

A NEW BOOK ABOUT NATURAL HAZARDS



Millions of victims, much more injured and homeless, great amount of losses and heavy destructions – these could be just a part of the negative consequences due to the different natural hazards all over the world. Even today – at the beginning of 21 century, humanity still pays the great price to the terrible effects of natural hazards. Almost everywhere in the world it is proved that the victims and damages strongly depend on of the quality of constructions and the ability of the population to mitigate disasters. The effectiveness of emergency planning and execution, the fast and well

organized reaction to the negative effects of the disaster are among the important factors influencing the mitigation of the different hazards. This is a great topic and now – during the EARTH'S YEAR – 2008 – everywhere in the world a lot of resources, educational programs and active measures are under taken to mitigate the effects of the different natural hazards – earthquakes, tsunami, global climate change and all other catastrophic events on the earth's surface. Even 4 years after the devastating tsunami in the Indian ocean (The Boxing day event) which took more than 300, 000 victims and left more than 1, 000, 000 homeless, people are not able to fully recognize what happened on this holiday. And when it will be repeated?...

It is much clearer now that humanity will experience an increasing number of disasters in the future due to the dynamic earth. The global climate change, the ozone hole development, the El Nino phenomenon and the fast geodynamic events, registered by the GPS in the solid earth, as well as the increased urbanization are the main factors which can augment the negative consequences of Nature for the everyday life of populations and societies.

Therefore, the new by published book *Natural Hazards and Ecological Catastrophes – Study, Prevention, Protection* is extremely useful and topical.

The author – Prof. Garo Mardirossian from the Space Research Institute of the Bulgarian Academy of Sciences needs no a special presentation. Well known for his popular scientific books, he is working hard on the problems of natural

hazards and their study by aerospace methods and techniques. This is his 4th book on the topic. All of them were accepted by the audience with great interest.

In this last book, at the beginning, some general problems related with natural hazards, their generation and development, are highlighted and the many physical properties underlying their ability to produce negative effects. Many terms like risk, vulnerability, multi risk and preliminary assessment of the consequences are among the initial themes developed in the book. Separately, a lot of space is dedicated to ecological catastrophes, war consequences and geophysical weapons. Step by step, the study goes deeper discovering the nature and effects of such events as earthquakes, landslides, cyclones, volcanic eruptions, tsunami, avalanches, floods, forest fires, thunderstorms, tornadoes, etc. A lot of data about the observed cases, statistics about the victims and the damages, the most extreme cases etc. are under the focus of the author. Special attention is paid to the natural hazard on the territory of Bulgaria. The main parameters generating the negative effects to the population and the infrastructure are discussed. A separate chapter is dedicated to each individual disaster type. Special attention is paid to prevention and protection, as well as to individual and societal directions. The presentation of the potential of aerospace technologies for such investigations and observations and their high effectiveness is very useful. Thus, supporting the idea that such methodologies could be a very effective and useful tool against natural hazards, the book provides a lot of improvements in that direction.

The book is presented well to the readers and illustrated with many diagrams, figures and photos. It could be useful to many different specialists – scientists and researchers in the fields of geophysics and ecology, geography and meteorology, etc. as well as to the decision-makers and civil defence servants, engineers and land planners, as well as the students and pupils from schools and universities. The book contains 372 pages, 56 figures, 20 tables, etc. Useful annexes contain the measurement scales about the different natural hazards.

Due to its actual content and usefulness and because such books are rare not only for us but also in the world practice, the appearance of the book of Prof. Mardirossian is an important event for the scientific community.

Assoc. Prof. Boyko Rangelov

Мардиросян, Г. „Природни бедствия и екокатастрофи – изучаване, превенция, защита“. Академично издателство „Проф. Марин Дринов“. София, 2007, 372 стр.