EARTH SCIENCES
RESEARCH JOURNAL

Earth Sci. Res. J. Vol. 21, No. 3 (September, 2017)

UNIVERSIDAD NACIONAL DE COLOMBIA
SEDE BOGOTÁ
FACULTAD DE CIENCIAS
DEPARTAMENTO DE GEOCIENCIAS

Letter from the editor

On September 2017, two large earthquakes struck México. Numerous casualties and at least 40 buildings collapsed in Mexico City.

The earthquakes are explained by the tectonic setting of Central America, the Cocos plate subducts underneath the North American Plate at about 7-8 cm a year, making Mexico a seismically active region. But the two earthquakes - with hypocenter depths between 50 and 60 km – did not occur in the contact between the two tectonic plates as is usually expected, but rather within the Cocos plate as it bends downward within the mantle. Both events showed a normal faulting mechanism, and although they were widely felt, their major impact was in densely populated Mexico City, where wave amplification is expected due to the geological features of the City's soil structure.

We know that we cannot predict earthquakes, and although this is the holy-grail in seismology, it seems like we are not close to accurately predict them. Nevertheless, early warning systems have been developed in various places, including Mexico, and they were successful in issuing an alarm, although with a few seconds before the strong shaking. These developments can save lives and continue to be relevant and are likely to be implemented in other regions, including the pacific coast of the US. Another aspect that can save lives is people's awareness. The M7.1 earthquake occurred in the afternoon of the anniversary of the 1985 Michoacan earthquake, just a couple of hours after an earthquake drill in Mexico City, so people had just recently been remained of what to do. This most likely saved lives.

We should ask ourselves, are we prepared? Is our city prepared?

Germán Prieto

Editor in Chief

Carlos A. Vargas

Former Editor