

EARTHQUAKES AND TSUNAMIS

HIGH SCHOOL TEXTBOOK

ABOUT THE TEXTBOOK

This book is the result of both the implementation of Recommendation ITSU-XIII.3 of the Thirteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, and the work of several education experts. An ad- hoc Working Group headed by Hugo Gorziglia (Chile), revised the work done by the experts who were partially funded by the Intergovernmental Oceanographic Commission.

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EARTHQUAKES AND TSUNAMIS

PREFACE

There are many natural phenomena producing beneficial effects for mankind, such as rains for agriculture, and the cold ocean currents supplying abundant fish for food. But there are many others whose effects can be very harmful, such as earthquakes and tsunamis.

It must be acknowledged that natural hazards continue to increase because of the growing exposure which results from expanding populations, many of which are concentrated in big cities of more than 5 million inhabitants (Tokyo, Japan; Lima, Peru).

Earthquakes are as inescapable as the weather. Even Mars and the Moon have them. Here on Earth, seismologists report that every year there are a couple of million earthquakes strong enough to be felt, a thousand or so that can bring down chimneys, and about a dozen capable of producing disasters.

One of consequences of major impact to people is generated by those big magnitude earthquakes with hypocenter located at the sea. When they occur, sea waves can be generated which propagate very quickly across the ocean and produce casualties not only in the source area but along coastlines located thousands of miles away.