

LANDSLIDES TRIGGERED BY THE 23-24 NOVEMBER 2000 EVENT IN WESTERN LIGURIA, ITALY

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From mid October to November 23rd 2000 the Western Ligurian coast was affected by intense rainfall. During this period, in the Armea Valley, north of San Remo, cumulative rainfall reached 800 mm, about 50% of mean annual rainfall. This already severe rainfall sequence ended on November 24th with a high intensity event that dumped 150-200 mm of rain in about 12 hours. The high intensity event occurred on steep and very steep slopes already saturated, locally probably even at depth, and triggered several hundreds soils slips and debris flows, and a few large, complex landslides. Landslides caused 2 casualties near Ceriana and severe damage to private houses and roads, and to the agriculture. A months and a half after the event, large scale, color aerial photographs were flown for a large part of the area affected by the storm. Analyzing the more than 250 photographs, taken mostly along the coast or along the main valleys, we prepared a preliminary landslide inventory map. The map was checked in the field at a few sites. We mapped a total of 1204 landslides, of which 91.7% were mapped as certainly triggered by the event, and the remaining 8.3% as probably triggered by the event. Preliminary results show that the size and type of failures triggered by the rainfall event differ significantly from the type and size of pre-existing landslides in the area.