MALAYSIA'S RESPONSE TO THE DECEMBER 2004 TSUNAMI

Abdul Mutalif Abdul Hameed Senior Assistant Director,



Public Works Department Malaysia

e-mail: talif@jkr.gov.my



23e Congrès mondial de la Route - Paris 2007

On the 26th December 2004

At 0059 GMT, a massive earthquake registering 9.0 on the Richter scale struck off the coast of Sumatra, Indonesia.

Followed up by a series of more than 67 aftershocks.

The earthquake triggered a series of Tsunami waves of more than 500 km/hr.

Coastal areas affected:

Bangladesh Myanmar

India Reunion

Indonesia Seychelles

Kenya Somalia

Malaysia Sri Lanka

Maldives Tanzania

Mauritius Tanzania

Thailand

On the 26th December 2004, at about 12.45 pm, three hours after a magnitude 9 earthquake shook Sumatra, the first waves of a Tsunami swept into Malaysian waters through the North entrance of the Straits of Malacca.

The Tsunami event of December 2004 challenged the disaster response mechanism of the Malaysian Government and added a new word to the vocabulary of the Malaysian Public.

The Tsunami became a new threat to be confronted with.

Worst natural disasters in modern times.

Over 200,000 people died.

> 1.5 million people lost their homes and livelihoods.

Losses estimated more than US\$7 billion.

The Tsunami affected only the states in the northern half of the Straits of Malacca namely Perlis, Kedah, Penang and Perak. Tidal disturbances in the form of multiple rising and falling of the tide were observed.

There was consistency in most observations that it was preceded by a retreat of the tide well below lowest tide levels.

Relative to the devastation in Bandar Aceh, Sumatra, the tsunami impact on Malaysia was minimal.

Majority of damage were village houses, light traffic bridges, fishing boats and equipment.

In all 68 death were officially recorded in Malaysia.

The coastal bunds and revetments that protected the mostly agricultural hinterland were severely tested but not seriously damaged.

Some river banks collapsed due to the sudden drawdown of water during the return flow.

It was also observed that the damage was less where the coastal mangroves were dense. Overall findings point to the fact that it was the unknown danger that was the actual cause of deaths.

Even as the killer waves were approaching, victims were seen standing and even walking towards the sea out of curiosity at a sight and sound they have never before seen or heard.

Malaysian rescue efforts were coordinated by the National Security Division of the Prime Minister's Department.

Ground activity involved the entire spectrum of enforcement, rescue and relief agencies.

Soon after tsunami, two factors became apparent to the government:

To respond in time, forward warning was needed.

Areas with thick coastal vegetation were less damaged than those without it.

Within a month after the disaster, the government announced the formation of two multi-agency task forces:

- 1- National Committee for the setting up of a Tsunami Early Warning System.
- 2- National Special Task Force for Rehabilitation of coastal forests.

Countermeasures:

Coastal Defence Structures
Coastal Planning
Disaster Response
Mechanism
Inculcate Disaster Culture

The USGS (United States Geological Survey) record of the earthquake

Magnitude 9.0 - OFF THE WEST COAST OF NORTHERN SUMATRA 2004 December 26 00:58:49 UTC

Preliminary Earthquake Report

U.S. Geological Survey, National Earthquake Information Center World Data Center for Seismology, Denver

A great earthquake occurred at 00:58:49 (UTC) on Sunday, December 26, 2004. The magnitude 9.0 event has been located OFF THE WEST COAST OF NORTHERN SUMATRA. (This event has been reviewed by a seismologist.)

Magnitude 9.0

Date-Time Sunday, December 26, 2004 at 00:58:49 (UTC)

= Coordinated Universal Time

Sunday, December 26, 2004 at 7:58:49 AM

= local time at epicenter

Time of Earthquake in other Time Zones

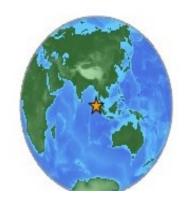
Location 3.244°N, 95.825°E

Depth 10 km (6.2 miles) set by location program

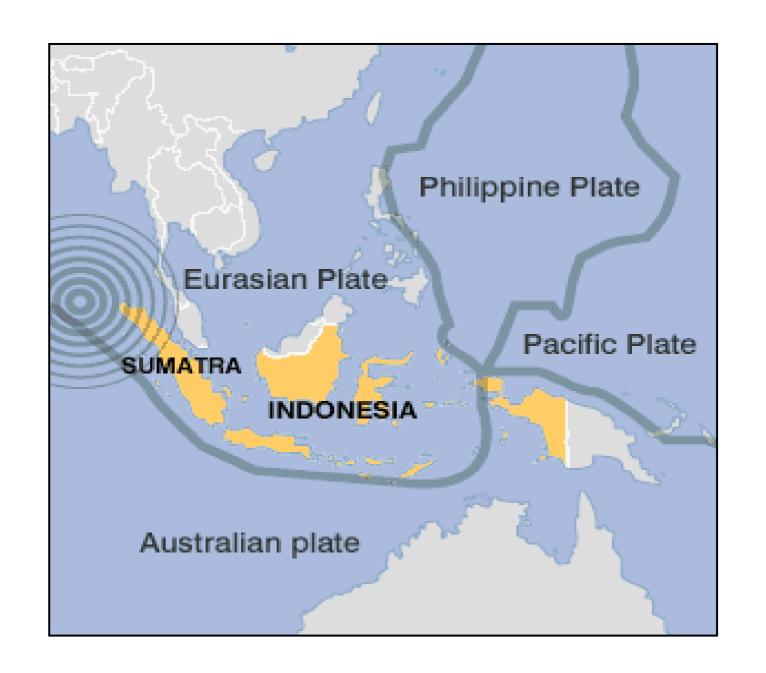
Region OFF THE WEST COAST OF NORTHERN SUMATRA

Distances

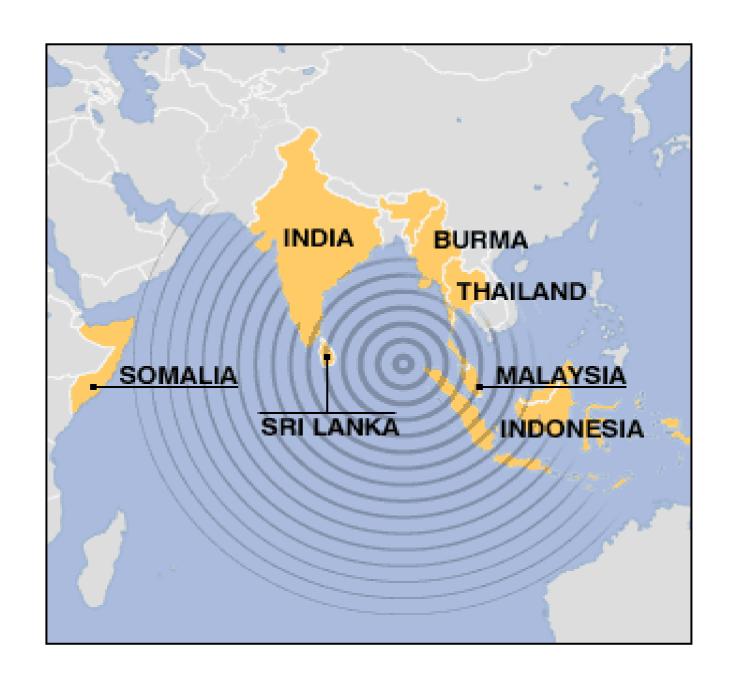
255 km (160 miles) SSE of Banda Aceh, Sumatra, Indonesia 315 km (195 miles) W of Medan, Sumatra, Indonesia 1260 km (790 miles) SSW of BANGKOK, Thailand 1590 km (990 miles) NW of JAKARTA, Java, Indonesia



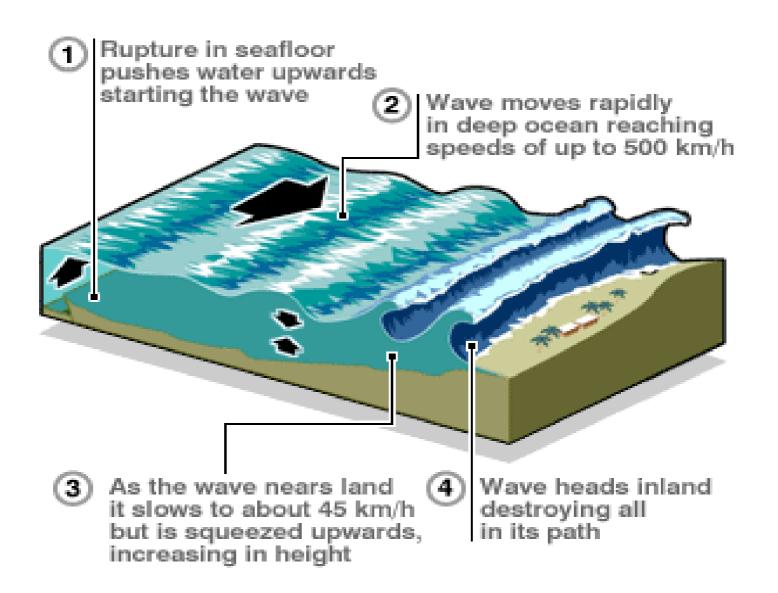
23e Congrès mondial de la Route - Paris 2007



23e Congrès mondial de la Route - Paris 2007

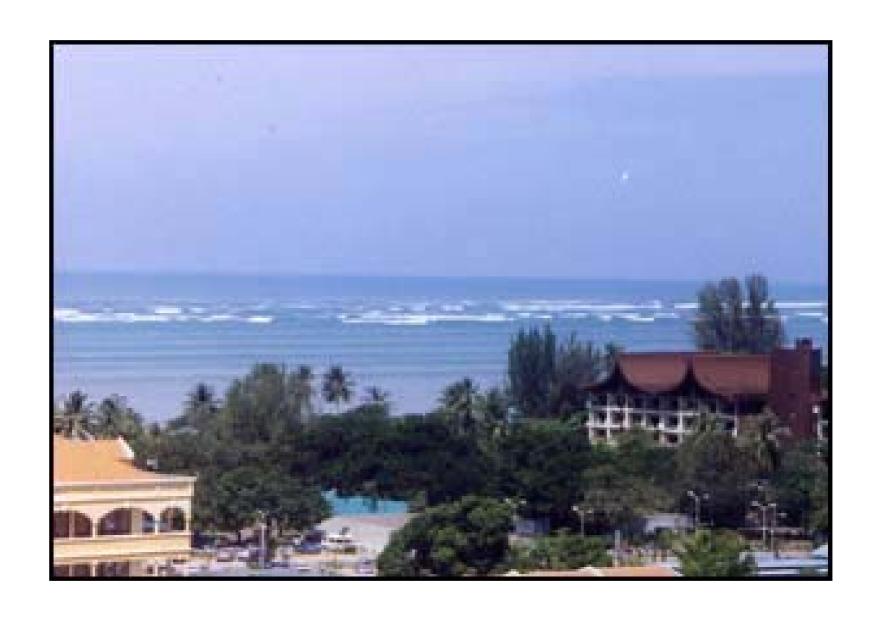


23e Congrès mondial de la Route - Paris 2007



23e Congrès mondial de la Route - Paris 2007





23e Congrès mondial de la Route - Paris 2007



23e Congrès mondial de la Route - Paris 2007



23e Congrès mondial de la Route - Paris 2007



Low lying coastal areas were left obliterated and flooded as here in Aceh province in Sumatra, Indonesia

Current reports
indicate that the north
and west coasts of
Sumatra have
experienced the worst
destruction

23e Congrès mondial de la Route - Paris 2007



Whole villages were flattened as here in Sri Lanka



Fishing boats, which provide essential food supplies for local people here in India, have been washed ashore



Scenes which were repeated across the Indian Ocean

Sri Lanka

Phuket, Thailand



23e Congrès mondial de la Route - Paris 2007



Low lying areas have been left flooded with seawater which quickly becomes contaminated with sewage and decomposing bodies

Male in the Maldives

Banda Aceh in Sumatra, Indonesia

Millions of people have been left homeless



Cuddalore, south of Madras, India

Penang, Malaysia

"Paradise Lost"



23e Congrès mondial de la Route - Paris 2007



Now Hell on Earth

Phi Phi Island, Thailand

Beach debris at Phuket, Thailand



23e Congrès mondial de la Route - Paris 2007







All that remains of luxury holiday accommodation on Phi Phi Island, Thailand





The human toll is huge – on 30.12.04 it stands at 125,000





23e Congrès mondial de la Route - Paris 2007

Scenes of grief in India, Malaysia and Indonesia







23e Congrès mondial de la Route - Paris 2007



Many children – foreign and local – have lost parents





23e Congrès mondial de la Route - Paris 2007



The evacuation of foreign tourists from the beach resorts begins

Many are severely traumatised

23e Congrès mondial de la Route - Paris 2007



German relief workers prepare to depart for Sri Lanka

French relief workers from the Medecins Sans Frontieres organisation



23e Congrès mondial de la Route - Paris 2007



Clean, bottled water supplies are assembled in Penang, Malaysia



Disruption of communications means that emergency supplies cannot be distributed efficiently



Coffins await transport to remote areas near Phuket in Thailand

Co-ordination of relief efforts from throughout the world is proving to be a major challenge.

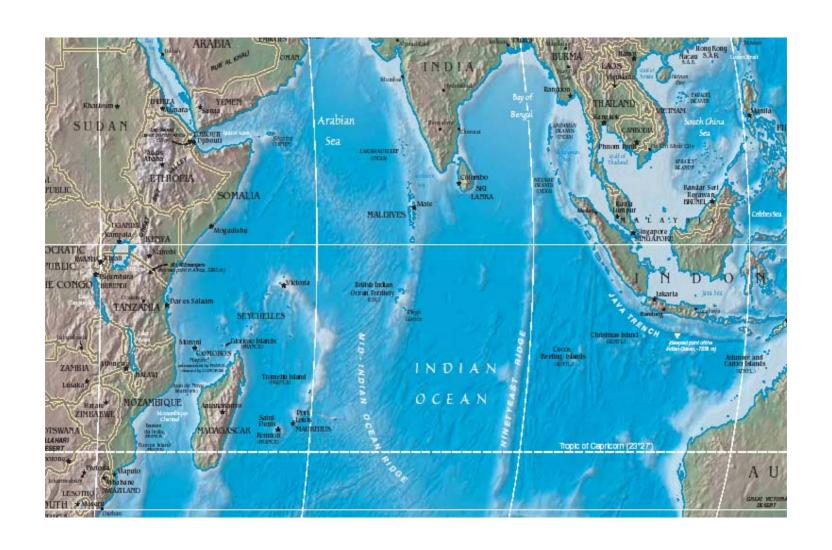
Four days after the tsunami many of the worst affected areas cannot be reached.

Associated Press on Thailand

Thailand, popular with foreign tourists, has built warning towers on beaches across its southern coast to blare sirens and broadcast evacuation warnings in several languages if regional agencies issue warnings.

Associated Press on Malaysia

Malaysia has positioned two buoys off its shores to give at least an hour's warning to coastal communities, and is capable of transmitting tsunami alerts to the public by TV, radio and mobile phone text messages, officials said.



"This is a human tragedy on a huge scale – for once caused by the action of Nature rather than Man"

William Rees Mogg 27.12.04

The tsunami has demonstrated that Nature, and not Mankind, is the real master."

William Rees-Mogg 27.12.04