

SUSTAINABILITY AND DESTINATION MANAGEMENT

The Impact of Human Activities on Dolines – Typical Geomorphological Features in Karst and Possibilities of their Preservation

Anica Cernatič Gregorič, Mojca Zega

*Institute of the Republic of Slovenia for Nature Conservation, Regional Unit Nova Gorica,
Delpinova 16, 5000 Nova Gorica, Slovenia*

Dolines are natural enclosed depressions in karstic landscape, usually subcircular in plan. They are a few metres to about a kilometre wide and mostly a few metres to tens of metres deep. Their sides range from gently sloping to vertical and overall form is pan-shaped to conical or even cylindrical. Dolines form in terrains underlain by carbonate rocks where specific physical and chemical processes take place. Therefore dolines are considered localities with specific geomorphological, geological, hydrological, pedological, ecological and climate characteristics.

Dolines are the most important source of fertile soil on water and soil impoverished karst land. Through centuries inhabitants have always considered dolines a significant part of traditional agricultural land-use and transformed them in accordance to their needs. Generally either small field was placed in the doline's bottom or small amounts of fertile soil were removed to improve the amount and quality of soil underlying domestic vineyards. This kind of use was ecological and sustainable without even knowing the meaning of these today so fashionable words at that time.

Despite huge social changes in the last 40 years that provoked radical changes in agricultural approach considerable fragmentation of cultivated and urban areas has somehow preserved, maintaining the general appearance of the karstic landscape. But in the last 10 years rapid and uncompromising development has affected the karst region seriously. Aspirations for spreading and increasing the capital brought forward short-term and excessive economics and junction of the European countries has given rise to several conflicts. Consequences are mostly seen in relief changing and disappearing of landscape features from among the most vulnerable are the dolines. Vast mechanical soil excavations are literally emptying the dolines and uncontrollable amounts of all kinds of waste produced as a consequence of big constructions going on in the area, are filling up the dolines daily.

Although dolines are a typical feature in karstic landscape the public and the scientific sphere pay little attention on their preservation and protection. Considering

the paradigm of sustainability the landscape and its landforms should in our opinion be classified as natural and cultural heritage and a non-renewable natural resource.

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