



CIRAN WP2 Case Study Selection Series Monte Tondo, Italy

The gypsum quarry in Monte Tondo is located in the Vena del Gesso belt in the Emilia-Romagna region and has been operating since 1958. Monte Tondo is adjacent to an area recognized as Natura 2000 and UNESCO site only long after the quarry began operations. The natural park is not included in the quarry site, as operations in natural parks are not allowed.

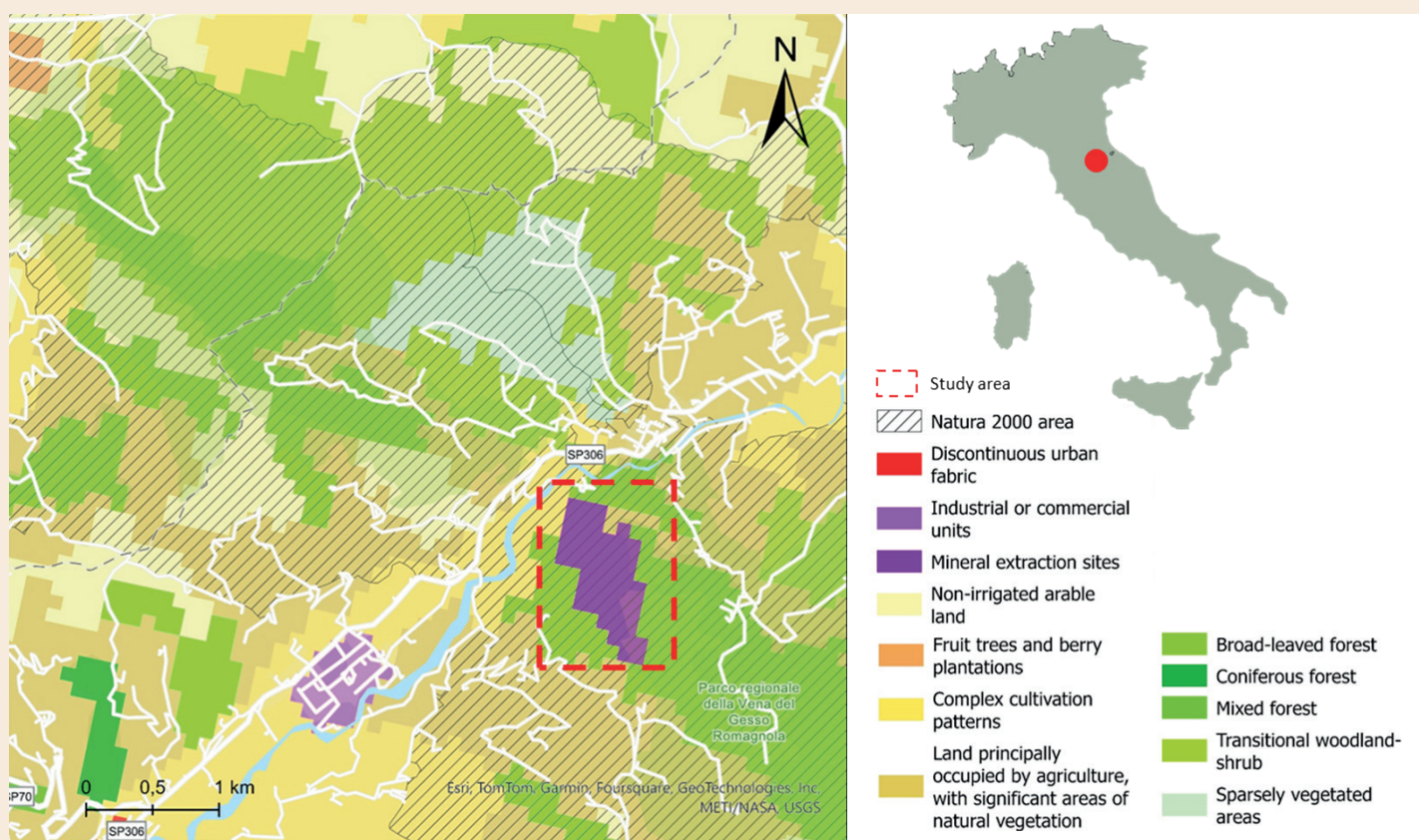


Fig 1. Overall geographical localization. Corine Land data cover classification 2018 + Natura 2000 map (EEA) and extractive activity area.



The operation by itself is supported by local municipalities because of its socio economical relevance. Disagreement emerged by conflicts with UNESCO denomination and its perimeter. Other concerns referred to geomorphological and geohydrological aspects and to the methodology of extraction while some environmental associations and speleological association opposed the continuation of the extractive activity.



It is considered one of the main gypsum extraction sites in Europe and is the only active quarry of gypsum in the region.

The minerals, mining areas and volume of extractable minerals are defined at regional level as well as regional territorial and landscape plans. Differences between the regions are possible and in Emilia-Romagna region Province Mining plan is part of the Land use plan where the area is zoned for extractive activity. For II category material (as Gypsum) the competent authority for extraction authorization is the Municipality.

The EIA necessary for the authorization in Natura 2000 areas contains a background analysis of whole environmental characteristics (geology, hydrogeology, fauna & flora, landscape etc.) Habitats are used for the definition of protected area. Some buffer zones are connecting the protected area with the unprotected one. Exploitation cannot occur in protected areas and in this case the protected area has been delineated outside the extractive site. The monitoring of extraction activity must fulfill the rules defined by the Park monitoring plan. A final restoration plan is requested by the Province mining plan.



Concerns about possible impacts have been solved during permitting process. Classical mining methods are applied in the mine because of the costs but measures for dust reduction by water showers are in place. To reduce visual impacts, a visibility protection barrier was built with not used materials. Several compensatory measures are foreseen, in general are voluntary as part of contract between the permitting authority, the park and the enterprise. i.e. public works maintenance, bicycle route, environmental projects etc. Activities as monitoring and study of local population of bats inside the ancient quarry galleries and accessibility to King Tiberio archaeological site by the enterprise are some examples of compensatory measures adopted.



Fig 2. View of the quarry



The company engage with the community with open days and promoting transparency and represents a strong economical source for the locals.

The park and the mining activity can develop thanks to the involvement of regional and local entities in the decision and management of the park bringing to the table the several aspects and needs to be harmonized.

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