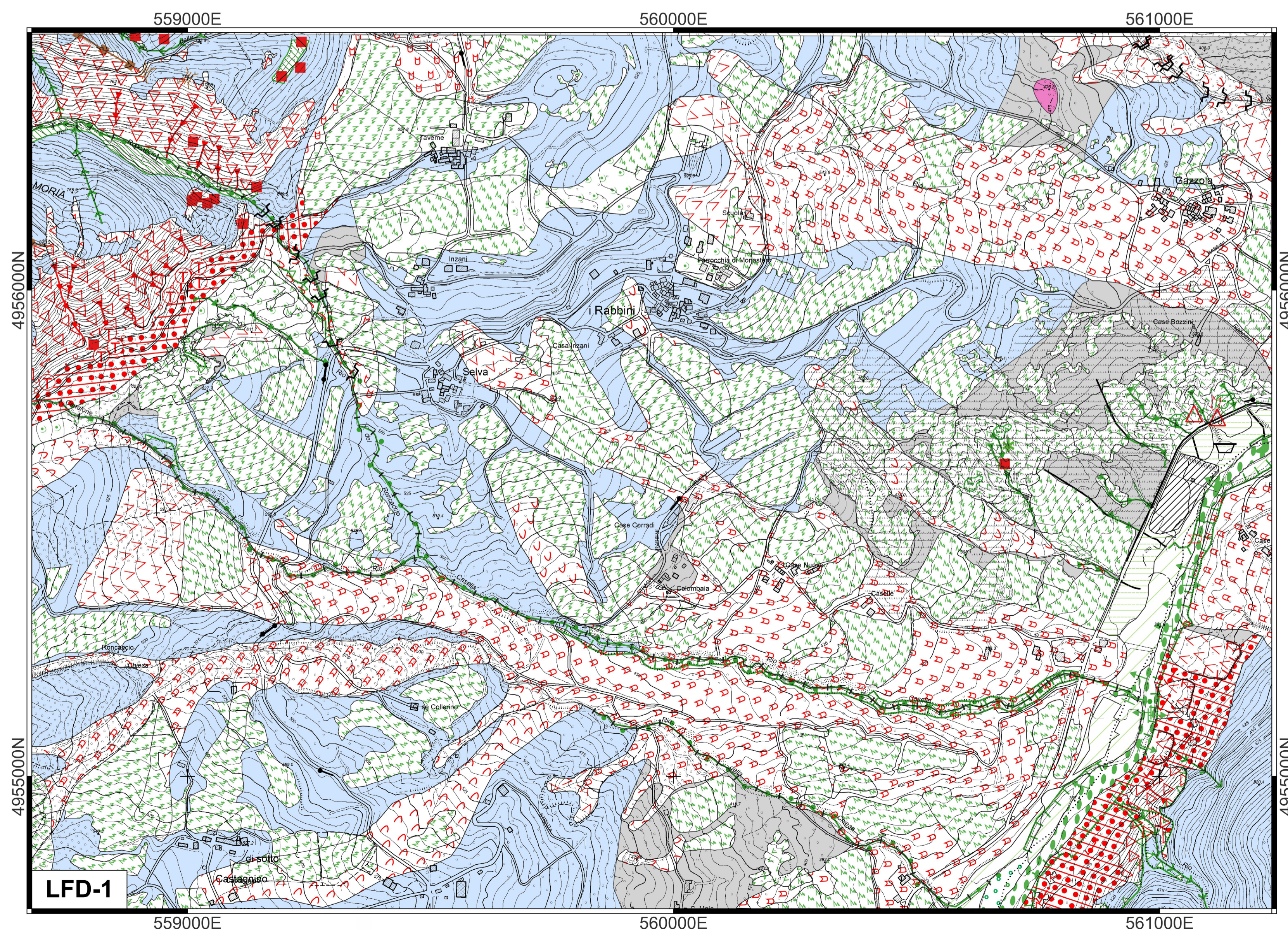
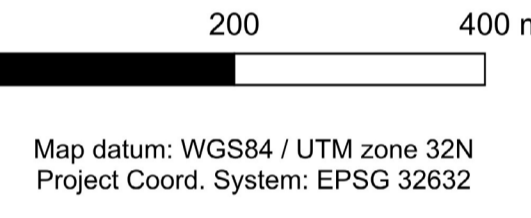
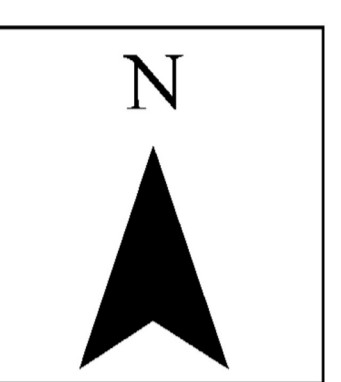
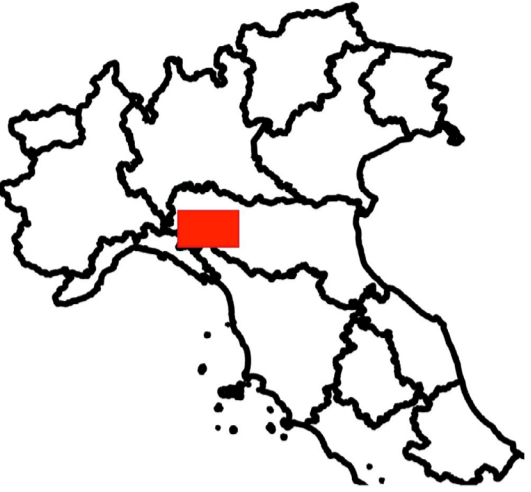
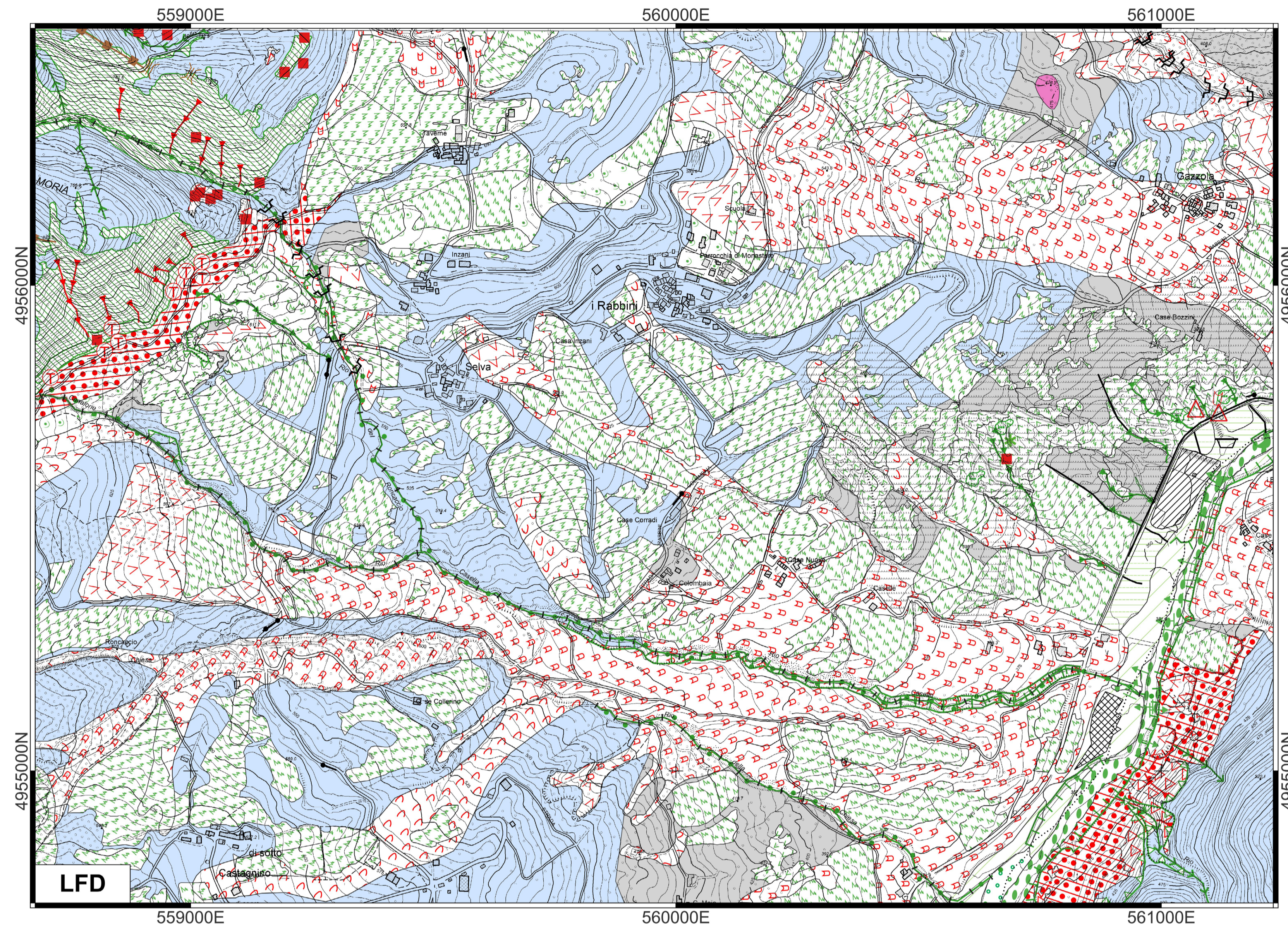
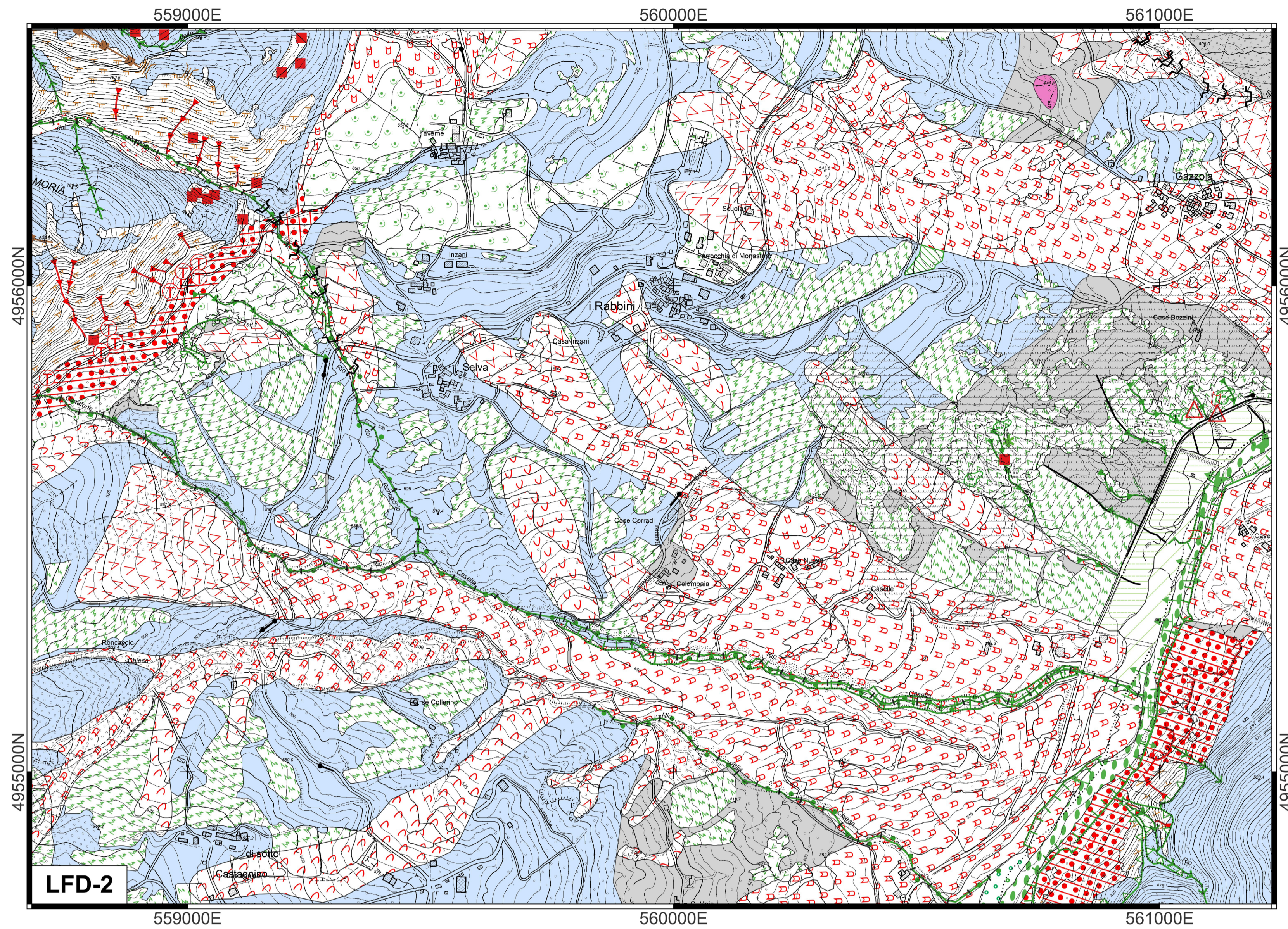


# Multi-strata geomorphological database (MorphDB): a methodological breakthrough in geomorphological mapping approach

## An example from the upper Arda Valley, Northern Apennines, Italy



### Legend

#### L&D\_points

- AN03-Abandoned quarry
- AN25-Check dam
- FD01-Peak
- FD19-Headward erosion knickpoint
- FD35-Piping erosion
- FD49-Point bar
- FD53-Lateral erosion
- GR22-Fall/toppling landslide body
- GR23-Undifferentiated landslide body
- GR30-Debris flow heaps
- GR33-Isolated fallen/toppled block
- GR36-Area affected by soil creep
- LS17-Saddle

#### L&D\_polyline

- AN19-Artifact protecting by landsliding/avalanches
- AN24-Artificial channel/artificially channeled waterway
- FD11-Gully/Barranco
- FD12-Scarp due to denudation
- FD13a-V-shaped small valley
- FD23a-Fluvial erosion scarp < 3 m high
- FD32c-Fluvial channel semi-alluvial
- GR01-Rotational/Translational main scarp
- GR18-Couloir with debris discharge
- LS06a-Selective erosion trench Strike ridge

#### L&D\_polygon

- AN02-Quarry/Mine
- AN11-Surface remodeled by agricultural activity or building industry
- FD06a-Surface affected by rill-interrill erosion
- FD06b-Surface with runoff forms
- FD09-Isolate calanco
- FD11-Gully/Barranco
- FD22-Fluvial erosion surface (relict)
- FD32b-Fluvial channel alluvial
- FD38-Floodplain and recent terraces
- FD39-Terrace surface (relict)
- FD44-Colluvial talus
- GR14-Rock wall affected by fall/toppling
- GR19-Rotational slide body
- GR21-Earth/mud flow body
- GR23-Undifferentiated landslide body
- GR32-Talus fed by rockfalls, toppling-falls and tumble
- GR35-Scree slope
- LS10-Structurally controlled stepped slope

#### BL\_polygon

- Interstratified rocks (sandstone-pelitic sandstones / marls-arenitic etc.)
- Marls
- Schists and ophiolitic rocks

Landforms' colour associated to the morphogenesis	
	AN: Anthropogenic landforms
	FD: Fluvial, fluvio-glacial and runoff associated landforms
	GR: Gravitational landforms
	LS: Litho-structural landforms

