



# Ribera del Ebro, Navarra, Spain

## Mining and environmental planning: balance between capability and vulnerability for mining



This case is about the assessment of the potential for exploitation of known resources

### SCALE

Sub-regional

### EXTENSION OF THE PROJECT

350 km<sup>2</sup>

### TYPE OF MINING

Open-pit mining

### MINERAL RESOURCES

Aggregates

(sand and gravel)



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The Autonomous Region of Navarra has a great aggregate consumption (above the European average) and it is a net importer of this kind of materials. Pressures on the environment due to aggregates exploitation are elevated. Due to the proximity of the exploitation areas to the rivers, the occurrence of conflicts with other land uses is very likely. In addition, the agri-food sector is one of the most important engines of the economic development of the region, both in terms of agricultural production, as in weight of the industrial sector oriented to the packaging and transformation, and the wine industry. The production of vegetables (many of them protected by designation of origin) is also important. In this context, the land-use planning project is an essential tool to make compatible these land uses. The methodology applied in the project is exportable to any other region, especially where aggregates exploitation exists. The principal work is the establishment of a balance between the environmental sensitivity to mining, and the potential for the development of this activity. The final product is the Mining-Environmental Planning Map, which shows areas with different categories of exploitable resources (with three different levels of priority) and environmental protection zones in which mining is not recommended. Two main factors were the key to success: the collaboration of the authorities and institutions involved and the great availability of information in the study area.

