Case 9: Baiso - A study of a mineral and landscape route for the touristic development of the region

This good practice case responds to identification of actual and potential land use and on assessment of the integration of social aspects, tourism and civil society involvement (SLO).

Minland Good Practice Stream Topics:

A) Data assessment and use in policy formulation and land use planning
B) Identification of actual and potential land uses
G) Assessment of integration of social aspects and civil society involvement

Authors: Christian Marasmi (christian.marasmi@regione.emilia-romagna.it), Regione Emilia Romagna

Part 1: Case Overview

1.1 Executive summary

The case study is about the identification of actual and potential land use in Baiso municipality with the aim of a new touristic development of the area. In the area, in fact, coexist several different land uses: closed quarry activities, MAB UNESCO site, geological heritage sites and agricultural area. All these different land uses are managed by the local and provincial land use plan, and, for the mining sector, by the local and provincial mining plan. The study for the development of landscape and mineral route in Baiso municipality, settled together with public authorities and civil society, has the objective to change actual land uses modifying the current planning instrument, in particular the municipality mining plan (PAE), proposing a new use of the mining areas connecting them with a touristic route.

1.2 Overview of Key Good Practice Aspects and suggestions

Study for a mineral and landscape route in Baiso municipality

- Element 1: Mapping the geology of the area with references on potential geological heritage.
  Suggestion for transferability: Create a working group of local experts, university and public authorities' expert.

- Element 2: Mapping the flora and fauna of the area.
  Suggestion for transferability: create a working group of local experts, university and public authorities' expert.

- Element 3: Mapping the closed quarries area looking at their potential future touristic uses
  Suggestion for transferability: Consider the restoration of single quarry has part of a more complex system.

- Element 4: Proposing a modification in the municipality mining plan.
  Suggestion for transferability: Involving relevant authority from the beginning will help the process of modification of legislation at the end.

Stakeholder involvement

- Element 1: Stakeholder involvement during the study development.
  Suggestion for transferability: the stakeholder involvement has to start from the beginning of the study/project.

- Element 2: Raising of public awareness of the touristic potential of the area
  Suggestion for transferability: raising awareness is a focal point to increase the social acceptance of the study/project.

1.3 Mineral resource groups

Aggregates

Industrial minerals

Part 2: Case description

2.1 Case description

The municipality of Baiso, with regional funds coming from mineral exploitation fees (see chapter 2.4) , has developed, together with the Emilia-Romagna Region, a study of a mineral and landscape route that will increase the attractiveness of the area proposing modification of the current planning instrument, in particular the municipality mining plan (see chapter 2.4).

The Minland case aim to increase the touristic attractiveness of the area and to finalize the restoration project of the closed quarries. The creation of a touristic route, in fact, has determined changes in land uses/access permit on land where the route is mapped. In particular, the route will pass on area defined by the current mining as potential suitable for mining activities. To let the route pass, these areas must be deleted from the municipality mining plan (see chapter 2.4) to bring them back to their previous land use. As for any other changes in a local plan, this process involves an institutional board composed by Region, Province and Municipality itself.

The mineral route study has been developed within a working group composed by the Emilia-Romagna Region, the Province of Reggio Emilia, the Regional Civil Protection Agency, the Baiso municipality, the University of Modena and Reggio Emilia, and with an external support of technical experts and stakeholders.

2.2 Responsible institutions

- Emilia-Romagna Region (financing partner, responsible for planning modification)
- Reggio Emilia Province (financing partner, responsible for planning modification)
- Baiso Municipality (Executive partner, responsible for the stakeholder involvement, responsible for the study working group).

2.3 Case stakeholders

Some partners, not directly involved in the modification of planning instruments, are getting involved for the development of the study, in particular the Regional Civil Protection Agency, the University of Modena and Reggio Emilia, local enterprises, citizens, experts.

2.4 Context

Baiso municipality (Reggio Emilia Province) is in the northern part of Italy. Historically, Baiso area was one of the most important exploitation site for the ceramic industry of Sassuolo. The area is characterized by cretaceous clays ("Varicolori" clays) where, in the past, were established quarry activities for the ceramic industry of Sassuolo district. Due to a crisis of the market most quarries get closed. Moreover, this type of clays determines a spectacular landscape characterized by colored gullies and by natural environment of high value. This is the reason why the area is part of MAB Unesco site, a Regional park and a Landscape regional heritage.

Regarding the mining legislation, Italy has a decentralised regime and each region has its own relevant regional laws (RL) regulating extraction and environmental permitting procedures. The Emilia Romagna Region was one of the first region in Italy to implement a mining law and to develop a wide-area mining planning; some important regional laws are RL of 18 July 1991, n. 17: rules on mining activities, RL 3/99 delegating to the Province and Municipalities the authority for mines and quarries, RL 9/99 for EIA, and RL 20/2000 on Spatial Planning.

In Emilia-Romagna Region the principal mining planning is delegated to Province, which elaborates the Infra-regional Plan for Extraction Activities (PIAE). PIAE, above all, defines the need for every specific material (clay, sand, gravel, stone, ….) inside the province, this evaluation is based on the statistics concerning building activities and on the statistics concerning extraction activities in the past years. When the needs are calculated PIAE also defines the specific areas where all the materials should be recovered, allocating to every area the maximum amount of material that can be extracted. These areas are chosen from a list of potential sites mainly by a Strategical Environmental Impact Assessment (VAS), that deeply evaluates all the impacts of the mining activities on the environment (land use planning, geology, underground water, pollution,…), in respect of the economic and social needs. PIAE also includes the general rules for the exploitation of the resources.

After PIAE is approved every municipality involved in the planning has to elaborate a local Plan for Extraction Activities (PAE). The PAE, which is part of the instruments of land use planning of the municipality, gives details about the areas and the rules defined by PIAE and can add further areas in a range assigned by PIAE.

The mining company pays a tax for the extracted material depending upon the material. 80% of the tax goes to the municipality, 15% to the Province and 5% to the Region, which, due to the regional law 17/91, uses this money for activities concerning recovery of abandoned quarries, studies and development of instruments for the management of data deriving from the mining activities. The Minland case study is financed by Region and Province using such kind of funds coming from exploitation taxes.

Part 3: Case Evaluation

3.1 Impact achieved

The study of a mineral and landscape route in Baiso municipality contributed to the Minland Good Practice Stream topic point B and G:

- Creating a local awareness on the touristic potential of the area
- Updating the description of geology, flora and fauna heritage of the area
- Proposing a new uses of closed quarries, both under restoration or not yet restored
- Proposing a change in the local mining plan, together with the involvement on public authorities and local stakeholders

3.2 Good Practice Aspects: Elements and their transferability

GOOD PRACTICE ASPECT 1: Study for a mining and landscape route	
Key elements (of Good Practice Aspects)	**Suggestions for Transferability (of Key Elements)**
Mapping the geology of the area with particular references on potential geological heritage: the working group, set up by the Municipality together with the support of the Region, updating the geological knowledge, has found new geological heritage areas, sometimes revealed by the exploitation activities themselves. All this new layer of information has been implemented on a GIS as part of the regional geological database. The connection between these new areas is the core part of the new mineral route.	**Create a working group of local experts, university and public authorities' expert.** The creation a working group composed by experts coming from different sector was the first step to achieve the final goal of the project/study. Bringing together experts with different background, knowledge of the area, sensitivity in reference with some topics, will help to propose to the general public (if a stakeholder engagement is foreseen) whole comprehensive and interdisciplinary project/study. The working group shall combine desk activities with several number of field visits, in relation to the complexity of the study/project foresee. The working group must be composed by person coming from relevant authorities for the implementation of the project/study and from local expert individuated by the territorially competent local authority (in this case the municipality) with public tender.
Mapping the flora and fauna of the area. As done for the geology part the working group has some expert on flora vegetation and on fauna mapping. The study done has determined the discover of new elements of protected flora never individuated in this area. At the end a detailed map of flora was made on GIS to update MAB UNESCO heritage site characteristics.	**Create a working group of local experts, university and public authorities' expert:** see description above.
Mapping the closed quarries area looking at their potential future touristic uses: together with the mapping of relevant natural aspects, the study has a particular focus on quarries areas not more exploited. Some of them area already under restoration (due to regional law 17/91), others, oldest than the law, are not yet recovered. A more comprehensive analysis of the final destination of those area has made at municipality level involving both owner of land and public authority. The new touristic route will be the link between closed quarry areas creating synergy between them and boosting the restoration where was not yet done.	**Consider the restoration of single quarry has part of a more complex system.** Where it is possible restoration must be an opportunity for the relevant authority to change land uses to improve the performance for the whole area targeting to a specific goal (touristic destination, natural destination etc.). Fundamental in this work is the local stakeholder engagement.

GOOD PRACTICE ASPECT 1:

study for a mining and landscape route

Key elements (of Good Practice Aspects)	Suggestions for Transferability (of Key Elements)
Proposing a modification in the municipality mining plan: the municipality mining plan, as part of more generic land use plan, defines some area for the exploitation, defining the amount of material can be extracted, the duration of the authorization and the final restoration. If some areas are returned to their original state, for example agricultural, the total amount of extractable material foreseen by the plan, can theoretically be moved to another area already planned. In this case, the new mineral route will pass in an area previously marked as area of potential extraction. Changing the state in the mining plan (erasing the area) will give this "potentiality" to another area, much more interesting from an economic point of view also for the private company working there. On one hand we increase tourism and natural protection use area suitable for exploitation, on other hand we concentrate all the impact of exploitation activities in one single area.	**All the relevant authorities have to get involved in the process.** The working group that contributed to the success of the case, was composed by representative of authorities that will be responsible for the adoption of the plan modification. This constitutes a suggestion for similar cases with, as involving relevant authority from the beginning will help the process of modification of legislation throughout the process until the final step.

GOOD PRACTICE ASPECT 2:

Stakeholder involvement

Key elements (of Good Practice Aspects)	Suggestions for Transferability (of Key Elements)
Stakeholder involvement during the study development: the involvement of civil society during the study development let the final result share and accepted by the local population. First the working group has presented the background analysis of the area to the population, showing them the criticality and the enabling factors for increase the touristic awareness. In an open public discussion people were let to propose some idea in the framework of the general objectives presented by the municipality. A second meeting was finally made to present a first draft result of the mineral route. At the end, was printed and donated to the population a book that tell the beauties of the area and the results achieved during the mapping phases.	The stakeholder involvement has to start from the beginning of the study/project, to have people motivated to participate. First step is to give them all the background analysis (maps, bibliography, etc.) made by the working group. This will help them to be confident and participative to the stakeholder involvement process. Be transparent give you the legitimation to work and to proceed in the study/project. Second step is to let them feel listened to by the public authorities, involving them in field visit, open meeting, web discussion. Finally, the results achieved by the project/study has to be share again to the population.
Raising of public awareness of the touristic potential of the area: several events in particular addressed to school and teachers help them to improve their knowledge of the territory, in particular on geology aspects and flora/fauna heritage.	Raising awareness is a focal point to increase the social acceptance of the study/project. Involving children is the fast way to increase it. Teachers or environmental associations/NGOs often have different instruments and outreach activities to involve even young children, e.g. field geology laboratories, flora and fauna observations etc.