

CERAMAH TEKNIK TECHNICAL TALK**FINDING TSUNAMI SOURCE REGIONS IN EASTERN INDONESIA: INTEGRATING GEOSCIENCE AND DISASTER MITIGATION**

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The technical talk on the above subject was arranged at short notice due to communication problems with Prof. Dr. Harris in the field in Kisar, Indonesia. Nevertheless it attracted an enthusiastic audience of about 20 persons especially geophysicists interested in earthquakes and tsunamis. The talk was delivered at the Department of Geology, University of Malaya on 9.12.08. An abstract of the talk is given below.

Abstract: The ongoing earthquake storm in western Indonesia is not a surprise to those who know the history of mega earthquakes in tsunami in SE Asia. By compiling Dutch records and conducting field studies, we have recently discovered that a similar cluster of events occurred in eastern Indonesia also, along mega thrust faults that are likely near the end of their earthquake cycle. This cycle may also be shortened by stress contagion from the large events over the past few years along the Sunda Arc, which is transitional with the Banda Arc of eastern Indonesia. This talk showed evidence from historical records as far back as 1600 combined with integrated field studies of potential tsunami source regions throughout eastern Indonesia.

Prof. Harris also talked about support for 'In Harms Way', the non-profit organization he has set up to reduce the impact of natural hazards in SE Asia. He was able to visit many communities in heavily populated areas of Indonesia that are at considerable risk. For example, the Padang region of Sumatra is directly offshore from the only major segment of the Sumatra thrust system that has not yet ruptured during the recent earthquake storm. The last time this segment broke was in 1833, which means that it is overdue even more than adjacent segments that have produced mag. 8 earthquakes caused tsunami. There is also a stress contagion effect from these other events on the Padang segment. They fully expect a major event (perhaps as large as a magnitude 9.0) on the Padang segment within the next few years. Indonesian officials say that they have warned government leaders in the region. However, those in harms way are not informed as documented by one of their teams that visited the region this year. They propose to meet with communities in harms way there, including Promuka (scouts in the region). The focus of their efforts will be directed towards education and posting warning signs along the coastline. They will also assist in constructing and practicing an evacuation plan.

Another project they are planning is disaster prevention education in Eastern Indonesia. They have translated and inspected historical records of geological events that were dutifully compiled by the Dutch in the 'Spice Islands' as far back as 1600, These records describe in detail a series of major earthquakes and tsunami in the region that have a recurrence interval of around 150 years. For the past 180 years nothing has happened in the region anything like what occurred in the early 1600's and again in the late 1700's when earthquakes and tsunami destroyed many cities and coastal communities. Now ten times more people live in harms way of these hazards.

They were able to access some islands in this region this year and had tremendous success in "Siap dan waspata" (readiness and awareness) education. No one knew what to do when the ground starts shaking. The most receptive and effective group are the scouts (Promuka) who carried the message home and to school. They also took upon themselves the task of posting warning signs along the beaches.

These two projects bridge the large gap that currently exists between those forecasting geohazards and those affected by them. Never, in the history of the world have we better understood how to prevent natural disasters. At the same time, never have more people been in harms way. Please let him know if you or your company is interested in contributing to their efforts. Please visit: inharmswayhelp.org for more information about the non-profit organization.

Lee Chai Peng

PERTEMUAN PERSATUAN (MEETINGS OF THE SOCIETY)

