Article

Community Participation, Natural Resource Management and the Creation of Innovative Tourism Products: Evidence from Italian Networks of Reserves in the Alps

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Abstract: The paper analyses value co-creation and social innovation focusing on a new approach to the management of Natura 2000 areas: the Networks of Reserves (NoRs). NoRs have been set up in Trentino (an Italian alpine area) to create an ecological network within the territory, with a particular focus on the socio-economic dimensions of nature conservation and with a bottom-up approach. The research investigates the role of NoRs by using a quali-quantitative approach to analyse the attitudes and awareness of private stakeholders, public actors and local communities. In-depth interviews with NoRs coordinators and key players in tourism organizations were carried out. 167 online questionnaires were sent out to local stakeholders. The research investigates community participation and stakeholder engagement in NoRs’ projects and activities, whether and how socio-economic development has occurred, and whether and how innovative sustainable tourism offers have been created. It confirms the role of NoRs in relation to the conservation and valorisation of natural resources through the stimulation of activities such as environmental interpretation and education. The research demonstrates the effectiveness of bottom-up processes for the co-creation of sustainable tourism offers and the fostering of social innovation. NoRs have proved to be successful in overcoming the major impediments to the functioning of the Natura 2000 network highlighted in the literature.

Keywords: public private partnerships; co-creation of tourism products; natural resources; protected natural areas; biodiversity and habitat conservation; ecological network; sustainable tourism

1. Introduction

Economists agree that the impact of tourism on destinations is systemic [1–3]. It follows that the industry needs to be managed in such a way that it creates value for a territory, rather than impoverishing it, whether through environmental degradation, the disturbing of social/cultural equilibria, or excessive demands on local resources [4,5]. Natural capital, the basic resource upon which tourist development depends in the long term, must be protected and valorized. This requires that the needs of a wide range of actors be accommodated [6–10]:

- tourists require satisfying, stimulating, high quality holiday experiences;
- private operators (tourist businesses and organizations) are looking for good returns on their investments, and need to make a living;
- public institutions and organizations;
- local residents, whose needs are social, professional and related to quality of life.
Moreover, a competitive destination must now also demonstrate its sustainability [11–16]. A territory’s attitude to sustainability will, in fact, orient its managers towards the harmonizing of the destination’s need to develop its offer, on the one hand, with the conservation of the area’s natural surroundings and its social balance, on the other. This is particularly true of community destinations [17–24], where resources, activities and competences are divided between multiple local actors, linked by their common geographical and cultural environment. In order to meet the inevitable challenges posed by conflicting dynamics and to integrate disparate expectations, the literature proposes the adoption of decisional processes based on stakeholder consultation and participation [25–28]. These strategies are particularly necessary when important environmental decisions, which will entail the transformation of natural capital, are being made [29–31], or when the historical/cultural patrimony of the destination will be impacted [32,33]. Participation ensures greater control over the ecological and socio-cultural aspects of sustainability, as well as a broader, more responsible analysis of the economic consequences/benefits for operators and local residents [34–38]. However, the mechanism of participatory consultation has limitations: the creation of a critical mass of local actors large enough to determine effective decisional processes is especially difficult in fragmented, heterogeneous contexts such as tourism destinations. The existence of numerous, differing objectives, interests, roles, powers and competences can seriously hinder coordination. Moreover the fact that some of the actors (local residents, in particular) involved do not possess the requisite competences can make it difficult to manage the complex organizational processes entailed within the planning of a tourism offer [20,39–41].

The relationship between managerial operations and sustainability is particularly strong where tourism is centered around natural areas, in which the main attraction is, of course, contact with nature: numerous studies demonstrate this key role, indeed, holiday choices may well be driven primarily by the desire to enjoy an area’s natural beauty [42,43]. Nature-based tourism includes tourism in natural settings, tourism that focuses on specific elements of the natural environment, and tourism that is developed in order to conserve or protect natural areas [44]. Inevitably, successful tourism in such environments risks damaging the very resources upon which it is based: increased tourist flows tend to threaten conservation. The techniques used to manage the recreational use of natural areas can be divided into three main categories [45]:

- physical controls in the form of barriers, paths, boardwalks, and the location of facilities used to influence visitor behaviour. Visitor impact is reduced by physical separation from the natural environment, or by influencing the spatial distribution of use in order to protect sensitive areas;
- direct controls in the form of rules, regulations, permits and charges imposed and enforced in order to prohibit or restrict human behaviour which may be detrimental to the natural environment;
- indirect mechanisms which seek to reduce inappropriate behaviour through education, leading to voluntary behavioural changes. These environmental education programs are termed ‘interpretative’.

Environmental interpretation can be defined as translating the technical language of a natural science or related field into terms and ideas that non-scientists can readily understand, and will, moreover, find entertaining and interesting [46]. It can prove a crucial tool with which to valorize tourist use of natural resources, while also ensuring that the latter are protected. The mechanism seems particularly effective as tourism evolves towards the experiential, where interaction and dialogue between consumer and supplier become the new rule for value creation. One of the central elements of this approach, known as service-dominant logic, is the consumer’s role as a co-creator of value [47–50]; the approach can readily be applied within tourism [51]. Local residents are the potential protagonists of environmental interpretation and of the valorization of tourist offers linked to natural resources. Their involvement underlines the importance of social innovation, which can be linked to the development of tourist products within areas of high natural value.
This study discusses the results of research carried out within 5 Networks of Reserves (NoRs) in Trentino, an Italian alpine region located in the heart of the mountains. The NoRs have been set up in Trentino to create an ecological network on the territory, with a particular focus on the economic and social dimension of nature conservation and with a bottom-up approach (see Section 2.1).

The overall aim of the research is to analyse the socio-economic impact of the NoRs, that is, to verify whether—on top of their positive environmental impact, in terms of protection and valorization—they also provide innovative stimuli for the creation of tourism related micro-businesses. We are interested in establishing whether a project with a primary environmental goal, can also have a positive economic effect through the generation of economic activities (aimed at tourists, visitors and residents) related to the valorization of the landscape and environment. The creation of the NoRs focuses attention upon the value of a territory’s landscape/environment: we have attempted to discover whether or not, by involving residents in projects and activities (targeted at both themselves and tourists and visitors) NoRs thereby increase residents’ environmental awareness.

The main research objectives were then specified as follows:

1. to analyse local stakeholders’ perceptions and levels of awareness of the NoRs;
2. to analyse what—if any—economic or social advantages and/or opportunities arise from the creation and development of NoRs;
3. to see whether—and to what extent—actors’ participation and interactions have led to the creation of innovative tourist offers, linked to the valorisation of natural resources, focussing in particular on education and environmental interpretation;
4. to understand whether involvement in the projects has created new relationships between the various actors, as mechanisms of social innovation within the communities investigated are developed.

The paper is divided into four main sections. In the ‘Materials and Methods’ section the specificities of the study area (NoRs in Trentino, Italy) are described, and the methodology is explained. In the next section, the main research findings are given, highlighting the results of the interviews with NoRs coordinators and members of the Destination Management Organisations in the territories containing NoRs. The results of a quantitative survey conducted on public and private stakeholders of NoRs are also reported in this section. In the final section, the originality of the research, its limitations and future steps are explained.

2. Materials and Methods

2.1. The Study Area: Networks of Reserves in Trentino

This study was carried out in the eastern Italian Alps in the Province of Trento. This is a mountainous province, with limited areas of flat land in the valley bottoms, extensive terracing and steep mountain slopes. Approximately 60% of the surface area is situated over 1000 m above sea level with more than 50% of the population is concentrated in urban areas below 400 m. Trentino has 345,180 hectares of forested land (approximately 56% of the total area), predominantly Spruce (59%), European larch (17.0%) and Silver fir (10.8%) (National Forest Inventory, 2005). Agricultural land accounts for 143,190 ha (23%)—of which 117,282 ha are meadows and pastures (18% of the total area). 16% of the land is unproductive and approx. 3.3% is urbanized (ISTAT—National Institute of Statistics, Agriculture Census, 2010).

The province’s rich biodiversity means that it is an important nature conservation area, host to 3724 animal and plant species, several of which are rare or endangered. The province includes one national park (Parco Nazionale dello Stelvio), two regional parks (Adamello-Brenta and Paneveggio Pale di San Martino), 148 Natura 2000 sites, local reserves and one UNESCO Biosphere Reserve, occupying overall 34% of the total area. 31% of the Natura 2000 sites are included in the Networks of Reserves (NoRs), consisting of 19,583 ha (about 11% of the total Natura 2000 area). If all the protected
areas in the NoRs are included, the area increases to 20.664 ha. There are currently 10 NoRs in Trentino. The Reserves lie within the territories of 81 (38%) of the province’s 210 Municipalities.

The NoRs were set up in Trentino under the Provincial Law 11/2007. Their genesis lies in the European project LIFE11/NAT/IT/000187 “TEN”—“Trentino Ecological Network”, the objective of which is to create a polyvalent ecological network in the Province. Alongside active protection measures and the restoration of eco-connectivity, T.E.N. pays particular attention to the economic and social dimension of nature conservation, hence the use of the term “polyvalent” [52] to describe the Network. The NoRs can thus be seen as the institutional expression of the concept of an ecological network. The NoRs contain areas outside the national and regional parks that will benefit from the uniform management of their unique natural, scientific, historical-cultural and landscape values and through the functional interconnections between the different areas. The NoRs’ main objectives are the improvement of natural and semi-natural environments and resources and the development of sustainable human and economic activities (Provincial Law No. 11/2007).

The NoRs are not newly protected areas: their designation signifies a new way of managing and enhancing existing Natura 2000 areas, more effectively and with a bottom-up approach. This new management approach is grounded in local stakeholder participation, responsible subsidiarity and integration between conservation policies and local sustainable development, consistent with the participatory integrated approach to local development set out in the Habitat Directive. This means that, after agreeing a particular program with the provincial authority, municipalities and the local government body can assume responsibility for the management of Natura 2000 sites. Under the overall guidance of the Province, which retains final responsibility for conservation and the issuing of permits, it is possible for the NoRs to develop integrated management systems. Within these systems conservation policy interacts with agriculture and tourism, catalyzing proactive preservation measures and socio-economic development projects which valorize the ecosystem services of Natura 2000.

The network is therefore not only concerned with defining direct measures for the protection of biodiversity—the maintenance of local economic activities (agriculture and handicrafts) and their integration with sustainable tourism is also an important focus. One of the NoRs’ key objectives is to raise stakeholder awareness of these issues. Several European Natural 2000 sites, in fact, are currently carrying out the objectives of the network: the social and economic development of the territory is underway, participated in by the local population and stakeholders [53]. In the NoRs, however, these principles are applied not only within the Natura 2000 sites but throughout the NoRs, which also include interconnection zones linking Natura 2000 sites. These interconnection zones are similar in their function to the transition areas created for Biosphere Reserves.

Municipalities set up NoRs voluntarily, and then have to renew their commitment with the Province every three years. While NoRs are managed locally, the Province directs management policies, and is responsible for auditing, and the relationship with the European Union.

2.2. Research Design and Method

We analyzed the role of the NoRs in the socio-economic development of the territories involved, questioning local stakeholders on their opinion, and level of awareness, of (a) role and main activities of the NoRs; (b) what (if any) opportunities they had given rise to, and (c) the level of local participation in activities/initiatives related to them. The research was carried out in 5 of the 10 NoRs in Trentino, the NoR Alpi Ledrensi, NoR Fiume Sarca, NoR Alta Valle di Cembra—Avisio, NoR Fiemme—Dextra Avisio and the Parco Naturale Locale Monte Baldo (which chose to be known as a “local natural park” rather than a NoR) (see Figure 1). All 5 zones contain particularly valuable protected areas and natural resources, but differ in terms of economic development and levels of integration within the tourist sector. The choice of these areas has thus allowed us to investigate the role of the NoRs in considerable depth, and to understand their development opportunities, independently of the specificities of each territory.

The research was carried out in 2017. It is divided into 3 main stages, and combines qualitative and quantitative methods.

The first, qualitative, stage was undertaken in March 2017 and involved the coordinators of the 5 NoRs, each of whom participated in a face-to-face interview lasting approximately 90 min. The main focuses of analysis for each NoR were:

- The identification of (a) the main stakeholders who shaped, and/or are now participating in, activities and/or projects to valorise and develop the territory and (b) the most important stakeholders involved in the creation of the NoR. The importance of the stakeholders was understood both through positive approach, i.e., indicating which actors were proactive and collaborated in the NoR’s activities (key stakeholders), and through critical approach, i.e., local actors who were unenthusiastic about, or actually against the creation of the NoRs, and had, in some way, influenced and/or slowed the process (adversary stakeholders). In some cases, disinterested actors were also identified, in order to gain a broader picture of the local attitudes to, and opinions about, the NoRs.

- The identification of the main initiatives to preserve and valorise the territory.

- The identification of the activities, projects and initiatives actually carried out, and the extent to which local stakeholders collaborated in their realisation.

The second, quantitative, stage was carried out in May and June 2017. We designed an online questionnaire and sent it to all the stakeholders whom the NoRs coordinators had identified as important (both key stakeholders and adversary stakeholders). The Director and members of the Destination Management Organisations were not included in this analysis, since, given our research.
objectives. It was considered appropriate to conduct ad hoc interviews with these stakeholders, in order to investigate more thoroughly the role of the NoRs in the development of sustainable tourism. This analysis was the subject of the third research phase (see infra).

The online questionnaire was sent to the 167 stakeholders named by the NoRs coordinators, and 110 were returned to us (response rate 65.9%). This second stage focused principally on:

- the activities carried out by local stakeholders;
- stakeholders’ opinions of/satisfaction with the NoRs;
- the opportunities for and/or limitations on the territories’ socio-economic development, including tourist activities.

The third and last—qualitative—research stage was carried out through phone interviews with members of the DMOs in the territories containing NoRs. A total of 9 interviews were carried out in June and July 2017, one for each of the tourist organizations involved. The research focuses were (existing and/or planned) development opportunities aimed at valorizing the territories’ sustainable tourism offers. Our research identified the collaborative relationships between the tourist sector and the NoRs and investigated the former’s perceptions of the opportunities and/or limitations linked to the NoRs for the development of innovative sustainable tourist products.

Table 1 summarizes the main tools and focuses of analysis of the three research stages. Then, in the following section, the main research results are given, underlying the topics that came to light in the interviews with the NoRs coordinators (Section 3.1) and DMO members (Section 3.3) and revealing stakeholder opinions of the NoRs (Section 3.2).

### Table 1. Research steps and design.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Analysis Methods and Tools</th>
<th>Interviews/Questionnaires</th>
<th>Category of Stakeholder</th>
<th>Main Focus</th>
</tr>
</thead>
</table>
| 1: March 2017  | Face-to-face interviews Qualitative analysis | 5 interviews | NoRs Coordinators | - Identification of main stakeholders
|                |                             |                           |                                  | - Preservation and valorisation of the territory
|                |                             |                           |                                  | - Involvement of local stakeholders |
| 2: May–June 2017 | Online survey Quantitative analysis | 167 questionnaires | Key stakeholders and adversary stakeholders in the NoRs | - Stakeholder activities
|                |                             |                           |                                  | - Opinions of/satisfaction with the NoRs
|                |                             |                           |                                  | - Opportunities for and/or limitations on socio-economic development |
| 3: June–July 2017 | Phone interviews Qualitative analysis | 9 interviews | DMO members | - Collaboration between the tourist sector and the NoRs
|                |                             |                           |                                  | - Development of sustainable tourist offers |

### 3. Results

#### 3.1. The Role and Main Activities of the NoRs: Results from the Interviews with NoRs Coordinators

The NoRs are expected to devote considerable attention to the promotion of initiatives linked to the conservation and valorization of their local areas, but NoRs coordinators refers that local understanding of the networks’ goals is inadequate. Not everybody is familiar with the concept of the NoRs, or aware of their role and activities. A knowledge gap with regard to the promoters of certain initiatives is sometimes revealed: residents are aware of the activities being carried out in the territory, but associate these activities with other local stakeholders (a museum, for instance, or a public body with whom the NoRs collaborate) rather than with the NoRs themselves. Or, the NoRs are recognized as the promoters of an event, but are associated only with that particular initiative. Another issue
connected with the recognition of the role of the NoRs is revealed with regard to some stakeholder categories: where there is an accurate perception of the activities and aims of the NoRs no particular problems with interaction emerge. However, when the NoRs are associated with the introduction of new restrictions and limits on the use of a territory’s resources, tensions arise with certain actors (hunters, for example).

The NoRs’ environmental education projects are among their most important: these projects have a double objective, to teach children and young people about their local environment, and thereby to raise awareness of its value and significance. The establishment of a relationship with the youngest members of the community is considered crucial, since it also allows the NoRs to (a) make contact with older family members, (b) contextualize environmental awareness (and debate) within the daily life of local residents, (c) inspire respect and care for the environment. Through their educational activities the NoRs are also able to raise their own profiles among teachers, parents and children, informing them about the Networks’ local projects and initiatives, and providing training for teachers. NoRs coordinators explained that the initiatives and activities (realized, current and planned) are primarily aimed at local residents, but agree that they could also be of interest to tourists. Numerous projects involving local stakeholders, in fact, were realized in activities linked to the valorization of the territory for the purposes of tourism.

According to the NoRs coordinators, one of the main achievements of the NoRs has been the creation of networks between local actors (institutions, municipal offices, private actors, people involved in the agricultural, tourism and crafts sectors). In some territories, as well as round tables, initiatives inspired by the NoRs have led to permanent work groups and launched new business ventures (the opening of B&Bs, for example, and eating places where local specialty products can be tasted).

3.2. Stakeholders’ Perceptions and Awareness of NoRs: Main Results from the Online Survey

More than half of the stakeholders who responded to the online survey “strongly agree” that the creation of the NoRs represents an opportunity for the promotion of the territory as a sustainable tourism destination (see Table 2). This is the point on which the highest number of respondents expressed such strong agreement. More than 40% declare themselves to “agree strongly” that the NoRs have allowed valuable natural areas to be valorized and paths to be created or restored. 30% “agree strongly”—and 36% “largely agree”—that the creation of the NoRs has enabled the restoration of abandoned or degraded areas. Half of the respondents “largely agree” that the creation of the NoRs has increased residents’ awareness of the importance of conserving the local environment; almost the same number recognizes that the NoRs have strengthened their own personal sense of connection to the territory. Between 30 and 40% of stakeholders say that they “largely agree” that the NoRs have increased the business community’s awareness of the issue of sustainability and have contributed to the recovery of local traditions.

More than 50% of respondents stated that they “completely disagreed” with the statement that NoRs had hindered farming operations (arable/livestock). About half of respondents expressed either weak agreement, or actual disagreement with the statement that the NoRs had increased restrictions on land use/change of use (i.e., re-zoning for building).

The NoRs promote numerous projects: most stakeholders said that they had taken part in 2–5 projects, while 20% had just participated in one. The remaining 30% are almost equally split between those who have never been involved (10%), those who have participated in up to 10 projects (10.9%) and those who have been involved in more than 10 (9.1%). More than half of the stakeholders who have taken part in projects said that they were involved in both the planning and the implementation of the activities, while over 30% were only involved in the planning.

The majority of the stakeholders who said they had taken part in at least one NoRs project (90% of respondents) were involved in nature conservation initiatives, or path creation/restoration, environmental education, the organization of exhibitions and/or events targeted at local audiences,
the organization of guided tours to natural/cultural/artistic resources, the promotion of local products. Between about 20 and 30% of stakeholders said that they had taken part in environmental education activities for schools, in activities aimed at valorizing agriculture (arable and/or livestock), in initiatives aimed at de-seasonalizing tourism, and in sustainable transport projects. Activities related to the development of commerce and handicrafts, however, were less popular (see Table 3).

Table 2. Levels of local stakeholder agreement with the statements “The creation of the NoRs has…”.

<table>
<thead>
<tr>
<th></th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
<th>Not at All</th>
<th>NO *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided an opportunity to promote the territory as a sustainable tourism destination.</td>
<td>55.5%</td>
<td>30.9%</td>
<td>7.3%</td>
<td>2.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Enabled the valorisation of valuable natural areas</td>
<td>46.4%</td>
<td>36.4%</td>
<td>10%</td>
<td>2.7%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Enabled the creation or restoration of paths.</td>
<td>43.6%</td>
<td>42.7%</td>
<td>10.9%</td>
<td>0.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Enabled the restoration of abandoned/degraded areas.</td>
<td>30.9%</td>
<td>36.4%</td>
<td>24.6%</td>
<td>1.8%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Strengthened their own personal connection with the territory.</td>
<td>26.4%</td>
<td>46.4%</td>
<td>18.2%</td>
<td>4.6%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Increased residents’ awareness of the importance of environmental conservation locally.</td>
<td>23.6%</td>
<td>50.0%</td>
<td>16.4%</td>
<td>2.7%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Increased awareness of sustainability within the business community.</td>
<td>13.6%</td>
<td>40.9%</td>
<td>26.4%</td>
<td>7.3%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Enabled the recovery of local traditions.</td>
<td>17.3%</td>
<td>35.5%</td>
<td>30.9%</td>
<td>6.4%</td>
<td>10%</td>
</tr>
<tr>
<td>Increased restrictions on land use/change of use.</td>
<td>6.4%</td>
<td>16.4%</td>
<td>27.3%</td>
<td>25.5%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Hindered farming (arable/livestock) operations through restrictions imposed by protected natural area.</td>
<td>2.7%</td>
<td>7.3%</td>
<td>23.6%</td>
<td>50.9%</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

* NO = no opinion.

Table 3. NoRs projects in which stakeholders participated.

<table>
<thead>
<tr>
<th>Projects</th>
<th>Stakeholder Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Nature conservation (local plant and animal biodiversity, preservation and restoration of habitat).</td>
<td>49.5%</td>
</tr>
<tr>
<td>Creation/restoration of paths.</td>
<td>43.4%</td>
</tr>
<tr>
<td>Environmental education.</td>
<td>41.4%</td>
</tr>
<tr>
<td>Organization of events/exhibitions for local residents.</td>
<td>41.4%</td>
</tr>
<tr>
<td>Organization of guided tours to natural/artistic/cultural resources.</td>
<td>39.4%</td>
</tr>
<tr>
<td>Promotion of local products.</td>
<td>32.3%</td>
</tr>
<tr>
<td>Organization of environmental education activities in schools.</td>
<td>28.3%</td>
</tr>
<tr>
<td>Valorisation of agriculture.</td>
<td>26.3%</td>
</tr>
<tr>
<td>Initiatives aimed at de-seasonalizing tourism.</td>
<td>23.2%</td>
</tr>
<tr>
<td>Sustainable transport.</td>
<td>22.2%</td>
</tr>
<tr>
<td>Commercial development.</td>
<td>5.1%</td>
</tr>
<tr>
<td>Development of handicraft sector.</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Most stakeholders (c. 85%) say that dialogue between local associations and the administration has seen particularly strong development. 68.2% believe that there is also increased dialogue between residents and 66% that dialogue has increased between all categories of actor. 57.3% mention opportunities for dialogue between local business people (see Table 4).
Table 4. Responses to the statements “The creation of the NoRs has increased opportunities for dialogue about the development and management of the territory and its protected areas . . . ”.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between members of the local population.</td>
<td>68.2%</td>
<td>14.5%</td>
<td>17.3%</td>
</tr>
<tr>
<td>Between local business people.</td>
<td>57.3%</td>
<td>14.5%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Between local associations.</td>
<td>85.5%</td>
<td>5.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Between local administrators.</td>
<td>84.5%</td>
<td>8.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Between the various groups listed above.</td>
<td>66.4%</td>
<td>10%</td>
<td>23.6%</td>
</tr>
</tbody>
</table>

Actors can also be seen to have participated in decision making with regard to the preservation of protected natural areas. Public bodies (85.5%) and local associations (75.5%) are the key stakeholders, but about half of the respondents mentioned the participation of the local business community and residents.

The extension of decisional processes to include more actors and categories also emerges in reference to decisions regarding the economic development of the territories in which NoRs are present. Most stakeholders say that local administrators (80%) and associations (69.1%) have participated, but the private sector, too, has been very involved: 70% of stakeholders say that business people have taken part in these decisional processes. Meanwhile, just over 40% say that local residents have also been involved.

Overall, more than half of respondents say that all the most salient actors have participated in at least one NoRs project. Among those who feel that there could have been greater participation, local residents and the private sector are the categories identified as most “critical”—more than 50% of stakeholders believed that local business people had not taken part in any projects.

The majority of stakeholders agree that the NoRs seem to have helped to reduce local conflicts and increase opportunities for economic development (see Table 5). Nevertheless, it also seems clear that investment must continue, in order to create more jobs and incentivize new businesses. In this regard, in fact, stakeholders revealed themselves to be less than completely satisfied.

Table 5. Extent of stakeholders’ agreement with the statements that “The creation of the NoR . . . ”.

<table>
<thead>
<tr>
<th></th>
<th>Strong</th>
<th>Average</th>
<th>Weak</th>
<th>Non-Existing</th>
<th>NO *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has provided opportunities for new economic activities.</td>
<td>21.8%</td>
<td>33.6%</td>
<td>26.4%</td>
<td>4.6%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Has provided opportunities for job creation.</td>
<td>14.6%</td>
<td>29.1%</td>
<td>40.9%</td>
<td>4.6%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Has reduced local conflicts.</td>
<td>4.6%</td>
<td>35.5%</td>
<td>30.9%</td>
<td>10%</td>
<td>19.1%</td>
</tr>
</tbody>
</table>

* NO = no opinion.

Stakeholders say that they are satisfied (31%) or quite satisfied (49%) with the NoRs’ activities to date. The majority of them consider the aims of the NoRs to be “very important”. These aims are actualized through the various territorial conservation and valorization activities promoted by the NoRs, and emphasize its potential socio-economic benefits. These aims are, specifically: local management of protected natural areas; collaboration between public and private actors; the sustainability of activities carried out locally; the identification of local development paths shared by the various stakeholders; the stimulation of innovative new economic activities; the facilitation of dialogue between the various categories of producer and the improvement of the social climate through dialogue and collaboration (see Table 6).
Most respondents said they “largely agreed” that the projects would continue and increase their impact over time, that the actors currently involved would continue their participation and that those actors not yet involved would probably be willing to participate, that the network of actors was therefore likely to grow. Opinions, however, differed on the likelihood that in the future local actors would be inclined to invest their energies and economic resources to support the network’s development (see Table 7).

When asked their opinions on possible future NoRs activities, most stakeholders said that environmental education (77%), the preservation of protected natural areas (74%), the conservation of flora and fauna (69%), educational activities in schools (69%), the maintenance and restoration of paths (66%), sustainable transport (58%), the promotion of local products (69%), and the promotion of sustainable tourist offers (52%) were very important. We find different opinions, however, in relation to the degree of importance accorded to the development of businesses and already existing economic activities (47% consider this factor to be “very important”, 38% “quite important”) and to the organization of events and exhibitions (“very important” according to 36%, and “quite important”, 47%).

And lastly, examining the opinions which emerge on potential business and job opportunities, almost all stakeholders (95.5%) believe that this will apply to the tourism sector, while 82.7% are optimistic for the agriculture (arable/livestock) sector. The prospects for commerce and handicrafts, however, are seen as less certain, although in both cases more than 50% of respondents felt that these sectors, too, would benefit.

Table 6. The perceived importance of the aims of the NoRs.

<table>
<thead>
<tr>
<th>Aims of the NoRs</th>
<th>Major (%)</th>
<th>Quite (%)</th>
<th>Minor (%)</th>
<th>Non-Exist (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local management of protected natural areas.</td>
<td>74.6</td>
<td>22.7</td>
<td>2.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Fostering public-private collaboration in the territory.</td>
<td>66.4</td>
<td>30</td>
<td>3.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Preserving the territory by increasing the sustainability of activities carried out within it.</td>
<td>63.6</td>
<td>32.7</td>
<td>3.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Identifying local development paths shared by the various local interest groups.</td>
<td>56.4</td>
<td>39.1</td>
<td>3.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Stimulating innovation and identifying new economic activities.</td>
<td>48.2</td>
<td>36.4</td>
<td>13.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Facilitating dialogue between the different categories of producer.</td>
<td>47.3</td>
<td>44.6</td>
<td>8.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Improving the social climate through dialogue and collaboration.</td>
<td>46.4</td>
<td>46.4</td>
<td>5.5</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Table 7. Extent to which stakeholders agree on the future prospects for NoRs projects.

<table>
<thead>
<tr>
<th>Prospects for NoRs projects</th>
<th>Strong (%)</th>
<th>Average (%)</th>
<th>Weak (%)</th>
<th>Not at All (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing projects will continue, and increase their impact over time.</td>
<td>22.7</td>
<td>60</td>
<td>17.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Current actors will remain active.</td>
<td>12.7</td>
<td>69.1</td>
<td>17.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Actors not currently participating will probably be willing to do so in the future, leading to the growth of the network.</td>
<td>13.6</td>
<td>56.4</td>
<td>28.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Territorial actors will be willing to invest time and money in its development.</td>
<td>6.4</td>
<td>40</td>
<td>48.2</td>
<td>5.5</td>
</tr>
</tbody>
</table>
3.3. Linking NoRs to Sustainable Tourism: Main Results from the Interviews with DMOs

The many opportunities connected to tourism which the NoRs can generate led us to investigate what, if any, relationships exist between the NoRs and the local Destination Management Organisations (DMO), i.e., those stakeholders appointed to encourage collaboration between local actors in order to create tourist offers that encompass the uniqueness of the territory. The creation of innovative, sustainable tourist products is an important goal for the DMOs, enabling them to respond to the holiday motivations of the ever-growing demand segments interested in such offers.

Our research evidences the awareness of these territories in terms of sustainability, including tourist development. However in some circumstances this awareness was expressed through plans for the future rather than in current strategies and practice.

Two main scenarios emerge in the study. The first is found in territories in which the DMOs are particularly active and efficient. In these cases, the NoRs find it difficult to establish themselves and/or be recognized as the key stakeholder for actors wishing to create and/or further develop tourist products. The DMOs do not initiate significant relationships with the NoRs, who, in turn, struggle to interact with the DMOs.

The second scenario occurs in territories where DMOs activity is more selective in terms of territorial promotion, and areas with more tourist appeal are valorized, while others are ignored. In these cases, the NoRs emerge as the DMOs’ key stakeholder in the definition of activities and initiatives which valorize the environment and natural resources of the territory. The tourist product which develops—as well as being recognized by the local community—is therefore more easily targeted at specific demand segments. In this second scenario interaction between the NoRs and the DMOs is particularly frequent and both bodies express mutual appreciation and satisfaction with regard to the results they have so far obtained. Moreover, we see that considerable attention is paid to the definition of the tasks and roles of the NoRs and the DMOs during the creation of the tourist offer. The aim, in fact, is to avoid the duplication of activities and initiatives, and the consequent waste of resources and confused efforts at communication and promotion. This second scenario allows the emergence of opportunities to design innovative products, appropriate for the “slow”, “nature-aware” tourist offers consistent with sustainable tourism.

4. Discussion

The findings of the three steps reveal the main ways in which the NoRs have affected perceptions and awareness regarding the advantages and limitations for the socio-economic development (including sustainable development) of the territory. Our research demonstrates that the creation of NoRs has had significant effects in the territories concerned, with regard to some key factors related to the medium/long term consequences expected from such a process. The project links effectively to the pursuit of objectives around the territory’s livability and the valorization of resources—in other words, to the preservation of the Alpine environment and ways of life. The setting up of the NoRs has also given the territory an opportunity to promote itself as a sustainable tourist destination. In some areas the NoRs are proving to be key players in the definition of activities and initiatives which valorize the territory’s natural attractions. This means that the promoted activities are aimed at the local population but can also attract tourists, especially if they include guided excursions and/or environmental interpretation.

The main aims and activities of the NoRs are, in theory, focused on the conservation of biodiversity. Our research has highlighted, however, that in practice the NoRs’ engagement extends to the valorization of the territory. We demonstrate the proactive role they have played in proposing and supporting initiatives and projects which “go beyond” conservation. The many activities promoted by the NoRs have stimulated the involvement of local stakeholders and publicized the networks themselves. Stakeholders consider the themes of valorization, conservation and environmental education to be the NoRs’ priorities. The study clearly demonstrates that the conservation activities
promoted by the NoRs are not considered to hinder—but instead to provide certain concrete advantages for—territorial development.

The stakeholders' responses indicate positive perceptions of socio-economic development connected to the NoRs, and the majority of stakeholders see the NoRs' overall role as positive. They feel that the NoRs have created opportunities for dialogue and development within the territories, although a minority associates them with the introduction of restrictions on the exploitation of the territory. The perception of the importance of territorial valorization seems evident from stakeholders' perceptions of the opportunities the NoRs present for the promotion of sustainable tourism offers. The NoRs' role in environmental conservation is recognized, and they are credited with having raised local awareness (both among stakeholders and other residents) of sustainability. These results are in contrast with previous studies showing that Natura 2000 has been seen as an impediment to sustainable economic development [54,55].

Although the main aim of the NoRs has been linked with the valorization of natural resources, their didactic role in schools and local communities has also been very important. Socio-economic impacts include: the start-up of new micro-businesses, the formation of new associations, and the development of activities that valorize typical local products. The increase in interactions between local stakeholders has fostered the creation of new initiatives and projects which have also involved the development of innovative, sustainable tourist offers: natural resources are the pull factor around which the NoRs' offers are created, and the foundation for their educational and environmental interpretation activities. These results show high levels of participation in the NoRs, whereas previous evaluations of participation in Natura 2000 have demonstrated low participation rates [56–59]. Stakeholders mainly participated in projects on biodiversity and habitat conservation and, the great majority of them considers local management of protected natural areas as the most important aim of the NoRs. This indicates the effectiveness of participation practice in increasing acceptance of the Natura 2000 networks.

In relation to community participation and stakeholder engagement, moreover, our research has found high evidence of local involvement in NoRs activities, and growing stakeholder interest in consolidating this relationship through experimental activities and participation in new activities. The projects, meetings, and creativity workshops proposed by the NoRs have seen growing numbers of participants, as local awareness of the networks has increased. Stakeholder interest in NoR initiatives is evidenced not only in the broad participation in its projects but also in the forms of participation. These results indicate the "active" participation of stakeholders, going beyond operative activities. Involvement takes the form of both participation in projects and dialogue between the different categories of stakeholder. The creation of the NoRs has increased opportunities for dialogue on the development and management of the territories and their protected areas.

The activities proposed by the NoRs and the creation of innovative, sustainable tourist offers assume particular importance in relation to value co-creation. On the one hand, the involvement—right from the planning phase of the various activities—of the local community and of public and private stakeholders emphasizes the participation of the end-user in the definition of the offer, fully coherently with the principles of service-dominant logic. The local community is, indeed, the primary interlocutor and focus of the NoRs’ projects and activities. On the other hand, tourist offers which leverage the discovery of, and immersion in, the territory’s natural and socio-cultural resources, are intended to ensure that the territory itself becomes the main character of each holiday. The NoRs are therefore shown to be a resource to initiate socio-economic development which also impacts on the tourism sector. Sustainable tourism may go some way towards enabling protected areas to become self-sufficient, and thus encourage residents/stakeholders to support preservation measures [60], as mountain territories with an established tourist industry attempt to redefine their offers. The activities and projects realized by the NoRs allow territories to respond to these requirements by creating innovative, sustainable tourist products. The valorization of territories as sustainable tourism destinations presents itself as a valid alternative to more established mountain tourism offers (such as those based on skiing,
or traditional hiking activities). These considerations become particularly challenging for mountain territories in which tourism is still marginal and/or latent, as in some of the areas involved in the NoRs, and, indeed, happens in many Alpine destinations. For these destinations, sustainable tourism offers aimed at specific market niches can provide a valid alternative to the quest for more traditional, mass tourism, based options.

In terms of social development, the research demonstrates that the NoRs have helped local communities and stakeholders to experience collaborative work methods and to adopt participatory decisional processes. The fact that stakeholders consider the local management of protected natural areas to be the most important objective of the NoRs corroborates the effectiveness of a well-organized participation process in winning acceptance for the Natura 2000 networks.

The social impact of the NoRs can be attributed primarily to their capacity to create networks and dialogue between local operators, incentivizing collaboration and diffusing conflict. The NoRs have facilitated the creation of “round tables” where stakeholders from the various categories, who had never previously had the opportunity to get to know each other, have made contact. The networks have acted as mediators between the various actors, facilitating dialogue and synergies. Stakeholders have collaborated on both the launching of new projects and in searching for solutions to specific current issues. The bottom-up mechanisms have been well managed, ensuring high levels of participation and facilitating dialogue between the various—private, public, institutional—actors. Overall, these results reveal well-organized and meaningful participation, involving all the relevant stakeholders and empowering the participants. Previous studies have identified this perceived empowerment as key to increasing acceptance of the Natura 2000 network [61]; the fact that stakeholders were, in general, satisfied with the NoRs confirms this finding. Our respondents considered biodiversity protection to be a priority for the NoRs, and there were few complaints about actual or potential limits imposed by Natura 2000. The NoRs are seen not as an impediment to economic development, but as a driving force behind the sustainable development of the area.

Another research aim is thus validated: participation in the projects, entailing mechanisms of social innovation within the community, has led to the formation of new relationships between local actors.

The literature shows that low level, poor quality public participation, negative perceptions of the planning and management of Natura 2000 sites, government agency inflexibility, and inadequate consideration of specific local contexts have been the major impediments to the functioning of the Natura 2000 network [62]. In Trentino, the new way of managing Natura 2000 protected areas through Networks of Reserves has proved successful in overcoming these obstacles.

5. Conclusions

This study evidences the perceptions, and levels of awareness, of local stakeholders with regard to NoRs; it investigates the role and activities of these networks, and their perceived economic and social impact. The results that emerge sometimes confirm those of previous studies, and sometimes contradict them. Overall, however, new evidence revealed by the research offers an original contribution to the study of themes of interest to the academic community. From this perspective, the objective of conserving and valorizing the territory generates activities aimed at tourists, visitors and residents alike. These activities are sustainable, consistent with the nature-based tourism approach, and intended to be educative and enable environmental interpretation; they do not aim to the mass tourism market, which involves the superficial exploitation of the territory, but at people who want to learn about the territory they are visiting, or in which they live.

Our research themes have only been investigated in Trentino since nowhere else in Italy has yet invested in the preservation and valorization of natural resources and protected areas through the new managerial approach of the Networks of Reserves. The research has focused particularly on the impact to date of the NoRs, as perceived by public and private stakeholders and the local community. The next research stage, currently in progress and nearing completion, involves an analysis (using
Choice Experiments) of residents’ and visitors’ preferences, in term of benefits, with regard to the management model and actions of the NoRs. A better understanding of the benefits that stakeholders’ may derive from natural resource management will usefully inform the setting of priorities at the local level [63].

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Conflicts of Interest: The authors declare no conflict of interest.

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