Epitome

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F I S T
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The Corniglio landslide area (PARMA, ITALY): EVIDENCES FOR A DEEP RE-LANDSLIDING OF Aober DISPERATI, Leonardo GIUSTI, Roberto BUONCONVENTI, Augusto BONONI, Lamberto DISPERATI Leonardo, GIUSTI Enrico, RINDINELLA Andrea, VIROIS Salvatore, GORI Stefano. 1 - Centro di Geotecnologie, Università degli Studi di Siena

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The Corniglio landslide (CL) is one of the most significant landslides in the Northern Apennines. Over an area of about 3 km x 1 km close to the Corniglio village (Pr, Italy). It is an active composite retrogressive landslide with a huge volume and heavy damage. Landslide movements occurred during the last century and the entire area is unsafe. A geomorphological survey and photogeological interpretation were performed along the main scarp and road. Landslides are characterized by a double layer of clays, which are frequently and deeply saturated. The landslide is mainly affected by the occurrence of soft clays, which are often affected by water. The geotechnical properties of the materials are variable, ranging from medium to very low strength. The main soil type is a clayey loam, with a high plasticity index. The landslide contains a large number of young and old landslides, with a complex and irregular shape. The area is characterized by a very high density of buildings and infrastructure, which are at risk of damage.

The Corniglio landslide is a typical example of an active landslide, which is characterized by a complex geometry and a high risk of failure. The geotechnical properties of the materials and the hydrogeological conditions are the main factors that determine the stability of the landslide. The Corniglio landslide is an example of the importance of geotechnical and hydrogeological investigations in the study of active landslides.