

Reframing sustainability and resilience in the recovery of the Cinque Terre following the October 2011 flooding

In October 2011, a large-scale flooding hit the Cinque Terre area in Liguria, Italy and severely damaged the landscape and the built environment in the townships of Vernazza and Monterosso. The area was known for being highly vulnerable to hydrogeological hazards, but the policies prior to the flooding did not foresee an integrated management plan for this world renown tourism destination and World Heritage site. This study seeks to analyse the strategies and the plans developed by the national and authorities following the October 2011 flooding, with a focus on the land-use framework with relevance to tourism and the destination management strategy. Furthermore, it analyses the policy documents through the lenses of sustainability and resilience. The study concludes that the Cinque Terre site is currently far from meeting the principles of sound sustainable development and integrated destination resilience advocated in the literature.

Keywords: Cinque Terre, Flooding, Land-use, Resilience, Sustainability, Tourism.

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Introduction

Over the last decade, the escalation of natural disasters affecting tourism destinations has brought scholars to acknowledge vulnerability and resilience as intrinsic elements of tourism destinations (Calgaro, Dominey-Howes, & Lloyd, 2013; Cochrane, 2010; Jopp, DeLacy, Mair, & Fluker, 2013). Such issues are clearly not just academic in nature and can have a profound implication on the nature of policy interventions at different scales. The chapter builds on critical literature in sustainable tourism development and on recent advancements in the conceptualization of resilience in tourism (Hall, Prayag, & Amore, 2018; Lew & Cheer, 2017) to analyse planning and management in vulnerable destinations. The chapter frames the scales and the dimensions of resilience within a theoretical framework that highlights the contraposition between the rhetoric of sustainable development and the ecological reality.

This chapter critically discusses the strategies and the plans developed following the October 2011 flooding in the Cinque Terre, Italy. The focus of the chapters is on the land-use policies with relevance to tourism and the redefinition of the destination management strategy, which are here assessed through the lenses of sustainability and resilience. Drawing on destinations' response to natural disasters, this chapter critically analyses the recovery strategies put in place and the conflicting instances among tourism-relevant stakeholders.

Research on the Cinque Terre as tourism destination includes demand assessment and economic assessment of the site (Mondini & Bottazzi, 2006), the governance framework (Carlarne, 2007; Storti, 2005) and government-funded studies as part of the draft Site Operational Plan (MIBACT, 2016) and the Interreg *Marittimo-IT-FR-Maritime* (ENEA, 2018). Looking at the issue of sustainability and tourism in the Cinque Terre, Patrucco (2008) highlights how the pro-development rhetoric framed around the principle of economic sustainability overwhelms the need to safeguard the local vulnerable landscape to the anthropic pressures caused by tourism. She further argues that two leading projects for the promotion of sound sustainable tourism in the Cinque Terre fell short their original purpose and that they were significantly downsized to pursue the pro-development agenda of the local park authority.

Literature

Tourism is an utterly complex phenomenon embracing a range of different socio-ecological features such as natural resources; land use; planning; legislation; economy; community development and marketing. These features are at the heart of sustainability, vulnerability and resilience assessment models in tourism (see Calgaro, 2010; Hall, 2008; Hall et al., 2018 for a review). Ecological systems are context-specific and that there are “place-based differences and context matter in determining differential levels of destination vulnerability and resilience” (Calgaro, 2010, p. 229). This logic also applies to the application of the sustainable development paradigm in tourism, as there are geopolitical and economic constraints at the local destination level (Mowforth & Munt, 2015).

Sustainability

The notion of sustainable tourism development has become a key feature in contemporary tourism planning discourse (Hall, 2008). Sustainability includes aspects such as protection of heritage, integration of environmental and socio-cultural values, protection of biodiversity and the achievement of balance and fairness through holistic planning strategies (Hall, 2008). There are key socio-political prerequisites to achieve an effective sustainable tourism development agenda. Ideally, a series of necessary conditions need to be met to successfully implement an integrated sustainable development strategy. These include environmental justice, equality, governance transparency, collaborative decision-making arrangements, and networking between tourism-related and tourism-relevant stakeholders (Bramwell & Lane, 1999; Dredge, 2015b).

Notwithstanding key postulates highlighted in sustainable tourism development literature (Lew & Hall, 1998), the conceptualization of sustainable development in planning and destination management practices is much influenced by the current neoliberal doctrine (Dredge & Jenkins, 2012). As Hall (1998, p. 22) illustrates, “there has been no easy middle path in attempting to find a balanced use of natural resources. Political reality, rather than ecological reality, has been the order of the day”.

Looking at tourism policy practices, national and international reports and guidelines for sustainable destination management tend to conceptualize tourism “as an industrial system, and tourism policy as a mechanism to help balance supply–demand relationships” (Dredge & Jenkins, 2012, p. 246). This view of tourism has been put into question since the end of the 1990s (Hall, 1999, 2009; Higgins-Desbiolles, 2006), yet it still dominates mainstream rhetoric in tourism, sustainability and development. Concepts such as competitiveness, destination attractiveness, sustainable economic growth are still predominant in policy documents at all scales (Bournemouth Tourism, 2017; OECD, 2012; RFVG, 2014; TIANZ, 2015; UNWTO, 2011). For example, the *Estrategia Regional de Especialização Inteligente to Alentejo*, Portugal, defines sustainable growth in the service, culture and tourism sectors in relation to the current trend in the demand for authenticity and experience in the tourism market (CCDR Alentejo, 2014). The rhetoric of sustainability in contemporary policy and planning in tourism legitimizes exclusive and vested interests of tourism industry stakeholders (Dredge & Jenkins, 2012).

Undoubtedly, “there are many contradictions within both the concept of sustainable development and the nature of tourism” (Hall, 2008, p. 62). Empirical evidence on tourism and planning practices around the world raises questions as to whether tourism stakeholders genuinely pursue sustainable development principles (Dredge & Jenkins, 2007). Much of these shortcomings can be attributed to the highly fragmentation and the poor coordination typical of tourism public policy (Hall & Jenkins, 1995). Also, there are contradictions between the priorities of the market and the instances for effective environmental conservation goals (Amore & Hall, 2017). This often results in poor policy integration, which represents one of the major constraints in the achievement of sustainable development in tourism (Hall, 2008).

The current governance with regards to sustainable tourism can much be seen as a policy failure characterized by market-obeying rhetoric (Hall, 2008, 2011). This point reflects those of Bernstein (2002) and Klein (2015) on how crucial environmental matters are sidelined in the name of allegedly effective (neo)liberal environmentalism. This calls for an alternative policy that acknowledges public perceptions around the environment and promotes actual sustainable development in tourism. The recent shift towards the resilience paradigm gives scope for a recalibration of genuine sustainable development in tourism (Hall et al., 2018) and the much-advocated third-change in tourism policy-making (Hall, 2011).

Resilience

The conceptualization of resilience in tourism is mostly the result of the increased research interest in the recovery of destination following natural hazards (Hall, 2010). Most of the early works on resilience and tourism provided theorizations lacking empirical application and case studies that treat “tourism as a separate enclave from its larger social and environmental system,” (Lew, 2014, p. 16). Current advancements in the literature provide a multi-dimensional appraisal of resilience in tourism (Amore, Prayag, & Hall, 2018; Hall et al., 2018). Most of these works address the macro dimensions of resilience, with reference to tourism induced stressors (Tyrrell & Johnston, 2008) as well as tourism-related issues such as climate change (Becken, 2013), spatial planning (Lew, 2014), community development (Strickland-Munro, Allison, & Moore, 2010) and business adaptation to ecological disturbances (Dahles & Susilowati, 2015).

Tourism destinations are highly vulnerable to natural disasters but are nevertheless able to show resilience and thrive in times of uncertainty (Biggs, Hicks, Cinner, & Hall, 2015; Buultjens, Ratnayake, & Gnanapala, 2014; Ghaderi, Mat Som, & Henderson, 2014). The appraisal of resilience as a feature of socio-political, economic and ecological systems is addressed in relevant tourism literature (Amore, 2016; Becken, 2013; Calgaro, Lloyd, & Dominey-Howes, 2014; Dredge, 2015a) and conceives resilience and sustainability as complementary elements in destination development discourse (Cochrane, 2010).

Resilience strategies with relevance to tourism tend to overemphasize on the socio-economic dimension of destination recovery (see Hall et al., 2018 for a review). The OECD, for instance, conceives resilience in relation to the economic recovery following the Global Financial Crisis and supports the adoption of long-term development policies rooted in the principle of green growth (Haxton, 2015). Moreover, it advocates for a policy mix as key condition for the successful implementation of resilience in post-disaster destination policy and planning (Dredge, 2015a). Other international organizations instead conceive resilience as synonym for risk reduction in the wake of natural and man-made disasters (UNISDR, 2005; UNWTO, 2009) or stress on disaster prevention (UNISDR, 2015). The asymmetry on the notion of resilience in tourism at the global level is reflected at national and local level. On the one hand, Tourism England (2010) frames the concept of resilience with that of sustainable economic growth. On the other hand, the Great Barrier Reef Marine Park Authority (GBRMPA) conceive resilience by acknowledging macro and micro ecological stressors such as climate change and ecosystem vulnerability (GBRMPA, 2007) by acknowledging the vulnerability of the Great Barrier Reef to climate change, global warming and increased anthropic pressure.

As Hall (2016, p. 279) highlights, “questions of power in the determination of the role, agenda setting and interpretation of resilience in policy making” need to be acknowledged when translating the notion of resilience to the socio-economic dimension. Resilience – as defined in ecology – is neither positive or negative (ibid.). Rather, it implies nature’s ability “to absorb blows and get back up” (Klein, 2015, p. 447), regardless of human agency. Understanding the complex and reciprocal interdependences of governance and the metagovernance responses to natural disasters can shed light on issues with contemporary policy-making (Amore & Hall, 2016). Moreover, it is important to acknowledge how current development strategies are rooted on neoliberal and hyper-neoliberal paradigms (Amore & Hall, 2016, 2017) that claim to be ‘green’ but ultimately contribute to the increasing environmental vulnerabilities (Klein, 2015).

Therefore, the resilience of tourism destinations needs to be assessed within comprehensive frameworks of analysis (Amore et al., 2018; Hall et al., 2018). Only a greater understanding of the many facets of resilience can lead to an improvement of strategies, management and sustainable development of destinations in the long term. It is important to frame the discourses of resilience and sustainability as two sides of the same coin. Given the complex nature of tourism destinations, what occurs in a given destination and scale does not necessarily apply to others. As rule of thumb, a destination is unlikely to be resilient without an environmentally sustainable strategy that is owned and shared among the wide spectrum of the tourism stakeholders.

Sustainability and resilience in post-disaster contexts: a synthesis

Figure 1 below illustrates the relationship between sustainability and resilience at the destination level. It draws upon Moreno and Becken (2009) and Calgaro et al. (2013) frameworks on coastal vulnerability and destination vulnerability to climate change and natural disasters. Both frameworks are useful for the identification of ecological vulnerabilities and shortcomings in the planning and management of tourism destinations before a disaster. More importantly, the proposed framework permits to assess the post-disaster adaptiveness of destinations.

FIGURE 1 GOES HERE

Recent works on destination resilience and tourism (Amore et al., 2018; Hall, 2016; Hall et al., 2018) and mainstream literature in tourism policy and planning (Hall, 2008) are used here to assess the

strategies and the action plans in the aftermath of the disaster. In particular, it is argued that policies and practices of land-use and destination management rooted in the rhetoric of economic sustainability heighten the vulnerability of both the local ecosystem and the local community. Conversely, policies promoting the safeguard of the environment and of socio-cultural systems are more likely to enhance the resilience of destinations against future disasters. This principle follows previous theories and empirical evidence from urban and rural environments (Gotham & Greenberg, 2014; Hall et al., 2018; Klein, 2015) and defies the current rhetoric of resilience in mainstream policy-making (Hall, 2016).

For the purposes of this study, the framework closely assesses the land-use planning and the destination management strategy in the Cinque Terre following the 2011 floods. The two elements are here conceived as two sides of the same coin, as most of the political decisions concerning destinations “rarely exclusively devoted to tourism per se” (Hall, 2008, p. 14). The application of the framework in the Cinque Terre considers the multi-level regulatory framework in place. The area is listed as a World Heritage Site and follow the guidelines from the UNESCO and ICOMOS. Moreover, the site is part of the *Parco Nazionale delle Cinque Terre* stretching from Monterosso to Portovenere and of the adjacent *Area Marina Protetta*. Therefore, the destination is subject to a range of restrictions that, in turn, are reflected in the tourism development strategy of the case study area. Finally, the framework permits to evaluate whether land uses and policies for tourism labelled as ‘sustainable’ actually embrace the principles of sustainability and pursue the goal of sound resilient destination planning.

Context: The Cinque Terre

The Cinque Terre is a 15km-wide area stretching on the Levantine coast of the Ligurian Sea, Italy (Figure 2). It consists of five small townships – Monterosso, Vernazza, Riomaggiore, Corniglia, and Manarola – and is core part of the *Parco Nazionale delle Cinque Terre*. The area is named after the local wine (Cinque Terre D.O.C.) and was awarded the status of World Heritage Site in 1997 due to the “exceptional scenic quality that illustrates a traditional way of life” (UNESCO, 1997, p. 10) and the unique old agricultural terraces retained by dry stone walls (Galve et al., 2016). The area is home to an extensive network of dry stone terraces (6,729 km), narrow walkways and sanctuaries adjacent to fortresses originally built to contrast Saracen raids (ICOMOS, 1996).

FIGURE 2 GOES HERE

Until the 1960s, winegrowing and the production of olive oil represented the main outputs of the Cinque Terre. Since then, the agricultural areas were progressively abandoned, with only 2.6% of the area (100ha) currently used for the cultivation of grapes and more than two thirds of the cultivable land listed as trees/bushes (Comune di Vernazza, 2018; Parco Nazionale delle Cinque Terre, 2014b). In parallel, tourism has steadily become the core economic output of the region. The area experienced the traditional curve of destination development, with a first explorative phase throughout the 1980s followed by a progressive increase of arrivals ever since (MIBACT, 2016). Nowadays, the Cinque Terre is a mature destination with a relevant appeal among international visitors that much contribute to the boost of tourism in the wider Province of La Spezia (MIBACT, 2016).

Like the majority of World Heritage sites worldwide, the Cinque Terre are exposed to geological hazards (Pavlova, Makarigakis, Depret, & Jomelli, 2015). In October 2011, the Cinque Terre were hit by intense rainfall that ultimately led to large-scale flooding and landslides that severely damaged the townships of Vernazza and Monterosso. More than a quarter of the residents in the Cinque Terre were evacuated (Cevasco, Brandolini, Scopesi, & Rellini, 2013) as hundreds of swallow landslides and inland flooding hit abandoned terraces, infrastructures and residential areas (Bartelletti, Giannecchini, D'Amato Avanzi, Galanti, & Mazzali, 2017). Monterosso registered the highest precipitation in the Cinque Terre since 1951, with economic damages in the range of €130 million (Cevasco, Pepe, & Brandolini, 2014). The UNESCO mission in the aftermath of the flooding reported that “cloudbursts around the towns of Monterosso and Vernazza had been followed by landslides that had engulfed the settlements with water” (UNESCO, 2012, p. 9). Whilst authorities were adamant in clearing debris in Monterosso and Vernazza before March 2012, the full reopening of key coastal routes is still underway, and the recovery of historic buildings is likely to take years.

Despite ongoing vulnerabilities and haphazardous recovery since the 2011 flooding, the Cinque Terre have been experiencing a steady increase of visitor arrivals over the last years (Parco Nazionale delle Cinque Terre, 2014b). Nonetheless, there are concerns on the current tourist pressure at the Cinque Terre, with the Mayor of Monterosso advocating for the adoption of measures to restrict visitor access and regulate the local tourism industry (Moggia, 2018).

Methodology

For the purposes of this study, this study deploys an interpretive analysis of documents addressing sustainable development and resilience in the Cinque Terre area. Documents include the existing regulative framework as identified in the Site Management Plan (MIBACT, 2016) and the relevant online documentation from the *Parco Nazionale delle Cinque Terre* authority and the *Regione Liguria*. Data collection also include the *Adesione alla Carta Europea per il Turismo Sostenibile nelle Aree Protette* (Parco Nazionale delle Cinque Terre, 2014b) and the annual *Relazione sullo Stato dell'Ambiente* (Regione Liguria, 2013, 2016, 2017). The period of analysis covers all the relevant documents released following the October 2011 flooding.

The approach to data collection and analysis underpins previous research in tourism policy and planning and allows for a longitudinal approach in research, as in the case of this study. Policy documents and reports are here conceived as the ultimate result of episodes of governance among stakeholders (Healey, 2003) and the most feasible research approach for this case study due to the ongoing judiciary investigations on the *Parco Nazionale delle Cinque Terre* (ANSA, 2018). With regards to analysis methodology, the study developed a template for the analysis of archived sources. Findings were coded based on a matrix that was developed from existing literature in tourism planning, sustainable tourism development and destination resilience. A computer-assisted qualitative data analysis software (NVivo 12 Pro) was used to organize and code the data collected. This approach turned to be the ideal compromise in light of previous research in post-disaster studies and tourism (Calgaro, 2010; Gotham & Greenberg, 2014).

Findings

Land use planning

Liguria and the Cinque Terre are among the most vulnerable regions of Italy (D'Onofrio & Trusiani, 2018). Prior to the 2011 flooding, authorities were well aware of the vulnerability of the Cinque Terre to hydrogeological hazards (Terranova et al., 2006). The government authorities attempted to retain and reinforce abandoned terraces whilst introducing more effective water distribution networks for the few cultivated land (ICOMOS, 1996), but they fell short in implementing a suitable land-use plan to recover abandoned terraces and enhance reforestation in the most remote

localities. The 2003 operative plan foresaw reintroduction of traditional terraces in declining and abandoned areas in the Cinque Terre as part of a wider rural tourism strategy, but it did not contemplate hydrogeological risk as complementary factor in the safeguard of the site (Parco Nazionale delle Cinque Terre, 2003).

Following the 2011 flooding, geological surveys by a research team based at the University of Florence showed that 90% of the landslides happened on abandoned terraces covered by pine trees and Mediterranean shrubs, while only 2% of the alluvial debris came from cultivated terraces. Detailed surveys in the Vernazza catchment area further suggest that the highest percentages of landslides occurred in recently abandoned dry stone terraces lacking proper maintenance (Cevasco et al., 2014). Despite the existing framework for the protection and safeguard of the natural and built environment in the Cinque Terre, “the park management plan does not authorize the removal of the forests to restore the abandoned terraces, except in certain limited cases” (Agnolletti, 2014, p. 69). As result, the area is still exposed to shallow yet highly dangerous landslides (Bartelletti et al., 2017).

In light of current and potential vulnerabilities in the Cinque Terre, the Liguria region put in place “a ban on new building and on work to existing buildings that goes beyond mere conservation work” (UNESCO, 2012, p. 29) and re-mapped the areas subject to hydrogeological risk (Regione Liguria, 2015). The maintenance of terraces and promotion of agricultural production represent an opportunity to repopulate abandoned areas and reduce erosions and landslide in the highly vulnerable site of the Cinque Terre (MIBACT, 2016). Nevertheless, the regional scheme for flooding risk reduction focuses almost exclusively on water regulation and maintenance of existing water streams in proximity to urban areas (Regione Liguria, 2013), with no established regulation on the recovery of abandoned terraces. The latter solution, in fact, is deemed as uneconomic and unlikely to reduce the risk of landslides in the future in contrast with more cost-effective solutions such as planned reforestation (Galve et al., 2016).

Local authorities have done relatively little to effectively tackle the issue of abandoned terraces in the Cinque Terre following the 2011 flooding (Moggia & Marchese, 2012). Despite the area being under the Cinque Terre national park authority, the national heritage legislation and Cultural Heritage and Landscape Code, the initiative of retaining and restoring terraces still lies in the hands of private owners who lack the necessary resources to effectively restore terraces (UNESCO, 2017). It should therefore not be a surprise that the few terrace refurbishment projects were carried under the initiative of heritage trusts such as the *Fondo Ambiente Italiano* (FAI), as in the case of the Casa Lovara (FAI, 2016).

According to a 2016 review of the existing land-use framework in the Cinque Terre, the plans currently in use in the five townships are outdated (MIBACT, 2016). Moreover, these plans do not take in full consideration the extraordinary measures that need to be adopted for the retention of terraces and the reduction of vulnerability in the residential areas. Similarly, the land-use framework of the Cinque Terre national park authority is outdated (1999) and limited in action to the mere safeguard of the cultural landscape (MIBACT, 2016). The 2012 UNESCO-ICOMOS mission further stressed the need for the Cinque Terre “to develop a new World Heritage Plan, with a resource management perspective” (UNESCO, 2012, p. 24) and “and incorporate within it a sustainable tourism strategy for the property, and an integrated risk management strategy” (UNESCO, 2013, p. 126). However, despite repeated recommendations from the UNESCO on the matter, the revised Cinque Terre management plan is still a draft.

An emblematic example of the delays in the redefinition of land-use in the Cinque Terre site is the so-called buffer zone. The UNESCO-ICOMOS mission of 2012 considered the buffer zone a key instrument “to provide not only the preservation of the landscape from the visual point of view, but also from the perspective of the vulnerability of the property” (UNESCO, 2012, p. 23). The Ministry for Culture, Arts and Tourism similarly acknowledged the need of creating a buffer zone within the Cinque Terre site and its importance in enhancing the preservation of the outstanding universal values of the Cinque Terre terraces against degradation and vulnerability post-flooding (MIBACT, 2016). Nevertheless, the establishment of buffer zone is tied to the release of the new management plan. The current draft simply identifies the bodies in charge with the definition of the zone and its framing in the wider Coordinating Committee (UNESCO, 2017).

The lack of a defined coordinating body much contributes to the persisting state of fragmentation among local authorities and stakeholders. In a recent Ministerial meeting (May 2018), the Mayor of Monterosso advocated for the Cinque Terre national park authority to become the governing body of the whole area. He further stressed on the need to establish a strategic plan aimed at the safeguard and promotion of the existing cultural landscape. The recent boom of tourism, in fact, has brought to a steady economic speculation outside the community, which may likely lead to the displacement of residents away from the five townships (Moggia, 2018).

Destination Management Strategy

The governance of the Cinque Terre site as a tourism destination is complex and fragmented (MIBACT, 2016). Since its establishment in 1999, the Cinque Terre national park authority acted as the DMO of the destination; on the eve of the 2011 flooding its functions included the management of the tourist information offices, transportation services within the property and marketing of the Cinque Terre (Lorenzini, 2011). The park authority was also in charge with the development of the tourism action plan, the management of tourist flows, the management of tourism-dedicated facilities and the promotion of products combining tourist experience, rural economy and terrace maintenance (Lorenzini, 2011; Storti, 2005).

Since 2001, the park authority established the *Cinque Terre Card* in partnership with Trenitalia to monitor the arrivals at the site from the railway stations of Monterosso and Riomaggiore (Parco Nazionale delle Cinque Terre, 2016a). The authority also worked – with limited success – to establish an environmental quality certification system for hospitality businesses in the site and assess the tourist carrying capacity of the Cinque Terre site (Lorenzini, 2011; Patrucco, 2008). Despite the assessment being completed in 2007, the authority never released the results of the study nor did develop a revised destination strategy that considered the steady environmental stress caused by tourism in the Cinque Terre (Patrucco, 2008).

Following the flooding, authorities prioritized the clearing in key tourist areas in Monterosso and Vernazza and were successful in restoring the main route connecting the Cinque Terre townships in time for the beginning of the 2012 tourist season (Povoledo, 2012). The park authority maintained its role as DMO and pursued a new strategy to promote tourism arrivals in the Cinque Terre site. In 2014, the park authority and the La Spezia port authority agreed to create a visitor centre dedicated to cruise passengers seeking to go on excursion in the Cinque Terre and collaborate for the management of one international event within the property. The park authority, moreover, launched a pilot project as part of the INTERREG Programme *Martittimo 2014-2020* to promote environmental sustainability among local tourism SMEs and their competitiveness and appeal among international visitors (ENEA, 2018). In 2015, the park authority and the provincial Chamber of Commerce established a destination management partnership to promote green economy, sustainable management and biodiversity among relevant tourism businesses within the Cinque Terre (Alboretti, 2015).

The Cinque Terre national park authority is adamant in promoting environmentally-driven practices of responsible tourism. Since 2013, the park authority established a collaboration with the *Associazione Italiana di Turismo Responsabile* (AITR) and the *Alta Scuola di Turismo Ambientale* to educate local entrepreneurs develop innovative tourism products oriented at niche environmental

tourism markets (LegaCoop, 2013). In the view of the park authority, this initiative can enhance the sustainability of tourist flows within the fragile Cinque Terre site and ultimately lead to the successful integration between economy and the local environment (LegaCoop, 2013). More recently, the park authority reintroduced the environmental quality certification system for local hospitality, leisure and tourism-related businesses that proactively contribute to the promotion of sustainable development (Parco Nazionale delle Cinque Terre, 2016b). The certification praises those businesses that promote local goods the traditions of the Cinque Terre to visitors and consumers throughout their journey in the site (Parco Nazionale delle Cinque Terre, 2016b). In the view of the park authority, certified businesses play a significant role in the pursuit of integrated local management and in the achievement of economic, environmental and social sustainability in the Cinque Terre (Parco Nazionale delle Cinque Terre, 2016b).

The major activity of the Cinque Terre national park authority for the management of visitors is that of the *Cinque Terre Card*. The new partnership with Trenitalia announced in 2014 allows visitors to integrate the park ticket to the railcard and access the several trails within the Cinque Terre site (Parco Nazionale delle Cinque Terre, 2016a). The card represents the main source of income for the park authority, with revenues reinvested in tourist information, maintenance of trails and provision of wi-fi during the visit. The park also uses part of the revenues to restore dry terraces and hire professional guides to access remote trails. Nevertheless, there are critiques on the partnership with Trenitalia, particularly with regards to the relatively little share of the ticket price (25%) to the park authority (Mastrandrea, 2016).

Following the 2011 flooding, the park authority has the power to suspend the sale of the *Cinque Terre Card* to better manage visitors. The current intention of the park authority is to grant access to the Cinque Terre exclusively to card holders and drastically reduce the visitor flow from 2.5 million to 1.5 million (Deiana, 2018). This mechanism, however, has found some opposition among local businesses, as emerged during the focus groups organized by the Ministry for Culture, Arts and Tourism (MIBACT, 2016). Local authorities and the national park authority, in particular, consider the restricted access as the only solution to the steady increase of visitors following the 2011 flooding (Camera di Commercio di Genova, 2017). In the words of former national park authority director, Vittorio Alessandro, restricted booking “increases the appeal and indeed establishes a virtuous pact between visitor and guest that elevates the quality of hospitality” (Alessandro, 2016a, n.p., author translation). In turn, this enhances practices of responsible tourism within the frame of vulnerability and risk reduction in natural areas.

In 2015, the Cinque Terre national park authority was awarded the *Carta Europea per il Turismo Sostenibile* (CETS) for the implementation of a collaborative sustainable destination plan with relevant local and European stakeholders. Through collaboration, the national park authority is seeking to define a medium-term strategy and a co-ordinated management plan for the Cinque Terre site that adheres to the ten principles outlined the Charter (Parco Nazionale delle Cinque Terre, 2014a). The national park authority is currently leading a project to assess the ecological impact of tourism in the Cinque Terre site, support sustainable businesses practices and promote new trails targeting lucrative niche markets (e.g. wine tourism) (Parco Nazionale delle Cinque Terre, 2014a). The park authority has established partnerships with local sustainable businesses and promotes their products and services through their portal (Parco Nazionale delle Cinque Terre, 2014a). The adherence to the Charter is expected to establish successful sustainable management practices within the Cinque Terre site and enhance the protection of natural and cultural heritage through sound sustainable tourism services (Parco Nazionale delle Cinque Terre, 2014a).

At the time of writing, the recovery of the Cinque Terre is still underway and with controversies. On the one hand, the UNESCO and the ICOMOS recommend the development of “contingency plans directly aimed at tourists and hikers [...] to be applied in case of disasters” (UNESCO, 2012, p. 23) “alongside the development of sustainable tourism strategy [...] with the overall aim of strengthening the long-term sustainability of the cultural landscape” (UNESCO, 2013, p. 143). The draft Site Operational Plan acknowledges the need to prioritize environmental safeguard and cultural promotion over consumer-oriented policies and develop an integrated strategy for the property (MIBACT, 2016). However, data from the Ministry of Culture, Arts and Tourism suggest that there is a very poor stakeholder integration, especially among rural and tourism businesses (MIBACT, 2016). The fragmentation between stakeholders is emblematic in the case of the *Via dell'Amore* trail between Riomaggiore and Manarola, with the national park authority challenging the decision of the local authorities to outsource the management service of the trail to a private entity (Alessandro, 2016b).

Discussion

The vulnerability of the Cinque Terre to hydrogeological hazards was well-documented prior to the October 2011 flooding. This study argues that the steady decrease of agriculture and viticulture in the terraces much contributed to the vulnerability of the Cinque Terre site. This aspect was highlighted in other studies in the Cinque (e.g. Cevasco et al., 2014) and underpins the works of

Calgaro et al. (2013) on the importance of the ecological dimension in the assessment of destination vulnerability. Moreover, this study illustrates how the regional authority approach has done little to stimulate the retention and enhancement of abandoned terraces. The latter have been deemed as uneconomic in a recent government-funded cost-benefit analysis (Galve et al., 2016) and underpins contemporary research on the influence of market principles in post-disaster recovery (Amore, 2016; Gotham & Greenberg, 2014). The findings of this study, finally, shows that there are important flaws in the current land-use framework for the Cinque Terre site. The 2011 flooding unveiled the governance shortcomings in the site and the long recovery is a testimony of the fragmented policy environment. This aspect underpins previous research in post-disaster destination governance (Amore & Hall, 2016; Larsen, Calgaro, & Thomalla, 2011).

The current Cinque Terre destination strategy puts economic sustainability and prospective niche tourism demand as strongholds in the development of innovative, high-quality services. Despite the plea from local stakeholders, there is no explicit statement on the need to reduce the visitor flows as priority to reduce the vulnerability of the Cinque Terre to anthropic pressure. This aspect underpins Hall (1998) critique on the prioritization of economic interests ahead of sound environmental protection. Based on the findings collected and the analysis of reports and documents available, it can be stated that the Cinque Terre fell short in pursuing sustainable development principles recommended in tourism policy and planning (Dredge & Jenkins, 2007; Hall, 2008). The implementation of the destination management strategy in the Cinque Terre following the 2011 flooding, more importantly, downplays the ecological vulnerability of the site and the likelihood of floods in the future. The current strategy for the site deploys a 'business as usual approach', that underpins most of the tourism policy practices highlighted in the literature section. Ultimately, this underpins Patrucco's (2008) sustainability paradox in the management of the Cinque Terre by the national park authority.

Evidence from the Cinque Terre contradicts the conceptualization of resilience and sustainability as complementary elements in destination development discourse (Cochrane, 2010). The lack of integration between the land-use planning and the destination management strategy in the Case of the Cinque Terre is testimony of the shortcomings in contemporary policy-making highlighted in the literature (Lew, 2014). The post-flooding destination governance of the Cinque Terre has heightened the vulnerability of the local ecosystem and the local community. This trend underpins the findings from previous research in post-disaster contexts (Calgaro et al., 2013). The debris clearance in key tourist hotspots in 2012 and the agreement with cruise operators in 2013 put tourism gains ahead of

community wellbeing. Similar post-disaster contingency planning in tourism can be found in Thailand (Calgaro et al., 2013) and the United States (Gotham & Greenberg, 2014).

Undoubtedly, the Cinque Terre national park authority has embarked a laudable initiative with the allocation of ticket sale revenues to the retention and recovery of abandoned terraces and promote services and products combining agriculture, tourism and landscaping. Nevertheless, the scale of the project is very small if we consider the whole terrace system within the property (6.729 km) and the small revenue shares from ticket sales (25%). Also, the delays in the delivery of an integrated operational plan for the Cinque Terre site and in the creation of a buffer zone in accordance with the UNESCO-ICOMOS recommendations are testimony of a destination governance failure (Amore & Hall, 2016) currently far from being solved. Overall, it can be stated that the Cinque Terre are far from being considered a resilient destination conceptualized in the literature (Amore et al., 2018; Hall et al., 2018). This study, therefore, disagrees with previous research on the Cinque Terre as a successful case for protecting cultural and natural heritage (Carlarne, 2007).

Conclusion

This study provided a critical analysis of policy documents and destination strategies put in place in the Cinque Terre following the October 2011 flooding. This study argues that governance failures in post-disaster contexts are likely to increase the vulnerability of destination-relevant stakeholders, hinder their adaptation to hazardous events and negatively affect the recovery of destinations at large. Moreover, it advances the currently limited understanding of destination recovery of the Cinque Terre with insights from relevant tourism literature in destination sustainability and resilience.

There are, of course, a series of limitations in the study. First, the delays in the delivery of the new operational plan and the buffer zone partly limit the application of the literature to the Cinque Terre case study. Second, the site is far from being fully recovered, meaning that more research is needed once the whole site is fully operative. Third, there is scope to integrate the findings of this study with further data from qualitative interviews among managers and directors of the Cinque Terre site. Arguably, the chances of participants to take part to interviews are likely to increase once judiciary investigations on the *Parco Nazionale delle Cinque Terre* will be over.

Further research of this kind to enhance the understanding of tourism planning practices and assess whether local authorities embark sound sustainable and resilient destination-level policies advocated in the literature. There is need for more critical studies framing the rhetoric on sustainable development and governance fragmentations as factors preventing the delivery of effective sustainable policies for resilient destinations. More research focusing on the Cinque Terre is needed to foster policy learning and support local authorities' quest for a sustainable development agenda, as advocated by the Mayors of Monterosso and Vernazza in the recent round table with the Ministry for Culture, Arts and Tourism (Moggia, 2018).

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