

Abstract

From November 1978 the Turin "Institute for Hydrologic Protection of Po Basin" (Istituto per la Protezione Idrologica del Bacino Padano - IRPI) started a research aimed at evaluating the danger linked to hydrologic events in the Piedmont region. In this work, for some specific subjects, has taken part also a group of geologists made up of personnel of the Regional Geologic Service - now Sector for the Prevention of Geologic, Meteorologic and Seismic Risk, and of personnel engaged in accordance with the Law n. 285 for the youth employment.

Many information of geologic kind concerning the whole regional territory have been analyzed in a systematic way, recorded and represented as different thematic maps, preliminarily presented at the Meeting "Geologic Risk and Territorial Planning" held in Turin on May 16, 1980.

This considerable amount of data, obtained with different methodologies and updated for some themes up to 1984, has made up the knowledge basis to start an action related to the implementation of a cartographical and tabel data bank with the following goals:

- to give a support to the regional control activity for the apsects related to the evaluation of the danger connected to hydrologic events;
- to make usable and known the collected data;
- to allow a continuous updating of data.

Therefore the "Data Bank project" ensues principally from the need to make available to the technical and scientific community the existing geologic information result of a long and industrious specific experience, so that it can be used under the best conditions and give a sufficiently exhaustive picture of the whole regional territory physical constraints.

Without going into details about the complex phases in which this work is divided, we can synthetically say that it was an operation of the highest disaggregation of information included in the different cartographic documents and of the highest georeferencing with regard to the administrative and physio-geographic limits (town, basin, river, residential area and so on), givin to each single process an univocal identification code.

In parallel to the data bank, which we could define of the "Geologic Processes" (B.D.P.G.), and with the possibility of an information transfer, the Data Bank of Documentation (B.D.D.) has been established, starting from the files of the Sector for the Prevention of Geologic, Meteorologic and Seismic Risk.

B.D.D. is therefore born with a double aim: on the one hand it is tool to order, classify and utilize in the best way all the scientific and historical material (magazine articles, papers and interior studies, texts, monographs, photographic material, air-photos, and so on) present in the Sector's files, on the other hand it is an updating and integration tool of data existing in the Geologic Processes Data Bank.

- Benefits offered by the operations of information disaggregation and their filing in a data bank are essentially:
- the possibility of making rapidly complex data analysis through aggregations, associations and simultaneous comparisons of the different existing information;
 - the possibility of systematic collection and organic presentation of the informazion as tables (besides of the cartographic output);
 - the possibility of using different utilities of updating, modification, inquiry for a more consistent management and a more severe treatment of the collected information.

With the intention of giving useful explanations on the correct use of the data bank "tool", is has been thought specify in detail (sometimes coming very close to the "obvious" for the experts), the context and the phases of the work done, explaining the methodology, the processing criteria and the connected limits, so to be able to value the right importance of the collected information.

The publication has been organized in two different parts:

- the first describes the criteria for the realization of the thematic maps processed within the study related to the evaluation of the danger connected to hydrologic events;
- the second analyzes the criteria which support the informatic transposition of data, with a detailed description of the data bank and filing procedures structure.

Moreover, a wide space has been devoted in the appendix to the illustrative aspects, producing for every single theme treated some significant cartographic outputs accompanied by systematic explanations of the contents and exhaustive descriptions of the geological processes represented.