but it is reflected in the philosophical and artistic interpretation that Chinese people attribute to the historical and sacred sites that inspired and witnessed the composition of their art. The role of culture is then another essential characteristic in the Chinese interpretation of travel. Elements deeply embedded in the Chinese “common knowledge” shape the way Chinese people look at touristic places. Western tourists looking at the Changjiang see a river; the Chinese see a poem rich of philosophical ideals. They see the artistic representations of Guilin’s hills, the legendary mystique of Huangshan’s sea of clouds, the poetic knowledge permeating Suzhou’s gardens. Thanks to culture, such images create a sort of spiritual unity in people, even if they have never visited them.⁹⁴ Visiting these places reinforces the importance their images possess in the Chinese mind; this vision is exemplified by the traditional saying: “until you visit the Great Wall, you are not a proper person”.⁹⁵ Domestic tourism to such places of interest could be interpreted as a type of voluntary cultural decision, a modern pilgrimage to cultural, historical and political sites, done in order to validate a personal poetic and artistic knowledge.⁹⁶ Without the same deep cultural understanding, it is difficult for foreign tourists to enter these places and experience them as fully as the Chinese do.

⁹⁴ SOFIELD, LI, *ibidem*.

⁹⁵ 不到长城非好汉 (*bù dào Chángchéng fēi hǎohàn*).

⁹⁶ PETERSEN, Ying Yang, *The Chinese Landscape as a Tourist Attraction: Image and Reality*, in *Tourism in China. Geographical, Political and Economic Perspectives*, Alan A. Lew & Lawrence Yu (eds.), Westview Press, Boulder, 1995.

Apart from imperial pilgrimages and traveling scholars, common people under the feudal system were not allowed to visit sacred places, also due to their unfavourable economic conditions. Merchants would travel widely to sell their products and mass migrations at times of war and natural calamities were inevitable, but leisure travel was a prerogative of elite classes and their entourage.⁹⁷

Modern domestic tourism in China started in the 1920s, when some travel agencies were opened in Shanghai. They handled both domestic and outbound travel, even providing services for inbound visitors. This burgeoning tourism industry was, however, short-lived. These early agencies were forced to close down and people had to stop their leisure travel due to the political upheavals and continuous turmoil caused by the Sino-Japanese war and then by years of civil war.⁹⁸

In the pre-communism period, recreational traveling for commoners was limited to visits to Buddhist or Taoist temples. Lack of time and financial resources, coupled with a severe political control over internal migration made it hard to travel across the country. The political unrest that followed the declaration of a Republic and the civil war between Mao Zedong's Chinese Communist Party and Chiang Kai-Shek's Kuomintang up to the second half of the 1940s further prevented most of leisure traveling.

2.1.2 Maoist period

The long period of internal conflict ended in 1949 with the foundation of the People's Republic of China as a centrally planned economy led by a party-state which exercised absolute power and implemented policies. Economy was under the central government's control, leaving little to no space for market initiatives. In the first place, this setting made free touristic flows impossible. Secondly, a general contempt for the service industry discouraged the progress of tourism as it was not considered a proper form of industrial activity. Tourism development was in general not carried out, and little funds were provided by the state. Up to 1978, only 137 hotels operated in China, with a total of 15500 rooms.⁹⁹

In socialist countries, free time activities, just like work, have to be directed to the personal development of the individual, and are then planned by the state. The Chinese

⁹⁷ BREDA, Zelia, *Domestic Tourism in China: Observations on its Growth and Structure*, University of Aveiro, 2008.

⁹⁸ QIAO, Yuxia, *Domestic Tourism in China: Policies and Development*, in *Tourism in China. Geographical, Political and Economic Perspectives*, A. Lew & L. Yu (eds.), Westview Press, Boulder, 1995.

⁹⁹ BI, Lingling, VANNESTE, Dominique, VAN DER BORG, Jan, *Tourism development in China since 1949: a regime perspective*, *International Journal of Tourism Policy*, 2016, pp. 1-20.

communist ideology advocated a frugal and thrifty lifestyle, in direct opposition to bourgeois leisure spending. This mindset reduced, to some degree, the traveling desires of people. Additionally, Chinese economy was not thriving in that period and the population still struggled to make a living. Such circumstances did not favour the affirmation of tourism as an industry. Its existence at the time was mainly related to diplomatic recognition, while it was not perceived as an appropriate form of economic activity. So, tourism in the Maoist period was principally of a political nature, with the objectives to promote the socialist accomplishments of China, widen its political influence and improve relationships and mutual understanding between China and the world. For the thirty years period of Mao's rule (1949-1978), domestic and inbound tourism was almost non-existent in China, and only a few people from "friendly countries" were given permission to enter the country. The philosophy behind tourism policy at the time could be summarised as "the fewer, the better".¹⁰⁰

From the cultural point of view, Mao tried to forcefully impose Marxist-Leninist socialist values and suppress freedom of travel and traditional culture. Education was reshaped in a way that could serve the purposes of the party, academic disciplines labelled as revolutionary or counter-revolutionary according to its usefulness in projecting society towards communism. Socialist culture was solidly attached to education, in an effort to replace and redefine traditional Chinese culture as a whole. In accordance to this framework, many disciplines concerned with the past (like history, archaeology, anthropology, sociology, linguistics etc.) were considered reactionary and to be silenced. The "four olds" (old ideas, old culture, old customs, old habits) campaign attacked the persistent influence of traditional philosophies and religions, and the historical reverence for past imperial dynasties. The historical past was to be destructed and substituted with the new socialist achievements: this ideology led, during the Cultural Revolution, to the destruction and disruption of archaeological sites and ancient remains. A worthy example is the cultural vandalism, among others, directed against Xi'an's old Buddhist monasteries, carried out in the name of urban development: of the original several hundred temples that dotted the city, today only half a building remains. As a result of Mao's cultural policies, cultural and built heritage suffered incalculable damages and cultural appreciation became lost among the public. Traditional Chinese culture was criticised for being antisocialist, antimodern and feudal. However, that same

¹⁰⁰ RICHTER, Linda K., *The Politics of Tourism in Asia*, University of Hawaii Press, Honolulu, 1989.

common knowledge is what forms the basis which sustained Chinese national identity and unity for millennia.¹⁰¹

In regard of the environment, socialism did not spare too much thought. The incredible biodiversity and natural heritage of China was only seen in terms of their economic value and as physical resources to be exploited for development. Mao's collectivisation efforts in 1955 and the "Great Leap Forward" in 1958 (attempting an immediate, premature industrialisation) resulted in tremendous environmental costs. Sustainability was not an issue to be even remotely considered at the time, given the great reliance and trust in technology and progress, and a general disregard of pollution and ecological issues. Critical problems of air pollution, water pollution, deforestation, acid rains, desertification, soil erosion etc. soon ensued. Evidently, the effects of such uncontrolled, intensive environmental exploitation were devastating.

Under the communist regime, tourism was not considered a proper economic activity. Public mobility was supervised and limited, and leisure was deemed contrary to the socialist frugal way of life. Recreational travel was considered part of a bourgeois lifestyle, and strictly repressed. People needed a permission to travel outside their local district, and through the household registration system (户口 *hùkǒu*), controls were too stringent to consent individual travel. Domestic tourism in this era was mainly limited to Party officials and state functionaries, traveling to designated holiday resorts like Chengde and Beidahe.

The few incoming tourists were primarily of two types: politically desirable foreign guests with permitted entrance and overseas Chinese returning to visit their relatives. Entry was controlled, and an annual quota was fixed in order to direct the number of inbound flows. In order to handle these visitors, some governmental agencies were established. The CITS (China International Travel Service) was founded in 1954 to deal with non-Chinese visitors to certain cities. Most of these visitors were ideologically close to socialism and were interested in seeing the political development of China. Despite the opening of a number of CITS branches in different important cities, this kind of tourism remained basically limited to a public relations exchange with exponents of few friendly countries. This type of tourism was supervised by the China Bureau of Travel and Tourism (CBTT), established in 1964 and operating under the Ministry of Foreign Affairs. This organ was renamed China National Tourism

¹⁰¹ BI et al., *op. cit.*

Administration (CNTA) in 1978, and is still functioning today. Another agency, the China Travel Service (CTS, founded in 1974) handled overseas Chinese and was directed by the Office of Overseas Chinese Affairs, under the State Council. These travel agencies were part of the government bureaucracy and acted according to orders received from above.

Beside travel agencies, also the transportation industry, hotels and the tour planning system were all owned and directed by the state. Nevertheless, tourism was not a thriving industry, as in 1966 the CITS still dealt with no more than 4500 foreign travellers. In the whole period going from 1954 to 1978, the foreign visitors reportedly handled by the China International Travel System amounted to a total of 125000 people. As for overseas Chinese presence, little information is available.¹⁰²

Tourism was clearly under state control and reflected a pattern typical of communist states. Tourism activities were specially organised to parade the successes of communism in front of a selected audience of international visitors. Tours were arranged to factories, communes, working units, focusing insistently on the modern achievements of China. Tourism was not regarded as a form of development, but it was turned into a propaganda tool to create better relationships and understanding with other countries and display the success of socialist policies. In this context, foreign tourists were treated with great consideration with pompous banquets, meetings with leaders, courtesy calls and visits, but the touristic infrastructures and services usually remained lacking in quality.¹⁰³

Under this tourism policy, cultural and natural heritage was not promoted and contacts between visitors and locals were strictly controlled. Tourists were segregated in separate hotels specifically designated for foreign tourists, overseas Chinese, Hong Kong and Macao Chinese, and Mainland Chinese. Tour guides were always accompanying foreign visitors, illustrating and praising the great social and economic progress of China under socialism. Guides were trained in Beijing's Foreign Languages Institutes together with diplomats, and were in fact considered as part of the Chinese diplomatic endeavour and an extension of foreign affairs policy.¹⁰⁴

Socialist ideology concretely prevented the growth of tourism for the thirty years under Mao's rule. Travelling in this period was limited to business trips, family visits and study or health reasons. There are no statistics about domestic pleasure travel before

¹⁰² RICHTER, *op. cit.*

¹⁰³ BI et al., *op. cit.*

¹⁰⁴ SOFIELD, LI, *op. cit.*

the end of the 1970s, but existing tourism was certainly in small numbers. Leisure tourism existed as entirely organised events, such as group holidays for working units and political indoctrination conferences.¹⁰⁵ The pre-reform period did not possess the necessary economic and physical conditions to plan and sustain large-scale tourism. Infrastructures were inadequate, quality standards were low, food and accommodation were insufficient and the transportation system was too limited to enable the emergence of tourism industry. Governmental policies also did not favour the development of tourism, which was not included in the planned economy.¹⁰⁶

2.1.3 From Deng to the current situation

After Mao's death in 1976, a new era of reforms began. Deng Xiaoping's "open door" policies projected China toward a future of modernisation and opening to the world. Deng has been appraised as the architect of China's reforms and modernisation, and the founder of Chinese modern tourism.¹⁰⁷ From 1978 on, tourism started to be seen as an approved means of economic development and modernisation, and as such it had to be encouraged. The preservation and presentation of elements of the traditional culture was also accepted thanks to its contribution in strengthening national unity, and in increasing tourism.

The expansion of tourism was seen as a logical continuation to the normalisation process following the Cultural Revolution. Politically, it was justified as an acceptable industry in terms of socialist values, for its importance in promoting mutual understanding and friendship between countries, in advancing the economy and attracting investments from abroad. Culturally, its contribution to national unity through heritage preservation was stressed.

Few months after Mao's death, foreign cruise ships were sailing to Chinese harbours for the first time after thirty years. The first national conference on tourism development was held in 1978, with the intent to lay down organisational guidelines and planning details. Implementing them was, however, a difficult task. The CITS started to struggle with several hundred thousand of visa requests: only in 1978 it handled about 124000 visa requests, as many as it had handled in the previous twenty-four years.

¹⁰⁵ GORMSEN, Erdmann, *Travel behaviour and the impacts of domestic tourism in China*, in *Tourism in China: Geographical, Political and Economic Perspectives*, Alan A. Lew & Lawrence Yu (eds.), Westview Press, Boulder, 1995.

¹⁰⁶ BREDÁ, *op. cit.*

¹⁰⁷ ZHANG, Wen, *China's domestic tourism: impetus, development and trends*, Tourism Management, 1997.

Between 1977 and 1980, the number of visitors doubled with each year, growing an average of 21% until 1985, when it finally slowed down.¹⁰⁸

On different occasions Deng suggested the need of a rapid growth and development of tourism, emphasising the benefits it would bring: in economic terms, in particular, it would mean an inflow of foreign currency and investments, an increase of jobs and employment, higher revenues for the state, and revitalisation of connected sectors. He meant to create an industry that comprehended different fields and followed a sensible growth strategy. The ideas he introduced, often ahead of times, gradually formed the basis of Chinese tourism development.

Having witnessed the unchecked ecological destruction of the previous decades, he was the first to stress the need for a sustainable development and recognised that only a clean, pleasant environment would be able to attract tourists and provide a significant tourism experience. Since the 1980s the CNTA, following Deng's urge in tourism strategic planning, started working on regulations, issuing a number of top-down guidelines in a short time period. However, it has been noted that none of these early regulatory documents had yet considered socio-cultural impacts, community participation and residents' perception in local sustainable tourism planning.

Deng also noticed that a successful implementation of tourism depends on adequate touristic facilities and clever entrepreneurship. After being viewed as a non-profit governmental and diplomatic exchange, tourism successfully transformed into an economic-oriented business activity. The tourism industry was affirming itself as a market economy operation. Also, a major change brought by this new situation was the increasing need to find a balance between government control and market-led policies, reflected in the negotiation of central versus decentralised control over the industry. China was transforming from a centrally planned economy to a more market-oriented system, from a mainly agricultural society to an industrial one.¹⁰⁹

So, China in this period was not sparing efforts to expand and improve its touristic service and facilities: people started learning English, and a new friendliness, courtesy and positive attitude towards foreigners was spread amongst the population. What was happening in the touristic sector was but a fraction of the undergoing transformation of Chinese society at large.¹¹⁰

¹⁰⁸ RICHTER, *op. cit.*

¹⁰⁹ XIAO, Honggen, *The Discourse of Power: Deng Xiaoping and Tourism Development in China*, Tourism Management, 2006.

¹¹⁰ RICHTER, *op. cit.*

Deng steered China toward a new direction, undermining part of the Maoist ideology, but at the same time he had to reaffirm the principles of socialism so as to justify the Party's legitimacy to govern. Change was thus contextualised through its ability to serve socialism. In so doing, Deng was able to reinstate Chinese heritage as an element of national unity, and to revive the economy by making tourism an accepted industry. Education played an important role in this endeavour, providing research and academic support for heritage conservation and tourism. Social sciences and disciplines that had disappeared under Mao gradually resurfaced, and were encouraged as means of nurturing national dignity and unity. One of the consequences of this new-found interest for Chinese heritage was the efforts in reparation and rehabilitation of touristic sites.

In 1981, the State Council issued guidelines on tourism modernisation and ecological development, stating environmental values to respect, preserve and foster natural and cultural heritage. The report admitted the previous absence of appropriate management, scarce delimitation of boundaries, and lacking control over industrial activities like mining, deforestation and farming within the so-called "scenic areas". While there was still room for improvement, environmentally-friendly development in tourism has been since then given an increasing importance and recognition. The government took action to restore cultural sites damaged during the Cultural Revolution or abandoned to decay, investing funds in the repairing of large sections of the Great Wall, the Ming tombs and the terracotta army of Xi'an. A great renovation plan was carried out in the Forbidden City, and restoration work began across several sites. With the relaxation following Deng's reforms and the rehabilitation of physical sites and culture, domestic tourism had begun to steadily increase.¹¹¹ As this intervention process continued, foreign tourists were also increasingly allowed access to a wide number of Chinese cities and touristic destinations and China started to become a popular tourist destination. Under Mao's rule, just a dozen cities were open to foreigners. By 1984, they had shot up to over two-hundred, and by the early 1990s they were almost a thousand.¹¹²

An important push to domestic tourism came from the tourism policy released in 1984, advocated for the first time by the central government. This policy highlighted the need for tourism infrastructure (including accommodation, transportation, entertainment and communication), and encouraged local initiatives and service improvement. These ameliorations not only aided the growth of domestic tourism, but they also played

¹¹¹ SOFIELD, LI, *op. cit.*

¹¹² RICHTER, *op. cit.*

significant roles in the national economy. Another important event was the First National Conference on Domestic Tourism, hosted in 1987 in Tianjin. Different key topics of domestic tourism policy were discussed, trying to reach consensus on the development of an industry which potential was finally being grasped. Local governments, industries and investors, seeing the importance attached to tourism, increased investments toward it. Coordinated improvements were registered in the transportation system, communications network, commerce and urban development. By the end of the 1980s, China was taking big steps in building infrastructures, gathering financial assets and steadying the economy.¹¹³ Under this favourable economic and political climate, tourism economy in China took shape and became market-oriented. During the 1990s, domestic tourist arrivals increased by an averaged 17% annually, going from 280 million visitors in 1991 to 640 million in 1996.

In order to further induce tourism, in 1995 and 1999 the government introduced a five-day week and a new national holiday system, to allow Chinese citizens to have more free time. These actions were meant to expand the internal tourism market and improve the general standard of life, also allowing people to visit distant family and relatives. The five-day working week extended workers' spare time and permitted weekend trips. In fact, one month after its implementation in 1995, statistics showed that the number of domestic visitors to scenic areas had increased by some 22,6%. The national holiday system, on the other hand, guaranteed an annual leave of 7 to 15 days, depending on each worker's length of service.¹¹⁴

As a result, Chinese people have started to change the way they spend their leisure time, making use of the holidays to travel and visit more distant places. The new calendar introduced in 2008 decided to balance national holidays throughout the year: the celebration of rediscovered traditional festivals such as Mid-Autumn Festival, Dragon Boat Festival and Qingming Festival was added to the Golden Week in October (celebrating the National Day) and the May Day holiday (Labour Day). Peak tourist season corresponds to these holidays; especially during the Golden Week and the Spring Festival, hordes of visitors crowd touristic sites, and infrastructures are often insufficient to meet the enormous tourism demands. Seasonality is still an important feature of Chinese modern tourism.¹¹⁵

¹¹³ BREDA, *op. cit.*

¹¹⁴ ZHANG, *op. cit.*

¹¹⁵ BREDA, *op. cit.*

During the National Tourism Works Conference in 2004, tourism's role was once again highlighted in economic terms. Later in 2009, the State Council promulgated a policy that upgraded tourism to be a strategic industry in the state economy. The importance primarily attributed to the economic side of tourism is in contrast with the multi-functional nature of this industry; this situation shows the still ongoing efforts of the state to reach an equilibrium between the different sorts of interests involved. Under these circumstances, China is trying to walk the path to a sustainable tourism development. The government called for a coordinated development between tourism and related sectors. Environmental and cultural conservation strategies have been proposed to advance a balanced and sustainable development, with tourism being the driver in levelling urban-rural inequalities while also trying to be more eco-compatible. Natural tourism has been encouraged to support biodiversity conservation, while heritage tourism took the role to promote culture and integrate it into urban development plans.¹¹⁶

To summarise, it is China's unique set of circumstances that has allowed its unprecedented growth: its gradual economy transformation to a more open market and the consequent resurgence of entrepreneurship and commerce have reaped important benefits. A newfound open-mindedness and appreciation of culture (in contrast with indoctrination and repression of creativity) constituted the premises for the successful rise of tourism. Finally, state investments in structures and facilities (transportation, accommodation etc.) and tourism-oriented policies accelerated economic and tourism growth, while sustainable development has emerged as an integrative element to modernisation.

2.1.4 Today

Even though China has significantly surpassed the fully centralised control of the Maoist period, tourism planning is still to some degree characterised by top-down decisions and strong state intervention with little involvement by other stakeholders, despite a consistent concession of power from the centre to province, prefecture and county level governments. While tourism policy implementation is eventually up to local governments, relevant decisions are still overseen by central national authorities, and the difference of interests and fragmentation of power often require superior coordination efforts.

¹¹⁶ BI et al., *op. cit.*

Much of tourism planning and coordination is owed to the CNTA, which has the power to rate scenic sites¹¹⁷, classify star hotels and issue national standards for sustainable tourism, including the definition of carrying capacity and exploitation limits. It has also the authority to coordinate tourism policies for each Chinese province and autonomous region.

It is difficult to date precisely when China has started to concern itself with sustainability problems, but key steps were taken in the mid-1990s, after the government's decision to implement Agenda 21 which made environmental protection a fundamental state policy. Ever since 1995, the Five-Year Plan included environmental concerns and recognised the necessity to balance growth and natural exploitation. China embarked on a swift enactment of environmentally concerned laws and regulations. Also, the government launched a new ideological campaign in 2005, with the purpose to shift attention from economic growth to sustainable development and the achievement of a harmonious society backed by scientific development.¹¹⁸

The term 持续性旅游发展 (*chixuxing luyou fazhan*, sustainable tourism development) became since then nationally known and incorporated in tourism policies.

However, there is a tension between the overwhelming reality of Chinese mass tourism and the possibility of a sustainable model. The challenge today's China has to face is finding a way to implement best practice models to mass tourism, so as to reach sustainable levels. Chinese tourism planning should integrate the specificity of locations to the inevitable mass tourism phenomenon. In China, human impacts have become impossible to ignore, and there are almost no places that have not been in some ways affected by human activities. Therefore, ecology and human-dominated processes have to be jointly considered in order to come up with relevant strategies to manage sustainability patterns.¹¹⁹

¹¹⁷ The Chinese rating system of tourism sites was first designed by the CNTA in 1999 and is based on criteria of natural and historical quality, service efficiency, place unicity, safety and preservation etc. The scale goes from a minimum of A to a maximum of AAAAA, attributed to the most culturally and/or naturally important tourist attractions, like the Forbidden City or Huangshan. As of 2019, there is a total of 248 sites rated AAAAA. Source: STATE COUNCIL OF THE PEOPLE'S REPUBLIC OF CHINA, «Guojia 5Aji jingqu chaxun» 国家 5A 级景区查询 (*National 5A-grade scenic sites*), <http://bmfwww.gov.cn/lyjgj5Ajjqcx/index.html>. Accessed October 2019.

¹¹⁸ XU, Honggang & SOFIELD, Trevor, *Sustainability in Chinese development tourism policies*, Current Issues in Tourism, 2016, pp. 1337-1355.

¹¹⁹ SOFIELD, Trevor & LI, Sarah, *Tourism governance and sustainable national development in China: a macro-level synthesis*, Journal of Sustainable Tourism, 2011, pp. 501-534.

According to a study conducted on Chinese tourism sustainability policies¹²⁰, most legal documents put an emphasis on tourism resources (mountains, forests, cultural heritage etc.), which are considered key elements in the tourism production process. A sensible exploitation of tourism resources is then the main area of concern for decision-makers. Water, soil, energy are crucial inputs for tourism development, and also necessary elements in sustainability. Usually though, they are merely treated as fundamental components of industrial development, while touristic exploitation consequences are not given priority. The impact on biodiversity, not possessing industrial significance, is also rarely mentioned. On the other hand, social issues and community participation have in many cases only played a marginal part.

Sustainability is being included in development policies, and tourism planning strategies do value the environment more than other industries, but more control is necessary to ensure sustainable measures are concretely followed in all dimensions. Sustainability plays an increasingly important part in policies, but its meaning is still not fully comprehended and economic factors still play a dominant role. Still, the overall situation is pushing toward sustainability, the government is redefining priorities and shifting economic goals, receiving the support of institutions and researchers.

An example of this process is the implementation of WTO's Global Observatory of Sustainable Tourism in China. This project concerns itself with the monitoring and assessment of sustainable tourism indicators and data gathering. China was a pioneering country in the project, having to-date nine WTO observatories located in Chengdu, Suzhou, Yangshuo, Luoyang, Zhangjiajie, Huangshan, Jiangmen (Guangdong), Kanas (Xinjiang) and Xishuangbanna (Yunnan).¹²¹

Another factor to be kept in mind is how the tourism industry developed. Generally, tourism is not evenly distributed in space and certain regions have more favourable conditions for its development. As a 5000-year-old civilisation rich in natural sceneries, China does not lack tourism resources, which are spread all over its vast territory. In this context, though, the economic development of China was characterised by a strong predominance of the eastern coastal regions, which became the economic and industrial locomotive of the state. Tourism patterns followed the influence of the economic structure, focusing especially in the more developed eastern part of the country. Despite its

¹²⁰ XU & SOFIELD, *op. cit.*

¹²¹ WORLD TOURISM ORGANISATION, *INSTO Observatories*, <http://insto.unwto.org/observatories/>. Accessed October 2019.

exceptional potential of natural and cultural resources, the remote western part of China was slower in catching up, even as investments have been set up to incentivise their touristic promotion. In summer 2019, the most popular domestic destinations were still predominantly eastern coastal areas and cities, with the top 10 destinations being Beijing, Chengdu, Shanghai, Xi'an, Qingdao, Chongqing, Guangzhou, Hangzhou, Xiamen and Dalian.¹²²¹²³

In addition to this, travel motives, expenditure, destinations and tourist behaviour vary greatly between individual travellers, tour groups, rural and urban travellers. Urban residents represent the majority of travellers, while the more conservative and traditional rural communities are less motivated to move (partly due to financial restrictions and lesser access to transportation and communication networks). Tourism activities range from one-day excursions, to seaside tourism, to natural and cultural sightseeing, with most tourists wanting to visit famous places of scenic and cultural interest.¹²⁴

Owing to all of the above-mentioned reasons and many regional differences, it is a difficult task to make a comprehensive discourse on China's tourism industry.

2.2 Impacts of Chinese tourism

The touristic development of a territory can be dynamically analysed, determining the economic, social, cultural and political processes that shape it. In order to have a complete vision of the effects of tourism, it is useful to jointly examine them, so as to determine the link between tourism's contribution to development and the characteristics this development assumes.

Tourism is a sector with political, economic, social and environmental implications. Its multifaceted nature surrounds it with a plethora of diverse interests and issues. Tourism has indeed brought many benefits to China. Poor areas have gained a source of living, historical and natural sites have been rehabilitated and consistent financial resources have been pooled. However, the increasing tourist arrivals and industry development have also led to negative consequences. Tourism is not a smokeless industry, and if not properly managed it can cause great damages to the environment. As the business grows, its social and cultural impacts cannot be ignored either.

¹²² XU, Lin, "Top July destinations for China's domestic travel", *China Daily*, 10th August 2019. Accessed October 2019.

¹²³ ZHANG, Yongwei, *An Assessment of China's Tourism Resources*, in *Tourism in China: Geographical, political and economic perspectives*, Alan A. Lew & Lawrence Yu (eds.), Westview Press, Boulder, 1995.

¹²⁴ BREDA, *op. cit.*

It is then necessary to be aware of the effects of tourism in these different perspectives, in order to be able to pair them with an effective sustainable planning strategy. Clearly, tourism impacts on places and people are not universal, therefore, when approaching such themes, one must keep in mind the complex nature of tourism and the limits to generalisation.

2.2.1 Economic

The most immediately visible effect of tourism is its impact on the economy. Governments greatly value the economic role of tourism for the benefits it brings to state finances. The economic situation of territories affected by tourism undergoes notable changes, not only for the income and employment increase, but especially for the range of activities related to this phenomenon that directly or indirectly influence the economy. It also improves the standard of living, promotes the developing of infrastructures and incentivises investments and business activities. Tourists create business opportunities and revenue, spending on tourism services, daily necessities and bolstering local economy. On the other hand, successful tourist destinations may witness increments in the prices of goods, land and services. This fact can however be counterbalanced by the increased revenues reaped from tourism.¹²⁵

In China, the total economic contribution of tourism and travel to GDP was 9,119 billion yuan in 2017 (equivalent to 11% of GDP). This measure includes activities like hotels, travel agencies and transportation services, as well as restaurants, and leisure industries supported by tourism. By 2028, it is expected to grow by 6,6% to 18,461 billion yuan (12,9% of GDP).¹²⁶

¹²⁵ PIUCHAN, Manisa, CHAN, Chi Wa, KAALE, Jack, *Economic and socio-cultural impacts of Mainland Chinese tourists on Hong Kong residents*, *Kasetsart Journal of Social Sciences*, 2018, pp. 9-14.

¹²⁶ WORLD TRAVEL AND TOURISM COUNCIL, *Travel & Tourism Economic Impact 2018: China*, WTTC, London, 2018.

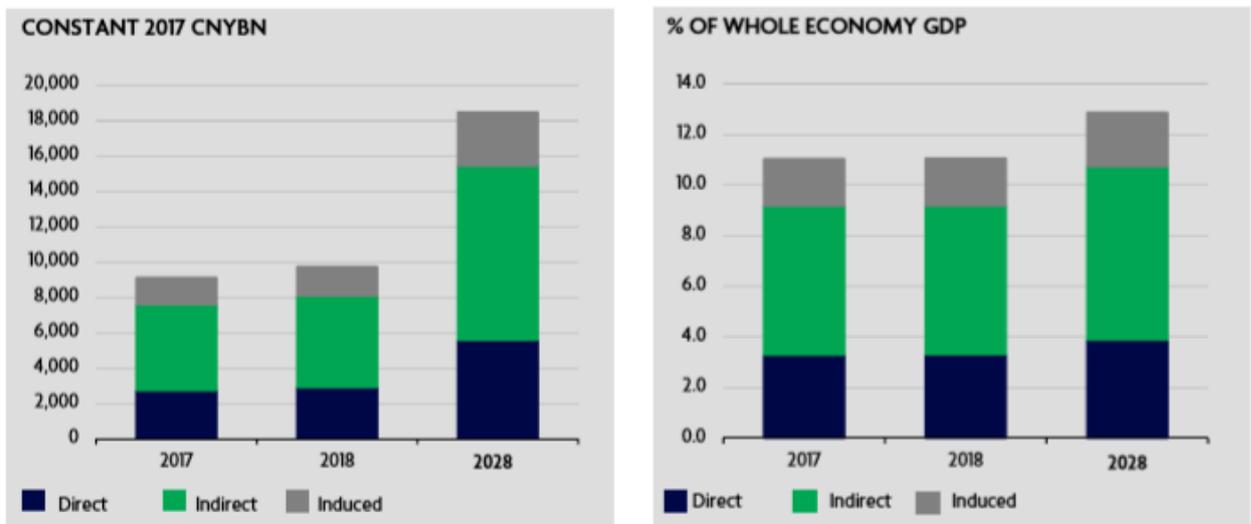


Fig. 4

Economic contribution of Chinese tourism to GDP in the years 2017, 2018 and 2028 (prevision). Source: World Travel and Tourism Council, 2018.

Tourism in China is playing an active role, having become a relevant part of state economy, sometimes developing even faster than economy as a whole. As tourism grew, related industries also expanded, stimulating the development of the local economy of previously backward areas. The expansion of domestic tourism in industrially underdeveloped regions can become a strategy in China's ambition to reduce regional disparities, promote sustainability, alleviate poverty and contribute to environmental protection.¹²⁷

Through tourism, the government is pushing for development in poor areas. Centrally coordinated by the CNTA, projects of development aimed at narrowing the gap between the eastern provinces and the western part of China have been extensively carried out. Investments were made in the construction of an efficient transportation network, promoting underdeveloped areas. In many cases, tourism became a cornerstone industry of local development. Sichuan's Jiuzhaigou National Natural Reserve, for instance, is an example of tourism's economic impact. Previously a poverty-stricken area limited to farming, thanks to tourism activity it is now a flourishing centre enjoying one of the highest rural income in China. If tourism were to disappear, all of this economic profit would certainly cease.¹²⁸

According to CNTA data, the revenue generated by rural tourism in China in 2011 was over 120 billion yuan, and employed 15 million people. The government plays an essential role in this development process, having to steer it in the direction of sustainability by

¹²⁷ XU, Gang, *Socio - economic impacts of domestic tourism in China: Case studies in Guilin, Suzhou and Beidaihe*, Tourism Geographies, 1999, pp. 204-218.

¹²⁸ SOFIELD & LI, *Tourism governance...*, op. cit.

involving residents and safeguarding local resources of any kind. Improving locals' quality of life and increasing employment are the main challenges of sustainable tourism development in socio-economic terms. Hence, the interests of the local population should be given priority over the pursuit of economic gains of tourism businesses.¹²⁹

Local conditions also affect the economic impact of tourism. Measures should be taken to enable residents to provide satisfactory services, training them to rationally manage resources and reviving cultural awareness. First, the use of local resources, products and services should also be encouraged, so as not to be excessively dependant on external factors. Natural and cultural resources degradation must be avoided, as sustainable tourism must be based on a sensible use of available assets. Secondly, local populations should be included in tourism-decision making, actively participating in the development of their land. Lastly, the process of integrating tourism industry in the local economy requires the development of a range of sectors beside tourism. A diversified economy is the necessary prerequisite to enable local communities to establish a solid tourism industry and harvest benefits from it.¹³⁰

The discourse on the economic impact of tourism and its sustainability centres on the issue of involving local inhabitants in the development process, allowing them to partake in its economic benefits, by effectively integrating tourism industry into the overall regional development plan. Community objectives such as employment and income level of resident population should be the priority of tourism policies, which should ensure a sustainable tourism economy that brings adequate return to the inhabitants of the area.¹³¹

2.2.2 Social

Tourism, being a multifaceted activity, does not only elicit economic changes, but it also inevitably alters the pre-existent social equilibrium. The establishment of touristic activities on a territory increases the utilisation of resources (capital, labour force, natural resources), causing in many circumstances problems related to a reduced profitability of other local activities; also, it may introduce new lifestyles and behaviours from outside, not immediately compatible with the local reality, which may cause tensions and social costs.

Understanding residents' perception of tourism social impacts demands an in-depth study of the local way of life and the disruptive effects of tourism, it requires a comprehension of hosts' and guests' expectations and behavioural patterns, and a research

¹²⁹ WANG, Lingen, CHENG, Shengkui, ZHONG, Linsheng, MU, Songlin, DHRUBA, Bijaya G.C., REN, Guozhu, *Rural Tourism Development in China: Principles, Models and the Future*, Journal of Mountain Science, 2013.

¹³⁰ LIU, Jingjing, NIJKAMP, Peter, LIN, Derong, *Urban-rural imbalance and Tourism-Led Growth in China*, Annals of Tourism Research, 2017, pp. 24-36.

¹³¹ XU, *op. cit.*

on core values and fundamental assumptions. Moreover, each community comprises a variety of perspectives depending on individual and subcultural values. The social impacts of tourism are difficult to comprehend, but understanding them is essential to design development strategies that limit the possibility of a community backlash against visitors and tourism.¹³²

A first consequences of tourism development, already mentioned in the previous paragraph, is an increase in employment opportunities. The creation of tourism-related jobs generates income and stabilises the society. Local industries are also encouraged by tourism, for instance producing handicrafts and souvenirs with local materials and cultural flavours. In 2017, the total employment contribution of travel and tourism industry in China was 10,3% of total employed people, which is expected to rise to 14,7% by 2028.¹³³

Studies conducted in different parts of China have determined that the introduction of tourism has not only had economic effects, but that it has consequently changed the daily life of people, adding new dynamics and opening windows of opportunity to the outside world. Tourism created a great occupational change in many regions of China, causing rural workers previously employed in farming and agriculture to shift to tourism-related jobs, while enriched residents are becoming more materialistic and business-oriented. The negative side to this phenomenon is that development has not equally touched everyone, and people not involved in tourism activities have not seen significant improvements in their living condition.¹³⁴

Inhabitants of sightseeing spots have increased their income thanks to tourism, even attracting migrant workers from neighbouring regions. Touristic destinations have thus created employment opportunities not only for the local people, but they have also witnessed large influxes of rural migrants, attracted by jobs and higher income offered by tourism. However, the working conditions of these workers are in no way optimal, and in many cases they can only take on marginal positions or handle leftover jobs unwanted by the local people, but the profit they obtain is still an improvement to their former income.¹³⁵

People's perception on tourism varies: usually, if residents receive benefits or are economically dependent on tourism, they will support it more than people who are not. In any case, if the revenues generated by tourism are not equally distributed in the resident

¹³² DEERY, Margaret, JAGO, Leo, FREDLINE, Liz, *Rethinking social impacts of tourism research: A new research agenda*, Tourism Management, 2012, pp. 64-73.

¹³³ WORLD TRAVEL & TOURISM COUNCIL, *Travel & Tourism Economic Impact 2018: China...*, *op. cit.*

¹³⁴ ZHUANG, Xiaoping, YAO, Yong, LI, Jun, *Sociocultural Impacts of Tourism on Residents of World Cultural Heritage Sites in China*, Sustainability, 2019.

¹³⁵ XU, *op. cit.*

community, disparities may widen locally and cause social tensions and negative responses to tourism activities. The way tourists are viewed in the eyes of residents depends on many factors like education level, host-visitor communication, local social relationships, proximity to tourist zones, sense of place attachment, level of destination development and tourist behaviour. Results from this kind of analysis may well be time and space specific, as tourism patterns continually change and community consistency toward tourism greatly varies.

Connected to residents' perception of tourism is another social consequence, i.e. the interchanges between hosts and guests. On one hand, tourism exchanges have the potential to create a better understanding between people in different parts of the country and strengthen local cultural traditions and regional pride. People tend to be more knowledgeable and aware of their natural and cultural heritage once it is given value by tourism, and are more willing to spend efforts and resources to preserve it. Place attachment may also increase, leading people not to leave their homeplace but stay and work there.¹³⁶

On the other hand, touristic presence can also erode traditional culture and elicit negative responses from the population. Acculturation and development may change local values, threatening community identity. The commercialisation of traditions and its adaptation to visitors' tastes are a threat to the preservation of cultural heritage. Lastly, socio-cultural impacts can affect local people even in their overall sense of wellbeing, namely their material and social life, health and safety.¹³⁷

A socio-culturally sustainable tourism industry should ensure that development is compatible with the culture and values of the populations involved, and that it strengthens community identity. In China, which mainly employs a top-down implementation system with limited input from local stakeholders, it is particularly relevant to include local populations, especially the poor, in the policy-making process. Involving and integrating local people in the tourism development process is essential to achieve environmental and socio-economic sustainability.

2.2.3 Cultural

Tourism and culture share important ties. People are always influenced by the cultural values they inherit, and the way they approach and interpret the world depends in large part on them. In China, culture plays an important role in determining residents' response to tourism. A study has demonstrated that tourism impacts on locals depend both on objective

¹³⁶ ZHUANG et al., *op. cit.*

¹³⁷ PIUCHAN et al., *op. cit.*

factors like intrusiveness of tourists, length of residency, tourism employment opportunities etc. and also on residents' perception of the place as a cultural asset and means of community identification. Commitment levels to tourism depend highly on place attachment, place identification and consequent self-identity.¹³⁸

While the introduction of tourism changes the pre-existent social and economic structure of the community, cultural aspects become commercialised for the enjoyment of tourists. However, the commodification of culture does not necessarily mean a disruption of local sense of place. Place identity is not static, but it changes and evolves under the influence of economic, social and political processes. Thence, tourism as a commercial and cultural integration process becomes an important element in the ongoing creation of sense of place.¹³⁹

It was pointed out that place attachment may also elicit pro-environmental behaviours. When individuals assign feelings, meanings and values to a place, they become more willing to adopt sustainable behaviours and protect it from environmental damages. Tourism lets people approach and understand new sites, playing a mediating role between place and visitors: tourists having personally experienced a place may also develop this kind of pro-environment behaviour. Place attachment and eco-positive behaviours can thus be developed through tourism.¹⁴⁰

In China, tourism tradition emphasises the need to enlarge one's knowledge and understanding of the world by experiencing famous sites that are part of the "common knowledge". Chinese tourists gain psychological rewards by personally visiting places deeply rooted in popular imagery, as they seek to relive the history, philosophies and poetry that have been inspired by those places. There is a strong desire to embrace natural and cultural heritage, and the extraordinary success of domestic tourism is proof of the importance the Chinese attach to travel, which is akin to a voluntary cultural pilgrimage. The cultural exchanges led by tourists and hosts contacts answer the need of personal discovery of tourists, while also widening the cultural perspective of residents.¹⁴¹

¹³⁸ GU, Huimin, RYAN, Chris, *Place attachment, identity and community impacts of tourism – the case of a Beijing hutong*, *Tourism Management*, 2008, pp. 637-647.

¹³⁹ OAKES, Timothy, *Ethnic Tourism in Rural Guizhou: Sense of Place and the Commerce of Authenticity*, in *Tourism, Ethnicity, and the State in Asian and Pacific Societies*, Picard Michael & Wood Robert (eds.), University of Hawaii Press, Honolulu, 1997, pp. 35-70.

¹⁴⁰ HALPENNY, Elizabeth, *Pro-environmental behaviours and park visitors: The effect of place attachment*, *Journal of Environmental Psychology*, 2010, pp. 409-421.

¹⁴¹ ZHANG, *op. cit.*

Culture is incorporated in the discourse of tourism in China, and cultural values must be taken in consideration when discussing sustainable development. The continued importance attributed to these elements demands cultural sustainability to be assessed also through appropriate indicators. Traditional values and sustainability values may not always coincide, but in China they are both necessary in the analysis on tourism impacts. A middle way must be found, combining the two value sets in assessing the specificity of the Chinese case.¹⁴²

2.2.4 Environmental

The consequences of China's swift modernisation and economic growth were not all positive. Heavy urbanisation and industrialisation created pressures on the environment, damaging natural resources and people's health. Urban air pollution levels are among the most critical in the world, and several watercourses are heavily polluted. Waste management problems, desertification, biodiversity concerns and nature protection remain on the government agenda. In general, despite the efforts spent in the implementation of harmonious society and scientific development policies, nature protection and environmental improvement have faced adverse pressures from local governments and officials who still consider modernisation and economic development the top priority. Economic goals often override environmental concerns, as local leaders are fixated on performance objectives and revenue. There is a need for a stricter control, inspection and policy enforcement to ensure the application of environmental-friendly decisions.¹⁴³

As discussed earlier, tourism can bring many benefits to the economy, increasing revenues, providing jobs opportunities and enhancing the local image but, as an industrial activity, it is not devoid of environmental costs either. Tourism is highly dependent on the socio-cultural and environmental quality of a place, but at the same time it can be one of the causes of environment degradation. The rapid development of tourism following China's quick economic growth has had negative consequences on the environment.

A study¹⁴⁴ conducted in the period from 2009 to 2013, found tourism responsible for 8% of international greenhouse gas emission, with China being the second highest contributor to pollution after the US. Tourism was demonstrated to causally affect energy consumption (mainly through transportation and accommodation) and CO₂ emissions.

¹⁴² SOFIELD & LI, *Tourism governance...*, *op. cit.*

¹⁴³ SOFIELD & LI, *Tourism governance...*, *op. cit.*

¹⁴⁴ LENZEN, Manfred, SUN, Ya-Yen, FATURAY, Futu, TING, Yuan-Peng, GESCHKE, Arne & MALIK, Arunima, *The carbon footprint of global tourism*, Nature Climate Change, 2018, pp. 522-528.

Considering the environmental problems caused by tourism, travellers should be aware of the impacts they have and take measures to reduce them by choosing eco-friendlier solutions.

Tourism-related environmental damages are not homogeneously distributed on China's territory; given the large size of the country and the different concentration of tourism activities, large variations can be noted across regions. Also, tourism magnitude may impact differently depending on the area, and local specificities could play a role in the process. In China, CO₂ emissions and energy consumption were found to be higher in the more touristic and economically developed eastern regions of the country, which account for 80% of national energy consumption. Lowering emissions in this area and promoting low-carbon tourism is particularly important in China's overall strategy of greenhouse gas emissions reduction.¹⁴⁵

More specifically analysing tourism-related impacts on the environment, evidence of tourism pollution has been found in different sectors. Water settings become polluted from wastes, sewage and pollutants discharges, leading to water eutrophication and bacteria proliferation. The atmospheric environment is affected by harmful gas emissions especially due to heating and transportation, while soil erosion and desertification may occur after intensive exploitation of the land and continuous trampling. Tourist wastes, facilities building and soil pollution may also lead to biodiversity loss and deterioration of flora and fauna. The construction of tourism facilities and soil trampling has reduced the vegetation coverage in different areas of China, harming delicate plants and depriving wildlife of their habitat. On the same note, tourism may be cause of noise pollution, disturbing residents and animals with the sounds of machinery, vehicles and tourists themselves. These effects become particularly evident during crowded peak seasons, but even a small group of ill-behaved visitors can inflict relevant damages.¹⁴⁶

¹⁴⁵ ZHANG, Lei, GAO, Jing, *Exploring the effects of international tourism on China's economic growth, energy consumption and environmental pollution: Evidence from a regional panel analysis*, Renewable and Sustainable Energy Reviews, 2016, pp. 225-234.

¹⁴⁶ ZHONG, Linsheng, DENG, Jinyang, SONG, Zengwen, DING, Peiyi, *Research on environmental impacts of tourism in China: Progress and prospect*, Journal of Environmental Management, 2011, pp. 2972-2983.

Trampling impacts on vegetation	Trampling impacts on soil
Breakage and bruising of stems	Loss of organic matter
Reduced plant vigor	Reduction in soil macro porosity
Reduced regeneration	Decrease in air and water permeability
Loss of ground cover	Increase in run off
Change in species composition	Accelerated erosion

Fig. 3
Trampling impacts on soil and vegetation.
Source: www.unepie.org/tourism/

Tourism is also linked to intensive construction work, to build infrastructures and welcome as many visitors as possible. The quest of maximising capacity and income lead operators to quickly overbuild facilities, often in unsustainable ways. Hotels are developing at strikingly high rate, expanding water and energy consumption. Although many international hotel chains have a strong focus on sustainability, most hotels do not envisage eco-friendly planning. Independent operators and smaller chains fail to see the strategic value of sustainability and do not set it as a priority, usually because they lack resources to upgrade their facilities. Anticipated increases in domestic and international tourism are fuelling the construction of new hotels, expecting to reach 6.1 million rooms by 2025.¹⁴⁷

The increased financial availability of Chinese people has made it possible for families to buy cars and develop self-driving tourism, which produces more emissions than bus tourism. Long-distance air travel is also becoming more affordable and popular, with aviation being the transportation mode leaving the greatest carbon footprint on the environment. The development of tourist attractions, the consequent building of infrastructures (roads, bridges, cable cars, hotels) and mass tourism presence beyond carrying capacity may irrevocably alter the environment. The most visited areas of China have all experienced environmental degradation because of mass tourism; while tourism provides economic resources to underdeveloped areas, it is also contributing to a critical environmental condition.¹⁴⁸

Popular natural landscapes like Guilin, the Changjiang Gorges, the Stone Forest near Kunming, the sacred mountains etc. have been affected by intense touristic exploitation. Huangshan mountain, for instance, has experienced a notable economic boom thanks to

¹⁴⁷ NOORDZY, Gert, RICAURTE, Eric, JAMES, Georgette, & WU, Meng, *Environmental Implications of Hotel Growth in China: Integrating Sustainability with Hotel Development*, Cornell Hospitality Reports, 2016, pp. 3-9.

¹⁴⁸ ZHAO, Jing, LI, Shumin, *The Impact of Tourism Development on the Environment in China*, Acta Scientifica Malaysia, 2018, pp. 01-04.

domestic tourism, but also significant ecological consequences due to a massive presence of tourists on the narrow plateaus, infrastructure construction (among which is the building of very contested cable cars) and gas emissions.¹⁴⁹

The impacts described so far are harmful not only for the natural and cultural environment upon which tourism develops, but they also negatively affect tourist experience. This raises the problem as to how to better tourists' experience while limiting their impact on the environment. Studies on carrying capacity have appeared in China since the 1980s and the concept has been suggested in the practice of sustainable tourism development. However, the potential solution represented by carrying capacity limits has been difficult to implement, because contrarily to reducing visitation, increasing the number of visitors and revenues are the goals for many tourism destinations.

Since a universal standard has not yet been developed, environmental quality assessment has been based on different indicators, such as landscape and resources, tourism infrastructures, social and natural environment and tourism information. Having noticed the increased negative impacts on the environment due to tourism development, researchers have called for attention on the theme of protection and management of tourism resources. Scientific planning, sustainable measures, policies reinforcement, environmental awareness and economic incentives have been proposed to develop ecological tourism planning and prevent damages. The formulation of appropriate laws must coordinate preservation efforts and strengthen law enforcement to punish unecological behaviours. Financial support should be steered toward environmental protection, also guiding the private sector in the same direction. Propaganda and education should boost cooperation from below, developing an environmental protection consciousness and eradicating uncivilised behaviours.¹⁵⁰

An environmentally-sustainable tourism industry should concern itself with a development compatible with the maintenance of essential ecological processes, biodiversity and natural resources. Such concerns are currently being recognised in China, but in many instances the effective implementation of sustainable measures is still a work in progress.

In conclusion, tourism can be used to lever economic development, but the environmental degradation and the socio-cultural transformations it causes must not be overlooked. Energy efficiency and CO₂ emissions reduction are to be reiterated in the process toward sustainability. At the local level, governments should recognise the strategic role of tourism in economic growth, not only as a catalyst to development but as a

¹⁴⁹ GORMSEN, *op. cit.*

¹⁵⁰ ZHONG et al., *op. cit.*

diversification to local economy. Combined efforts should be made to market a low-carbon tourism industry, based on sustainable principles for the benefit of the local community, the environment and the economy. A well-thought strategy should be implemented and monitored to ensure the concrete application of sustainable measures. Clear environmental protection guidelines are necessary to be enacted and spread ecological awareness in all parts of the country, also employing educational tools and communication to inform people of the importance of sustainably developed tourism.¹⁵¹

2.3 Natural and cultural tourism

The general discourse on tourism can be further declined in its two main variations, namely natural and cultural tourism. Each tourism form, destination and visitor type may have to deal with consequences and problems linked to that kind of tourism.

It has been highlighted that natural tourism is a keystone industry in China, mutually interrelated with economic, socio-cultural and political aspects, and directly contributing to environmental conservation and sustainability. Since the end of the 1980s, China has started promulgating laws related to environmental protection and creating nature conservation systems. The efforts in nature protection are evident from the large number of natural reserves spread across China's territory and the amount of ecological initiatives in diverse fields. In short, the government has been issuing ambitious legislation in matters of nature management and conservation, wildlife protection, biosphere reserves, with consideration to sustainable values. In the formulation of these environmental guidelines and regulations, tourism has been a determinant factor.¹⁵²

Nature-based tourism development has been mainly driven by the government, which has been trying to achieve the mutually interdependent aims of environmental sustainability and economic growth. In this endeavour, mass tourism has been prioritised and huge investments were made to provide services for such massive amounts of tourists. Natural tourism in China has become a systematic production mode based on substantial investments, and profit made through tourism is then reinvested by the government for local development. The importance of tourism as a regional development driver was then recognised along with the diffusion of sustainable practices and environmental conservation. Thus, mass tourism

¹⁵¹ ZHANG & GAO, *op. cit.*

¹⁵² SOFIELD & LI, *Tourism governance...*, *op. cit.*

development in China has been playing a leading role in manifesting sustainability principles.¹⁵³

In the case of forestry areas, for instance, the cessation of logging due to environmental measures has led the way to alternative exploitation modes. With the CNTA's supervision, ecotourism was inserted as a revenue source, adopting environmental standards and working toward a sustainable use of the land. The CNTA has been active in developing a national framework of quality accreditation for natural tourism ventures.

Tourism has greatly impacted the conservation and protection efforts in Chinese forestry areas, as well as flora and fauna preservation in natural reserves. Successful tourism implementation has replaced long-standing activities such as logging and mining, still obtaining plentiful revenues thanks to entry fees and related businesses. The government has also been supporting conservation programs and valued tourism ventures, providing the necessary economic resources for implementing nature protection plans. The increasing importance given to nature-based tourism and its income stream stresses the role of tourism as a keystone industry and underlines its contribution to the application of sustainability in Chinese national parks. Tourism offers good chances for a more sustainable future. However, despite a lot of well-thought legislation, multiple environmental projects and serious commitment, China's swift industrialisation and continuous growth still impede the completely satisfying realisation of these policies.¹⁵⁴

Long-term sustainability projects in natural areas also include the study of socio-economic impacts and changes. Natural tourism can potentially increase biodiversity maintenance, alleviate poverty and provide alternative income sources for local populations. Through this, natural tourism may become, in the eyes of people, a new and better livelihood opportunity, and consequently inspire sentiments of environmental conservation and eco-friendly behaviours, leading people to inflict a lesser pressure on the environment.

Natural tourism represents a fundamental ecological service and an engaging activity for otherwise economically unattractive areas. It is perceived as easy and inexpensive to develop due to the pre-existence of natural tourism resources, and it can provide employment opportunities for all social groups, including ethnic minorities and women. The interactions between tourism providers and tourists also generate important benefits for both parts.

¹⁵³ XU, Honggang, ZHU, Dan & BAO, Jigang, *Sustainability and nature-based mass tourism: lessons from China's approach to the Huangshan Scenic Park*, *Journal of Sustainable Tourism*, 2016, pp. 182-202.

¹⁵⁴ XU & SOFIELD, *op. cit.*

Clearly though, nature-based tourism sometimes causes negative ecological and socio-economic impacts.

As was previously discussed, the lack of community participation and benefits sharing are the main reasons of failure. Natural tourism sustainability depends on its ability to involve local people and improve their living conditions, enhancing their environmental awareness by making them understand the link between economic worth of nature and preservation needs. In general, these signs indicate that tourism has the potential to influence people's attitude and eventually inspire conservation behaviours.¹⁵⁵ For the role it possesses in the sustainability discourse, natural tourism will be the main topic of the next chapter.

Moving on to cultural tourism, the discourse is slightly different. It has to be noted that also in this case the government has been active in promoting cultural heritage and developing culture-related tourism. The legal documents issued about heritage and tourism between 2000 and 2008 have surpassed the number of related documents released in the previous fifty years. Tourism and cultural heritage were brought closer together. The CNTA and the Ministry of Culture published in 2009 a Guide for the Integrated Development of Culture and Tourism. After this policy document on culture tourism, heritage exploitation and cultural tourism development have been put on the government agenda and intensely encouraged.

In the same way as for natural tourism, the promotion of heritage and the development of tourism industry represent an important opportunity to increase heritage conservation practices and locally provide finances. The problems encountered are also similar, with successful sustainable tourism implementation being dependent on the integration between heritage planning and local resources. Also in this case, it is important to bridge the gap between official policy and concrete application. Initiatives must be driven by forward-looking, long-term thinking with sufficient focus on sustainable conservation and use. Culture-related tourism was widely acknowledged and developed; however, heritage promotion and cultural tourism development are still largely seen for their economic value, which may weaken effective conservation efforts.¹⁵⁶

A typical characteristic of Chinese cultural tourism is the so-called “staged authenticity”. In many cases, heritage in China has been commodified and commercialised to the point that cultural veracity has been lost to idealised presentations of culture for

¹⁵⁵ LIU, Wei, VOGT, Christine A., LUO, Junyan, HE, Guangming, FRANK, Kenneth A., LIU, Jianguo, *Drivers and Socioeconomic Impacts of Tourism Participation in Protected Areas*, PLoS ONE, 2012, pp. 1-14.

¹⁵⁶ ASIA-PACIFIC ECONOMIC COOPERATION, *Advancing Sustainable Tourism at Cultural and Natural Heritage Sites*, APEC Secretariat, Singapore, 2009.

tourists' enjoyment. The cultural authenticity that Chinese tourists seek in their travels is often the constructed effort of tourism providers trying to reconstruct what visitors expect and want to see. Ethnic minority cultures are often staged and recreated to achieve tourist satisfaction. The identification of tourism as a sustainable activity, as well as the recognition of the cultural value of heritage, should overcome the extrinsic value given to the income generated by heritage tourism.¹⁵⁷

Conservation and urban restoration programs are often integrated with tourism. Tourism and urban development have come to be related through the restoration of culture and heritage, energising the economy and improving neighbourhood life standards. Sustainable tourism, urban development and acknowledged role of heritage are bound together in a dynamic relation that can be handled in a more equitable and sustainable way.¹⁵⁸

Another feature of culture tourism in China derives from the way Chinese people relate to culture and travel. Traditional images evoked by places and landscapes as personal culture validation are an integral part of the tourism experience for all Chinese. Tourism and culture in China cannot be divorced. The listing and evaluation of outstanding natural and cultural areas is also influenced by these deeply-rooted beliefs. For example, Huangshan Scenic Area was included in 1991 in the World Heritage Site listing because of its exceptional natural and cultural resources. People visiting Huangshan do so not only for its beautiful panorama, but also for the images connected to its landscape and history.

In the same way, Suzhou's Tiger Hill represents an example of Chinese cultural and physical combination. The gardens were developed and valorised as an important touristic resource, encompassing natural elements and cultural aspects. Poems have been carved in the rocks and highlighted in paint. While for Westerners this might look anaesthetic and unpleasant to the eye, for the Chinese it is a way to enhance the cultural value of the place and imbue it with spirituality. So, culture and physical features are closely connected in China and culture-tourism approach to heritage must be regarded with due consideration to this aspect.¹⁵⁹

In conclusion, tourism sustainability has become a central theme in China too. Tourism was instrumental in following up the transition from centrally planned economy to market economy, and is now playing a role to integrate sustainability in the development process. Noticing the increasing number of tourism flows after the opening up of the country, it

¹⁵⁷ SOFIELD, LI, *Tourism Development...*, *op. cit.*

¹⁵⁸ BI et al., *op. cit.*

¹⁵⁹ SOFIELD, LI, *Tourism Development...*, *op. cit.*

became clear that mass tourism was an inevitable and difficult to control phenomenon. Tourism and mass tourism have however become a cornerstone industry in China, with substantial influences on environment, society and economy.

Sustainability in China was a vague concept at first. It was thanks to top-down decisions that sustainability was imposed as an experimental process whose leading principle could be summarised as “learning by doing”. Currently, tourism policies still emphasise the economic side, as economic growth has been and still is one of the main objectives on the Chinese political agenda. Nevertheless, the importance of sustainability is the political discourse and in the socio-economic system is increasing.

Tourism has indeed the potential to initiate a change that leads to sustainability, but first it has to be properly understood and developed. The meaning of sustainable tourism needs to be clarified as an instrument to reach local full-fledged sustainability, and its contribution (and potential negative impacts) to the society and the environment have to be clearly comprehended beyond the economic aspects. Tourism must be understood and developed through its relationship with the environment and the society which hosts it, realising that its consequences are not limited to economic revenues, but go well beyond that. Safeguarding the natural and cultural environment is essential to maintain a place’s attractiveness for tourism, but such conservation sentiments should also result from a deeper understanding of the environment’s role in people’s life. Then, the prospect to balance the double goal of sustainability and tourism development has to go through a reassessment of the current development paradigm. It is necessary to take actions to redefine this fundamental paradigm toward an informed development and a responsible tourism perspective.¹⁶⁰

¹⁶⁰ XU & SOFIELD, *op. cit.*

3. Natural tourism

Nature-based tourism is the main subject of this chapter; it is here taken into consideration for its role in the development of tourism and sustainability discourses. Natural tourism is especially sensitive to ecological pressures and uncontrolled growth, given the environmentally fragile systems it is based upon. Therefore, tourism operators and policy-makers need to pay particular attention when developing this form of tourism; in this context, a successful implementation of sustainable practices could greatly influence the future of a tourism destination.

3.1 Chinese national parks and protected areas

National parks represent the desire of nature protection of civil society, the economic interest for nature-based tourism and the governmental efforts to achieve resource conservation and landscape preservation. Continuous exploitation and resource depletion due to the rapid growth of Chinese economy constitute a serious threat to many biologically valuable areas. The number of protected areas in China has been constantly on the rise ever since the 1980s, when the first batch of National Parks was designated. This positive trend highlights the government's recognition of the value and vulnerability of Chinese lands, which has spared them from other exploitative activities, like logging and mining.

The total area occupied by protected zones in China is now covering 5,4% of its marine area and over 15.7% of its land area, about 7% above the global average, and higher than the US' protected area coverage of 12.9%.¹⁶¹ It is foremost important to mention that in China there is a large number of nature-protected areas, each with different denominations, guiding policies and characteristics. The principal protected natural areas are listed as National Forest Parks, National Key Scenic Resorts, National Natural Reserves, National Geoparks, National Wetland Parks, National Mining Parks, and National Water Reserve Parks.¹⁶²

Currently, there is a total of about 1865 natural protected areas, which have been gradually added under different area denominations. National parks, for instance, aim at providing educational and recreational activities for the public, emphasising nature protection. According to the International Union for Conservation of Nature (IUCN) classification of protected areas, national parks are defined as:

¹⁶¹ UNEP-WCMC, *Protected Area Profile for China from the World Database of Protected Areas*, 2019, <https://www.protectedplanet.net/country/CHN>. Accessed November 2019.

¹⁶² WANG, Guangyu, INNES, John L., WU, Sara W., KRZYZANOWSKI, Judi, YIN, Yongyuan, DAI, Shuanyou, ZHANG, Xiaoping, LIU, Sihui, *National Park Development in China: Conservation or Commercialization?*, AMBIO, 2012, pp. 247-261.

“Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.”¹⁶³

Natural reserves, instead, are primarily meant to protect particularly fragile ecosystems, and tourism there is strictly limited (even though it is still present to some extent).

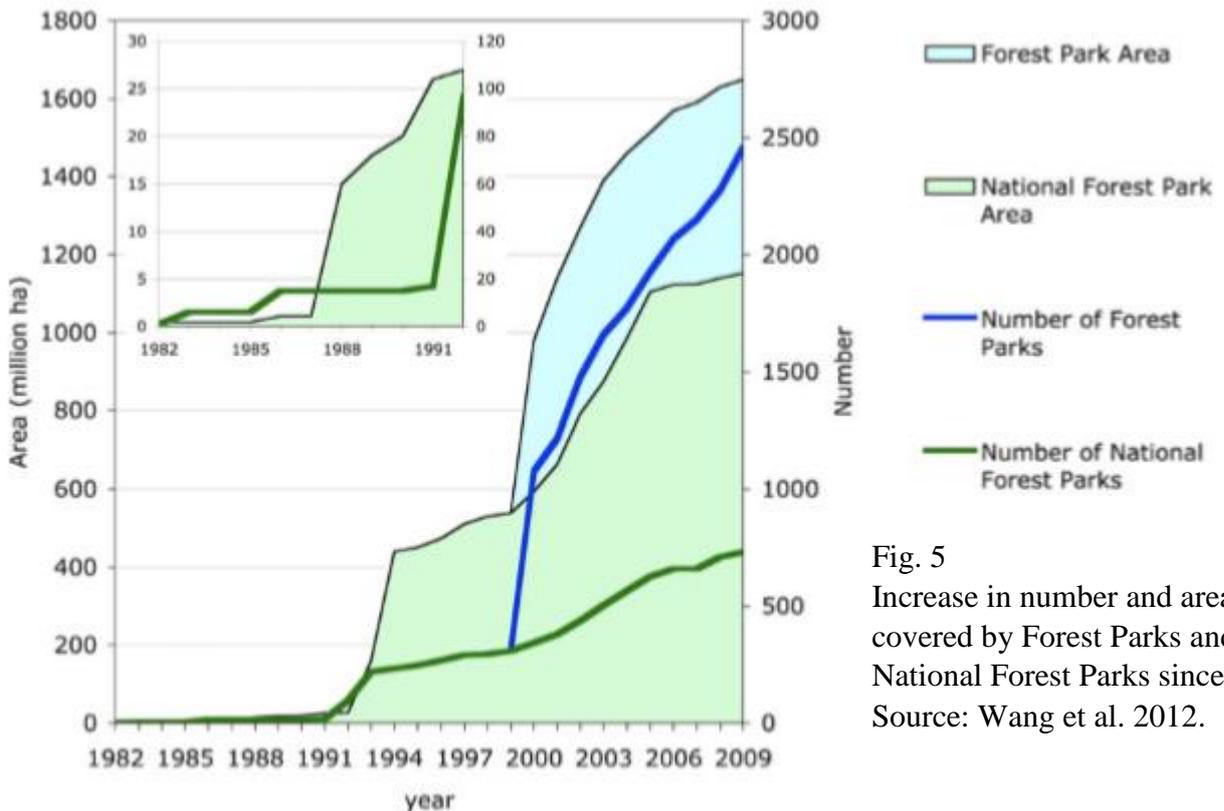


Fig. 5 Increase in number and area covered by Forest Parks and National Forest Parks since 1982. Source: Wang et al. 2012.

The first National Forest Park, Zhangjiajie National Forest Park, was established in 1982 and will be object of further discussion in later paragraphs. The impulse in the creation of natural areas was firstly due to the increasing industrialisation and consequent concerns for biodiversity preservation and living standards. Moreover, the development of the third sector after Deng’s economic reforms led to increased investments in the tourism field. A new wealthy middle-class with an interest for natural landscapes and more holiday time constituted the main economic driver of nature-based tourism, whose growing demand also fuelled the establishment and promotion of national parks. In consequence, nature-based tourism has been growing faster than other forms of tourism.¹⁶⁴

¹⁶³ IUCN, *Category II: National Park*, <https://www.iucn.org/theme/protected-areas/about/protected-areas-categories/category-ii-national-park>. Accessed November 2019.

¹⁶⁴ CHEN, Bixia, NAKAMA, Yuei, *Thirty years of forest tourism in China*, The Japanese Forest Society and Springer, 2012.

As discussed in the previous chapter, the role of cultural heritage plays an important part in natural tourism and the appreciation of nature has a long history in China. Regarding the activities involved in natural tourism, landscape appreciation and scenic attraction are often linked to other practices such as camping, boating, picnicking, hiking and scientific observation.

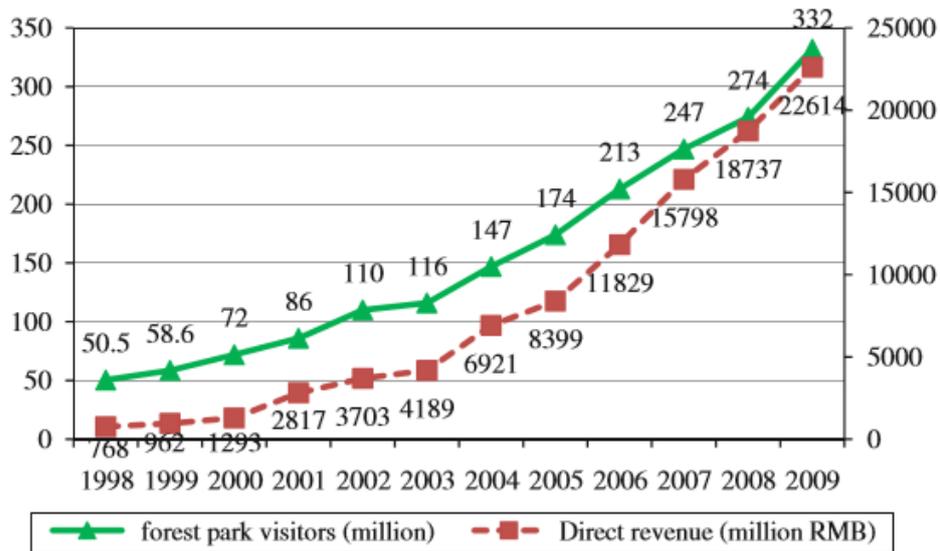


Fig. 6
Increase in Forest Park visitors and revenue generated by entrance fees in the period 1998-2009.
Source: Chen & Nakama 2012.

The development of national parks has benefitted many local villages, generating income and alleviating poverty. However, despite these economic improvements, national parks are often struggling to achieve their environmental conservation goals. Even though their objective is to protect and promote nature, the consequences of increasing tourism are usually harmful to the environment. Difficulties in reaching environmental and biodiversity protection often arise from the lack of appropriate legislation, and the conflicting interests in the management of the area. Every type of protected area is indeed under different jurisdictions, sometimes causing frictions between exploitation and protection interests.

Administration poses a serious problem. Different areas are not only administered by different agencies (namely the State Forestry Administration, the Ministry of Land Resources, the Ministry of Construction and the Ministry of Water Resources), but they are also designated at national, provincial and county level, which additionally complicates the administrative structure. Each governing agency has different priorities and goals, which makes cooperation and communication difficult. Moreover, other agencies like the Ministry of Culture, the State Tourism Administration, and the State Environmental Protection Agency retain certain degrees of power over the parks. To further complicate matters, it is the central government that has the authority to designate national parks, while most funding to the parks comes from local and provincial governments.

National parks in China are classified as “self-funding organisations”, that is to say that they should be self-sufficient with the revenues they generate, while also contributing to developing local economy and infrastructures. Government funding is often lacking, and park managers are under pressure to gather financial resources, even resorting to private support and allowing development projects inside the park (like in the case of the contested Huangshan’s cable cars). Park managers are often striving to reach economic objectives, paying less attention to the ecological consequences of development. Many national parks receive more tourists than they can handle, generating pressures on the land. Overcrowding is a serious problem, especially during October’s Golden Week and May 1st holidays. Long-term planning and scientific monitoring are scarce, the focus being on tourism infrastructure development.¹⁶⁵

Commercialisation and urbanisation impacted the natural landscape, resulting in augmented pollution effects. In the areas where natural tourism was developed, waste problems, water, air and noise pollution, overbuilding and biodiversity issues were registered. However, domestic tourists are seemingly undeterred by this ongoing deterioration, and keep swarming famous natural scenic spots.¹⁶⁶

The establishment of national parks also causes negative impacts on the local population. One of the first effects is the restriction of local activities due to the establishment of the park. In some cases, the lands of local people were incorporated in the national park, leaving many villages and communities to reside inside the area, and depending on the surrounding forests to survive. However, human activities inside the parks are strictly limited for nature preservation, which clashes with the needs and traditional way of life of indigenous people. Living inside the park causes people to suffer great hardships, and change their lifestyle.

A solution to this problem would be people displacement, i.e. relocating inhabitants in outer zones. In this way, however, residents would hardly benefit from the development of tourism on their land, and become passive subjects of an external planning. Even villagers settling on the outskirts of the park would be excluded from its economic framework.¹⁶⁷ In some instances, the arrival of large numbers of tourists and the transformation of timberlands (which were traditionally exploited by local people) into protected areas undermines pre-existing social structures and values. If not properly managed, national parks become then a

¹⁶⁵ WANG et al., *National Park Development...*, *op. cit.*

¹⁶⁶ CHEN, NAKAMA, *op. cit.*

¹⁶⁷ FRITZ, Katherine, *National Parks in China: A New Model for Nature Conservation*, Independent Study Project, 2009.

major disruptive force for the local social equilibrium, that often runs into conflict with community interests.¹⁶⁸

Some important actions are needed to guarantee a healthy functioning of the park: collaboration with local people is essential to include residents in the economic development of their land, and to educate them in sustainable practices. Enforcement on tourist numbers and access can regulate impacts and more evenly distribute visitors flows. Besides, control of endangered wildlife and plants to ensure biodiversity preservation, and implementation of international guidelines can help achieve sustainability objectives.

Apart from protecting natural and cultural heritage, the role of national parks is also very important for visitors. One of the objectives of protected areas would be that of educating people to nature conservation. Nature appreciation should be accompanied by an understanding of the value of nature. That is one of the reasons why entrance fees to major national parks are quite hefty. Natural landscapes are to be seen as a place worth respecting and paying for. Even though a lot has been done, the establishment of national parks alone is not sufficient to fix the problem of nature conservation.¹⁶⁹

The purpose of national parks should be to instil a sense of pride in national natural heritage and inspire conservation practices. People's attitude toward the natural environment influences their behaviour in tourism, and it is a result of cultural and ideological factors. Understanding the value of nature, also through educational efforts, is a means to influence one's perception of the environment as a resource. The development of values and ethics toward nature would then be useful for the promotion of sustainable tourism and in the management of national parks.¹⁷⁰

A study suggested that visitors' perception of national parks is mainly pro-environmental: they place importance on the environmental conservation carried on by protected areas, rather than on their industrial exploitation; they are supportive of limitative measures to tourism in order to safeguard ecosystems, and they prioritise non-consumptive activities inside natural areas. This shows that national parks not only serve the purpose of tourism development, but are also placing importance on ecological integrity and education about natural and cultural environments.¹⁷¹

¹⁶⁸ WANG et al., *National Park Development...*, *op. cit.*

¹⁶⁹ FRITZ, *ibidem*.

¹⁷⁰ XU, Feifei, FOX, Dorothy, *Modelling attitudes to nature, tourism and sustainable development in national parks: A survey of visitors in China and the UK*, *Tourism Management*, 2014, pp. 142-158.

¹⁷¹ HUANG, Yi, DENG, Jinyang, LI, Jian, ZHONG, Yongde, *Visitors' Attitudes Towards China's National Forest Park Policy, Roles and Functions, and Appropriate Use*, *Journal of Sustainable Tourism*, 2008, pp. 63-84.

Despite their high level of use, until few years ago there was no appropriate legislation on the matter of nature protection in national parks. Nature preservation was mainly seen as maintaining aesthetic values, and activities inside the parks were not properly regulated. The Forest Park Management Regulation of 2002 prioritised utilisation over protection, while previous laws adopted on nature management (like the Environmental Protection Law of 1989 and the Forest Law of 1985) tended to be insufficient and leading to conflicts of interests.

Following raising environmental concerns and a new awareness for nature conservation, the latest developments for national parks have been intense restoration and legislative efforts. Since 2003, the central government is collaborating with local and provincial governments and park directors to tackle the issues revolving around national parks. Measures were undertaken to encourage environmental protection, eliminate unregulated buildings, defining core scenic areas and designing an extensive monitoring system. A more scientific approach is being adopted for planning, including resource inventory, plants and wildlife surveys, soil and water quality analysis and the quantification of visitor pressures. Comprehensive and interdisciplinary evaluations are conducted by professionals, who raise issues and advice to officials' attention.

Reforms will also try to increase community participation and increase compensation to those whose livelihood is affected by park activities. General improvements to their lifestyle are also expected, for instance by providing access to education and thus allowing locals to actively participate in the parks' management.¹⁷²

Additionally, new regulations were issued, like the Regulation for Chinese National Key Scenic Resorts and the Resolution of Chinese Forest Park Development of 2006, aiming at setting guidelines for the future development of these protected areas. Efforts to restructure and simplify the national parks system are also underway; in 2017 a new policy framework designing an innovative national park system was launched with ten pilot national parks. This "Overall Plan for Establishing a National Park System" announces guidelines for national parks creation that are aligned with international standards (i.e. the IUCN Protected Areas Category System). This political initiative was intended as a response to the complicated structure and administration of protected natural areas and marks an important step in the institutionalisation of the Chinese national park system.

¹⁷² WANG et al., *National Park Development...*, *op. cit.*

According to an author¹⁷³, the tendency in national park founding is still that of a top-down initiative, where national parks are essentially seen as state-making projects that ensure governmental control over natural resources. Local participation is still not sufficiently emphasised, and conservation efforts are prioritised over co-management practices. Resettlements are still a concern for local communities, and rational utilisation of local resources should be given more recognition for the sustainable maintenance of indigenous populations.

In general, conservation and reformation efforts have not all been successful, but they demonstrate the intention of the Chinese government to reform nature management and take a more sustainable turn in national parks policy. The eventual success of China's national parks will depend on their ability to promote a long-term sustainable planning, to alleviate poverty and give opportunities to local communities, and protect Chinese culture and ecosystems.

3.2 The park of Zhangjiajie

National forest parks are one of the first and most common examples of national parks in China, creating a base to observe the evolution and management of Chinese national parks, and the effective application of sustainability principles in relation to ecological, social and economic systems. Forest tourism in China was initiated with the foundation of Zhangjiajie National Forest Park by the State Council in early 1982.

This park has already undergone more than thirty years of evolution, and has reflected the development trend of the natural tourism industry in China. Many studies have been conducted on its soil in relation to tourism issues, though most of them are only in Chinese. Its status as a national forest park has been enriched with a UNESCO World Heritage Site designation, in recognition of its exceptional landscapes. Ethnic minorities also inhabit these areas, making them culturally variegated and adding potential to local tourism.

Besides, since 2004 Zhangjiajie is one of the World Observatories in the UNWTO project for global sustainable tourism monitoring, and the third established in China after those founded in Guilin and Huangshan. Altogether, these characteristics make Zhangjiajie a relevant tourist destination of mid-western China, one of the most visited national parks of the country, as well as an interesting research area for observing the development of tourism sustainability.

¹⁷³ WANG, Ju-Han Zoe, *National parks in China: Parks for people or for the nation?*, Land Use Policy, 2019, pp. 825-833.

For all these reasons, this park is here taken into consideration as a case study to understand the evolution of tourism industry and the implementation of sustainability measures in China.

3.2.1 Foundation and evolution

Zhangjiajie National Forest Park is an area famous for its karstic landscapes, with vertiginously high rock pinnacles standing out against a lush subtropical vegetation. The park covers an area of 264 square kilometres, and it is located in the north-eastern part of Hunan province, situated in mid-western China. With around 243 peaks and 3000 karst pinnacles, the quartzite and sandstone formations present in the area are the unique result of geological processes started thousands of years ago. Between the peaks are steep gorges and ravines, with streams, waterfalls and natural caves. For hundreds of years, these remote areas were only inhabited by the local ethnic minorities, mainly the Tujia, the Miao and the Bai, that constitute 71,3% of the population.¹⁷⁴

The area possesses an incredible variety of flora and fauna, among which are many threatened species. There have been registered around 41 types of birds, 28 types of mammals, and more than two hundred types of insects. Wildlife presence is therefore worth noting. There is a large population of macaques living close to sightseeing trails and often approached by tourists. Other animals include endangered species like the Chinese giant salamander, the water deer and the rare clouded leopard. Regarding the flora, several hundreds of different types of plants can be found, among which are dove trees, ginkgoes, and hornbeams. The percentage of forest cover inside the park is around 97%. The climate is subtropical, very humid in summer and not too rigid in winter, with the rock towers frequently surrounded by thick fogs.¹⁷⁵

On a different note, it is worth mentioning that the release of James Cameron's movie "Avatar" in 2009, whose floating mountains were allegedly inspired by the landscapes of Zhangjiajie park, further contributed to making this scenic spot known to the public and attracting new hordes of tourists. Even though the director never officially admitted of taking inspiration from Zhangjiajie for his film, the uncanny resemblance of the film's scenarios with those inside the park have been exploited by local tourism managers in a marketing move. One of the peaks inside the park has in fact been renamed "Hallelujah", from the name

¹⁷⁴ HARPER, Damian et al., *Cina*, EDT srl, Torino, 2015, pp. 509-511.

¹⁷⁵ YUAN Luan 袁鸾, WU Renhai 吴仁海, «Zhangjiajie shengtai luyou kechixu fazhan tantao» 张家界生态旅游可持续发展探讨 (*A study on sustainable development of ecotourism in Zhangjiajie*), Yunnan Geographic Environment Research, 2005.

of the movie's floating mountains. This promotional move has managed to shed new light on the park, and entice new visitors.¹⁷⁶



Fig. 7
View of
Wulingyuan's rock
peaks.
Source: Colombo
2018.

The park was previously a state-run forest farm where planting and logging were the principal activities. After pioneering explorers started visiting and celebrating the beauty of its landscapes, local governments realised the economic potential that could be realised through touristic development. The central and regional government played a fundamental role in the subsequent funding and direction of the park.

Zhangjiajie was established in 1982 as the first national forest park of China. In 1992 it was combined with other two neighbouring nature reserves (Suoxiyu Nature Reserve and Tianzi Mountain Nature Reserve) to be enlisted in UNESCO's World Heritage Site list, with the name of Wulingyuan Scenic and Historic Interest Area. Later in 2000, it was also named a National Geological Park and in 2004 it obtained the World Geological Park designation. Finally, in 2006 it was nominated an AAAAA-class National Key Scenic Area by the CNTA.¹⁷⁷

¹⁷⁶ FENG Zhiwei 冯志伟, «Zhuanjia cheng "Afanda" zhuyao changjing yuanxing laizi Zhangjiajie» “专家称《阿凡达》主要场景原型来自张家界” (“Experts state Zhangjiajie's scenery is the main inspiration for “Avatar””), *China Daily*, 22nd January 2010, https://www.chinadaily.com.cn/dfpd/2010-01/22/content_9360904.htm. Accessed November 2019.

¹⁷⁷ WULINGYUAN ZHANGJIAJIE SCENIC AREA AND NATIONAL FOREST PARK ADMINISTRATION, *National Forest Park*, <http://www.zjjpark.com/index.php?m=content&c=index&a=lists&catid=2438>. Accessed November 2019.

In general, the development of the park can be divided into four different phases: the exploration phase (1978-1982), characterised by few visitors and scarce tourism development; the involvement stage (1983-1988), registering an increased number of tourists and the appearance of tourism facilities; the development stage (1989-1999), which witnessed the emergence of tourism as a fundamental local industry, also thanks to the UNESCO designation; the consolidation phase (2000-today), continuing the tourism development trend and the promotion of the area as a sightseeing attraction.

Ever since the development phase on, tourism in the area has been steadily growing as an industry, leading to the construction of related infrastructures and networks. The region has become more urbanised and internationalised, and more people from surrounding areas were attracted there to work in the tourism sector. Physical and social transformations occurred, and will be discussed in the next sections. However, it is here notable mentioning that, following the environmental changes due to tourism exploitation, in 1998 the UNESCO issued a warning to the park, noticing the widespread degradation and pollution of the area. This admonishment was meant to incite park authorities to take measures against the urbanisation and intense exploitation of resources in the area.¹⁷⁸

The park is divided into three main areas, each with different scenic spots: Tianzi Mountain in the east, Yangjiajie (recently opened to ease tourist flows on the core areas) in the north and Yuanjiajie in the south-west, containing, among others, the most visited attractions of Golden Whip Stream and Yellowstone Village, as well as the recently built Bailong Elevator.

¹⁷⁸ ZHONG, Linsheng, DENG, Jinyang, XIANG, Baohui, *Tourism development and the tourism area life-cycle model: A case study of Zhangjiajie National Forest Park, China*, Tourism Management, 2008, pp. 841-856.

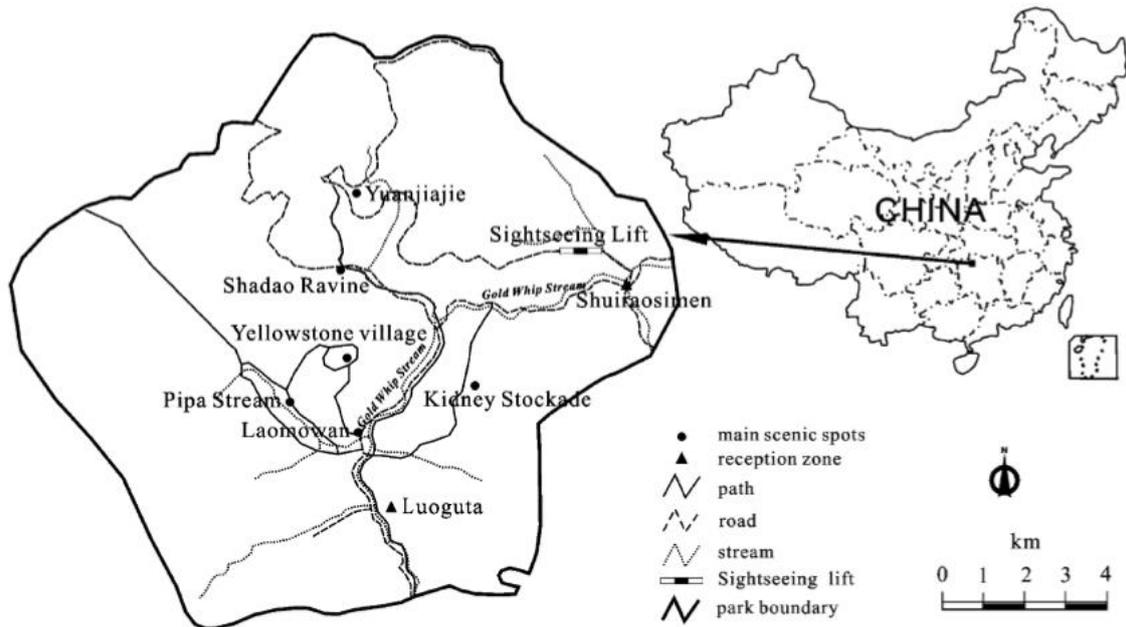


Fig.8
 Geographic position and structure of Zhangjiajie national park in China.
 Source: Zhong et al. 2008.

Zhangjiajie National Park has been receiving an increasingly high number of tourists ever since its opening in 1982. About 90% of the visitors are domestic tourists, but there has also been an increase in international tourists. The extremely fast development of tourism industry in the area has led tourist inflows to grow from a total of 2.2 million arrivals in the period 1982-1988, to 1.1 million visitors in the sole year 1999.

The increase in tourist presence can be also attributed to the development of transportation and tourist infrastructures, that greatly facilitated moving inside the region. A railway station was opened in 1995, connecting Zhangjiajie to neighbouring cities, even with high-speed train connections. A local airport was built in 1994, directly linking major Chinese and foreign cities to this otherwise remote region. The number of star hotels went from 29 in 1996 to 72 in 2006, while travel agents grew from 33 in 1996 to 65 in 2006. In 2005, a highway connecting Zhangjiajie to Chengde (a major city in the east) was completed, cutting the travel time from Changsha and Chengde by half. Ground transportation improved thanks to the connections to the highway network made possible by this road.

Together with the rapid increase in tourist numbers there was also a growth in revenues related to tourism. Except for a slight decline in 2003, attributed to the Severe Acute Respiratory Syndrome (SARS) outbreak, tourists and revenue have been constantly on the

rise. From 2012 to 2016, more than 60 million visitors were registered in the park, bringing an economic inflow of 44.3 billion yuan.¹⁷⁹

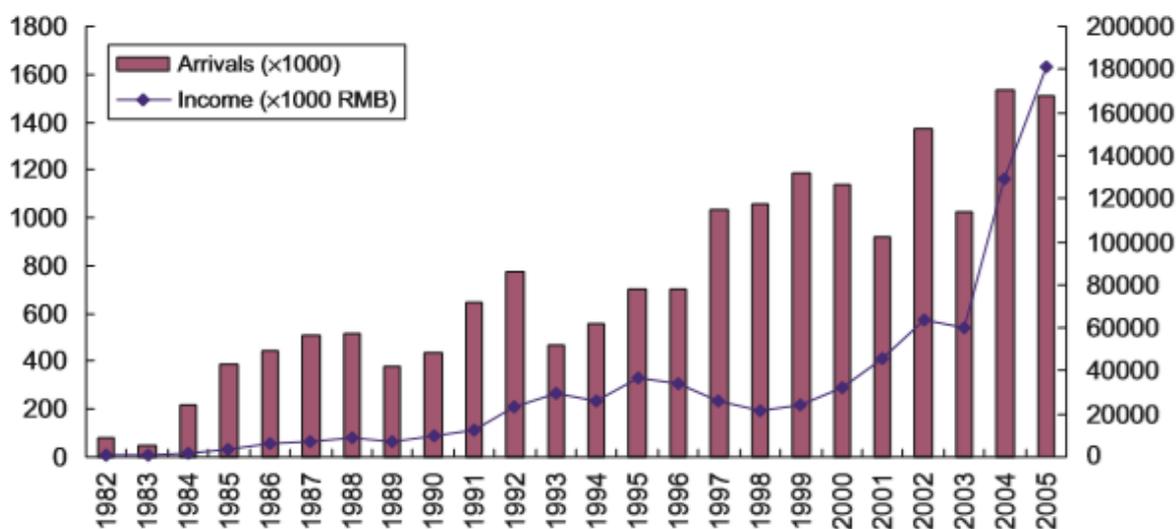


Fig. 9
Tourist arrivals and income in the period 1982-2005.
Source: Zhangjiajie National Forest Park Administration, 2006.

Zhangjiajie is also the name of the city situated 30 kilometres south of the park. The city was originally called Dayong City, but was renamed Zhangjiajie City in 1994, in an intent to attract visitors. The city itself is not a touristic destination and lacks scenic attractions, but it was anyway touched by the tourist flows attracted by the surrounding natural areas, which led to the growth of lodging, transportation and food services in the urban area. Tourism has greatly contributed to the development of the city, transforming it from a remote mountainous area into a renowned tourism destination with important income. In 2016, the total population of the city and the surrounding areas amounted to 1.7 million people.

The presence of tourists has also impacted the industrial structure of the area, which was previously dependent on the primary sector (mostly agriculture and mining): the contribution to GDP of the primary industry decreased from 47.1% in 1989 to 16.4% in 2006, while that of the tertiary industry rose from 34.9% in 1989 to 59.4% in 2006. Tourism in the city is continuously growing and becoming a pillar industry. Today, the economic relevance of tourism industry and related services is so high as to contributing to 90% of GDP. The

¹⁷⁹ ZHANG Rujiao 张汝娇, TANG Yexi 唐业喜, ZHOU Yajin 周雅金, LONG Minglu 龙明璐, CHEN Yanhong 陈艳红, CHENG Can 程灿, ZHUO Qi 卓琦, «Jiyu luyou shengtai zuji de Zhangjiajie luyouye kechixu fazhan dongtai fenxi» 基于旅游生态足迹的张家界旅游业可持续发展动态分析 (*Analysis of the ecological footprint of Zhangjiajie's tourism industry and sustainable development trends*), Rural Travelling, 2018, pp. 106-108.

professional occupation of local workers has also changed: labour force was transferred from the primary sector to the tertiary (mainly tourism and hospitality). In short, tourism revenues have become critical to the growth of GDP in the region and are now viewed as the primary source of economic development.¹⁸⁰¹⁸¹

3.2.2 Environmental exploitation

Tourism has clearly become the main industry in Zhangjiajie. Before the 1980s, Wulingyuan was just an inland mountainous region scarcely inhabited by ethnic minorities and with a poor economy. After about 30 years of tourism development, it has undergone important transformations in different sectors.

Economic interests are often prioritised over environmental concerns. In the first years after the opening of the park, human activities were not strictly controlled, and many construction works and tourism-related intervention were initiated without properly considering their effect on the environment. The impacts of tourism activities on the local environment are plenty.

To start with, access to the park is facilitated by paved trails, widely used by tourists to move between the park's different scenic sites. These paths are specifically built for tourists to avoid entering and damaging surrounding vegetation areas, forcing them to walk on specific routes (although the designed paths are not always followed by tourists). The paths leading to the attractions of Yellowstone Village and Golden Whip Stream are the most crowded, and due to the intense trampling and tourist passage, soil and vegetation here receive the highest damages. Though these impacts do not appear to be extremely grave, however they do influence wildlife behaviours and impair their habitat.

Wildlife is also endangered by touristic presence. Animals migration and the diffusion of plant seeds have been reduced, and consequently the biodiversity and the number of species present in the park has decreased. Noise pollution also creates disturbances for animals in the area. A very popular attraction of the park is represented by a local population of wild monkeys that live in the forests near sightseeing tracks. Despite numerous signs urging visitors not to approach and familiarise the animals to human contact, disrespectful tourists however disturb and feed them with a variety of foods, affecting their behaviour and

¹⁸⁰ XIE, Fengyuan, LACHER, R. Geoffrey, NEPAL, Sanjay K., *Economic Impacts of Domestic Tourism in the Rural Developing World: A Case Study of Zhangjiajie City*, Tourism Review International, 2011.

¹⁸¹ XIONG Ying 熊鹰, LI Cailing 李彩玲, «Zhangjiajieshi luyou – jingji – shengtai huanjing xietiao fazhan zonghe pingjia» 张家界市旅游 – 经济 – 生态环境协调发展综合评价 (*Synthetic Evaluation on Coordinated Development of the Tourism – Economy – Ecological System in Zhangjiajie City*), China Population, Resources and Environment, 2014, pp. 246-250.

interfering in their environment. Other maintenance activities like logging, building, as well as the sheer presence of tourists undermine the integrity of the ecosystem. Moreover, when damages are particularly evident, they also affect visitors' perception of the park.¹⁸²



Fig. 10
Tourists feeding wild monkeys
near the Golden Whip Stream.
Source: Colombo 2018.

A more serious problem regards the exploitation of waters inside and around the park. Notably, water environments are extremely fragile and easily exposed to deterioration if not handled properly. Following tourism exploitation, ground water quality in the park has steadily deteriorated because of the intense consumption and sewage discharge. For instance, water consumption in 1981 was 6000 tons, then 20000 in 1985, and 250000 in 1999. Waste released in the waters also grew from 5000 tons in 1981 to 225000 in 1999.¹⁸³

Water ecosystems' carrying capacity is the most limited, and is linked to the ability of the environment to regenerate and resist changes. The speed by which a water system can purify itself and process pollutants also depends on its carrying capacity. For this reason, particular attention should be paid not to overburden water ecosystems. Given their little tolerance to pollution, environmental degradation is most evident by looking at lakes, rivers and canals.

¹⁸² DENG, Jinyang, QIANG, Shi, WALKER, Gordon J. & ZHANG, Yaoqi, *Assessment on and Perception of Visitors' Environmental Impacts of Nature Tourism: A Case Study of Zhangjiajie National Forest Park, China*, *Journal of Sustainable Tourism*, 2003, pp. 529-548.

¹⁸³ ZHONG et al., *Tourism development...*, *op. cit.*

The area most critically affected by water pollution is that of the Golden Whip Stream, one of the most visited sites of the park, a small river flowing in the valleys between the rock peaks. An analysis made in 1984 proved that the stream's water was quality I, transparent and clean, so much that locals used to drink and cook with it. After 1986, it had already dropped to quality II and had started to show signs of pollution. After 1990, while the number of visitors continued increasing, the water quality kept deteriorating. The Chemical Oxygen Demand (COD) increased from 0.79 mg/L in 1984 to 2.5 mg/L in 2000, while the presence of nitrogen in the water went from being null in 1984 to 0.005 mg/L in 2000. After the year 2000, phosphates started being monitored as well. In different sections of the river were registered concentration of phosphates that exceeded the permitted limits by 73%, with values as high as 0.063 mg/L and worse.

From 1998 on, the Golden Whip Stream's waters started becoming murky and stinky, and due to the high nitrogen and phosphates levels, invasive algae and plants started growing on its surface, leading to eutrophication. Oxygen was dissolved by the chemicals present in the waters, causing the death of indigenous animals and plants. The cause of eutrophication were mainly the chemical substances employed in detergents and soaps, and used in neighbouring areas. Their discharge increased phosphorous emissions in the waters, source of nourishment for invasive algae.¹⁸⁴

The main source of water pollution were the tourist facilities built in the upper reaches of the stream, which directly discharged waste in the river. In 2002, around 700000 tons of waste were discharged in the water without being treated, and only in 2005 a depuration system was installed. However, considering the small flow volume of the stream (limited between 34000 and 86000 m³ at the most), its self-purification capability is very restricted, and the massive volume of waste released into it have caused it to become heavily polluted.¹⁸⁵

Apart from the already operational water treatment system, a solution to this problem is the implementation of the carrying capacity limits of the stream, namely controlling its pollution exposure by reducing the number of visitors residing upstream. Calculations showed that the stream can sustain the impacts of different amounts of visitors in different seasons: 1186 people in spring, 3057 in summer, 333 in autumn, 545 in winter.

¹⁸⁴ QUAN Hua 全华, YANG Zhuxin 杨竹莘, «Shengtai luyouqu huanjing bianhua yu kechixu luyou fazhan – yi Zhangjiajie wei lie» 生态旅游区环境变化与可持续旅游发展——以张家界为例 (*Environment Change and Sustainable Development in Ecotourism Area: a case study of Zhangjiajie*), China population, Resources and Environment, 2002, pp. 95-98.

¹⁸⁵ ZHONG et al., *Tourism development...*, op. cit.

Environmental impacts would be managed at best if tourist inflows were regulated accordingly. However, in 2000 hotels capacity in the area already exceeded 4585 beds.¹⁸⁶

Regarding the air quality inside the park, it also felt the effect of tourist presence. The main causes of air pollution are coal and oil consumption, and vehicles emissions, which particularly peaked during the development phase of the park. Coal consumption went from 70 tons in 1981 to 6100 tons in 1998, while suspended particulates and anhydride in the air increased, and the rate of acid rains reached 52%.

Another critical consequence of tourism is the overexploitation of tourism resources. Yearly carrying capacity of the park has been set to 5.56 million visitors; as an example, visitation has been increasing from 3.8 million people in 2015 to over 4 million in 2017. Tourists visiting the park often exceed the carrying capacity of the area, and during peak seasons controls are too lax.

Especially during periods of national holidays, like the October's Golden Week or May 1st holiday, peaks of tourist presence are registered. According to the general regulations of the park, the core areas' daily carrying capacity is around 22000 people at a time. However, during peak season, tourist presence is one to three times bigger than this limit. During 2002's May 1st holiday, for instance, 85556 people were counted in one day in the park. Yellow Dragon Cave, a scenic spot near the park, can accommodate 7000 people at a time, but during critical periods it registered up to 14000 visitors a day.¹⁸⁷

The seasonality of the touristic phenomenon is evident, with peaks happening in May, July, August and October (each month making up 15% of annual tourist presence), an average situation in April, June, September and November (registering up to 10% of annual visitors per month), and low tourism season in the remaining months (with only 5% contribution to tourist presence). Due to seasonality, visitor presence is not equally distributed over the year, but causes the park to be particularly empty in certain periods, and extremely overcrowded in others. This phenomenon is harmful not only for the environment, but it also heavily influences tourists, who are forced to queue for hours at the park gates before being allowed to enter.

As was previously mentioned, one the most visited scenic area of the park is Golden Whip Stream, which in peak seasons receives visitors exceeding up to 100% its actual carrying capacity. The second most visited area is Yellowstone Village, whose

¹⁸⁶ QUAN Hua 全华, CHEN Tian 陈田, YANG Zhuxin 杨竹莘, «Zhangjiajie shuihuanjing yanbian yu luyou fazhan guanxi» 张家界水环境演变与旅游发展关系 (*The Dynamic Threshold and the Tendency in Zhangjiajie Tourist and Ecological Environment*), Acta Geographica Sinica, 2002, pp. 619-624.

¹⁸⁷ YUAN, WU, *op. cit.*

overexploitation percentage is also critical, being close to 90%. On the other hand, other areas like Yuanjiajie are not as intensely visited, with only 30% of its accommodation capacity being used. Improving the distribution of tourist flows over the year is necessary to more easily control the impacts of visitors and allow the environment to regenerate itself with continuity.¹⁸⁸

Overbuilding and urbanisation are also the result of environmental exploitation. Ever since the park appeared, many hotels, restaurants and residential units have been built increasingly close to the park entrances. Touristic facilities and sightseeing paths were built in sensitive areas, close or inside the park gates. The pattern of buildings, originally fragmented and sparse over the land, became more concentrated along roads and park gates, following the success of the first hotels. During the development phase, more than 400 buildings were made inside Wulingyuan Scenic Area, with little control over their sustainability and impacts on the environment.

One of the most contested and debated construction carried out inside the park was the building of Bailong Elevator. The project was started in 1999, and cost 15 billion yuan. In 2002, Bailong Elevator became operational and was publicised as the highest and fastest outdoor lift in the world, with a carrying capacity of fifty people, covering a vertical height of 326 metres in just two minutes. The construction of the elevator required carving a 154 metres tunnel inside the mountain, while the remaining 172 metres are sustained by a steel structure attached to the rock. The aim of this project was to make it easier and quicker for tourists to reach certain parts of the park. Thanks to the elevator, areas otherwise needing a three-hours walk became reachable in just a couple of minutes.

The structure has received many critics, mainly due to the damage it inflicts on the aesthetics of the area, and the negative ecological effects it has on vegetation and animals. Critics were also directed at the fact that the elevator attracts more tourists, instead of easing the oversaturated capacity of the area. Economic interests appeared to have once again bypassed ecological concerns. In fact, despite the criticism and the doubts raised about the sustainability of the project, the elevator was built anyway.¹⁸⁹

¹⁸⁸ YU Dezhen 于德珍, «Lun shengtai luyou de huanjing rongliang – yi Zhangjiajie wei lie» 论生态旅游的环境容量——以张家界为例 (*Environmental Capacity of Eco-tourism: A Case Study of Zhangjiajie*), Green China, 2005, pp. 56-57.

¹⁸⁹ WANG, Yi, XIA, Zancai & CHEN, Wei, *Aesthetic Values in Sustainable Tourism Development: A Case Study in Zhangjiajie National Park of Wulingyuan, China*, Journal of China Tourism Research, 2008, pp. 205-218.



Fig. 11
The steel structure
of Bailong Elevator.
Source: Baidu
2019.

The natural exploitation and anthropic activities have been so intense that they caused the UNESCO to emit an official warning to the park in 1998, admonishing authorities that, if they didn't take appropriate countermeasures, the park would be erased from the UNESCO heritage list. In fact, a group of UNESCO officials come to check the quality of the area were negatively surprised by the condition of the environment, the construction of tourism facilities in sensitive zones, and therefore decided to release an admonishment to encourage authorities to try and remedy to the situation. The UNESCO State of Conservation Report stated that:

The mission found this site to be overrun with tourist facilities, having a considerable impact on the aesthetic qualities of the site. The Chinese authorities have not taken any steps to implement the recommendation of the Committee, made at the time of the site's inscription in 1992, to prepare a species status conservation report in order to determine whether the site would qualify for inscription under natural heritage criterion (iv).¹⁹⁰

The government decided to take action, and invested 300 million yuan in restoring core scenic sites, relocating part of the population and tackling pollution issues. At the end of 2000, the government decided to implement a removal plan to take control and regulate the development of the park. Many buildings that were considered a threat to the environment or not in compliance with the regulations were demolished. Tourism facilities illegally built inside the park were demolished in three phases, namely between 1999 and 2003, between

¹⁹⁰ WORLD HERITAGE COMMITTEE, *State of Conservation Reports*, UNESCO, Kyoto, 1998.

2006 and 2009 and between 2015 and 2018. Building hotels or restaurants inside the park has since then been strictly forbidden.

After the demolition took place, relocations were necessary to move residents outside core areas. A survey conducted in 2007 demonstrated that 56% of people were willing to relocate, but many others were not satisfied with the compensation provided, which varied between different villages. Secondly, finding jobs in the new place was not always easy, and decision makers seemed not to mind citizens' opinions, which led people to send many petitions against the local government.¹⁹¹

Following the UNESCO warning, the government has tried to implement a strategy defined as “山上游, 城里住” (visiting the mountains, residing in the city), to reduce the impacts of tourists inside the park. The thorough realisation of this strategy will require investments in the rational improvement of tourist facilities, and in educating people at sustainability, but this step demonstrates a first intent to ameliorate the situation.¹⁹²

A water treatment system was built in 2005 to help reduce water pollution and reduce water consumption, and the use of detergents containing phosphates was banned in the adjacent areas. Nevertheless, the final treatment of waters is still not completely adequate, and water-saving and recycling behaviours and technology are not common. Just a few areas, like Yellowstone Village, have adopted a rainwater recycling system, but due to slow funding and difficulties in obtaining finances, most scenic spots cannot easily implement water treatment systems. In the case of public toilets, for instance, it was found that the large majority of facilities did not employ recycled water, but consume large quantities of clean water.¹⁹³

Highly impacting buildings were prohibited, and the use of clean sources like sun and electricity was encouraged to substitute coal and oil. Means of transportation inside the park were also regulated: after 2001, only low-carbon buses were allowed to enter the park gates and provide transportation services for tourists between the different areas. Regarding harmful sewage discharge, more controls have been implemented by the government to prevent pollution. Fines were introduced to punish who disrespectfully abandons waste, while virtuous behaviours are rewarded. The practical dimension of waste reduction is performing overall well, with citizens, visitors and enterprises being mobilised to reduce

¹⁹¹ ZHONG et al., *Tourism development...*, *op. cit.*

¹⁹² YUAN, WU, *op. cit.*

¹⁹³ WANG, Kai, GAN, Chang, OU, Yan and LIU, Haolong, *Low-Carbon Behaviour Performance of Scenic Spots in a World Heritage Site*, Sustainability, 2019, pp. 1-23.

waste in every respect. Inhabitants have reached an agreement to send garbage to centralised collection points, which then dispose of it in eco-friendly ways.¹⁹⁴

Altogether, UNESCO's intervention urged a series of initiatives aimed at improving environmental quality in the park, and raising awareness on the issue of sustainability. The urbanisation process has been slowed down, but tourism development has not stopped. Indeed, new buildings are still being made, with more regulations limiting their impact, but still economic pressures are present as active drivers of development. The construction of Bailong Elevator, just a few years after the UNESCO reprimand, is an example of this still rooted tendency.

According to a study conducted in the period 2012-2016¹⁹⁵, the ecological impacts caused by tourism have not been resolved yet, denoting a still unsustainable development. The study has revealed that the amount of resources absorbed for the sustenance and development of human activities still surpasses the environmental capability of regenerating them. The situation is that of an ecological deficit, with natural assets being consumed too quickly for them to replenish. It was noted that while development was not sustainable in the past, the ecological deficit has again widened since 2014 and the trend is not positive to this day. As a consequence of natural deterioration and misuse, the environmental carrying capacity has been diminishing, threatening the survival of the ecosystem as well as the economic activities connected to it.

Despite the efforts made, it appears then that the challenge of balancing economic growth and environmental protection has not been entirely solved yet. To achieve sustainability, more investments are needed to safeguard natural resources, while more attention should be paid to improving carrying capacity. However, increasing the efficiency of natural assets is not sufficient, since the carrying capacity of each place cannot be infinitely expanded. For this reason, a stricter control on the dimension of touristic flows should prevent exceeding carrying capacity and keep tourism within definite limits, depending on the season, the specific characteristics of the area and the duration of visits.

The environment is a complex system, made up of different elements and influenced by many factors. Tourists and management practices also affect it in different ways. Since it

¹⁹⁴ LIU Changsheng 刘长生, «Ditan luyou fuwu tigong xiaolu pingjia yanjiu – yi Zhangjiajie jingqu huanbao jiaotong wei lie» 低碳旅游服务提供效率评价研究——以张家界景区环保交通为例 (*On the Evaluation Approach of "Low-carbon Tourism" Service Providing Efficiency and Its Empirical Study — Based on the Empirical Inspection of Environmental Protection and Transport Tourism Service in Zhangjiajie*), Tourism Tribune, 2012, pp. 90-98.

¹⁹⁵ ZHANG et al., *Analysis of the ecological footprint...*, op. cit.

fluctuates and changes with the environment and its external influences, carrying capacity cannot be considered a fixed number, but it must adapt to the number of tourists, the time of the year, and the effects on the ecosystem. Understanding the way external factors influence nature is an important step in implementing a correct carrying capacity.

Since 2015, the park has been implementing measures to control the influx of tourists: visitor numbers are automatically monitored through electronic tickets, and the system stops tickets sale after reaching a certain threshold. It is to be noted, though, that during national holidays this limit is not respected and daily carrying capacity limits are often exceeded. Other possible ways to decrease overcrowding impacts would be raising ticket fees, which would reduce visitation, or introduce a rotational system of the areas, a strategy also employed in Huangshan. Periodically opening different areas of the park would also give time for the ecosystem to regenerate itself.¹⁹⁶¹⁹⁷

As it was previously mentioned, park areas are not equally affected by tourists, with some areas being particularly overburdened and others not being fully exploited. Efforts are required to more heterogeneously distribute visitors and revenues, especially in the west part of the park. The duration of visits should be limited to a maximum of 3 to 5 days, to avoid exceeding carrying capacity and reduce impacts. Moreover, given the seasonality of tourist peaks, marketing campaigns should be directed at encouraging tourism in the low season, so as to ease visitation during high seasons. Currently, park tickets allow entrance for four consecutive days, and routes have been designed to allow tourists to visit the entire park without taking up too much time.¹⁹⁸

Raising awareness and educating at respectful behaviours is also essential. It is important to first treat the problem at the root instead of just curing the symptoms; for this reason, a tactic of “保护第一, 开发第二” (protection first, development second) has been suggested. Sustainable development can only be realised when there are the necessary premises for its success, so an important step is an all-round education on environmental

¹⁹⁶ DAI Bin 戴彬, «Zhangjiajie senlin gongyuan shengtai luyou huanjing rongliang fenxi» 张家界森林公园生态旅游环境容量分析 (*On Environmental Capacity for Eco-Tourism in Zhangjiajie Forest Park*), Ecological Industry Watch, 2005, pp. 108-110.

¹⁹⁷ DONG Chengsen 董成森, XIONG Ying 熊鹰, QIN Xinhao 覃鑫浩, «Zhangjiajie guojia senlin gongyuan luyou ziyuan kongjian chengzaili» 张家界国家森林公园旅游资源空间承载力 (*The Spatial Bearing Capacity of Tourism Resources Space in Zhangjiajie National Forest Park*), Systems Engineering, 2008, pp. 90-94.

¹⁹⁸ YANG Hong 杨洪, XIONG Jinxing 熊金星, «Lun Zhangjiajieshi luyouye kechixu fazhan» 论张家界市旅游业可持续发展 (*A Study on the Sustainable Development of the Tourist Trade in Zhangjiajie City*), Economic Geography, 2001, pp. 249-251.

protection and preservation, to clear confusion over the concept of sustainability, and to successfully implement rational development plans.¹⁹⁹

Zhangjiajie has also been active in trying to reduce carbon emissions, proposing to become a green, low-carbon tourism destination. A number of measures to reduce emissions was implemented in recent years, such as the demolition plans, the exclusive use of hybrid green power vehicles inside the park, and the building of an electric shuttle railway, in order to alleviate environmental pressures caused by the intense tourism exploitation.



Fig. 12
Park sign
highlighting air
quality. Here, the
low concentration
of oxyanions (i.e.
nitrate, nitrite,
sulphite and
hypochlorite)
means air quality
is relatively good.
Source:
Paemelaere, 2018.

Energy conservation and consumption reduction, instead, are still lacking an overall policy management and promotion, and are so far under the control of independent enterprises. Only a few scenic spots in Zhangjiajie (such as Yellowstone Village and Baofeng Lake) actively save energy and employ renewable sources like wind, solar and bio-energy. The monitoring of energy-consuming devices is still not a widespread practice.

Another element that should be pointed out is the situation of Zhangjiajie City. This urban area is connected to the national park, and it is often a necessary stop for the many tourists visiting the natural scenic spots. The city's infrastructures and buildings, however, are greatly lagging behind the development of touristic areas. There is a sharp contrast

¹⁹⁹ LIU Xiaohang 刘小航, «Zhangjiajie luyou ziyuan de kechixu kaifa yu liyong» 张家界旅游资源的可持续发展与利用 (*Sustainable Development and Utilisation of Tourist Resources in Zhangjiajie*), Scientific Management of Land Resources, 2004, pp. 179-183.

between the beauty of the protected natural areas, and the messy, dirty and overdeveloped city of Zhangjiajie. Such contrast also influences tourists' experience, who are negatively affected by the condition of the city. It would be best to improve the urban greening, cleanliness, air and water quality, noise pollution, and also regulate the tourism development of neighbouring agricultural villages. Making Zhangjiajie City a more attractive destination for tourists would also bring great benefits to the park.²⁰⁰

Currently, environmental issues have entered the public common sense, but the efforts spent in implementing low-impacts tourism are not sufficient to guarantee a satisfying performance. Environmental behaviour is the result of the commitment of all tourism stakeholders, and it is often dynamically balanced between different interests. Local governments, investors and tourists are the main drivers that affect environmental policies and profits. The countermeasures to improve ecological awareness and behaviours are to improve related laws, strengthen communication and supervision, and provide environmental education. In comparison with the previous decades, the low-carbon development in Zhangjiajie nowadays is faring well, but there is still a lot of room for improvement.²⁰¹

In 2015 and 2019, the UNESCO sent other two missions to check the requalification progress of Wulingyuan Scenic Area. According to these UNESCO experts, the main problems yet to be solved are the water and air pollution, together with the overcrowding issue. The demolition of illegal and unappealing buildings was positively noted, as well as the efforts made in implementing carrying capacity limits. The path to accomplishing sustainability is a long one, and not devoid of difficulties. Zhangjiajie still has many problems to face to successfully achieve a sustainable development.²⁰²

3.2.3 Tourism impacts: conservation and management issues

Zhangjiajie National Forest Park has been bestowed many titles, and it now falls under different listings as a national park, a key scenic area, a geological park and a world heritage site. The complicated administrative system of national parks makes it so that each of the park's classification falls under the jurisdiction of different governmental agencies. For this reason, at least three different organisms are involved in the administration of Zhangjiajie, namely the State Forestry Administration (regulating forest parks), the Ministry of

²⁰⁰ YUAN, WU, *op. cit.*

²⁰¹ WANG et al., *Low-Carbon Behaviour Performance...*, *op. cit.*

²⁰² UNESCO, *State of Conservation reports of Wulingyuan Scenic and Historic Interest Area*, <http://whc.unesco.org/en/soc/3895/>. Accessed November 2019.

Construction (administering scenic areas) and the Ministry of Land and Natural Resources (managing geology parks). The consequence of this multiple management system complicates decision-making, and often causes conflicts of interest. Moreover, each agency tries to grab as much profits as possible, and blames its counterparts when problems arise.

Moreover, inside Wulingyuan there are two more organs with monitoring and management power over the park: the local government of Wulingyuan and the administrative bureau of Wulingyuan scenic area. In 2000, the Office of Heritage Protection was created as an operational agency to assist protection efforts the area, and later the Zhangjiajie, Tianzishan, Suoxiyu and Yangjiajie Scenic Area Offices and Protection Stations were founded. When these institutions have differing opinions, it becomes difficult to reach definitive decisions and concretise them. While the local government had been an important support during the first development phases of the park, its presence is now becoming a hindrance to the smooth functioning of the park.²⁰³

There is also competition within the same geographic area: Zhangjiajie and the Xiangxi autonomous prefecture are very close, but they are developing independently and even competing with one another. Xiangxi is a region rich of history and culture, with natural scenic spots that rival Zhangjiajie's. The government is also trying to develop tourism resources in this area, in an intent to make it the leading touristic destination of Hunan province.

Against this background, Zhangjiajie has had to actively assert its position and compete with neighbours. Actually, this situation of internal conflict does not benefit neither Xiangxi nor Zhangjiajie; it would be best if the two areas were to cooperate in development, creating tours of visit that crisscross both regions and uniformly distribute growth and economic benefits.

In general, management in Zhangjiajie has revealed itself inadequate to handle the large number of tourists, the development needs and the enlarging market. Economic interests are the main driving forces, and bad management choices resulted in those environmental damages and uncontrolled urbanisation that led the UNESCO to emit a warning. Management should become more integrated with the society and the economy, and not attempt to commercialise places for profit. Also, it would be beneficial to clearly distinguish three park authorities, each in charge of scenic areas maintenance, economic

²⁰³ NIE Na 聂钠, DONG Minghui 董明辉, «Zhangjiajie luyoudi shengming zhouqi de fenxi yu tiaokong» 张家界旅游地生命周期的分析与调控 (*An Analysis on the Life Cycle of the Zhangjiajie Resort*), Tropical Geography, 2005, pp. 273-277.

development and monitoring. These three bodies should be independent and unrelated with each other, in a way to prevent mutual interferences and focus on their own responsibilities. Having clearer objectives and tasks, defined responsibilities and a rationally organised administration can greatly improve park functioning.²⁰⁴²⁰⁵

From the juridical point of view, ever since it was listed as a national key scenic area in 1988, Wulingyuan has been regulated by many national and provincial laws. In 1999, after receiving the UNESCO warning, local authorities issued the Decision of Protecting Wulingyuan World Natural Heritage Property; with this act started the demolition of buildings inside the park and the promotion of ecological values and tourism, which helped mitigate the negative effects of overurbanisation. Then in 2001, the Regulations on Protection of Wulingyuan World Natural Heritage Property were implemented by provincial authorities, and created more solid juridical basis for environmental protection. The Revised Overall Plan for Wulingyuan Scenic and Historic Interest (2005-2020) was launched in 2005, and regulations were added to assure a long-term preservation of the area and its aesthetic value.²⁰⁶ In 2015, a new decision was made to deal with conservation issues and reduce visual impacts of cable cars and elevator. Moreover, in 2017 Wulingyuan was appointed as one of the two pilot projects of UNESCO's World Heritage and Sustainable Tourism, which invited experts to conduct research and training activities about heritage protection.

Wulingyuan is also one of the WTO's observatories for sustainable tourism development, a program which keeps this area's tourism development under an annual monitoring by Guangzhou's Sun Yat-sen University. This activity provides scientific data that constitute an important basis for decision-making regarding tourism in the area, as well as playing a positive role in promoting sustainability in Wulingyuan.²⁰⁷

It is clear that tourism has become the pillar industry of these areas. Beside the economic growth and the environmental exploitation, there are some other issues that should be pointed out. The first concern is that tourism is not a stable phenomenon, but it is constantly affected by fluctuations; like it happened with 2003's SARS epidemics, which caused a sudden decline of tourists, tourism flows can be influenced by internal (prices, political situation etc.) and external factors (global economy and politics) that can cause their sharp increase or decrease. Becoming too dependent on tourism revenues makes a

²⁰⁴ LIU, *op. cit.*

²⁰⁵ YANG, XIONG, *op. cit.*

²⁰⁶ UNESCO, *Wulingyuan Scenic and Historic Interest Area*, <https://whc.unesco.org/en/list/640/>. Accessed November 2019.

²⁰⁷ UNESCO, *State of Conservation reports...*, *op. cit.*

destination vulnerable to these variations, in a way that can greatly damage local economy. A negative downturn may cause residents to become wary of tourism as an economic activity, and question the advantages of protection efforts. Therefore, Zhangjiajie City should not forget to strengthen its non-tourism economy, so as not to expose itself to sudden tourism downturns.

A second element to remark, that will be further discussed in the next paragraph, is the problem of economic leakages. There appears to be a situation of external leakage, that siphons revenues away from the area where they are produced, benefitting external stakeholders instead of locals. This is another challenge that needs to be tackled by local administration, to ensure an equitable distribution of economic benefits.²⁰⁸

3.2.4 Role of local communities and co-management practices

This part of China has been inhabited for thousands of years by indigenous populations, who have created the cultural basis of the area. Tujia, Miao and Bai minorities each have colourful traditions that shaped local social norms, religious beliefs, cuisine, art and literature.

The Tujia is the most numerous community, living in remote areas of Hunan, Hebei and Guizhou province. Today, they are the eighth largest ethnic minority of China. Among their many century-old traditions, they are famous for their decorated brocades, silver ornaments and the *baishou* dance (摆手舞), a group dance that employs many ritual gestures to represent different aspects of life. Miao ethnic minority is also a preponderant presence. The most typical feature of this population are the large traditional silver woman headdresses.

Currently, ethnic minorities' cultures in Zhangjiajie are being exploited for tourism development, to attract visitors eager to experience authentic local traditions. Culture is presented to visitors in different ways: authentic cultural preservation is often replaced by a forceful fixing and renovation of traditional buildings, presenting the amended result as original. A successive step is the construction of specific theme parks, which concentrate in one place all variations of local culture, presenting them in a reinterpreted way to suit the taste of tourists (an example of this tendency is represented by Tujia Folk Customs Park).

The development of tourism extends its influence also on the local language and culture; external contaminations affect the survival of indigenous dialects and traditions, which are gradually diluted and assimilated into the prevailing Han culture. Traditional houses, markets, art pieces and lifestyles are becoming standardised, while folk culture is

²⁰⁸ XIE et al., *op. cit.*

losing its original flavour. Even if the commercialisation of culture showcases traditional architecture, objects, rituals and clothing, this process does not aim to represent authentic culture, but to pursue economic profit, even creating a distance with their original characteristics. Folk culture becomes purely a means of earning and entertainment.²⁰⁹

Appropriate strategies to counter the commercialisation and loss of cultural authenticity would be creating a specific authority responsible for culture preservation and monitoring, to avoid unsuitable contaminations and to give tourists an authentic experience also in the cultural aspect. Special cultural tours and museums can also help lead visitors in the right direction, showing the link between local cultures, history and environment. In the sustainable development of tourism, it is important not to forget the cultural dimension, that has to be preserved and understood together with the environmental theme. For this reason, museums and information centres have been built for research, education and interpretation of the local natural and cultural values.

The development of tourism has thus created negative impacts regarding the commercialisation and retention of culture. Apart from this issue, the local community has received many economic benefits from tourism. A 2008 survey indicated that 87,9% of residents were positive about tourism having improved their living conditions and more than 90% agreed to continue tourism development to get more income. Population in the area also increased due to migrant workers being attracted to the work opportunities provided by tourism. Revenues derived from tourism are much higher than those generated by agriculture; as an example, annual income from agriculture and forestry activities prior to the park development was about 193 yuan in 1981. In 2002, average income had increased to 4000 yuan per year.²¹⁰

Despite the economic benefits received by local communities, it appears that economic leakages exist. The distribution of revenues is not even, and greater results are reaped by external investors, while local communities have often been excluded, or have received fewer of the benefits derived from the park. Even so, the low education level and limited capabilities of these rural inhabitants makes it difficult for them to have higher administrative levels hear their voice.

²⁰⁹ JIANG Hongying 姜红莹, «Zhangjiajie luyou kaifa de tesehua» 张家界旅游开发的特色化 (*The Characteristics of Zhangjiajie Tourism's Exploitation*), *The Border Economy and Culture*, 2006, pp. 20-22.

²¹⁰ ZHONG et al., *Tourism development...*, *op. cit.*

Another research²¹¹ made in the area confirmed that more than 80% of the residents approve the economic advantages brought by tourism, and acknowledge increased job opportunities. About half of the population recognised a growth in their family income thanks to tourism activities. These benefits, however, were not equally distributed and some areas were more affected by others. Increased revenues also brought about a price raise, which was not positively welcomed by residents.

Regarding the changes affecting local culture and society (like social patterns, language, art, traditions etc.), inhabitants seem to be less in agreement than what regards the economic aspects. More than 60% of the residents recognise that their life quality was improved thanks to tourism, providing more education opportunities and raising cultural awareness. On the other hand, there is also a significant number of inhabitants that don't see particular improvements in public security and social condition, but instead see tourism as a negative influence.

As for the effects on the environment, 60% of locals think that tourism has enhanced the ecological protection efforts. Actually, residents have scarce knowledge of the problems affecting the environment, and are not fully aware of the real effects of tourism activities on it. They do not understand the authorities' warning about pollution, biodiversity and carrying capacity, mostly caring about cleanliness and greenery.

It is also interesting to note that people with different background have different opinions regarding tourism: young people, who have received a better education, and middle-aged people, who have personally witnessed the evolution of tourism activities in the area, seem more aware of its negative effects on the environment and the society and are more disenchanted about the possible improvements that could be brought by it, acknowledging tourism as a double-edged sword. People with a higher income (likely connected to tourism activities) more positively recognise economic benefits. In general, inhabitants are more aware of the positive impacts rather than the negative.

A more equitable distribution of economic benefits is necessary, so that external investors do not take away all the resources generated by local activities. Local communities need to become more integrated in the tourism industry, and receive an education about

²¹¹ OUYANG Runping 欧阳润平, WANG Li 王立, «Zhangjiajieshi jumin dui luyou yingxiang de ganzhi yanjiu» 张家界市居民对旅游影响的感知研究 (*Study on Residents' Perception Toward Tourism Impacts in Zhangjiajie City*), Journal of Guilin Institute of Tourism, 2006, pp.661-664.

environmental themes. Only by obtaining the cooperation and understanding of local communities can sustainability try and be implemented in the area.²¹²

From this overview on the situation of Zhangjiajie National Forest Park it can be ascertained that the park has undergone a substantial transformation from its first development period to the most recent years. At the beginning of its development, there was little control over construction and resource exploitation, and economic interests were the leading motives of decisions. Such period of irrational planning has caused serious damages to the environment, which are still not completely healed. However, after and thanks to the intervention of UNESCO officials, a new wave of measures in respect of sustainable growth and natural values have been put into place. The recognition of the consequences that a bad environment could have for the economic development of the area was also a turning factor.

The government's support has been important in financing development, but recently external stakeholders are taking more control and siphoning revenues from locals. The case of Bailong elevator is an example of their influence of decision in the park's matters. This issue of external leakages is a yet-to-be-solved problem that affects the life of inhabitants, who should be the ones to obtain the most benefits from the exploitation of their lands.

Today, Zhangjiajie National Forest Park is one of the most popular tourism destinations of China, and tourism in the area keeps showing a growing trend. Ensuring the conservation of this unique place requires the adoption of concrete measures, some of which have already been put in place. The implementation of eco-friendly vehicles, electric railway, specific walkways, and a costly entrance ticket are some of the strategies adopted by park authorities to reduce the negative impacts of tourism. Efforts have been made in the scientific calculation and monitoring of tourism activities and carrying capacity limits, and even though they are yet not entirely observed, there is an evident intent in trying to find a dynamic balance between the necessities of the environment, the people and the economy.

Tourism in this area started out as sheer economic exploitation, but its evolution over the last thirty years highlights a changing pattern, that is slowly but steadily moving towards a more respectful relation between human and nature, through specific laws, educating activities, scientific research and adequate control.

²¹² OUYANG, WANG, *op. cit.*

Conclusions

The alignment of sustainable growth with the increasing number of tourists is the main challenge to be faced in modern tourism development. On one hand there is the complex interpretation and implementation of the concept of sustainability, on the other there is the difficult regulation of the mass tourism phenomenon. Natural tourism is based on and depends from the environment, because if natural tourism resources become damaged and lose attractiveness, the whole industry would suffer negative consequences. Nature protection practices and economic interests become then entangled in a combined effort of environmental preservation in the interest of nature, and contextually, a strategic move to safeguard the tourism industry. Economy and nature conservation in this picture are thus unavoidably together.

Ever since the opening-up period, the Chinese government has started recognising the importance of sustainable development, which was gradually implemented as a top-down decision. The foundation and expansion of national parks and natural protected areas can be included into this larger effort of nature preservation. At the same time, economic interests have also been in the plans of decision makers, and development strategies were created to exploit tourism resources.

The case of Zhangjiajie shows that tourism planning has not always been done in the name of sustainability, and in the first years of development, unexperienced management has even resulted in negative impacts for the environment. The potential for economic exploitation derived from tourism was quickly understood by the authorities, but the understanding and implementation of sustainable practices has required more efforts and time to take root.

Nowadays, tourism has become a leading industry in several otherwise-underdeveloped areas of China, and it has brought a higher income and better life conditions to many rural residents. Given the sheer size of the Chinese tourism market, it is evident that this phenomenon cannot possibly be stopped; on the contrary, previsions show a still-growing tendency for the next years. Large masses of people visiting environmentally vulnerable tourism spots have consequences on the local natural and cultural resources, causing effects that intensify together with the increase of visitors' influxes. Having noticed this, central authorities have been gradually calling for an ecologically sustainable development. The implementation of carrying capacity limits, and the scientific monitoring

and research of tourism impacts have thus increased, mainly under the governmental pressures for sustainability.²¹³

However, the success China is achieving is still partial. Many are the problems that yet need to be addressed. Local communities are still not fully integrated in the economic development of tourism areas, and the benefits obtained are often leaked to external contributors; there are still differences existing between core and buffer tourism areas, which are developing at different speeds; a more systematic and integrated approach is necessary to equally distribute changes, especially in remote and underdeveloped areas. In short, mass tourism does help economic development, but it has to be managed correctly for it to be a sustainable development, so that local communities can actively participate in it.²¹⁴

From the environmental point of view, tourism in China was not immediately recognised for its contribution to nature protection. Profits were at the base of development, and this concept is still somehow rooted in the Chinese mind. Modifying tourists' behaviours, inviting policy makers to be more active in nature protection, and educating at a higher respect for nature is still an ongoing process, that has to be carried out through different instruments. Governmental efforts have been multiplying through laws and regulations aimed at nature conservation, and these top-down decisions have also been influencing local authorities in the implementation of more eco-friendly measures. Education also plays a central role, in order to get people to collaborate in the conservation efforts and to modify their consuming patterns and attitude toward the environment. Knowledge of natural issues needs to be spread among visitors and enterprises as well, to obtain their cooperation and to more easily integrate sustainable practices in their behaviours.²¹⁵

Many are the challenges that still need to be faced, but China is indeed steadily taking steps toward the path of sustainable tourism development.

²¹³ WORLD TOURISM ORGANISATION, *12th UNWTO/PATA Forum on Tourism Trends and Outlook – The Future of Tourism: Road to 2030*, UNWTO, Madrid, 2019.

²¹⁴ XU, ZHU & BAO, *op. cit.*

²¹⁵ PAEMELAERE, Juliette, *Environmental Impacts of Mass Tourism in China*, 2018, <http://blog-isige.mines-paristech.fr/2018/11/05/tourism-impact-china/>. Accessed November 2019.

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