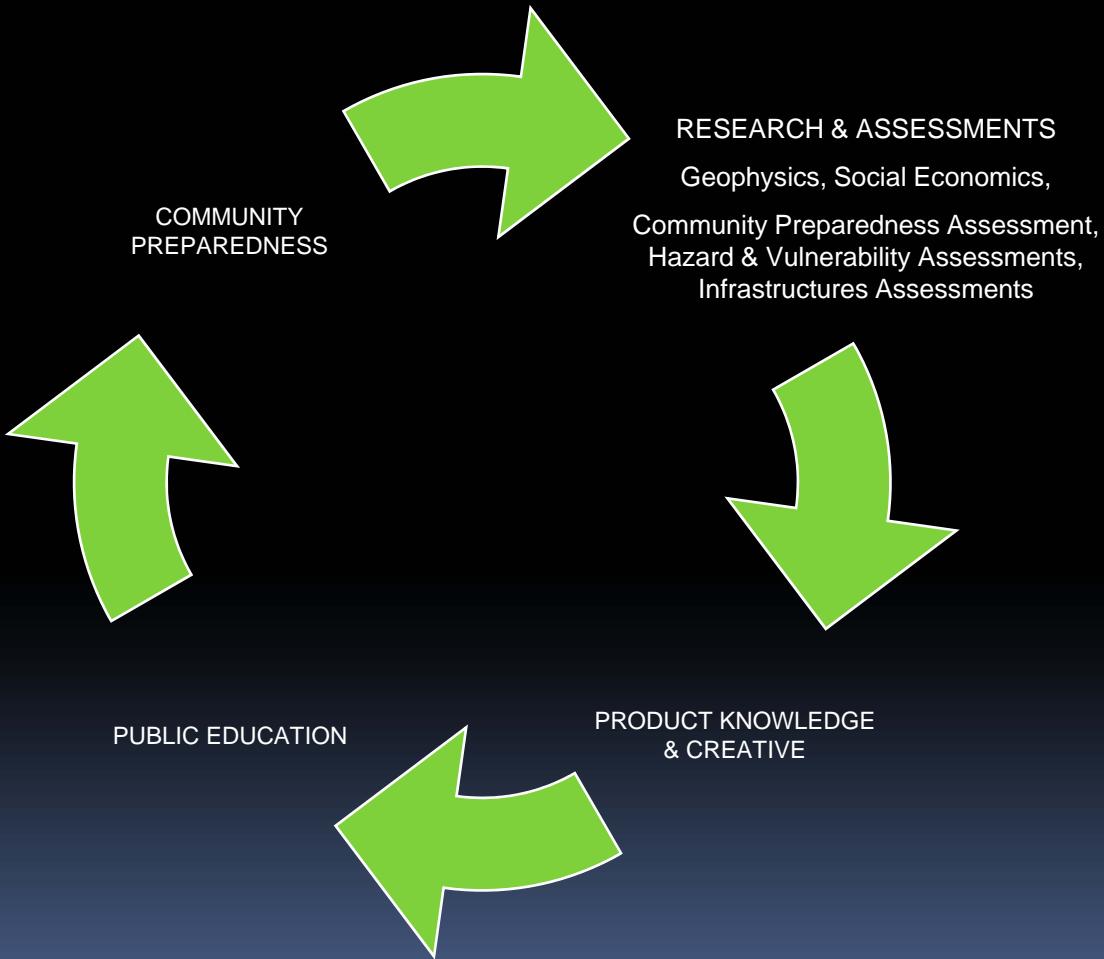


KNOWLEDGE/SCIENCE – BASED COMMUNITY PREPAREDNESS



INDONESIAN EXPERIENCES IN DEVELOPING COMMUNITY & SCHOOL- BASED PREPAREDNESS



Knowledge...



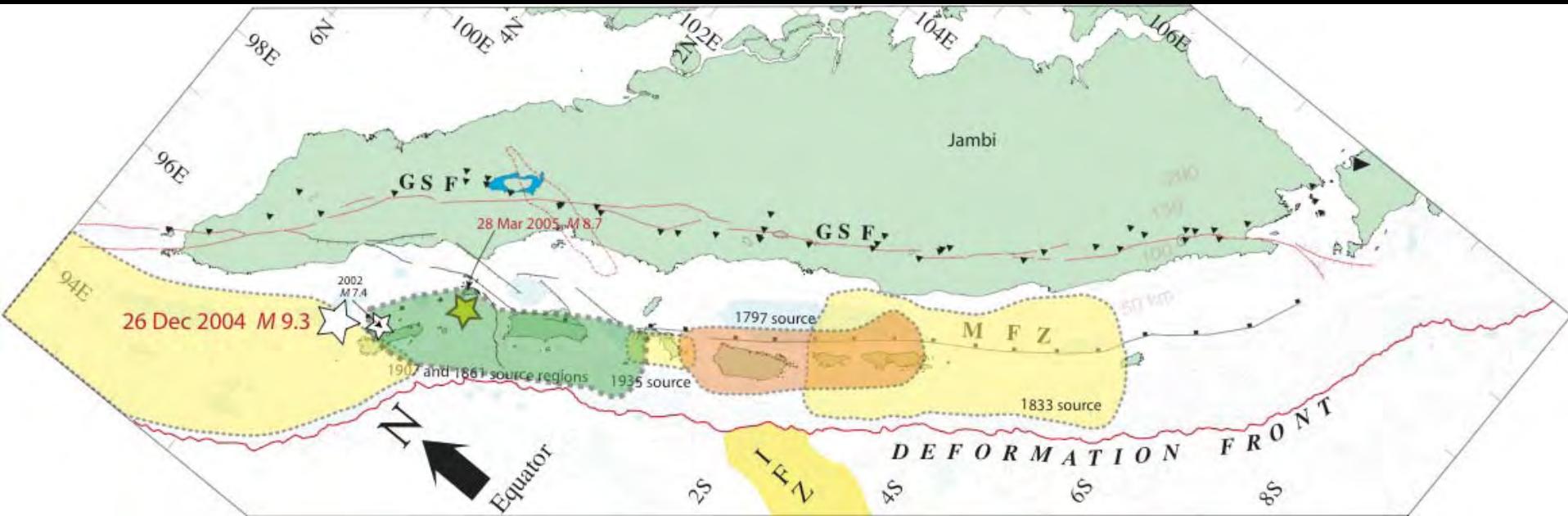
...Understanding

Life skills !!





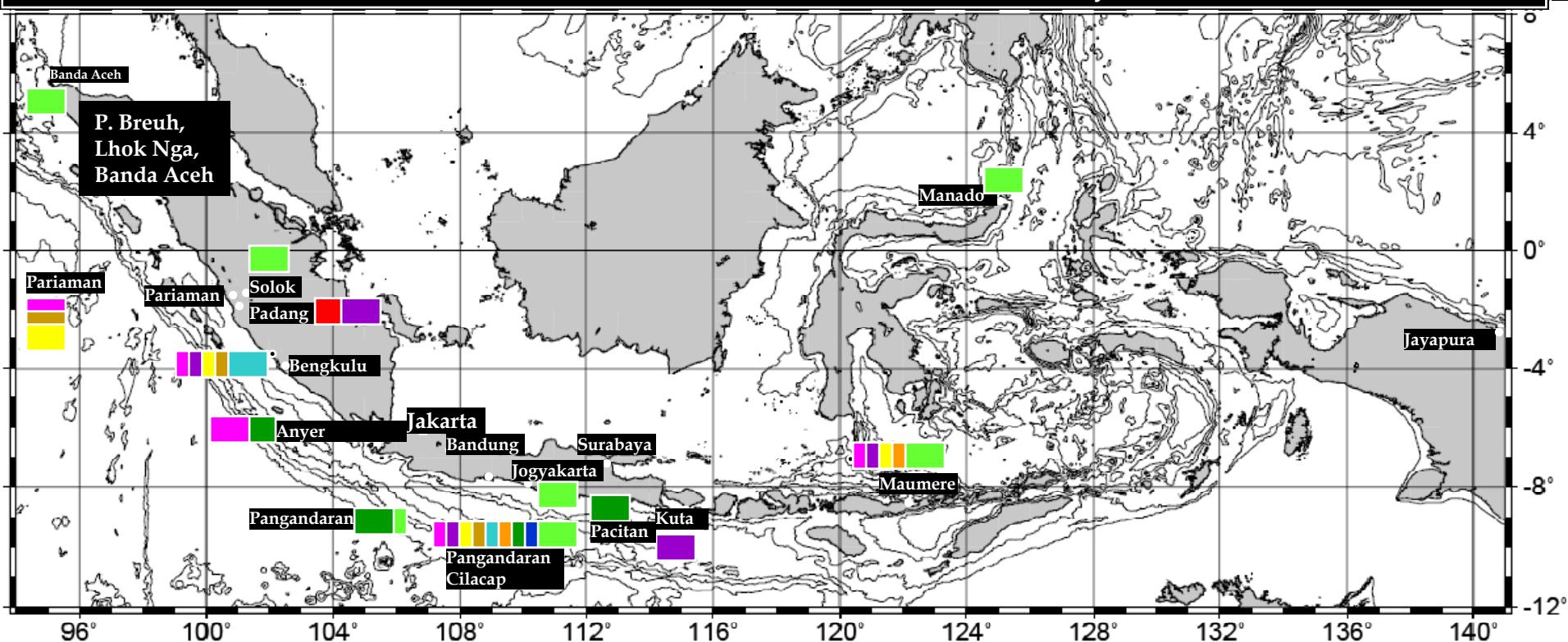
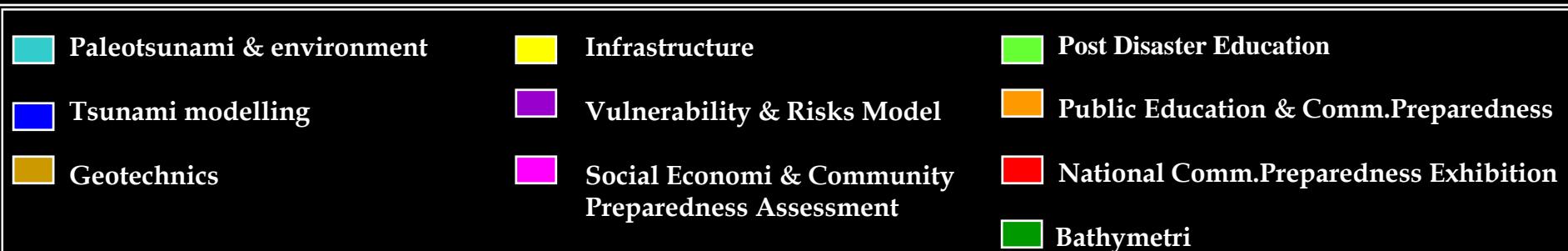
Uplift created new land on Simeulue island, Aceh, Sumatra



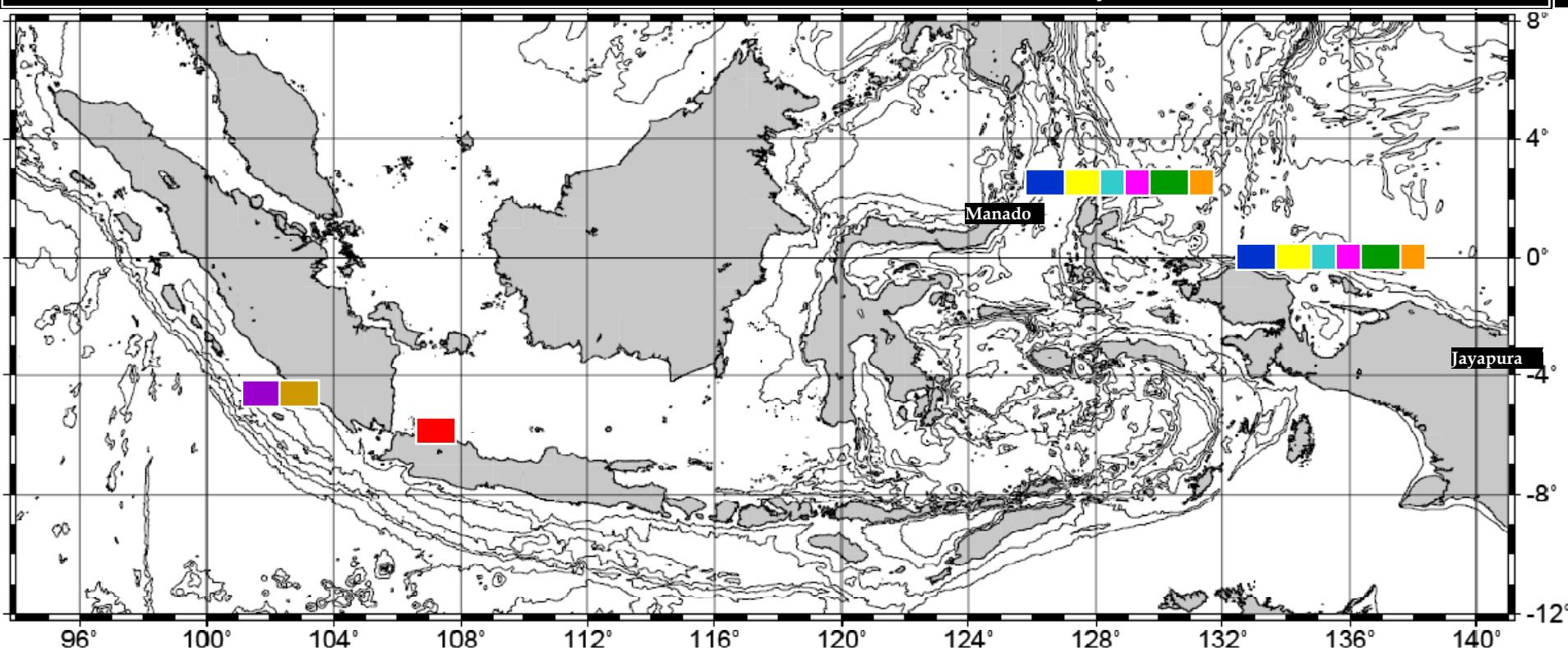
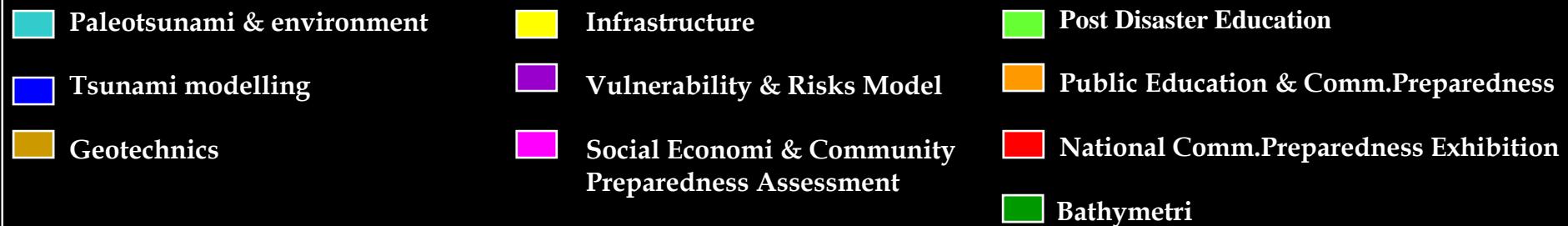
FACILITATING COMMUNITY MOVEMENT, 2007:

Science-based Community Preparedness

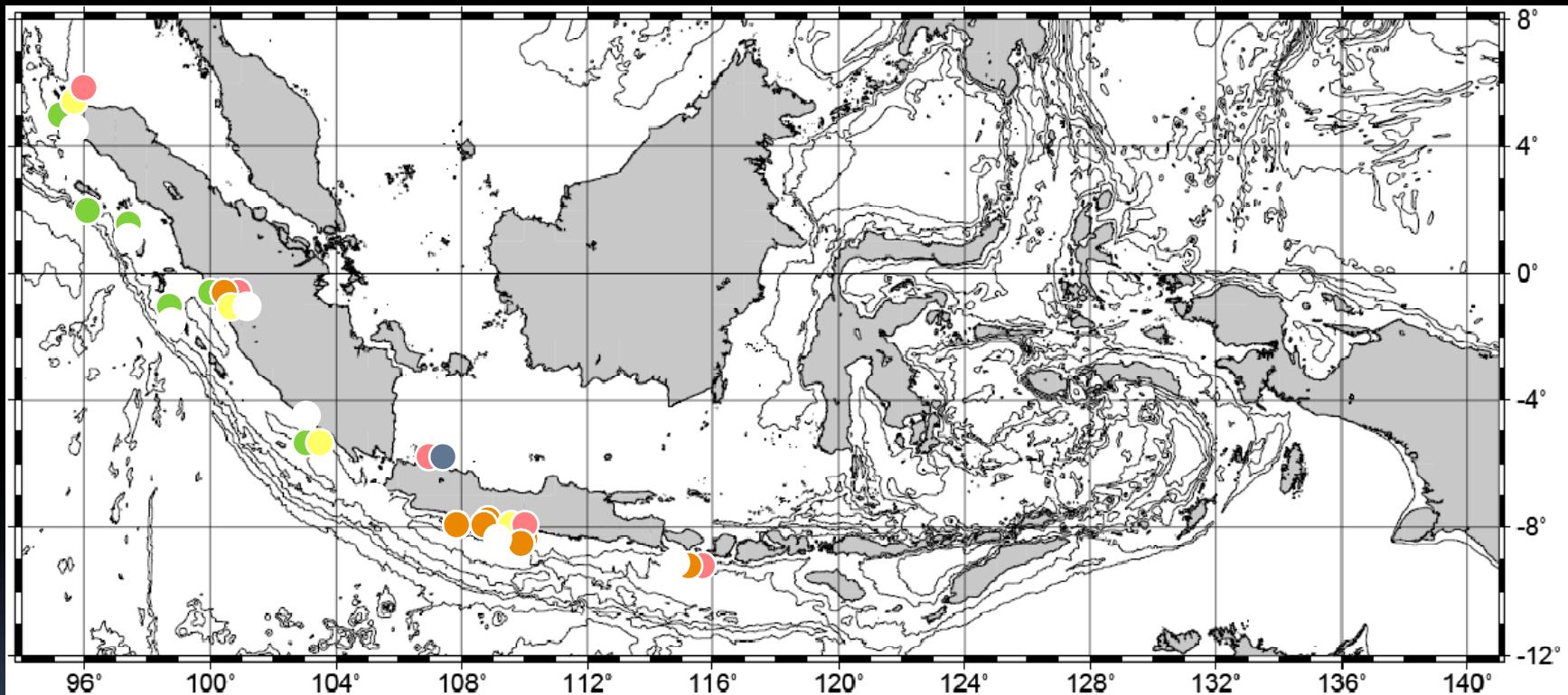
FULL MENU: MAUMERE, BANTEN, CILACAP, BENGKULU



FACILITATING LARGE SCALE COMMUNITY MOVEMENT, 2008: Science-based Community Preparedness BENGKULU, BIAK, TERNATE



Roles Played in the community Preparedness on InaTWS



Unesco

GTZ-IS

Consortium on Disaster Edu.(CDE)

Universities

Ind. Red Coss (PMI)

Local players

(NGO, Local gov't, local
organizations, private)



SCHOOL-BASED DISASTER PREPAREDNESS



Indonesian first Music Compilation Project on Disaster Preparedness

Involvement of music and art community in the community preparedness movement

ese musician will voluntarily compile an album, facilitated by LIPI.

I also provide basic understanding on disasters to musicians, at the "science in music" workshop, held on April 08





Local SOP development Workshop/Training



Merging school, local community and authorities SOP, and test them through integrated community preparedness exercise/drill



“kentongan”, one of the local tools for tsunami warning is utilized by community and schools, during the exercise/drill

OUR ISLANDS ARE SINKING... BECAUSE OF EARTHQUAKES!

1 What is an earthquake?

An EARTHQUAKE is a trembling of the ground, caused by sudden breakage and sliding of rock along a fault zone. The region in the west of Sumatra has many earthquake sources, because it is located along the plate boundary, where an oceanic plate is subducting under Sumatra and pushing on the rocks below the islands.



For tens to hundreds of years, the earth blocks squeeze very slowly against each other. The pressure builds up until it exceeds the rock strength, at which time the rocks break suddenly. This sudden breaking causes the islands to pop up and seismic waves to spread through the surrounding region.

2 How do we know our islands are sinking?

BEACHES are slowly moving onto land. TREES that used to be growing on land have now drowned and are sitting in the water off shore.

From investigating CORALS and measuring land movements by modern GPS INSTRUMENTS



3 What is happening now with our islands?



CORAL shaped like curves show the islands are sinking during the centuries between earthquakes.



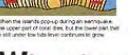
For tens to hundreds of years, coral growths faithfully record events when the islands pop up and periods when the islands slowly sink.



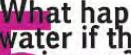
When the sea level comes to rest, the coral grows again.



When the sea level goes down again, the coral grows again.



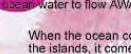
When the sea level goes up again, the coral grows again.



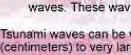
When the sea level goes up again, the coral grows again.



When the sea level goes up again, the coral grows again.



When the rocks beneath the islands spring up, the sudden movement causes the ocean water to flow away from the land.



When the ocean comes back onto the islands, it comes in a series of waves. These waves are TSUNAMIS.



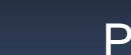
Tsunami waves can be very small (centimeters) to very large (tens of meters).



The waves can return to the shore as a series of waves or surges.



These waves can be very dangerous without warning. However, we can make preparations to lessen their damaging effects. First, lets understand what can happen. Second, lets try to avoid as many earthquake dangers as possible.



Buildings made from wood or other light materials are safer than those made from heavy materials. If they fall during an earthquake, they are less likely to hurt us.



Following an earthquake, high ground far away from the beach is good places to be to avoid tsunami waves.

6 How can we prepare for earthquakes and tsunamis?

When the rocks beneath the islands spring up, the sudden movement causes the ocean water to flow away from the land.

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MORE EARTHQUAKE INFORMATION

Pusat Geoteknologi, Kompleks LIPPI Gd. 70, Jl. Sanggarling, Bandung
Ph: 022-2540554, Fax: 022-2554569
Konsult. Dr. Darmi H. Natonegoro, Dr. Syaiful Muhamad, Dr. Harry Purnama, Dr. Myrna Endriani, Dr. Ambarwati, Prof. Dr. Ir. M. Amin, Dr. Myrna Endriani, Unit of Asteroseismology, Geofisika dan Bumi Besar, Institut Pertanian Bogor, Cimahi, West Java, Indonesia

APA YANG HARUS AKU LAKUKAN?

Guru dan teman-teman kita juga perlu memahami bahwa ada perubahan di bawah laut yang tidak terlihat dengan mata kita. Untuk itu, kita perlu:

- PILAIK TENTAH APA PADA SUMATRA DAN MELAKUKAN PENGETAHUAN YANG DILAKUKAN
- PILAIK KARNAH RIBA TRIGAL DI PADA RUMAH GEPERANG DAN MELAKUKAN PENGETAHUAN YANG DILAKUKAN
- RANGKAY TENGULIT BAHU RAYU DAN PADA RUMAH GEPERANG YANG DILAKUKAN
- APLIKASI PENGETAHUAN YANG DILAKUKAN
- Untuk informasi lebih lanjut hubungi:
 - Pusat Geoteknologi, Kompleks LIPPI Gd. 70, Jl. Sanggarling, Bandung Ph: 022-2540554, Fax: 022-2554569 Konsult. Dr. Darmi H. Natonegoro, Dr. Syaiful Muhamad, Dr. Harry Purnama, Dr. Myrna Endriani, Unit of Asteroseismology, Geofisika dan Bumi Besar, Institut Pertanian Bogor, Cimahi, West Java, Indonesia
 - Terima kasih kepada orangtua, mantanah, Kepala Sekolah dan Mentawa yang telah memberikan dukungan dan pengalaman pengetahuan.

Brochures in English and Indonesian

PULAU KITA TENGELAM.. APAKAH INI BERHUBUNGAN DENGAN GENPABUMI?

Islands that sink, information from Coral and GPS help us understand the earth.

BAGAIMANA KITA TARU BAWAH KEPULAUAN MENTAWAI MENURUN?

When the rocks beneath the islands spring up, the sudden movement causes the ocean water to flow away from the land.

BAGAIMANA KORAL MINUNJUKKAN NAK-TURUNNYA PULAU?

When the rocks beneath the islands spring up, the sudden movement causes the ocean water to flow away from the land.

APA YANG TERJADI PADA PULAU KITA SERAKANG?

Atau G2P (Global Positioning System) can measure the distance between two points on the earth's surface. When the distance between two points changes, it means that the earth has moved. This is how we know that the island has sunk.

Posters in English, Indonesian, and Mentawai

Recommendation

- Increase research activity
- Transfer scientific information to the policy makers
- Public Education and Community Preparedness Capacity Building
- Appeal private sector for sharing their resources
- International collaboration



Source: Prof. Kerry Sieh

Our Survivor..... December 26, 2004

Thank you