

Il dissesto geologico e geoambientale in Italia dal dopoguerra al 1990

VINCENZO CATENACCI (*)

RIASSUNTO

Il lavoro consiste nell'assemblaggio ed elaborazione di informazioni sul dissesto geologico e geoambientale in Italia sotto il profilo del dato quantitativo e delle interazioni sociali. Le categorie di eventi prese in considerazione sono i fenomeni idrogeologici, principalmente franosi e torrentizio-fluviali, di inquinamento degli acquiferi, sismici, vulcanici e bradisismici.

L'arco di tempo considerato è il quarantacinquennio compreso tra il secondo dopoguerra e il 1990. Nel primo capitolo sono ripercorsi gli eventi ordinati in successioni cronologiche per ambiti regionali. I territori di riferimento sono quelli provinciali e comunali, accompagnati – ove reso possibile – dagli elementi certi di ulteriore localizzazione quali frazioni, corsi d'acqua, laghi, monti, strade e quanto altro possa concorrere all'individuazione del sito nel bacino o sottobacino idrografico. Nel secondo capitolo si è cercato di quantificare il costo sostenuto dallo Stato riferito al valore della lira 1990, e di ricostruire la distribuzione territoriale delle risorse finanziarie – esigue, abnormi o adeguate che fossero – che sono state rese disponibili. Viene anche trattato il costo in termini di perdita di vite umane. Il terzo capitolo è dedicato a comporre dati di sintesi. Le informazioni utilizzate non rappresentano il prodotto di un censimento esaustivo; i dati, pertanto, sono sempre approssimati per difetto, anche se si ritiene che formino una documentazione sufficientemente rappresentativa del livello accettato di vulnerabilità all'inizio del decennio 1990-99 dedicato – con risoluzione ONU – alla riduzione dei disastri naturali.

Parole-chiave: Dissesto, Frane, Alluvioni, Inquinamento degli acquiferi, Terremoti, Eruzioni vulcaniche, Bradisismo flegreo, Danni, Italia.

ABSTRACT

This paper contains the results of the elaboration of informations about geological and geoenvironmental failures from the point of view of the quantitative data and social interactions.

The classes of events considered are hydrogeological phenomena, mainly related to rivers, streams and landslides, groundwater pollution, seismic, volcanic and bradyseismic phenomena.

Only events occurred between 1945 and 1990 are considered.

Events, in the first chapter, are divided according to the region in which they occurred and listed in chronological order. Geographic location is given by the name of the district and town and, when it is possible, by other informations, such as the name of hamlets, streams, lakes, mountains and whatever else could help to identify the place in the hydrographic basin or sub-basin.

(*) Presidenza del Consiglio dei Ministri – Servizio Geologico, Largo S. Susanna 13, 00187 Roma.

Second chapter tries to determinate the total amount of the Government expenses (referred to lira's value in 1990) and to detect distribution of such resources in the Italian regions. It also explains the cost in lives lost.

Third chapter makes a synthesis of collected informations. Data utilized in this paper don't come from a complete census of phenomena; synthesis data are consequently approximate, but they are considered enough representative of the accepted vulnerability level at the beginning of the decennium 1990-1999, that U.N.O. consacrated to reduction of natural disasters.

From the global data we find that hydrogeological phenomena occurred in about 4.570 town territories (56,5% of total) involving more or less extended parts of 195.000 kmq (65% of total). Cost in human lives was of 3.488, of which 2.447 caused by landsliding, 345 caused by flooding and 696 with no specified cause (landsliding or flooding). Average was 6,8 dead/month. To repair damages, Government set apart 33.000 billions lire (average was 64 billions/month).

Groundwater pollution, depending only on the use of weed killers in the years 1986-89, exposed about 3 millions people to risk, leading Government to set apart about 139,5 billions lire (average was 2,9 billions/month, with a maximum of 5,6 billions/month in the period 1986-87).

Tectonic heartquakes occurred, one or more times during the whole period, in 1.686 town territories (21% of the total number) and in 52 districts belonging to 14 regions; 85 of those territories were devastated (disaster declaration), 385 majorly damaged, 1243 damaged. Homeless people, temporary or not, were about 792.000 (average was 1.524 per month); cost in human lives was 4.160 (average was 8 dead/month); Government set apart resources for about 106.000 billions lire (average 205 billions/month).

Volcanic eruptions and heartquakes occurred in about 15 town territories and involved about 15.000 people; they caused 40 losses in human lives; Government set apart about 80 billions lire.

Phlegraeen bradyseism forced about 33.000 people to evacuate and Government to set apart more then 2.000 billions lire.

On the whole, the failures caused by landslides, floods, groundwater pollutions, earthquakes and volcanic-bradyseismic phenomena result in damages of more than 9 billions lire/day over the last 45 years, and more than 22 billions lire/day during the decennium 1980-89. Costs resulting from loss of wealth are not included.

Key-Words: Ground-failures, Landslides, Floods, Groundwater pollutions, Earthquakes, Volcanic eruptions, Phlegraeen bradyseism, Damages, Italy.