

### Human uses and potential conflicts at Asinara National Park (Italy)

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The conservation of natural environmental are regulated by two acts: Act no. 979/1982 on the sea defense and Act no. 394/1991 on protected areas. The first one included provisions on 1) the design of a strategy plan aimed at defending the coastal zone from pollution, 2) the design and operation of a strategy plan for regulating navigation in domestic waters, and 3) the establishment of marine reserves. The second one is however the first systematic and completed instrument in Italian legislation aimed at conservation the natural heritage. Furthermore, Marine Protected Areas (MPAs) and National Parks (NP) are considered one of the most effective tools in promoting the preservation and conservation of the marine environment as well as sustainable development, providing social and economic benefits to local communities. However, without effective management, protected areas are unlikely to achieve the high expectations of conservation and development and have been often criticized for leading to negative social, economic, cultural and political impacts to local communities.

Yet MPAs are not always well-accepted, in part because they do not always achieve the outcomes that are expected and the success of a protected area depends on the local perceptions of socio-economic and ecological outcomes as well as on the perceptions of the effectiveness and quality of management and governance policies, institutions, and processes. Furthermore, the designation of national park often leads to conflicts between local communities and managers. The study aims to identify and analyze existing and potential conflicts between park management, use, local population and their activities.

#### Description

Asinara National Park (Sardinia), officially founded by Italian Law no. 344/1997, includes all the surface above water, the small islands within 1 km of the coastline, except Isola Piana. The Republic President Decree of 3/10/2002 and Ministry Decree of 13/08/2002 established the Protected Marine Area of Asinara (10,732 ha with 79,64 km coastline length). Despite its recent foundation, a growing trend in tourism demand and in visitors of all types has been recorded.

#### Method

The geospatial modeling approach we develop was tested at the National Park of Asinara island, which requires the planning of marine and inland space. Specifically, we use Geographic Information Systems (GIS) to map potentially competing stakeholder values associated with the different zones of the park. By overlaying multiple values associated with a range of stakeholders across space, we try to identify hotspots of potential conflicts as well as areas of opportunity for maximizing joint gains.

A questionnaire will analyze the different types of human activities to identify conflicts and overlaps. The weighting factors of each human activity will be done by consulting experts. This analysis will then be used to produce maps into geographical information systems (GIS) to model the complex interactions among multiple pressures and to elaborate potential future scenarios, representing thereby an important decision-support tool.

*Per favore descrivi la tua visione di quello che sarebbe un Parco Nazionale dell'Asinara di successo. Completa la seguente frase: Secondo me, l'ANP sarebbe un successo in futuro se / quando ...*

più promozione e possibilità di maggiore ricettività

Aprire il parco a residenti e ripristinare le vecchie economie pastorali, agricole etc. senza eccedere nello sfruttamento.

ND

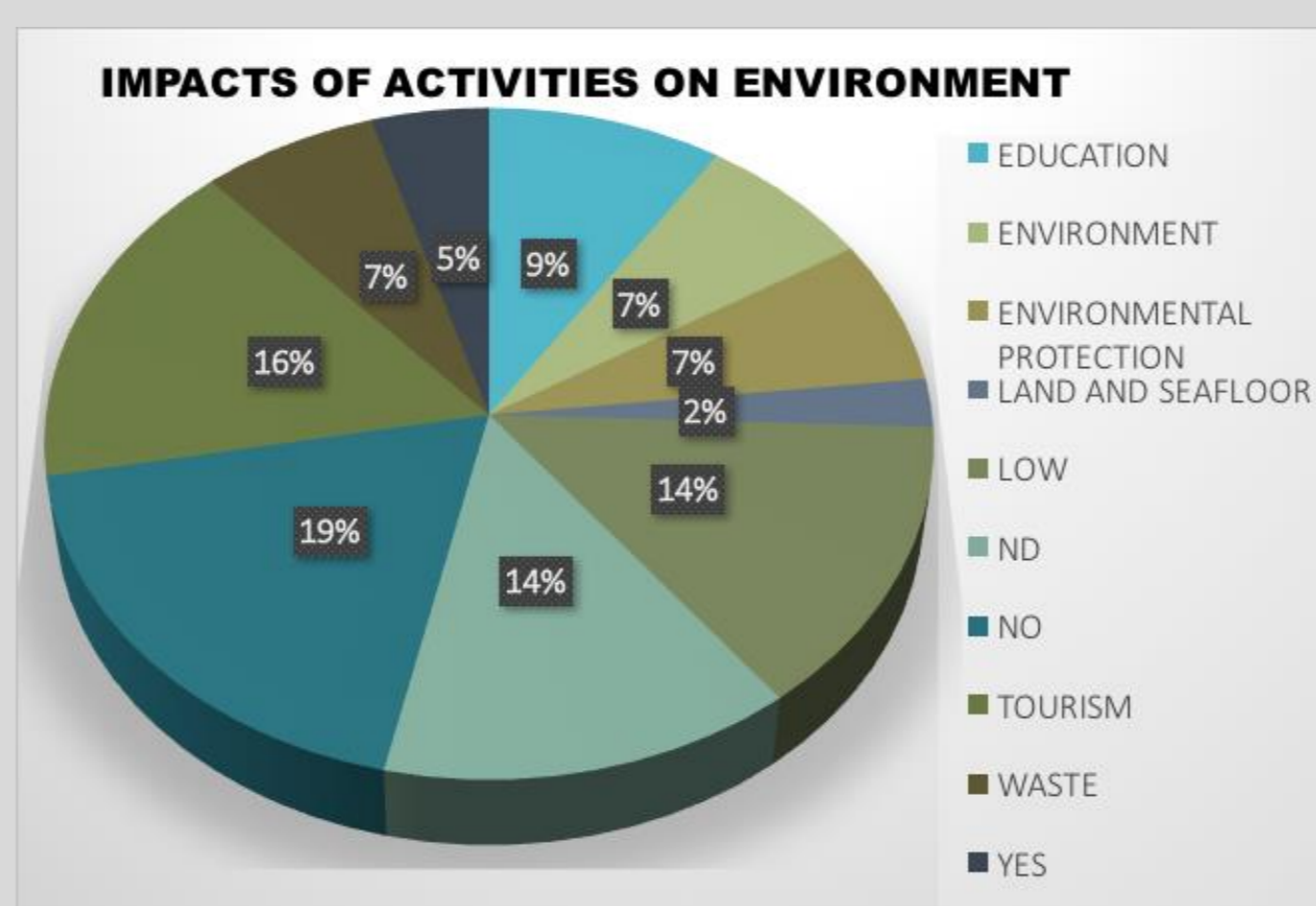
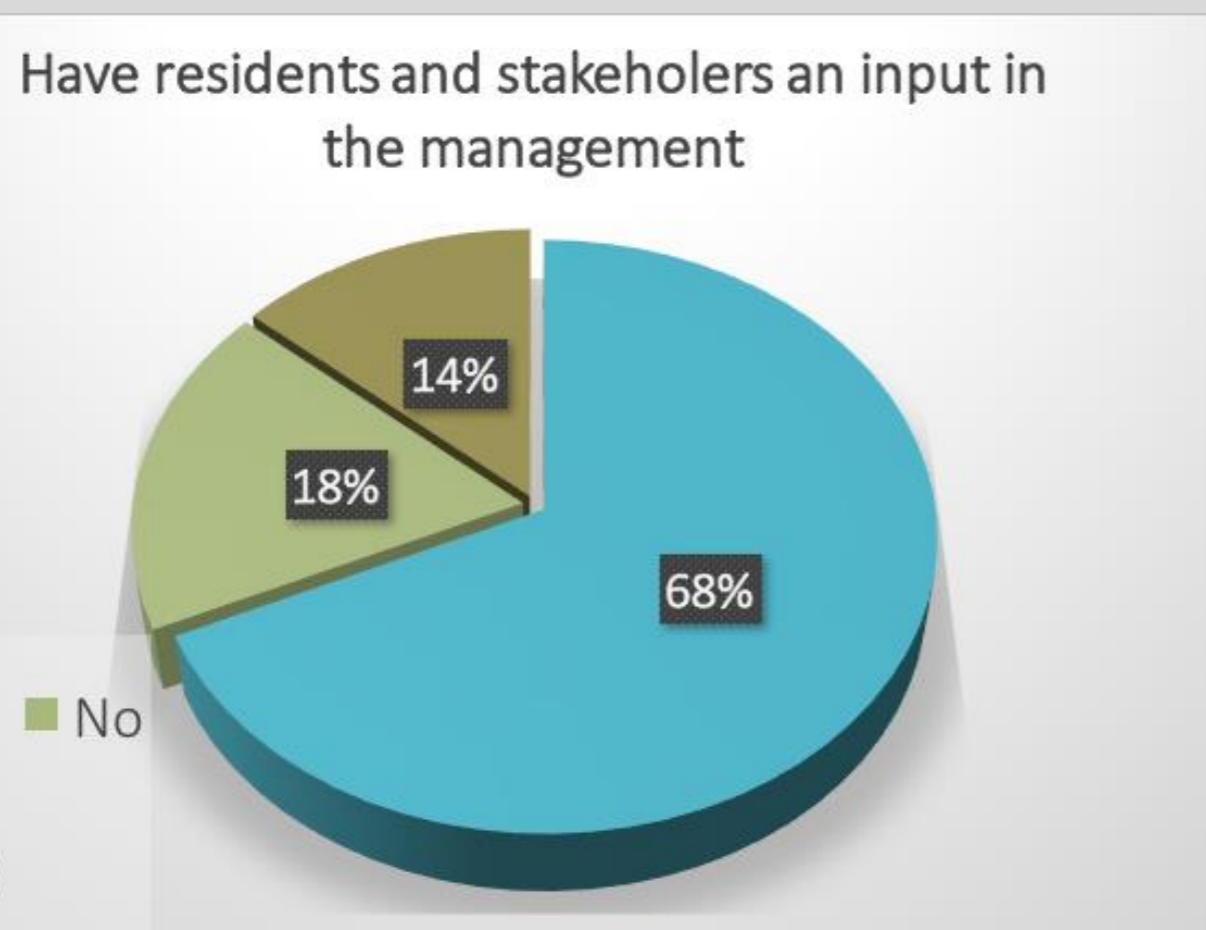
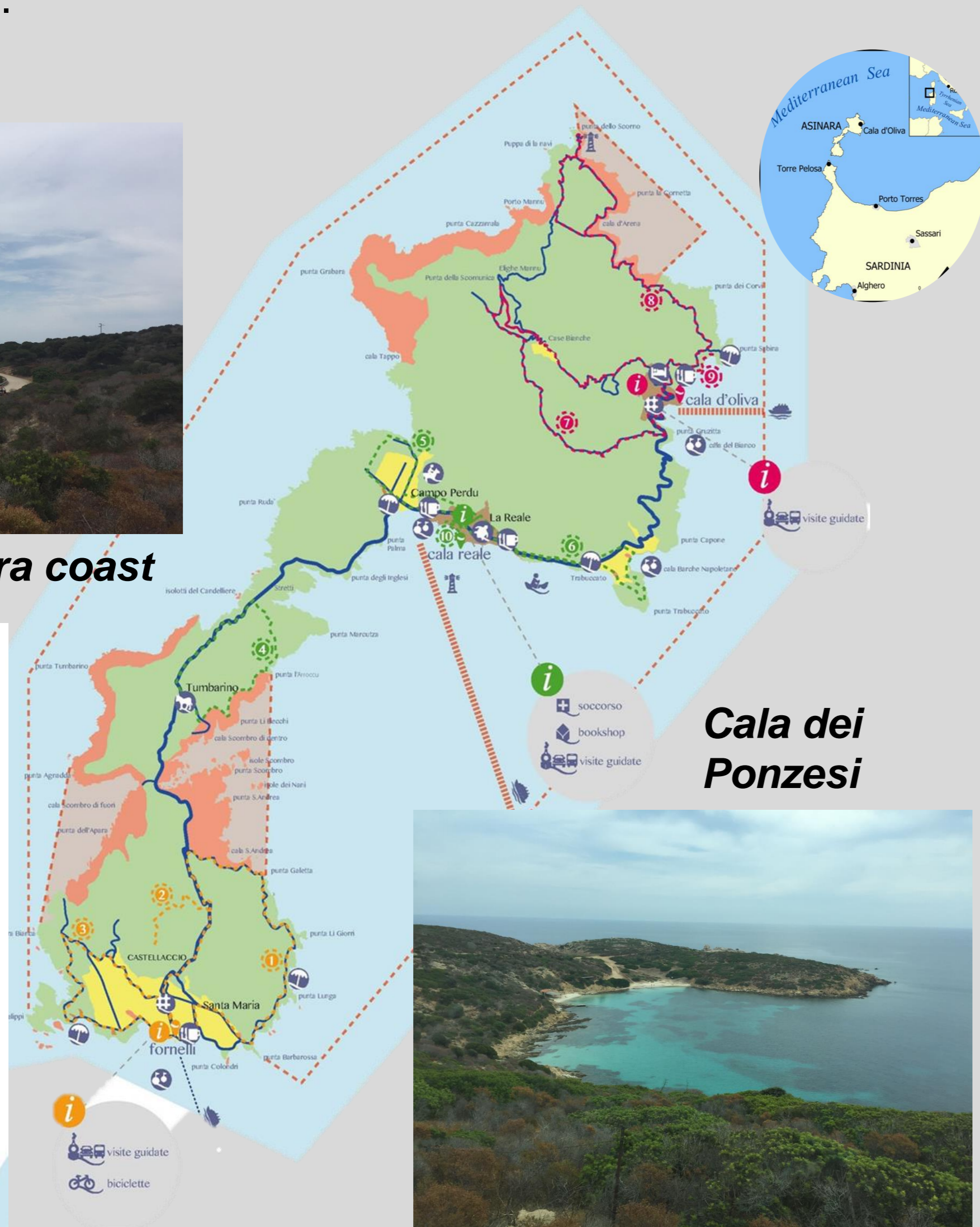
Se tutti gli enti che sovrintendono alla gestione si sedessero ad un tavolo e ognuno si prendesse le proprie responsabilità

si saranno controlli h24 x12 mesi soprattutto in AMP / quando si accorgeranno sarà troppo tardi.... il successo ci sarà quando ci sarà una presa di coscienza e di responsabilità a tutela del territorio, abolizione della pesca.



Bus along Asinara coast

- ZONA A**  
zona di eccezionale interesse naturalistico e ambientale. Non è consentito l'accesso neanche a piedi se non per operazioni strettamente legate alla gestione, ricerca, vigilanza e soccorso.
- ZONA A MARINA**  
zona di riserva integrale, non è consentito l'accesso. Sono consentite solo azioni strettamente legate alla gestione, ricerca, vigilanza e soccorso.
- ZONA B**  
zona di rilevante interesse. Costituisce il vero e proprio Parco e rappresenta quasi il 90% dell'intero territorio dell'isola. In quest'area è consentito tutto ciò che non reca disturbo alla natura, all'ambiente e al paesaggio.
- ZONA B MARINA**  
zona di riserva generale, sono consentite le attività classicamente esercitate nelle aree marine (diving, bilineazione, navigazione a vela o remi, pesca professionale autorizzata, snorkeling, pescaturismo, ecc...). parametro meno restrittivo.
- ZONA D**  
a vocazione urbana.



#### Preliminary results

44 stakeholders participated to the interviews (60% female, 40% man)

Most than 90% are informed about the legal aspects of the park and protected area the legal

They acknowledge that the park allow to protect the species, habitat and ecological processes important for the conservation

72% of the stakeholders recognize that the park provides economical advantages to the local communities, and 67% indicate that stakeholder contribute to the park management. Only 50% report that visitor's infrastructures are adequate.

The most important resource is the environment.

Stakeholder's activities have low/medium impact on the environment BUT beach and sea floor as the most threatened

Conflicts seem to be at a low level but different conflicts exist: management, economical interests, environment and conservation

Different visions of successful park and solutions have been proposed by the stakeholders, indicating a disagreement between them (strong conservation vs more tourism and activities)

#### Conclusions

A key element for the sustainable management of the Asinara is equitable participation local actors by implementing effective methods and tools. Questionnaire regarding the identification of uses and conflicts of the natural resource at the Asinara National Park has been administered to the various categories of stakeholders defined to include all categories potentially involved and interested in the park management. Before the submission of the questionnaire, a public event illustrated the importance of their collaboration for building a new vision of management through the realization of map (in GIS) of conflict and overlapping uses.

Preliminary results highlight the difficult of developing local collaboration, but we expect that the results will help policy-makers and local institutions to adopt a participatory and shared process of local development compatible with the functions of a National Park.