

POST-DISASTER RECOVERY IN CHIANG RAI, THAILAND

**Institute for the Study of Natural Resources and
Environmental Management (INREM)
Mae Fah Luang University**

**The NCDR's 2004 International Training Workshop
27-31 October 2014
Taipei, Taiwan**





Mae Fah Luang University



Natural Disaster in Chiang Rai



Flood



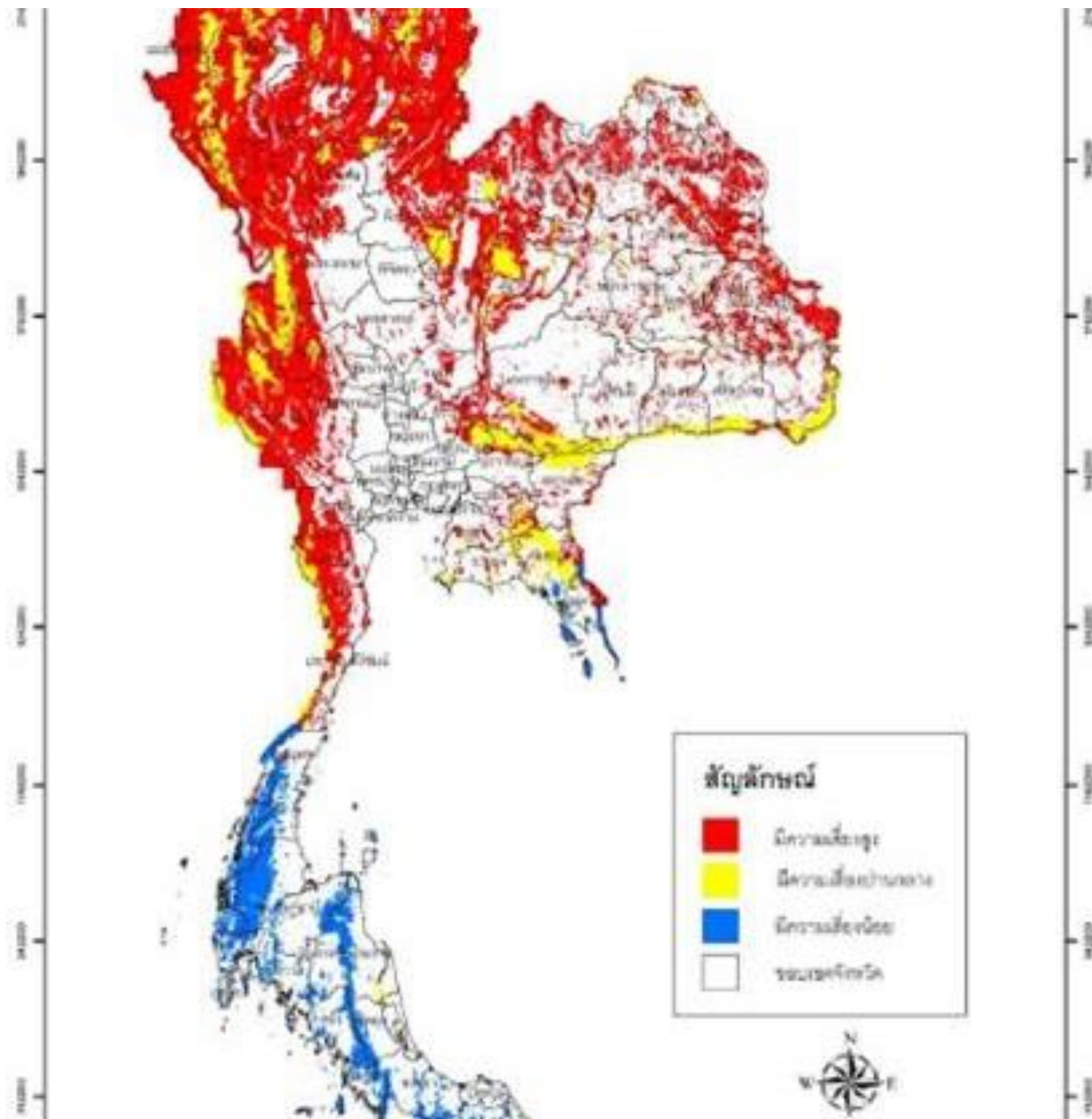
Storm



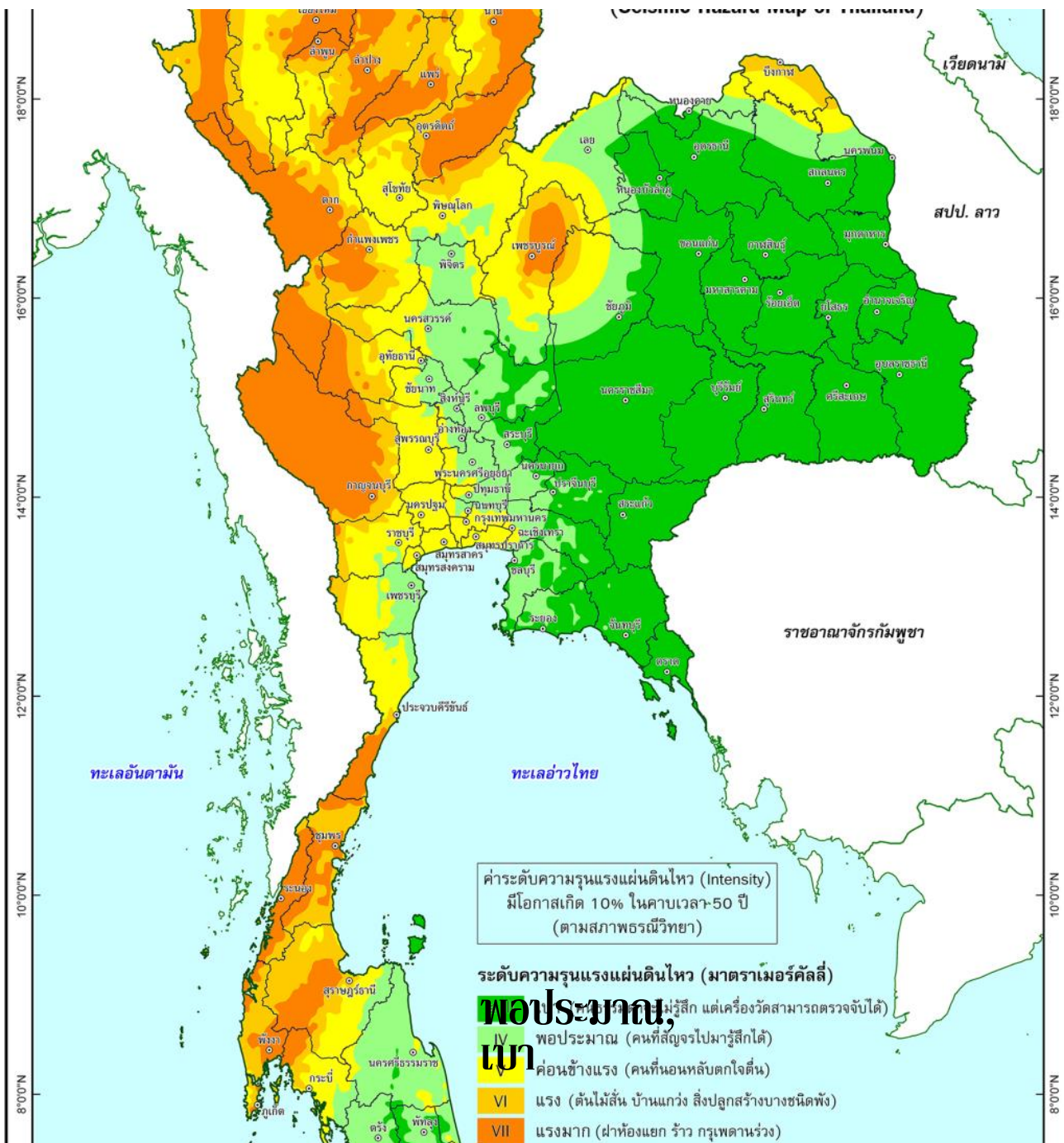
Earthquake



Forest Fire

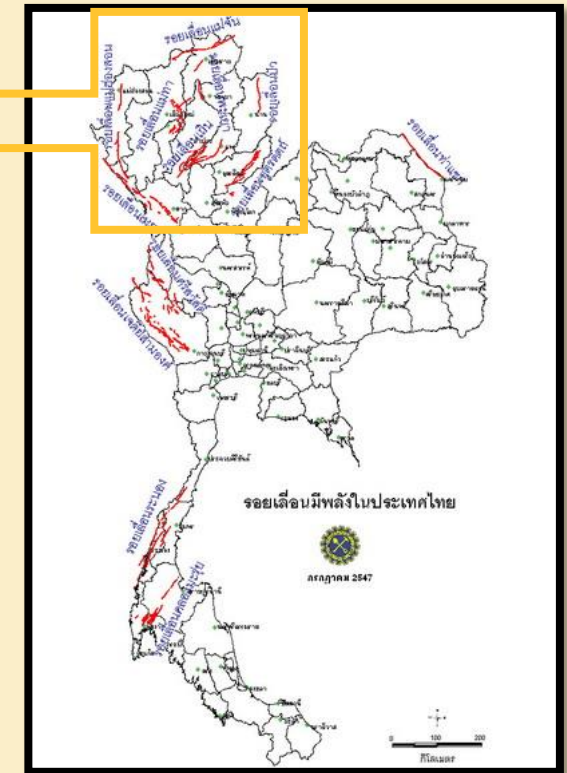
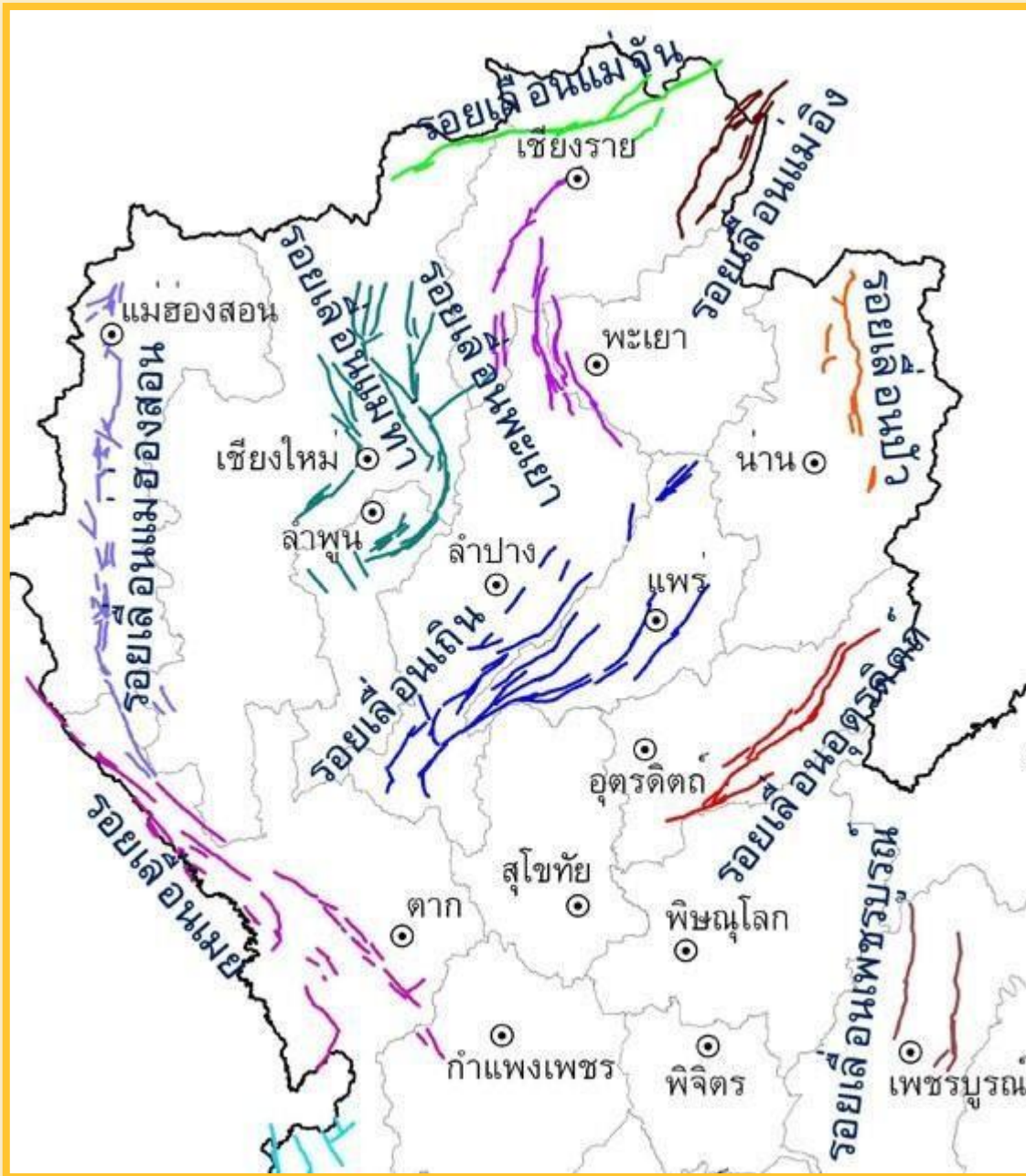


FOREST FIRE MAP

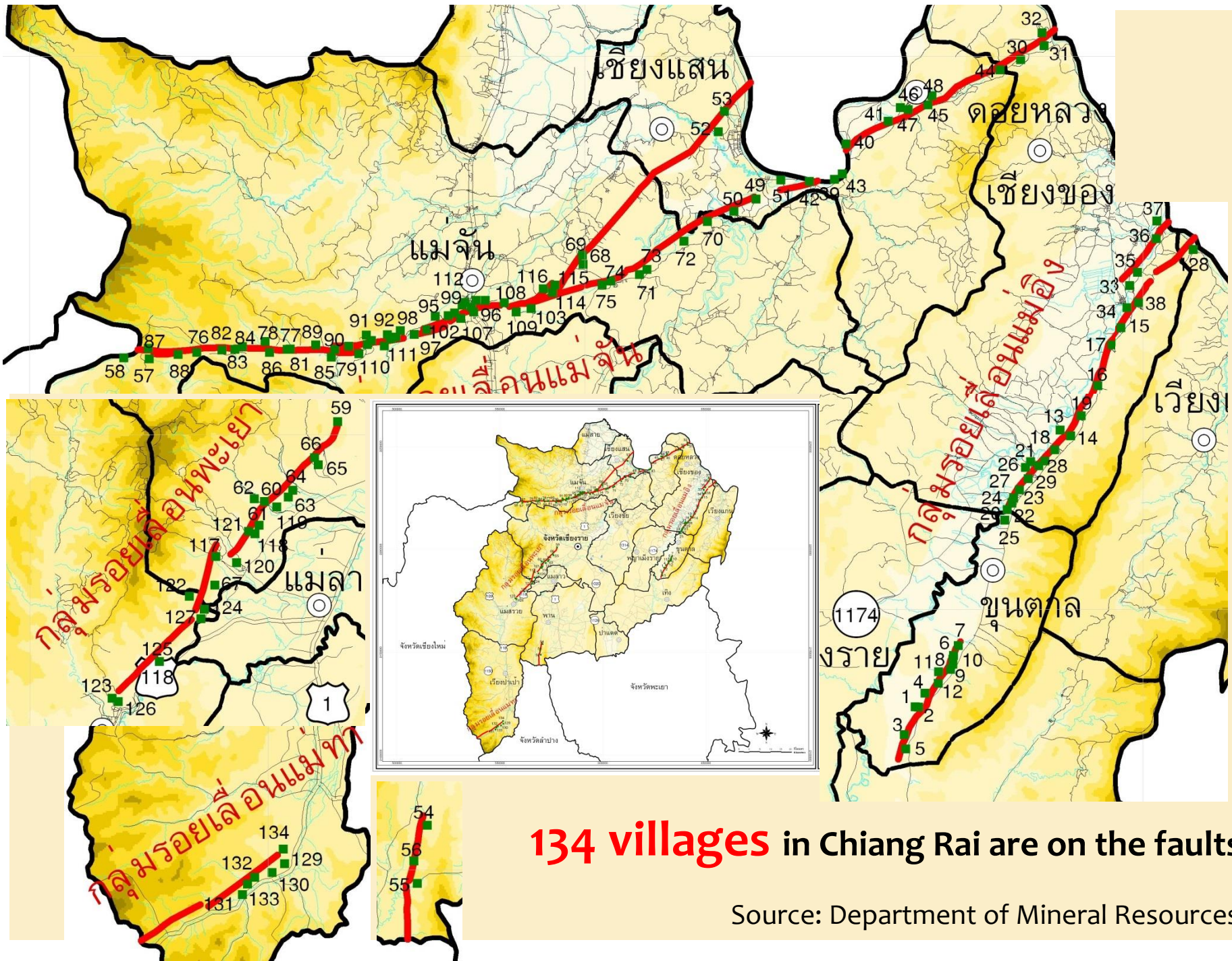


EARTH QUAKE MAP

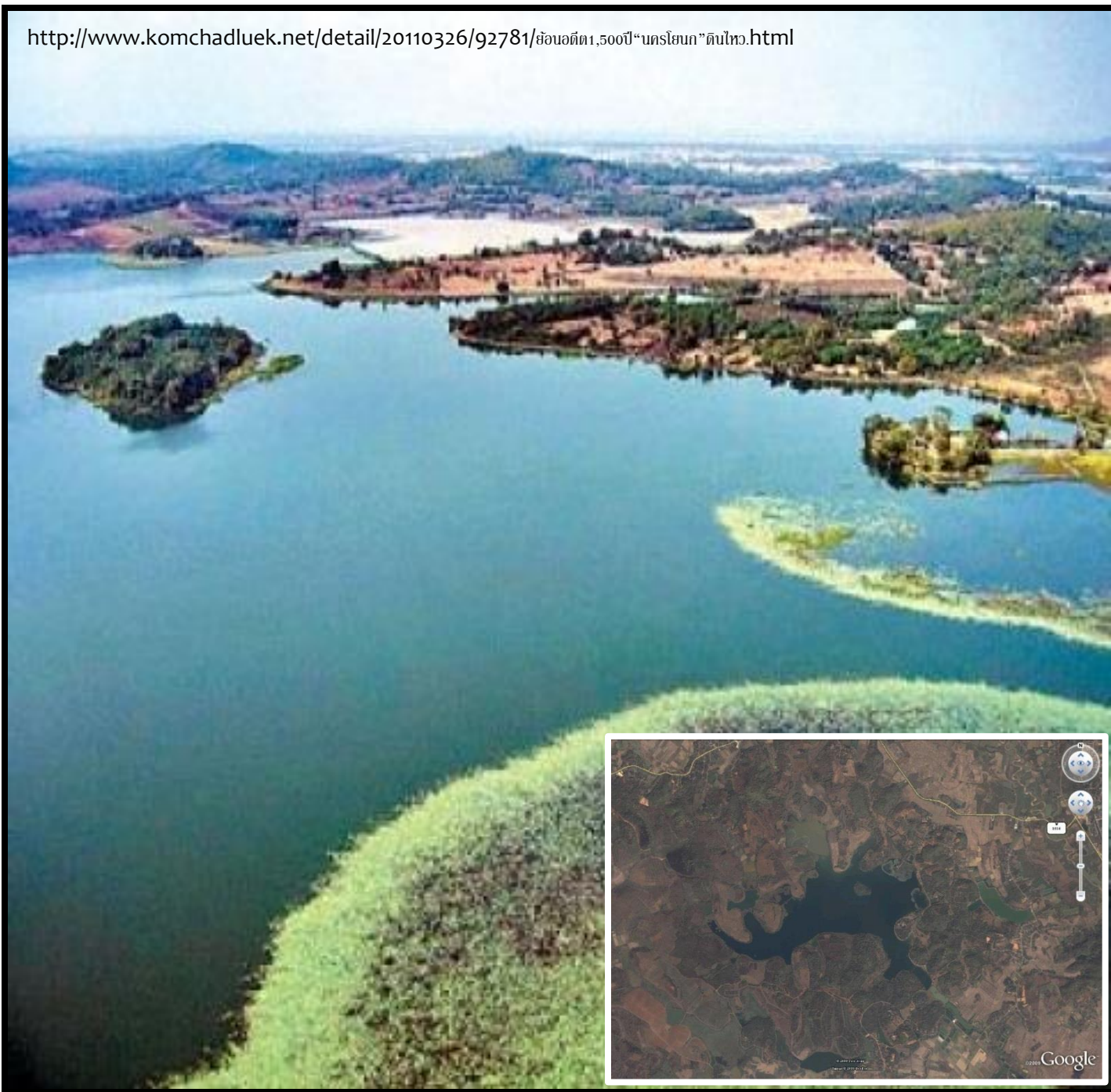
14 Active Faults in Thailand



9 are in the North of Thailand



<http://www.komchadluek.net/detail/20110326/92781/ย้อนอดีต1,500ปี“นครโยนก”ดินไหว.html>



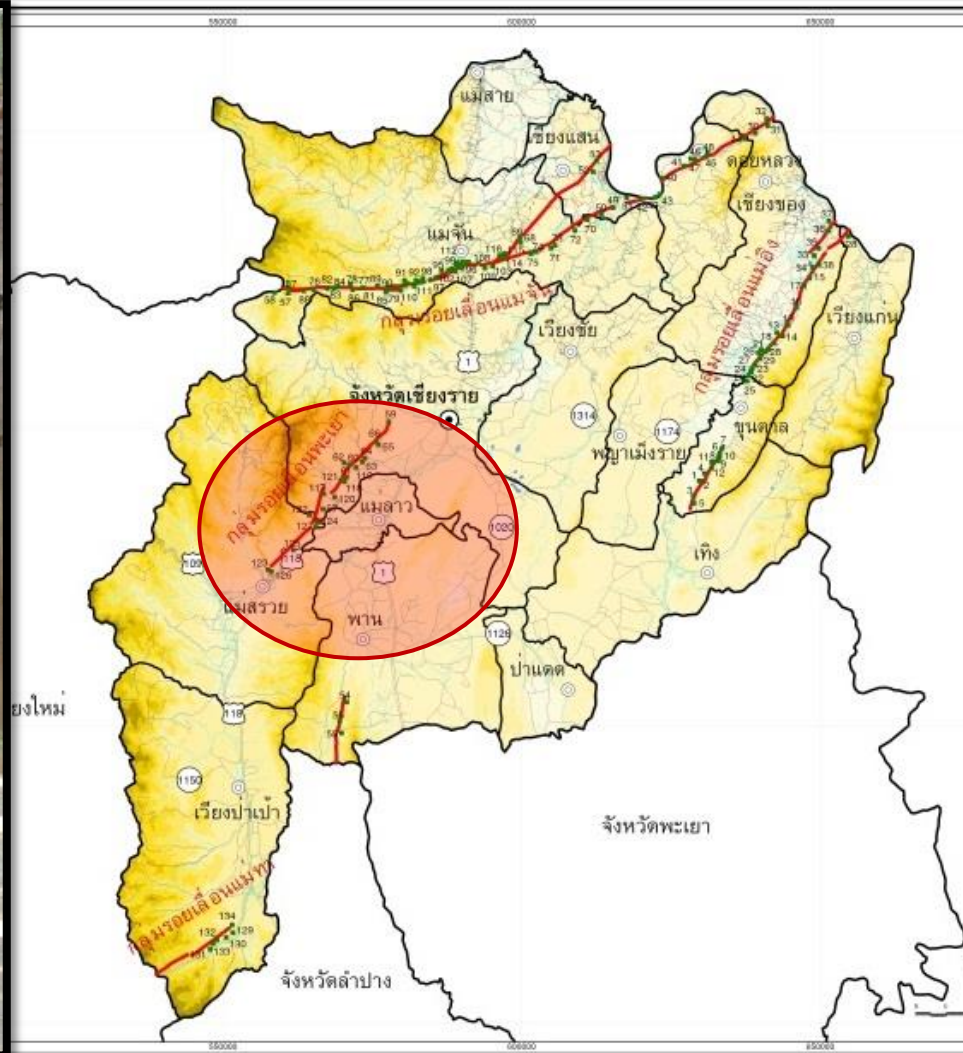
THE LOST CITY OF YONOK

2014 EARTHQUAKE IN CHIANG RAI

- A 6.3-Richter earthquake hit Chiang Rai at 18:08:43 (local time) on May 5
- 609 villages in 7 districts were affected leaving 1 death, 107 injuries and >15,000 buildings damaged
- The damages was valued around 1 billion bahts



A group of people are gathered in front of a building that has suffered significant structural damage. The building's roof is partially collapsed, and debris is visible. Several palm trees are in the foreground, and the scene is set outdoors on a paved area. The people are dressed in casual clothing, and the overall atmosphere suggests a scene of aftermath or investigation.



Media Attention

Route 118
(to Chiang Mai)



White
Temple



Baan Huay Saan Yao



Temporary Shelter at a School



Traditional vs Modern Houses



Problems with modern houses

- Sub-standard materials and building techniques, esp. columns and beams
- Elevated houses (popular after the major flood in 2011) were particularly damaged
- No investment in safeguards for earthquake

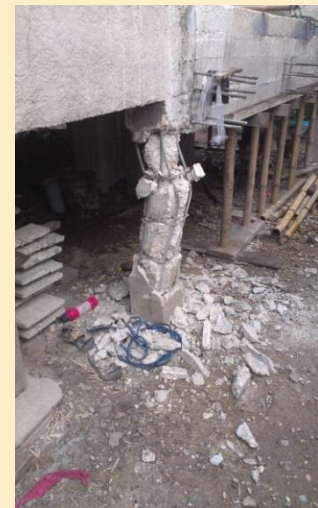


Photo credit:
Dr. Teeraphot Supavirakit
(Phayao University)

Disaster Prevention and Mitigation Act B.E. 2550 (A.D. 2007)

- Replacing 1) Civil Defense Act, B.E. 2522 (A.D. 1979)
2) Fire Defense Act, B.E. 2542 (A.D. 1999)
- Establishing the Department of Disaster Prevention and Mitigation in the Ministry of Interior
- Disaster includes both natural and human-made disasters such as accidents, air threats and sabotages affecting life, body or properties of the people and of the government



National Disaster Prevention and Mitigation Plan (2010-2014)

Scale	Operation
1 Minor Disaster	A local or district command center can manage it according to the local DPMP
2 Medium Disaster	Beyond the control of level 1 commander , a provincial or Bangkok command center takes command
3 Major Disaster	Beyond the control of level 2 commander or require special teams of equipment , the national command center (DDPM)
4 Catastrophic Disaster	The Prime Minister or a Deputy Minister takes command

Post-disaster Recovery

Section 30: Local Director shall responsible for damaged assessment of disaster, and those effected people, and properties shall be recorded or certified on that assessment. A proof of affected or a certificate shall be given to those people for recovering and compensation.

Proof of affected under paragraph one shall have entitlement details to get restoration and compensation from the government, name and contact information of relevant government agency. Anyhow, the required information shall be defined by the Director-General.

If those effected people lost their official or legal documents, those people shall request or inform their local administration at effected area or at their homeland. That local administration shall notify to other relevant government agencies. Those relevant government agencies shall renew and delivery that documents to effected people or the local administration. All charges and fees shall be waived for these renewing services, even there shall be charged legally.

When those affected people or owner of damages properties request other support or services, that Local Director shall issue assessment certificate in accordance the regulations of Ministry of Interior.

An Example of the Damage Assessment

House No.	Village	Sub-district	Damage	Value
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เรือนที่ได้รับความเสียหายจากเหตุแผ่นดินไหว วันที่ 5 พฤษภาคม 2557
เวลา 18.08 น.

	เลขที่	หมู่ที่	ตำบล	ความเสียหาย	ความเสียหาย
	24	6	แม่สรวย	ฝาผนังบ้านแตกพัง เสาบ้านแตกร้าว	180.00
	64	6	แม่สรวย	ฝาผนังบ้านแตกร้าว รั้วบ้านเสียหาย	3,000.00
น	35	6	แม่สรวย	เสาบ้านและฝาผนังบ้านแตกร้าว	2,700.00
	79	6	แม่สรวย	ฝาผนังห้องครัว ห้องน้ำ แตกร้าว	11,650.00
	58	6	แม่สรวย	เสาบ้านแตกทรุด ฝาผนังพังทะลาย	6,420.00
	14	6	แม่สรวย	บานกระຈກหน้าต่างแตกเสียหาย	1,640.00
ลัษ	101	6	แม่สรวย	ฝาผนังบ้าน ห้องครัว เสียหาย	6,400.00

Many Aids and Supports



6 June 2014, MFU relief group went to Dong Mada Sub-District, Mae Lao District



เพื่อนไทยพีบีเอส กู้วิกฤตแผ่นดินไหว ร่วมกับ

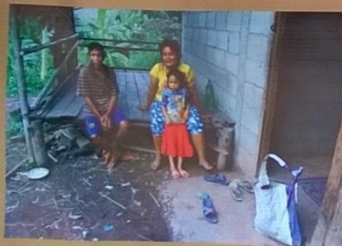
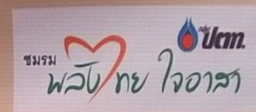


เครือข่ายการจัดการภัยพิบัติภาคประชาชน จังหวัดเชียงราย และ ชมรมพลังไทยใจอาสา ปตท.

สนับสนุนงบประมาณซ่อมแซมบ้าน

ครอบครัว นายเสาร์แก้ว เกษมราชบำรุง

บ้านห้วยล้านพัฒนา 150 หมู่ที่ 6 ตำบลแม่สรวย อำเภอแม่ลาว จังหวัดเชียงราย
เริ่มก่อสร้าง ณ. วันที่ 17 กันยายน 2557



Recent Re-visit (4 Oct)



Some Observations

- Common construction practices were not in line with the building code and safety standards
- Insufficient preparation for disaster, esp. earthquake
- People relied on social media and word of mouth for information



Compliance with Building Control Act

- Based on a survey in the suburban of Chiang Mai:
 - 58% built their own or friends' houses
 - 56% modified their own or friends' houses
 - Only 32% registered with the municipality
 - Less than 8% consulted with the municipality about safety



MFU Workshop for Schools (1-2 Aug)



Schools in Disaster



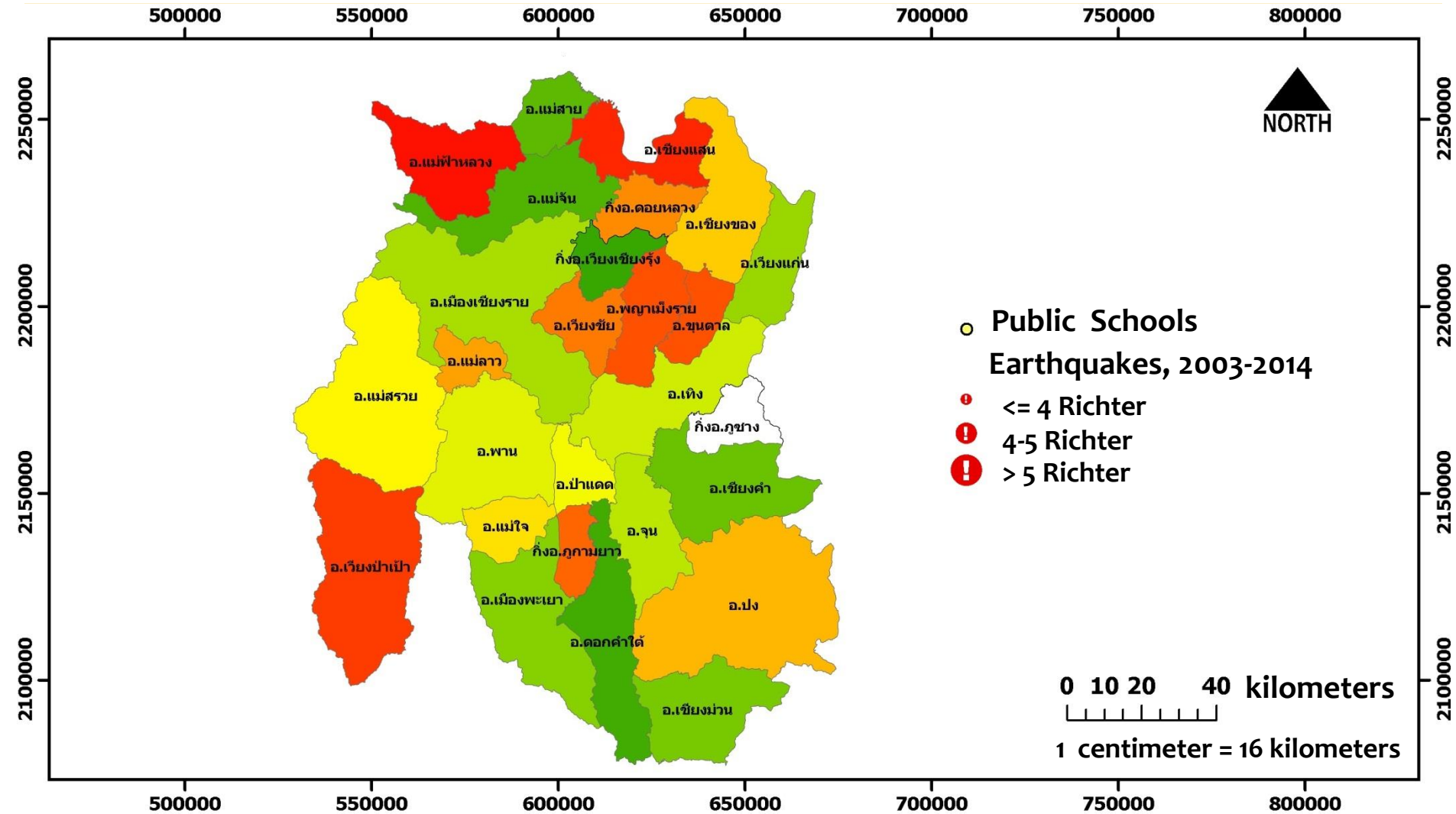
VICTIM

or



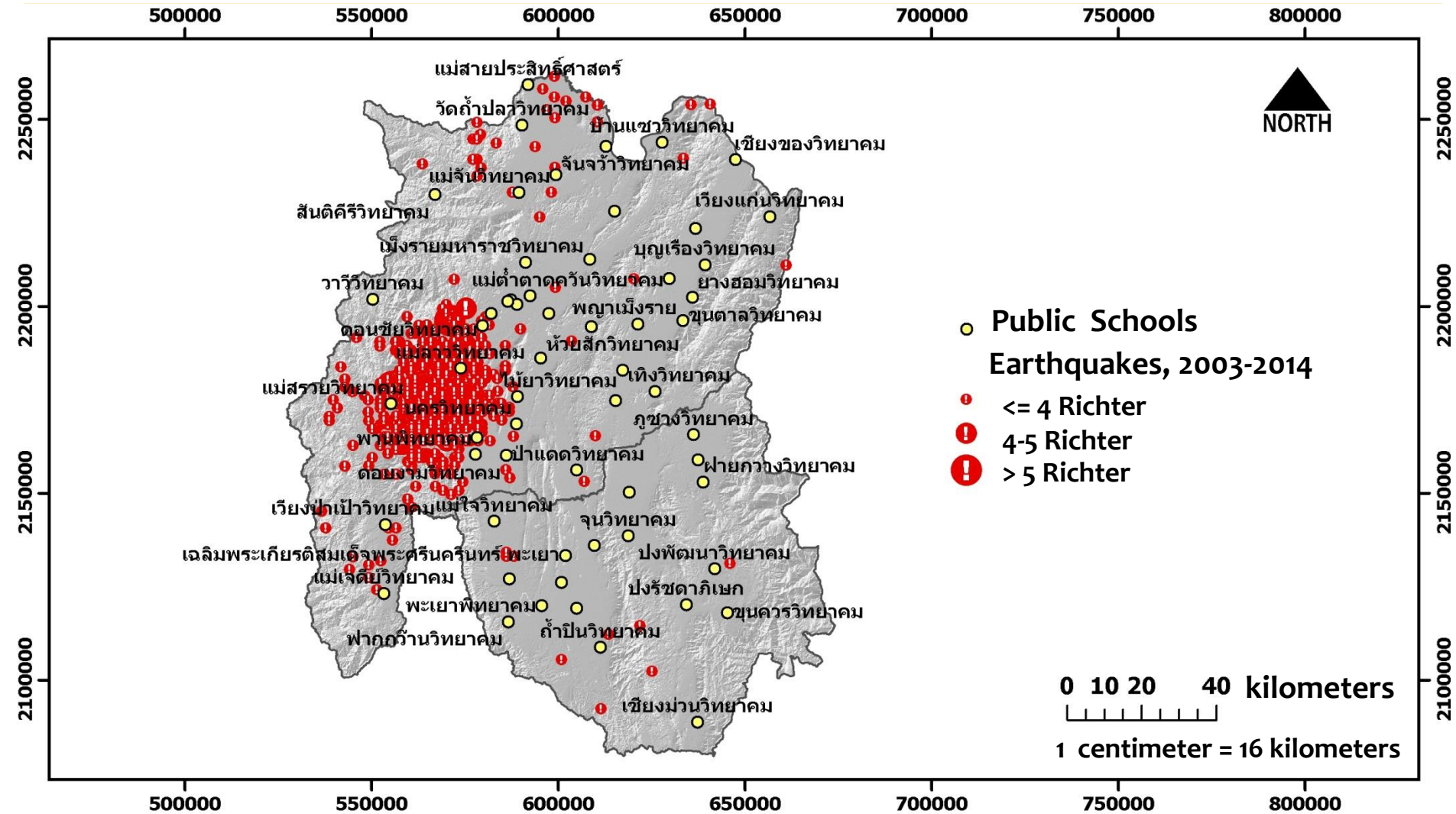
SHELTER

Preparedness of Schools in Chiang Rai and Phayao



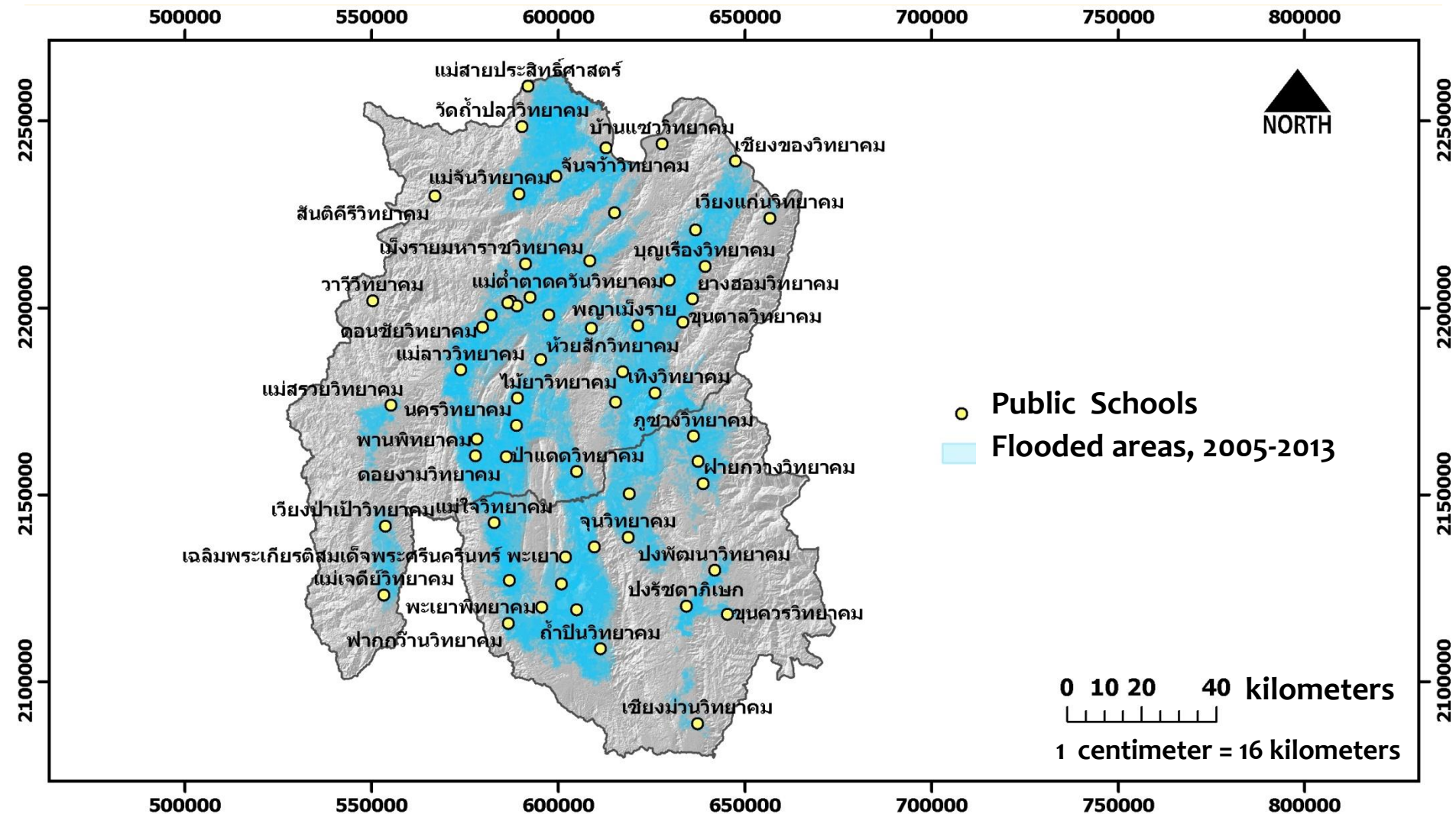
Earthquake and Aftershocks

Chiang Rai and Phayao



Flood Map

Chiang Rai and Phayao



Concluding Remarks

- Prepare local disaster plan with participation of stakeholders
- Strictly enforce the Building Control Act with new buildings
- Devise techniques to modify existing buildings
- Capacity building with local constructors
- Focus on co-benefits of new building standards

