

## LIQUEFACTION AND COMPACTION



**Figure A3.25** – Small liquefaction cones along fissures near the Belice River bridge, on the road for Montevago (Belice alluvial plain), produced during the 15 January 1968 Belice earthquake sequence ( $M_s$  5.9); Michetti et alii, 1995. The preliminary estimate of the Inqua EEE Intensity would be around VIII. Photo courtesy of M. Casirati.



**Figure A3.26** –liquefaction features in farmed land occurred during the 1976,  $M_s$  6.5, Friuli earthquake in northeastern Italy (from Siro, 1977). The preliminary estimate of the Inqua EEE Intensity would be close to the degree IX.



**Figure A3.27** – Ground failure (liquefaction of artificial embankment) along the seacoast during the 15 April 1979 Montenegro earthquake ( $M_w$  6.9). The preliminary estimate of the Inqua EEE Intensity is X. Photo E. Iaccarino.



**Figure A3.28** – Tilt of buildings at Kawagishi-Cho due to liquefaction following the June 16, 1964 Niigata (Japan) earthquake ( $M_s$  7.5). The preliminary estimate of the Inqua EEE Intensity is XI.  
Source: <http://cee.uiuc.edu/sstl/education/liquefaction/>



**Figure A3.29** – Liquefaction of soil and lateral spreading of saturated soft clay and sand in Anchorage during the Alaskan Earthquake of March 27 1964 (M 8.6). The ground dropped on the average of 11 meters and houses slid about 150 to 180 meters. This effect, which determined a widespread change of the landscape, can be evaluated of Intensity XII in the Inqua EEE Scale. Source: <http://cee.uiuc.edu/sstl/education/liquefaction/>



**Figure A3.30** – September 19, 1985 Michoacan (Mexico) earthquake (M<sub>s</sub> 8.0): backfill compaction in the harbour facilities of Lazaro Cardenas. The preliminary estimate of the Inqua EEE Intensity is VIII. Photo E. Vittori.