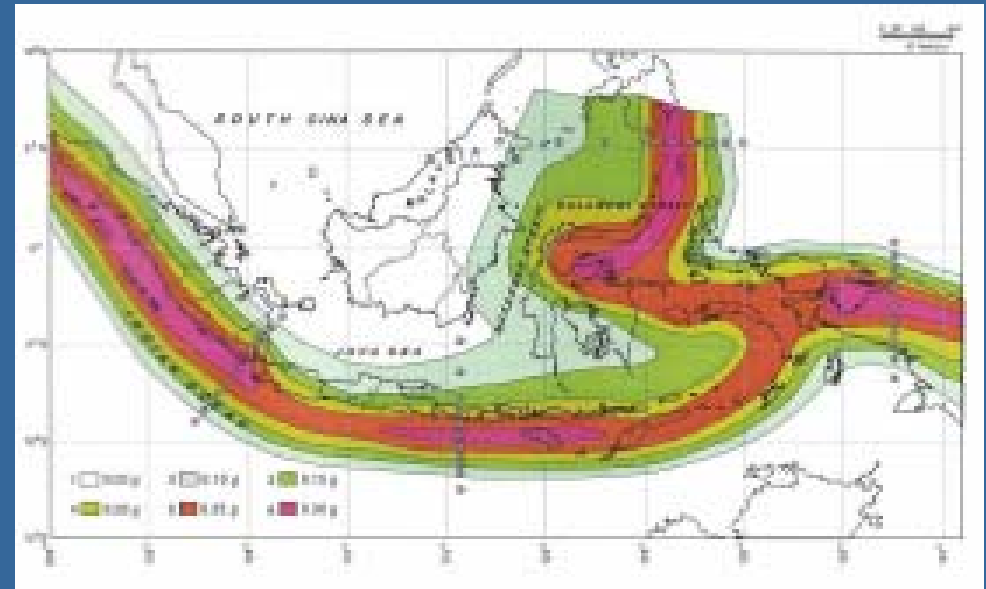


SEISMIC HAZARD IN ACEH



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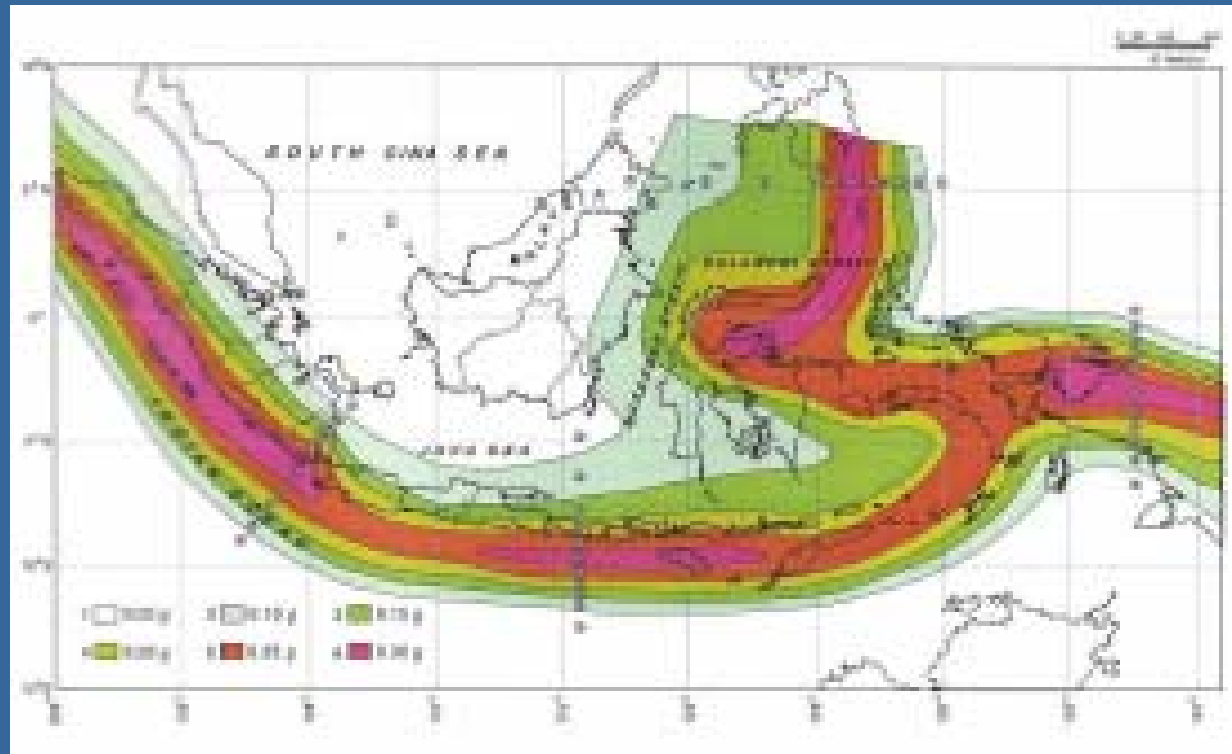
Seismic Hazard in Aceh

Indonesian Building Code SNI 03-1726-2002 specifies the following design ground accelerations based on the seismic zonation and soil type:

Design Ground Accelerations (g)

Zone	Rock	Hard Soil	Medium Soil	Soft Soil
6	0.3	0.33	0.36	0.38
5	0.25	0.28	0.32	0.36
4	0.2	0.24	0.28	0.32
3	0.15	0.18	0.23	0.3

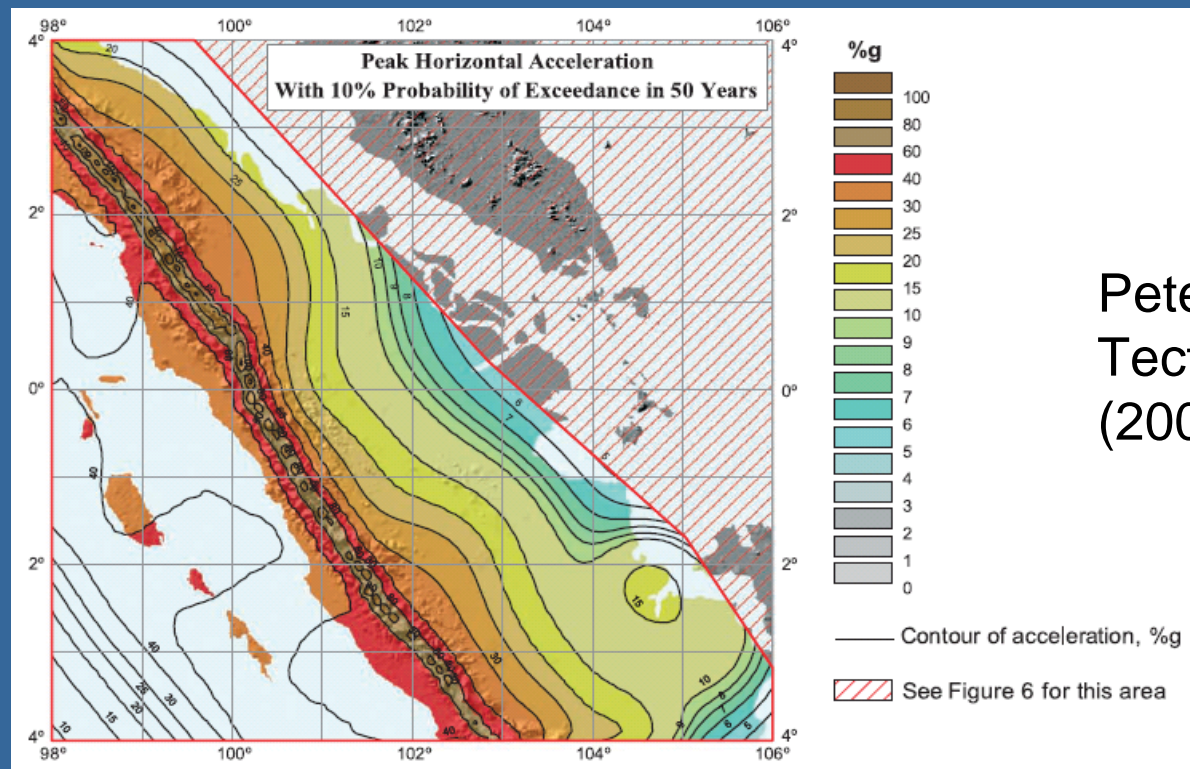
Seismic Hazard in Aceh



Seismic zonation on Sumatra Island is based on the hazard from an earthquake on the Sunda Trench
→ Banda Aceh is in Zone 5

Seismic Hazard in Aceh

However, the seismic zonation does not recognize the hazard posed by the Sumatra Fault (strike-slip fault running down the axis of Sumatra Island, a few km outside Banda Aceh)



Petersen et al.
Tectonophysics 390
(2004) 141 – 158

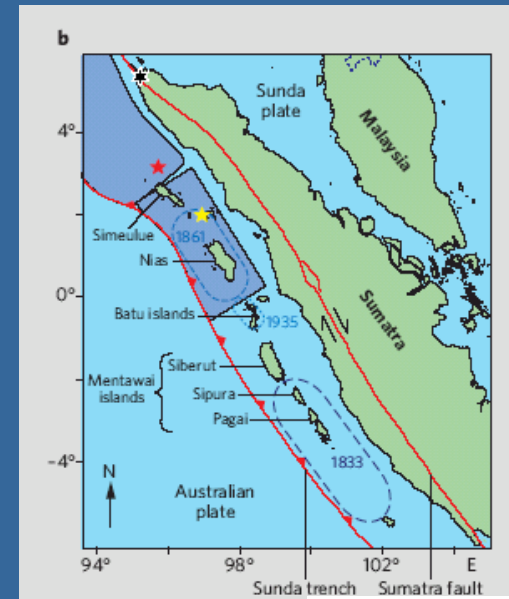
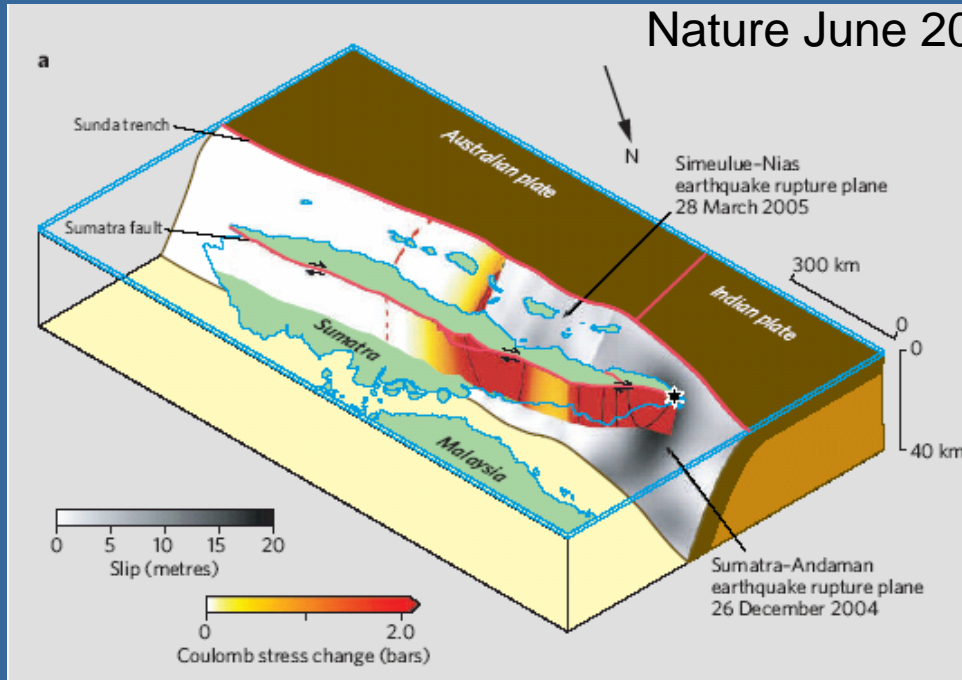
Seismic Hazard in Aceh

According to Peterson et al., Sumatra Fault could produce ground accelerations in Banda Aceh **2 – 3 times higher** than the design values in the Indonesian Seismic Code

Design Ground Accelerations (g)

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6	0.3	0.33	0.36	0.38
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Nature June 2005



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Other seismologists (Indonesian and international) agree, **MORE STRONG EARTHQUAKES LIKELY**...

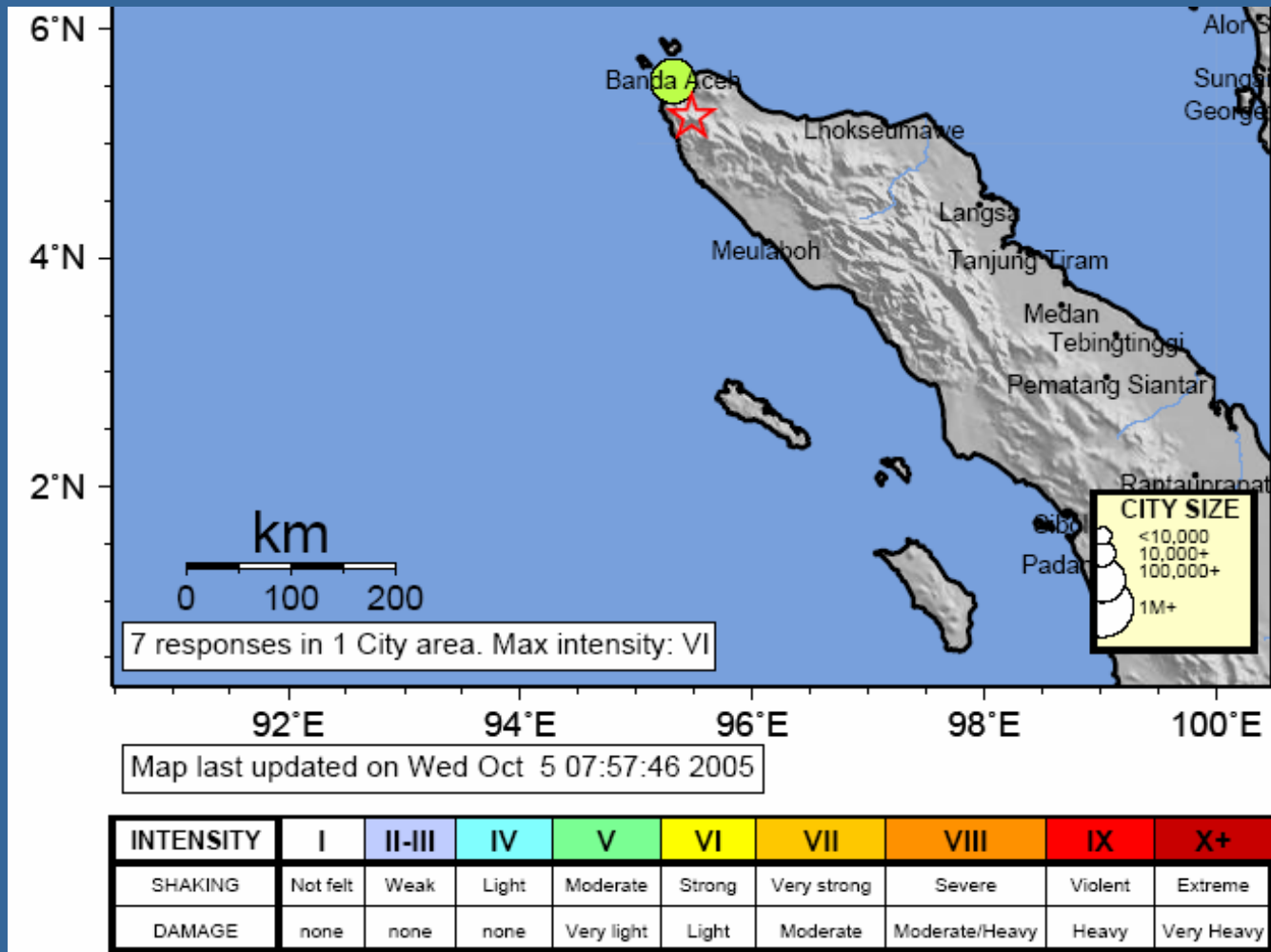
According to some seismologists, the 26 December 2004 and 28 March 2005 earthquakes resulted in

- Increased stress on Sumatra Fault near Banda Aceh and an increased likelihood of a M7-7.5 on that fault
- Increased stress in Sunda Trench under Mentawai Islands and possibility of earthquake and tsunami

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M5.7 Earthquake on Sumatra Fault 5 October 2005



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