

# Sustainable mobility practices in Tuscany, Italy: The Tyrrhenian Cycling Path Boosting cooperative economic development through new tourism practices

ASIA FOSSI \* [asiafossi95@gmail.com]

MANUEL AU-YONG-OLIVEIRA \*\* [mao@ua.pt]

**Abstract** | The tourism industry is growing fast, albeit it is acknowledged that tourism practices are frequently a threat to the environment and to the world's ecosystems. Sustainable tourism practices are emerging as an alternative to mass tourism and in this context new trends in cycle tourism have emerged. This paper focuses on cycle tourism in Italy, namely in the region of Tuscany. A new demand for slower and more sustainable tourism has boosted new economic opportunities. We thus present the Tyrrhenian Cycling Path project, involving three different Italian regions and municipalities in the Tuscany region. This new eco-compatible infrastructure will be able to connect different areas of interest for international and national tourists, enhancing the whole touristic area, targeting new flows of more responsible travellers and introducing new technologies in the field of recycling materials. The aim of the authors is to introduce a project that is still in development but has all the indicators for becoming a strong engine of change and progress, both in an economic but also in a social and environmental way. Together with the creation of new economic activities and jobs, this project aims to create a new collective conscience on sustainable practices and innovative solutions to tackle the exploitation of both the natural and cultural heritages with mass tourism.

**Keywords** | Cycle tourism, sustainable tourism, slow mobility, local development, sustainable development

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\* **Bachelor in Economic Development and International Cooperation**, University of Florence (Italy). **Master's in Local Development**, University of Padova (Italy), Former Erasmus Master's student at DEGEIT (University of Aveiro)

\*\* **Post-doctorate** in Competitiveness at the University of Aveiro, **PhD in Industrial Engineering and Management** at the Faculty of Engineering, University of Porto (FEUP). **Assistant professor** at DEGEIT (University of Aveiro), **member** of the Executive Committee at DEGEIT, **director** of the Master's in Management at DEGEIT, **GOVCOPP researcher**

## 1. Introduction

Tourism, often region- rather than country-specific (Bhuiyan & Darda, 2021; Martins & Ribeiro, 2021; Ramos et al., 2021), is one of the fastest growing industries in the world – according to the World Tourism Organization, international tourism generated US\$ 1.6 trillion in export earnings worldwide in 2017, with a growth in the international tourist arrivals of 7% from 2016. In Italy, 58.7 million foreign travellers arrived in 2017, an increase of 11.8% compared to 2016 (UNWTO, 2017). Due to this increasing trend, there has been a general growing recognition that tourism practices might be threatening the natural and social environments. Indeed, natural resources are consumed extensively in the tourism business, creating a strong, long-term impact on the environment, ecosystems, economy, societies and culture. Tourism practices not managed well can have devastating effects on nature and local societies. In this context, sustainable forms of tourism have recently emerged as a key issue in the tourism industry, making room for green practices in many countries' agendas.

Sustainable tourism is not a particular form of tourism. Rather, all forms of tourism should aim at being more sustainable. Making tourism more sustainable is not only a matter of controlling and managing the negative impacts on the environment. Tourism is in a peculiar position to benefit local communities, both economically and socially, and to raise awareness and support for the safeguarding of the environment. It is a sector where economic development and environmental protection can be pursued jointly, implementing strategies that can strengthen the benefits and reduce the costs of the field at all levels (UNESCO, 2009).

Further growth is predicted for tourism in the coming years (UNWTO, 2017), presenting considerable challenges and potential threats to the environment and local communities if not well managed. Environmental impacts of tourism take place

at the local, regional and global levels. Climate change and the reduction of the ozone layer are two main effects of the increasing global traffic and industrial development, in which tourism plays an important role. Environmental impacts that primarily have effects on the local and regional levels also affect the environment globally in the long run. Basically, the loss of biological diversity is a major consequence of these impacts (UNESCO, 2009). Albeit tourism income can also foster environmental protection: taxes and entrance fees can be used as a direct financial contribution for conservation and for the implementation of sustainable practices. Tourism can therefore raise the awareness of the local population concerning environmental problems and enhance the motivation for conservation management and sensitization activities.

The challenge of sustainable tourism development is to make use of tourism's positive impacts, enhancing and channelling the benefits into the right directions, and to avoid or mitigate the negative impacts as far as possible (UNESCO, 2009). In the context of sustainable practices, the field of Slow Mobility and Cycle tourism has been growing fast in recent years: according to a European Union Study of 2012 (when the numbers were growing at a slower rate than today) it can create a turnover of 44 billion euros per year (EuroBike, 2018).

This phenomenon has escalated with the breakout of the Covid19 pandemic in 2020, whereby the social distancing rules have driven away tourists from the cities, leading them towards nature and the countryside, looking for active forms of holiday to make up for the months spent at home. Amongst the forms of active tourism, cycle tourism is breaking out in the whole of Europe, and it is spreading in Italy as tourists are looking to reconnect with nature and travel on a journey more than to a single destination.

In this context, cycle tourism possesses the characteristics of the Low Touch Economy (sa-

fety, health, distance, and short-range) and thus has been able to satisfy the needs of tourists being adaptable to local tourism and versatile for short stays as well as practicable in areas far from mass tourism.

For instance, in the summer of 2020, over 30% of Italian tourists declared that they had chosen their vacation spot looking for an ideal place to practice a sport, compared to only 15% as the average of previous years. The demand for active tourism has largely replaced tourism concerning the artistic and monumental heritage which has suffered a drop of -20% compared to previous years, representing only 7% of the tourism in the summer of 2020 (ISNART, 2020).

This paper focuses on the Tyrrhenian Cycling Path project in Italy: a coastal bike route from Ventimiglia to Rome, developed on over 1200km of cycling paths, built thanks to the cooperation between the Toscana, Liguria and Lazio Regions which will create a total turnover of 100 million euros per year (Regione Toscana, 2017a, 2017b) and hundreds of jobs for related activities. This project is incorporated in the Italian context, where the turnover generated by bike travels amounts to over 6.2 billion euros per year (EuroBike, 2018).

## 2. Theoretical framework

Tourism has to grow smarter if it is to benefit local communities (Matos et al., 2019). Much of being smart involves coming up with innovative tourism offers. Other studies have also focused on innovation in tourism (Oliveira, 2014), as is our aim herein. Innovation has the power to change how we live (Au-Yong-Oliveira et al., 2015) and innovation inspires us to be better people.

Cycle tourism is defined by the European Cy-

clist Federation as being an activity of sight, but also of the exploration of sites, for the period of one or more days, and focused on the predominant use of a bicycle for leisure purposes. It is a growing sector in the country, counting a total of 77.6 million tourist presences in 2018, an increase of 41% compared to the numbers in 2013 (ISNART, 2019) and representing 8.4% of the total tourists in Italy.

Cycle tourism is a priority at the European level (Fortunato et al., 2020) as cycling makes economic sense and brings benefits to local communities – including cultural diversity and knowledge, with tourism acting as a “passport to development” (de Kadt, 1979, p.iii). Cycle tourism represents a path to strategic economic revival, including remote and inland areas and from a sustainable perspective (Fortunato et al., 2020). As an example, in the Basilicata region (Italy), “the “Lagonegro-Rotonda” cycling route had been realized in the framework of the policy instrument “The Pact” (Basilicata Region Development Pact - DGR 517 of 17 May 2016) managed by [the] Basilicata Region Mobility and Infrastructures department. The realization of this cycling project involved eight Municipalities under [the] leading role of Nemoli Municipality and FAL Ferrovie Appulo Lucane s.r.l., concessionaire of disused railway sections located in the southern part of the region.” The same has also been done in other regions, the creation of cycle paths along old railway lines, including in Portugal (e.g., Mondim de Basto/Arco de Baulhe – image 1).

On the other hand, Bakogiannis et al. (2020a, p.1) speak of the “development of a cycle-tourism strategy in Greece based on the preferences of potential cycle-tourists”. Furthermore, cycle-tourists have needs which require satisfying during their trips/excursions and to this end entrepreneurial endeavours need to exist or be developed to sustain this type of tourism sector (image 2) (Bakogiannis et al., 2020a).



**Figure 1** | A cycle-tourist cycling in Portugal, along the Mondim de Basto – Arco de Baúlhe old railroad route (original photo)



**Figure 2** | Cycle-tourists have stopped for lunch during their journey (original photo)

Bakogiannis et al. (2020b, p.1) did a unique study in so far as they did a qualitative study on the “environmental motivators of cycling tourists, and their significance, in Greece”. High slopes, bad surfaces, and a lack of the infrastructure that cyclists need works against this form of tourism. On the other hand, “the element which attracts cycle-tourists the most is the variety of scenic views along their route. [The] existence of lakes, rivers and beaches were also valued.” (Bakogiannis et al., 2020b, p.1).

Due to the recent growing environmental awareness, tourists are becoming more and more sensitive to environmental issues, and they are shifting to more sustainable ways to spend their holidays, induced by an interest in "ecological" tourist activities and by the development of recreational activities and holidays in the countryside. This shift is making the sector of Slow-Cycling Mobility a competitive sector with important opportunities both for emerging markets and for mature destinations. The aim of this paper is to show the competi-

tive advantages of investing in cycling paths and connections between different regions and areas of touristic interest and how this is possible thanks to the cooperation between different levels of governance and due to strong investments in the field by the European Union and National Government.

Cycle tourism is an adventurous form of tourism that brings along with it many critical aspects which need to be faced with customized services. The cycling sector, in fact, allows to develop new businesses in the areas concerned located by the paths, such as technical assistance for the bicycles, for repairs or accessories, catering and overnight stay in equipped areas, integrated public transports, route maps and information systems (BikeEconomy, 2018a). Investing in these businesses can create a strong direct economic impact on the local economies which are involved.

The example of the Tyrrhenian Cycling Path shown in this paper highlights the strategic benefit of the cooperation between all political and economic stakeholders: the three regions involved have been promoting the development of cycling mobility for years by investing important resources for the creation of regional and national routes, and they share an integrated vision of sustainable mobility and tourism development, necessary both to improve the quality of life of citizens and to create new job opportunities.

The aim of the project is to create an infrastructure that can generate an important scale of tourism, making the area increasingly bike friendly and allowing operators and institutions to focus on a slow form of sustainable tourism. With a strong focus on nature, traditions, agriculture and quality food and wine, the cycling path will be accomplished thanks to the cooperation between local institutions and stakeholders, developing satellite-projects in local contexts in order to build common strategies for the promotion of the territories touched by the path. These satellite projects, as is shown in this paper, are fundamental for the economic development of the areas and can also be

pioneers in new technologies, such as the recycled plastic cycle path developed in the city of Follonica and discussed in this paper.

The 2030 Agenda for Sustainable Development saw the creation, by the United Nations, in 2015, of the 17 Sustainable Development Goals. Peace and prosperity for all people and the planet is the objective (UN, 2019). This particular project involves Sustainable Development Goals 3 (ensure healthy lives and promote well-being for all at all ages), 8 (promote sustainable economic growth), 9 (build resilient infrastructure), 11 (make cities and human settlements sustainable), and 12 (ensure sustainable consumption). Thus, we see the project as having much merit, in line with what the planet needs in order to prosper.

### 3. Methodology

This paper focuses on the economic benefits, for a local economy, to invest in new sustainable trends of tourism, trends such as cycle tourism. By developing a single cycle path connecting three regions, a network of complementary economies has been created, building conditions that will boost strong economic advantages for all the stakeholders involved. By analyzing economic data and touristic trends, the paper aims at proving the importance of interconnected and cooperative projects that create a single product, “The Tyrrhenian Cycling Path”, that creates a virtuous example that can be repeated in other areas that are experiencing a growth in interest for sustainable practices and bike tourism.

For the purpose of writing this paper, a literature framework was established for the discussion of the project. The sustainable tourism issues considered here find their background in the reports from the World Tourism Organization, the agency that deals with the coordination of tourism policies and promotes the development of responsible and

sustainable tourism; and from UNESCO, the UN Educational, Scientific and Cultural Organization. Secondly, the literature research on slow and cycle mobility was conducted using Research Gate, a professional social network for researchers.

Concerning the Tyrrhenian Cycling Path project, most of the data used for the analysis are quantitative data concerning trends, investments and spending flows regarding the construction of the path and the expected turnover in terms of economic revenues and job creation. These data are secondary data, obtained from the Tuscany Region reports and feasibility studies, available on their official website, and from the Bike Economy Observatory. The Observatory is a spin-off of the Italian Bike Economy Forum and it is concerned with the analysis of trends and potential developments in the sector, research and consultancy services and the promotion of cooperation between institutions and the private sector. They produce an annual report on the current trends and economic flows of the sector, as well as focused research on specific matters in the area of the bike economy. The data used to develop this paper were mostly taken from the 2018 Report, focused on new perspectives and the advantages of investing in cycle mobility for a more sustainable development (BikeEconomy, 2018a). A qualitative research was conducted to analyse the processes of cooperation that have resulted in the creation of the project. The main sources of these data are the database of the Tuscany Region and the reports and studies carried out by Festambiente, a branch of Legambiente, an Italian environmental association that works for the promotion of sustainable development by conducting studies, organizing campaigns and monitoring the quality of the environment in Italian territory.

For the Ciclopico project and the Recycled Plastic cycle path data were collected thanks to the help of the Councilor for the Environment of the Follonica Municipality (the project leader municipality), Mirjam Giorgieri, who was available to

share the official documents and action plans of the projects. The Councilor also gave a short interview, reported in the paper, about the social and economic benefits of the new projects.

#### **4. Cycling Mobility in Tuscany: The Tyrrhenian Cycling Path**

In recent years, the Tuscany Region has played a pioneering role in the development of sustainable tourism policies and practices in Italy (Osservatorio Nazionale del Turismo, 2018). Thanks to its landscapes, its long history of ecology and attention to the environment the Region has, in recent years, developed a strong regional tourism system, in line with the conservation of natural resources, historical heritage, cultural identity and with a focus on the improvement of the quality of life of its residents.

It is in the field of sustainable mobility, together with gastro-tourism, that both the Regional government and private sector are focusing their investments. Tuscany was one of the first Italian regions to implement the national laws that financed interventions in the sector of cycling mobility (L.208 / 1991 – Legislation n°208 of 1991), and it aims to create a regional network of cycling paths (Tucci, 2012) following the routes of the rivers, the ancient pilgrimage trails and that cross and connect the many cities of art. So far, the Region has allocated 40 million euros of Regional funds for the implementation of Regional cycling paths, with the intention of extending its commitment to the maintenance phase of existing regional cycling routes and those currently under construction. Thanks to the Integrated Regional Plan of Infrastructures and Mobility (PRIIM, L.R.55 / 2011 – regional law n°55 of 4th November 2011 – mergers of municipalities), four major regional cycling paths are being developed, in order to connect and integrate provincial and municipal cycling

paths: the Arno cycling path, from the source of the river Arno to Pisa; the Francigena historic trail path; the Tyrrhenian path and the “Two-seas” cycling route, building a connection to the Adriatic Sea.

Most of the paths already exist and the Regional projects aim at connecting and maintaining them. For this reason, the Region invested 225 thousand euros in 2018 (Green Report, 2019). Within this framework, in 2017, the Tuscany Region signed an agreement with the two coastal neighboring regions, Liguria and Lazio, to build together the Tyrrhenian Cycling Path (Green Report, 2017a, 2017b): starting from Ventimiglia, at the border with France, it will continue for a total of 1200km of coastal route until Rome, touching 11 provinces (image 3). Thanks to the many projects

and agreements developed by the three regions, the cycling path will be interconnected with other important Italian and European routes.

This agreement represents a common strategic vision and a strong will of the regions to develop common local actions for sustainable tourism practices. Signing it allowed access to Italian Government funding for the national cycling routes. The Tyrrhenian Path became, in fact, one of the 10 “cycling routes of national interest” whose development has been financed through the Budget Laws of 2016 and 2017 for a total investment of 372 million euros from 2016 to 2024 (MIT, 2017). The itinerary should be completed by 2023 since, by 2017, 78% of the route was already available, 19% is to be adjusted and only 3% was yet to be built (Regione Toscana, 2017a, 2017b)<sup>1</sup>.



Figure 3 | - A total of 1200 km of coastal route - The Tyrrhenian Cycling Path (Regione Toscana, 2017a, 2017b)

The project aims, in fact, at connecting the already existing cycling paths along the coast of the Tyrrhenian sea and at building a single path, boosting the creation of economic activities on the route, improving sustainable mobility and promoting the territories involved from a touristic point of view.

Specifically, in the Ligurian route of about 460

kilometres, the Tyrrhenian cycling path will touch three UNESCO sites (the Beigua Geopark, the historic centre of Genoa and the Cinque Terre), as well as several natural areas, such as the Monte Marcello Magra Regional Park and the National Park of the Cinque Terre. In Tuscany, where the Tyrrhenian cycling path will follow the coast for around 550 kilometres, cyclists will be able to cy-

<sup>1</sup>More recent data are unavailable because they are dated back to the last viability plan of 2017 at the beginning of the project.

cle alongside archaeological sites of international importance such as Populonia, art heritage cities like Pisa and protected natural areas, such as the Regional Park of the Maremma and the National Park of the Tuscan Archipelago. The path will include connections with railway stations and ports, such as at Piombino, which will allow to include the Elba island in the cycling path. The Lazio track will be shorter, around 200 km, and it will cover the archaeological site of Tarquinia, characteristic villages and the protected natural areas of the State Reserve of the Roman Coast and the Swamp Natural Monument of Torre Flavia.

The population that resides in the municipalities affected by the itinerary amounts to almost one million inhabitants: more than a quarter of the population of the Tuscan region. Along the way there are about 3 thousand accommodations, with around 80 thousand rooms. There are also more than 2,500 catering establishments and around 500 sports and recreational activities (Festambiente 2017).

The estimated total cost for Tuscany is about 42 million euros and the total value of the spending flows generated by the people who will cross the Path is over 20 million euros a year. The estimates show, in fact, a number of users of over 2.2 million people and the employment that may result in the sectors indicated has been evaluated at about 400 employees (Festambiente 2017).

## 5. The Ciclopico Project

In the framework of the Tyrrhenian cycling path project, the Tuscany Region has not only financed structural investments to build the actual paths, but also many participatory projects at the local level, in order to create strategic plans for the areas touched by the cycling path. One of these

is the Ciclopico project (Green Report, 2019), developed at the end of 2018 by the Municipality of Follonica (Southern Tuscany), involving six other municipalities and many public entities and parks, with Legambiente as technical advisor.

Based on the recognition of the importance of the Tyrrhenian cycling path for the development of the local economy, the projects aim at creating awareness and participation to build common strategies to help local infrastructures to benefit from the creation of the cycling path. Main activities of the project will be workshops for local authorities, institutions and associations for illustrating the opportunities linked to the Tyrrhenian cycling path and to cycling as a tool to strengthen the eco-tourism territorial offer and implement intermodality<sup>2</sup> for sustainable local mobility. The objective is to stimulate and share touristic strategies to be activated in the near future and to be ready for the challenge that the new route represents.

The workshops have been presented in all the municipalities involved in the project and they have been followed by cycling excursions along the local routes, aimed at sensitising the population on the many opportunities related to the Tyrrhenian cycling path. The final product of the project was an inter-municipality action plan which subscribes the collaboration between the different stakeholders involved in the creation and management of a system of infrastructures and services related to the path. Specifically, these services regard the accommodation and food sector, bike rentals and repair shops, charging points for electric bikes and services related to the selling of local products and the promotion of heritage sites. These infrastructures will be created following strict criteria of sustainability, quality and security in order to offer the best product possible to the incoming tourists.

The aim of the action plan is to develop an innovative offer for cycle-tourists and for the diffusion of cycle mobility in order to boost economic

<sup>2</sup>Sustainable intermodality is the alternative use of the bicycle, the car and public transport to travel varying the different means of transport during the journey (for example, with the use of "park and ride" parking).

development in the territories. The Italian Bike Economy Observatory states, in fact, that economic activities located on a cycle path have the possibility to increase their sales up to 24% and that for each euro spent by a cyclist, 32% remains in the local economy, compared to only 4% of the money spent in road transports (BikeEconomy, 2018b).

### 5.1. The TRAPLAST Plastic cycle paths

One of the aims of the Ciclopico project, regarding environmental sustainability, is to develop cycle paths also in unpaved areas without using concrete, but instead using eco-compatible materials in order to build cycle connections between the road path that passes through pine forests and dunes without harming the environment. A pioneering role in this field was played by the Municipality leader of the Ciclopico project, the Municipality of Follonica. The town council has inaugurated, in September 2019, the first 20 meters of the first Italian recycled cycle path, following the virtuous European examples of the Plastic Road in Zwolle, Holland and the eco-asphalt road in Zermatt, Switzerland (Plastic Road, 2019).

This first test path is made with plastic material called TRAPLAST, developed by the company Transform (Transform, 2019), in Northern Italy. It is a recycled material, certified by the TÜV South Europe<sup>3</sup> certification company, it is not biodegradable but can be recycled again only by returning it to the producer. It is composed primarily by polypropylene and polyethylene and it has an extraordinary impact resistance and atmospheric agents' resistance.

The total cost of the project was € 85.000,00 and the Municipality estimates 60,000 bottles were needed to produce the strips for these first 20 meters of the cycle path (Comune di Follonica, 2018, 2019a, 2019b). Currently, the path is 250 meters

long and the Municipality estimates 750,000 bottles were needed to produce the strip. The Councilor for the Environment, Mirjam Giorgieri, interviewed for the purpose of this paper, declared that "Using recycled plastic for street furniture and for walkways and cycle lanes demonstrates how separating waste brings direct benefits, even in products that we use to improve the decorum of the city". In the framework of the Ciclopico project, the Municipality was able to develop a strategic sustainable environmental product which is beneficial to the community, and which can also raise awareness in the citizens on how important it is to separate waste in order to give a second life to used products, Mirjam Giorgieri declared.

## 6. Conclusions

Due to the nature of the Peninsula, connecting cyclable flatlands to bathing sites and cultural attractions, Italy appears to be a strategic environment in which to develop long-distance cycle paths. According to the touristic trends, Italy is one of the most popular destinations for cycle tourists even if they must spend more for accommodation facilities compared to other countries where this kind of tourism is well diffused and developed. In fact, accommodation in Spain and France costs on average 31% less than in Italy, and accommodation in Portugal is 15% cheaper but the Italian market is the one that has seen the highest increase of tourists according to the statistics (BikeEconomy 2018b).

The Tyrrhenian Cycling Path, thanks to effective cooperation between Public authorities and local stakeholders, has a strategic value for the development of the territories crossed, for the promotion of sustainable practices, and an integrated development between the natural areas and the

<sup>3</sup>The TÜV (Technischer Überwachungsverein) are German certification companies in the area of food safety, environmental and quality management systems, now present also in Italy (South Europe branch) and Austria.

populated centres, representing an opportunity for increasing sustainable tourism and deseasonalizing the presence of tourists outside the summer season. It will become an engine of growth for local businesses, as a tourist attraction that generates a substantial pull of visitors. Thanks to the 2.2 million of tourists expected in the area, the Municipalities will be able to activate local economies in many sectors mainly related to tourism, catering and services needed by the travellers. The total expected revenues will be, in fact, shared between the different economic activities but the whole community will benefit from the flow of tourists, both in an economic way, but also in an environmental one. According to a cost-benefit analysis conducted by the Danish economists Gössling and Choi, in 2015, on the social costs of transport for the community, one kilometer driven by car has a social cost of € 0.15, while society earns € 0.16 for every kilometer traveled by bike (Gössling & Choi, 2015).

In the context of the Tyrrhenian Cycling Path, this paper has analysed the importance of satellite projects such as the Ciclopico one. These smaller projects are designed to include the municipalities surrounding the main route of the cycling path, allowing them to take advantage of the new flows of tourists to foster their local economies, develop new businesses and create job opportunities. Surrounding areas could work on their marketing strategies by offering more competitive prices compared to the main localities, and in this way attract the share of tourists that prefers to travel a little more but to save money on accommodation.

Smaller projects are also incubators for new ideas and good practices, just like the example of the recycled plastic path in the city of Follonica. This pioneer project will be tested in the coming months and if the results prove to be positive, in terms of resistance of the material and economic benefits resulting from less need of repair, the material will be used in other sections of the path that need to be built in an eco-compatible material in

order to avoid damages to nature.

The results of the economic and environmental analysis of the Tyrrhenian Cycling Path project show a successful experiment involving cooperation and local development. Thanks to the collaboration between public actors and private stakeholders, the region was able to take advantage of a new trend in tourism, more connected with nature and sustainability and to build a strong and economically successful project. It is an example that, with relative changes due to the nature of the economies and of the territory, can be repeated in other regions or countries that are currently experiencing a growth in cycle tourists, but still do not have a network already constructed; thanks also to the attention that the European Union is giving to the matter of sustainable mobility, offering grants and loans to develop slow mobility and sustainable tourism projects.

As an endnote, later on, some time into the perhaps not-so-distant future, over-tourism may have to be managed, whereby an excess of cycle-tourists may be negative for the region (for example, spoiling the natural environment and also inducing excessive commercial activity, which generates waste). Until then, there is time and room for much planning to be done, to deal with that problem when it arises – namely, the “physical and social impacts” (Mathieson & Wall, 1992, p.1) of tourism (cycle tourism included). If there is anything that the COVID-19 pandemic has shown us, with the very significant slowdown or even halt of international tourism, it is that the environment has benefitted (e.g., from a significant decrease in air transportation and its related carbon emissions, as well as other costs of tourism) – as the growing consequences of an ever-increasing mass of tourists calls for urgent attention from policy-makers and other stakeholders (including those defending the interests of the local communities). Mathieson and Wall (1992, p.3) remind us that it is “almost impossible to reconstruct the environment minus the efforts induced by tourism”.

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