In southern Spain, the torrential nature of the rainfalls alters the soil water availability for vegetation and, consequently, its spatially and temporally pattern. This fact, combined with the current global warming, raises a modification of the eco-geomorphological processes dynamics in Mediterranean areas.

**Aim:**
- This study analyzes the dynamics of the torrential rainfall and their incidence on the soil surface components (SSC) and water availability over the last quarter of the century.
- The study was carried out in the south of Spain along a Mediterranean pluviometric gradient (8 experimental areas with total amount of rainfall values that range between 1,100 and 240 mm/year).

**Impact on soil degradation factors of changes in rain intensity patterns in southern Spain**

**Ruiz Sinoga, Jose Damian(1); Hueso Gonzalez, Paloma(1); Sillero Medina; Jose Antonio(1); Romero Diaz, Asuncion(2).**

**Instituto de Geomorfologia y Suelos. Universidad de Málaga.**

**Departamento de Geografia. Universidad de Murcia.**

The results showed how the dominance of the biotic and abiotic factors was linked to the pattern of precipitation in each experimental site. In semi-arid conditions, it implies that abiotic factors acted as the main driver. Besides, it can be established to "rainfall threshold" for soil degradation around 500 mm/year. This was explained because of the presence of a higher soil moisture content.