

INDONESIAN-FRENCH SEMINAR

June 24th - 25th 2013

seminar room, medical faculty of andalas university
Limau Manis, Padang - West Sumatra, Indonesia

LAND USE PLANNING IN COASTAL REGIONS FACING NATURAL RISKS

*How to think natural risks and mitigating strategies
in land use planning processes of coastal regions?*

Speakers:

M. Bernard Guezo, CERTU

M. François Hissel, CETMEF

M. Hencky Mayaguezz, Université de la Rochelle

M. Denis Mercier, Université de Nantes

Mme Julie Morin, CNRS

M. Raphaël Paris, Université de Clermont-Ferrand

M. Mhamed Souli, Université de Lille 1

M. Gunnar Tietze, Geotopic

Mme Fabienne Vallée, Technopôle de Brest

Mme Clara Villar, CERTU

Dr. Syamsul Maarif (Head of National Agency for Disaster Management)

Teddy Boen

Yazid Fadhli

Dr. Abdul Hakam (Andalas University)

Ir. Hedyanto, MSCE, MSi (Head of Construction Services Agency of Public Works Ministry)

Dr. Febrin Anas Ismail (Andalas University)

Dr. Bambang Istijono (Andalas University)

Dr. Badrul Mustafa (Andalas University)

Ahmad Suraji

Ir. Suprpto, MSi (Head of West Sumatra Public Work)

Rahmat Syahni

SCHEDULE AND PROGRAM

Day 1: June 24 à Presentation

Time	Speaker	Subject
9.00-9.10	Febrin A. Ismail	Steering Committee Report
9.10-9.20	Werry Darta T.	Opening Speech
9.20-9.35	Joël le Bail, Scientific cooperation Attaché	Opening Speech
9.35-9.45	Rector	Official Opening of the Seminar
9.45-10.00	Bernard Guezo	Technical opening: land management and regulation
10.00-10.45	Ir. Hedyanto	Keynote Speaker : Policy Of Disaster Safe Infrastructure In Indonesia
10.45-11.00	Coffee Break	
Session One : Some risks affecting land planning strategies		
11.00-11.30	Raphael Paris	Volcanic tsunamis in Indonesia: developing a strategy of hazard mitigation
11.30-12.00	Dr. Abdul Hakam	Landslide in Maninjau, Agam, West Sumatra
12.00-12.30	Mhamed Souli	The effects of waves on constructions: Numerical simulation using FEM and SPH methods
12.30-13.00	Dr. Bambang Istijono Yazid Fadhli	Presentation Lesson Learnt from 2009 Earthquake in Mentawai island and West Sumatra
13.00-14.00	Lunch Break	
Session Two : How to think land planning in coastal region facing natural risks		
14.00-14.30	Gunnar Tietze	Mitigation risks land plans
14.30-15.00	Ahmad Suraji	A Proposed Construction and Infrastructure Management Framework For Disaster Mitigation
15.00-15.30	Denis Mercier	How to mitigate the risk of marine submersion on the French coast
15.30-16.00	Teddy Boen	Retrofitting of Multi-stories Buildings in West Sumatra
16.00-16.15	Coffee Break	
16.15-16.45	Julie Morin	Improve evacuation capacities facing tsunami hazard: from modelling to education
16.45-17.15	Hencky Mayaguezz	Methodological contribution for an integrated assessment of human vulnerability in case of Tsunami in Padang
End of Day 1		
19.30-21.00	Dinner on invitation (French and Indonesian speakers)	

Day 2: June 25 à Workshop

Horaire	Moderator	Subject
9.00-9.15	Opening of day 2	
9.15-10.45	Bernard Guezo MSi Dr. Badrul Mustafa	9.15-9.45 : Subsidence as a possible entrance for a systemic approach to risk management/ History of West Sumatra earthquakes
		9.45-10.45 : Workshop: How to take these risks into account in land planning?
10.45-11.00	Coffee Break	
11.00-12.30	Clara Villar Rahmat Syahni Ir. Suprpto	11.00-11.30 : From prevention to post-crisis: stakeholders involvement / The Experience On Action Plan For Rehab Recont In West Sumatera
		11.30-12.30 : Workshop: Training different categories of territorial stakeholders to risk management
12.30-13.30	Lunch Break	
13.30-15.00	François Hissel Dr. Syamsul Ma'arif	13.30-14.00 : Taking into account risks in the spatial planning of coastal areas: an overview of the French experience / Disaster Management in Indonesia
		14.00-15.00 : Workshop: Thinking the development and the implementation of risks prevention land plans in Indonesia
15.00-15.15	Coffee Break	
15.15-16.45	Fabienne Vallée Dr. Febrin Anas Ismail	15.15-15.45 : International network to define and implement integrated management centers for coastal zones and natural risks/ tsunami mapping in Padang City
		15.45-16.45 : Workshop: Developing indonesian-French cooperation in these fields
16.45-17.15	François Hissel / Dr. Syamsul Ma'arif	Conclusions
17.15-17.30	Attaché Joël le Bail/ Rector	Closing Statement
End of Seminar		



LESSON LEARNT FROM 2009 EARTHQUAKE IN WEST SUMATERA (CONDITION AND GENERAL POLICIES OF GOVERNMENT IN POST - DISASTER REHABILITATION AND RECONSTRUCTION)

Presented on French-Indonesian Seminar :
Land Planning in Coastal Regions Facing Natural Risks
Padang, 24-25 June 2013

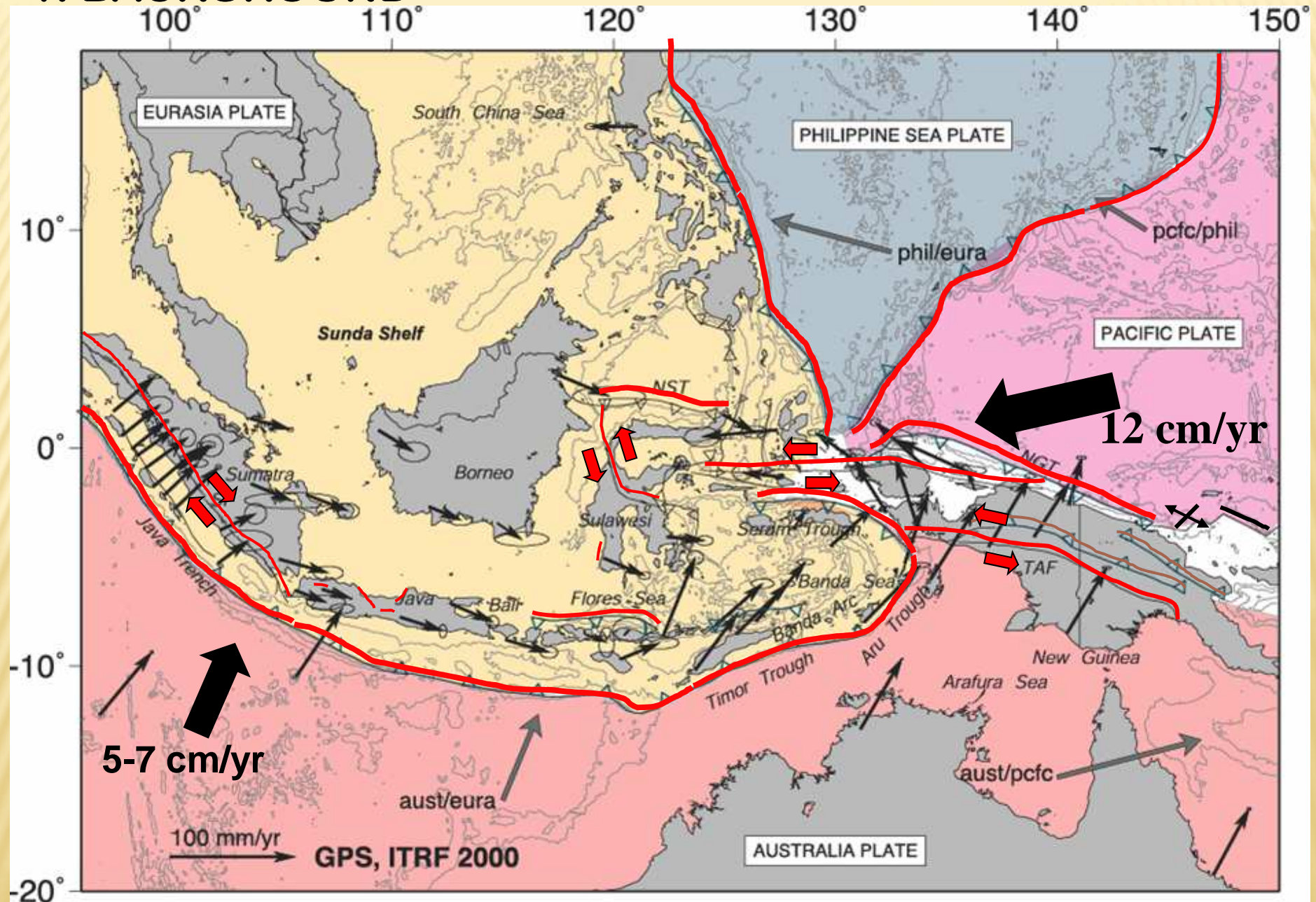
Delivered By :
Dr. Bambang Istijono, ME



OUTLINE

1. **BACKGROUND**
2. **EARTHQUAKE REFLECTIONS IN WEST SUMATRA**
3. **PROVINCIAL GOVERNMENT POLICIES IN REHABILITATION AND RECONSTRUCTION**
4. **FUTURE PROSPECTS**
5. **RECOMMENDATIONS AND EXPECTATIONS**

1. BACKGROUND



ACTIVE TECTONICS of INDONESIA: Crustal motions from GPS study (Bock et al, 2004)

AREA AFFECTED BY EARTHQUAKE



Area Affected



PADANG EQ 2009



COLLAPSED STRUCTURE - 2009

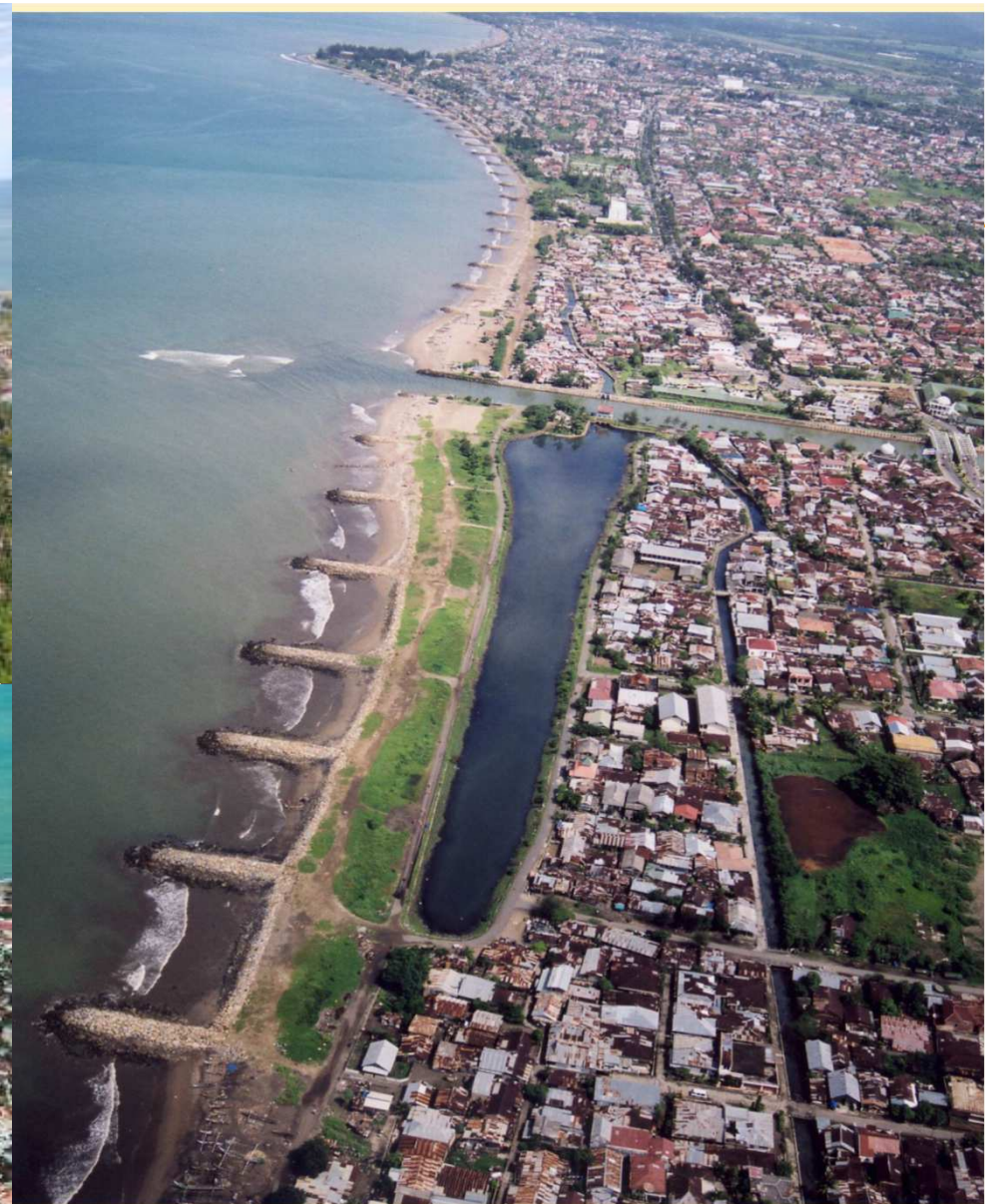


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PADANG URBAN AREA

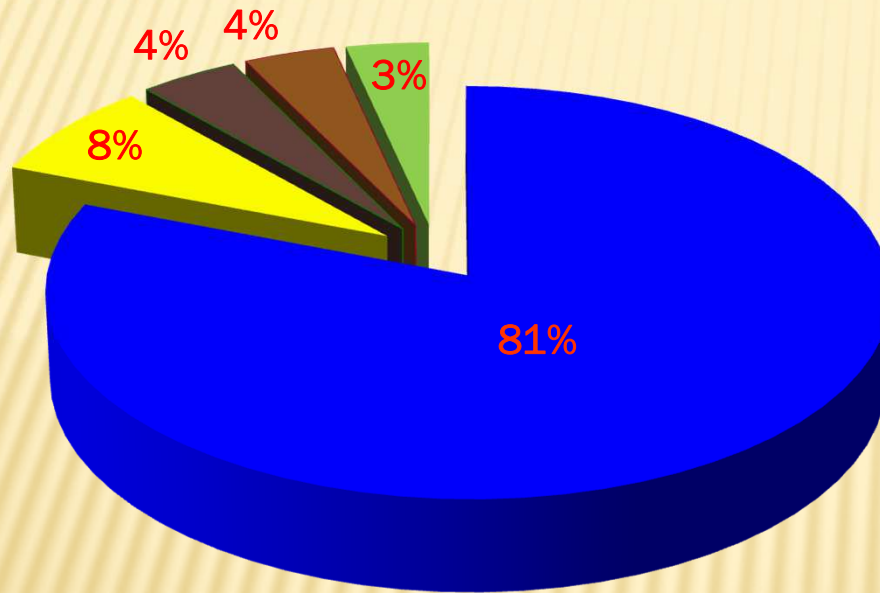


Approximately 1.3 million people
living along the west coastal line
of West Sumatra

2. EARTHQUAKE REFLECTIONS IN WEST SUMATRA

DAMAGE AND LOSSES PER SECTOR OF WEST SUMATRA EARTHQUAKE 30 SEPTEMBER 2009

■ Housing ■ Social ■ Economic Productive ■ Infrastructure ■ Cross Sector



Total Losses and Damage
(Housing, Infrastructure,
Economic Productive, Social and
Cross sector)

Rp. 21,567 trillion/
US \$ 2,270 million

Damage concentration of housing sector

TOTAL DAMAGE AND LOSSES DUE TO EARTHQUAKE BASED ON SECTOR/SUB SECTOR AND OWNERSHIP (Rp. trillion)

Sector/Sub Sector	DISASTER IMPACT		TOTAL	OWNERSHIP	
	DAMAGE	LOSSES		PRIVATE	PUBLIC
SOCIAL SERVICES	17,133.60	502.70	17,636.30	16,744.00	892.30
HOUSING	15,649.40	297.60	15,947.00	15,947.00	0.00
EDUCATION	593.80	25.00	618.80	133.70	485.10
HEALTH	569.10	175.20	744.30	355.90	388.40
CULTURE AND RELIGI	304.20	3.10	307.30	300.50	6.80
DISADVANTAGE FACILITY	17.10	1.80	18.90	6.90	12.00
PRODUCTIVE SECTOR	811.70	1,335.60	2,147.30	1,845.60	301.50
AGRICULTURE	56.10	223.00	279.10	228.80	50.30
INDUSTRY	10.90	114.80	125.70	125.60	0.00
TRADE	673.70	621.50	1,295.20	1,061.40	233.80
TOURISM	71.00	376.30	447.30	429.80	17.40
INFRASTRUCTURE	744.40	114.40	858.80	683.20	175.60
TRANSPORTATION AND COMMUNICATION	327.60	28.80	356.40	252.30	104.10
ENERGY	46.30	6.00	52.30	0.00	52.30
WATER AND SANITATION	370.50	79.60	450.10	430.90	19.20
CROSS SECTOR	679.40	246.10	925.50	0.00	925.50
GOVERNMENT FACILITIES	610.80	14.8	625.60	0.00	625.60
ENVIRONMENT	0.60	1.1	1.70	0.00	1.70
FINANCE AND BANKING	68.00	230.2	298.20	0.00	298.20
Total	19,369.10	2,198.80	21,567.90	19,272.80	2,294.90

3. POLICIES RELATED TO HANDLING OF WS DISASTER

1. Local Regulation No. 5 Year 2007 concerning Disaster Management
2. Local Regulation No. 7 Year 2008 concerning Long Term Development Plan 2005 -2025
3. Local Regulation No. Year 2010 concerning West Sumatra Spatial Plan 2009 – 2028
4. Local Regulation No. 02/III/2010 concerning Coastal and Small Island Management of West Sumatra Province
5. Regulation of Kaban BNPB **No.12 Year 2009** concerning Action Plan of Rehabilitation and Reconstruction in West Sumatra Province
6. Regulation of Kaban BNPB **No.111 Year 2009** concerning Implementation Direction of Post-earthquake disaster Rehabilitation and Reconstruction of West Sumatra Province
7. Decision of Kaban BNPB **No.109/BNPB/XI/2009** concerning Appointment of Technical
8. Support Team Personnel of Post-earthquake disaster Rehabilitation and Reconstruction of West Sumatra Province
9. Decision of Kaban BNPB **No.30/BNPB/01/2010** concerning Change of Technical Assistance Team Personnel of Post-earthquake disaster Rehabilitation and Reconstruction of West Sumatra Province
10. Memorandum of Understanding between BNPB and West Sumatra Provincial Government **No.MoU No.12/BNPB/XII/2009 and No.362/2872/DPKD-2009**, concerning Implementation of Post-earthquake Disaster Activities/Early Recovery Activities Year 2009.
11. Governor Letter **No.441/I/Sosbud/Bappeda-2010** concerning Technical Guidance of Post-disaster Rehabilitation and Reconstruction Year 2010

STAGE OF REHABILITATION AND RECONSTRUCTION WEST SUMATERA PROVINCE

1. Early Recovery Stage

- 1-3 months post disaster
- Aim to recover psychological and social condition of earthquake victim, equip temporary house and basic services while conduct various preparation for implementation of rehabilitation and reconstruction, including fund mobilization
- In early stage, transition period post emergency phase to rehabilitation phase, need quick funding delivering scheme , so that basic services for disaster victims can be implemented

2. Rehabilitation Stage

- 3 – 12 months after emergency phase ended
- respond for various urgent issues and need immediate handling

3. Reconstruction Stage

- 6 – 24 months
- Aim to recover whole system and integrate various development program into regional development approach

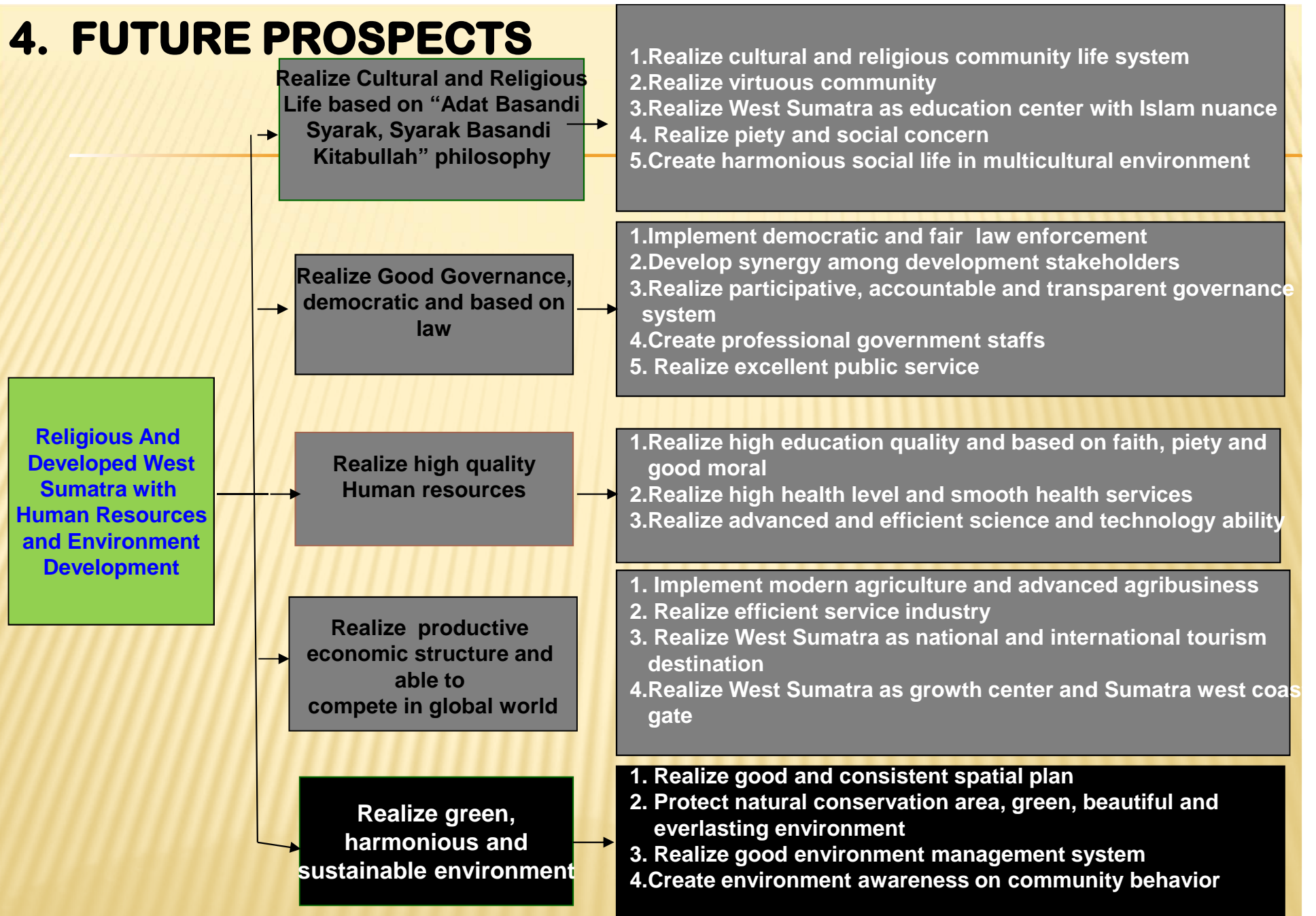
FUNDING POLICY OF REHABILITATION AND RECONSTRUCTION

FUND SOURCES

1. National Budget through ready to use fund
2. National budget by BNPB
3. Local budget by BPBD
4. Disaster Aid ABPN/ APBD
5. Reallocation of Loan
6. General Allocation Fund(DAU)
7. Deconcentration Fund
8. Special Allocation Fund(DAK)
9. Mandatory (licensing)/Insurance
10. Overseas Grant Hibah through Minister of Finance Account
11. Grant from company/private sector/community
12. Participation fund from community



4. FUTURE PROSPECTS



VISION

MISSION

DEVELOPMENT POLICIES DIRECTION ¹²

LONG TERM DEVELOPMENT PLAN OF WEST SUMATRA PROVINCE YEAR 2005-2025

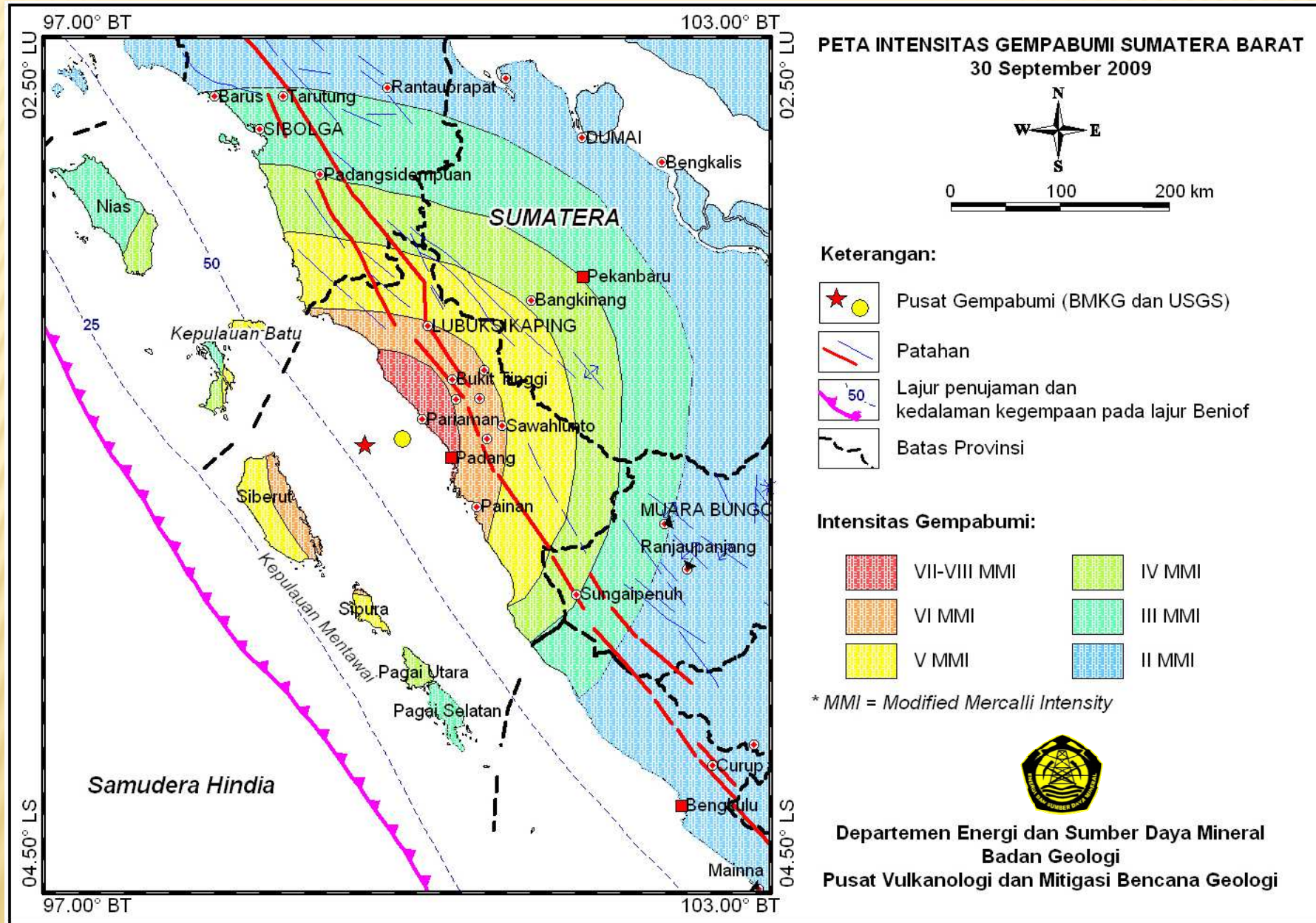
MISSION

Realize green, harmonious and sustainable environment

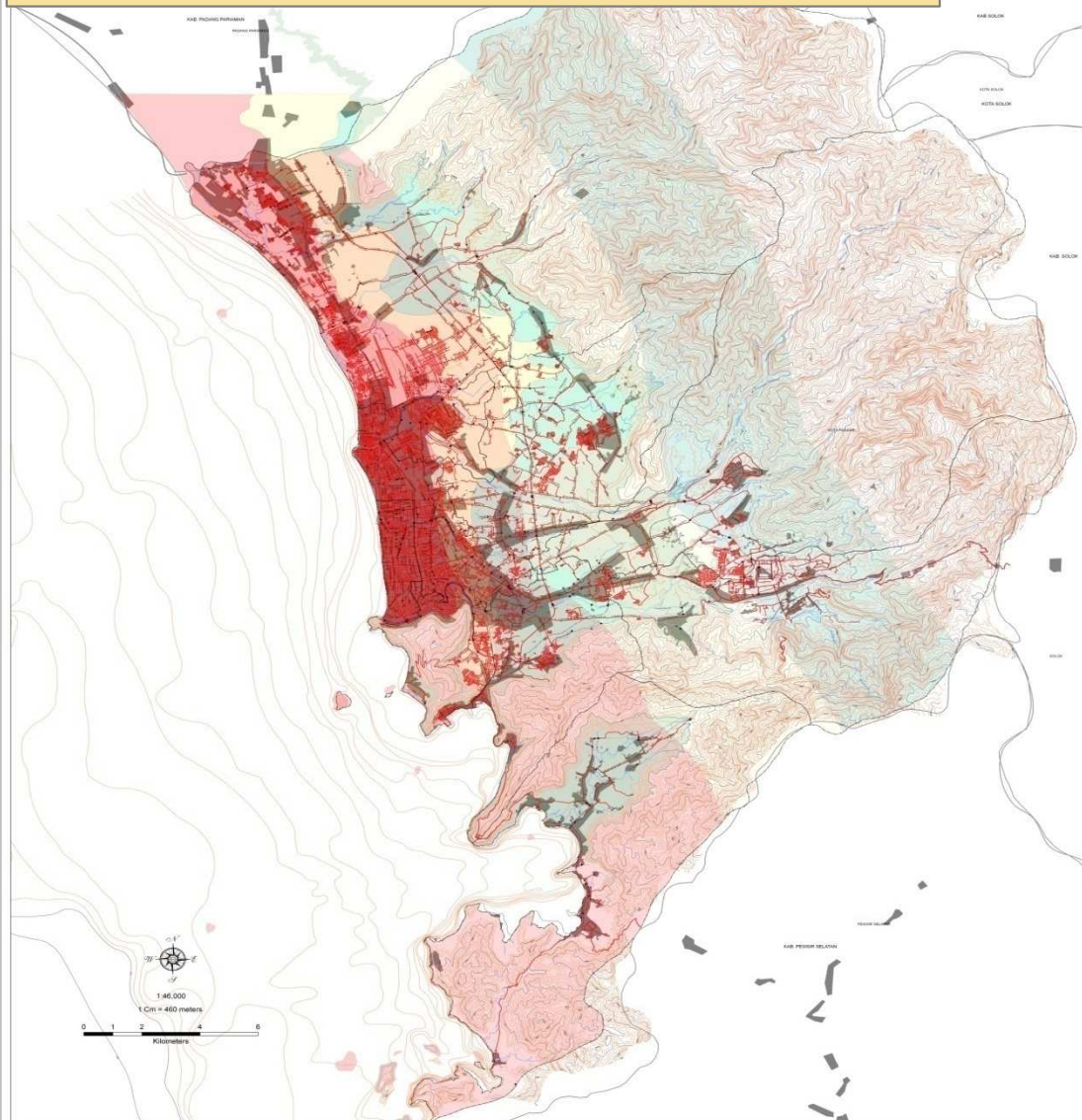
POLICIES DIRECTION

1. Realize good and consistent spatial plan
2. Protect natural conservation area, green, beautiful and everlasting environment
3. Realize good environment management system
4. Create environment awareness on community behavior

Earthquake Condition



Tsunami Susceptibility of Padang City



Prospect:

1. Tsunami threat to 5 dense populated cities in West Coast (Painan, Padang, Pariaman, Air Bangis, Tiku)
2. With the earthquake condition,
 - a. All public buildings will be checked related to earthquake potency in the future
 - b. New building will be built in appropriate with earthquake zone
 - c. Earthquake zone will be formulated for building clustering in accordance with earthquake zone.
 - d. Implement training and simulation in order to enhance community preparedness

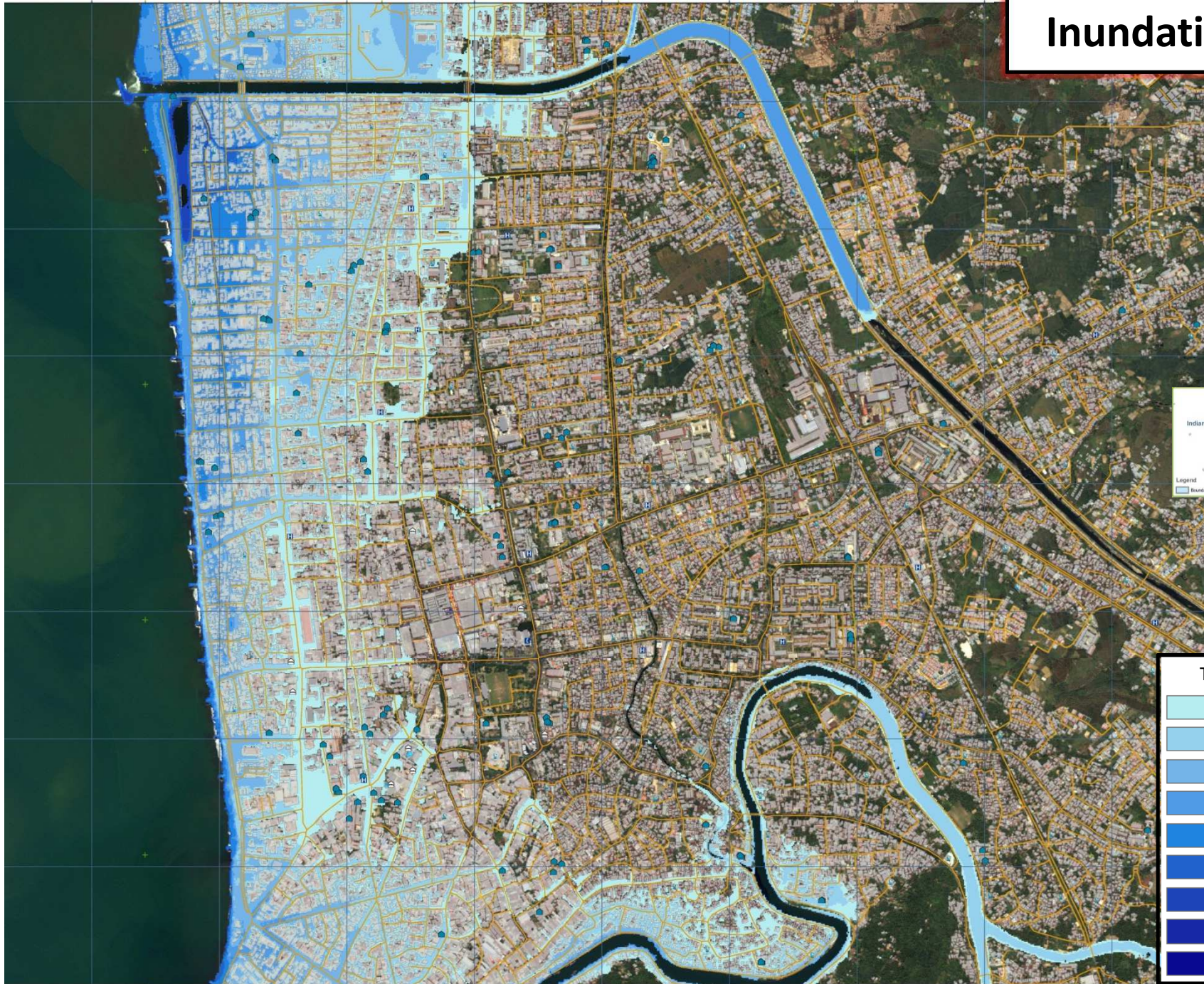
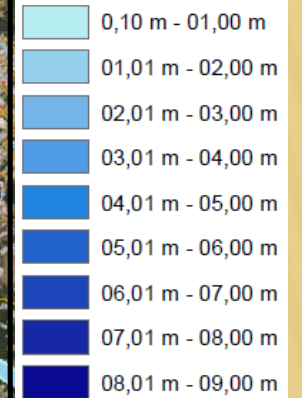
Inundation Area

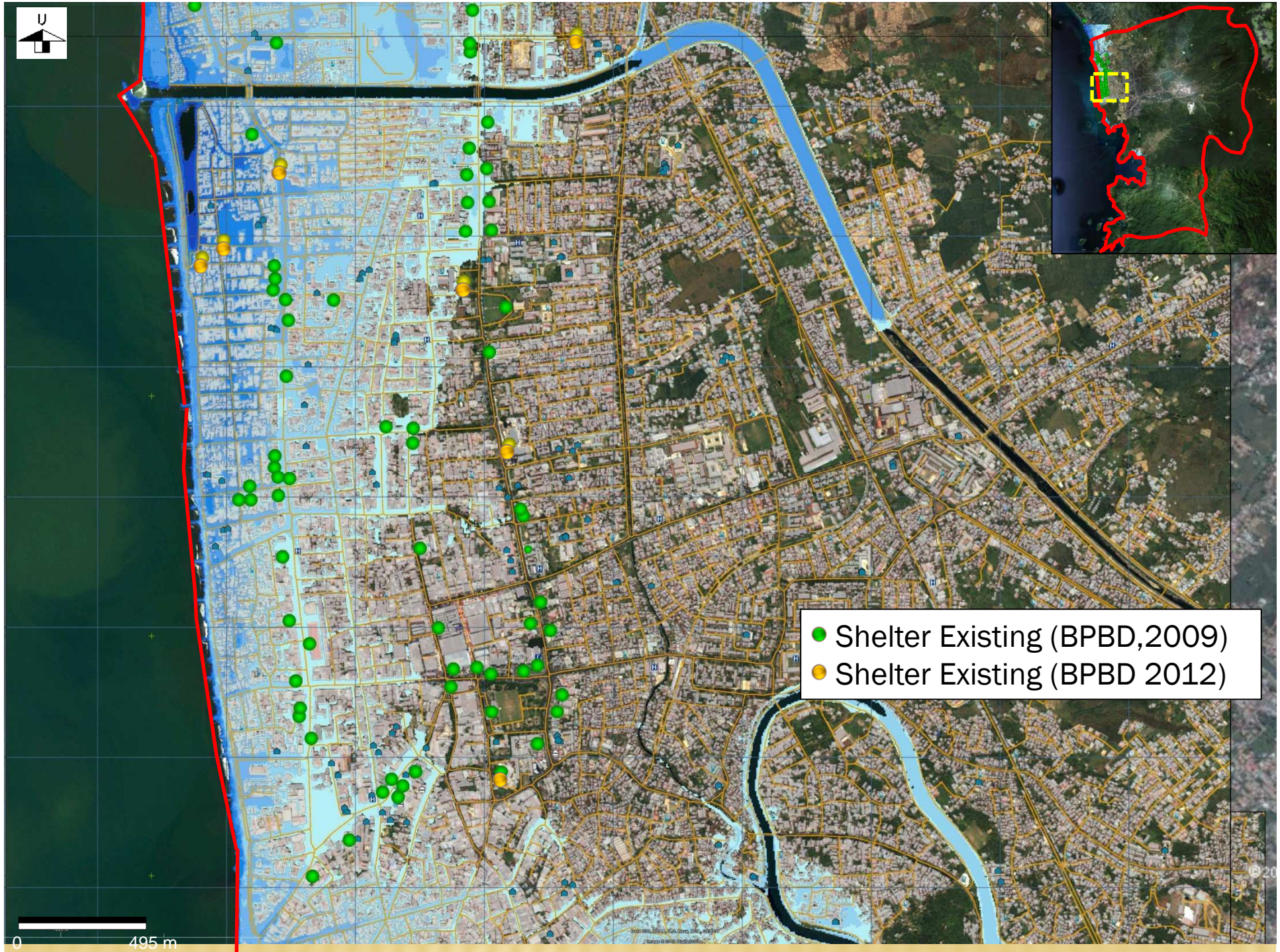
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0 600 km

Tinggi Genangan





0 495 m

Education Infrastructures

1. New construction of severe damage/collapse school buildings. It was conducted through applied disaster safe building standard and equipped with area for evacuation place
2. Moderate damage school buildings were rehabilitated to be disaster friendly through strengthening of wall and structure



Public Infrastructures

1. Severe damage Hospitals and public facilities (market, government office) were constructed by rehabilitation of structure and function as evacuation place
2. Provincial Public Work office was constructed as model of using modern technology (seismic reduction)



DINAS PRASJAL TARKIM

ESCAPE BUILDING MENGGUNAKAN STRUKTUR RAMAH GEMPAA YAITU BASE SEISMIC ISOLATED



ASSISTANCE AND COOPERATION OF INSTITUTIONS/DONOR COUNTRIES FOR POST-DISASTER MANAGEMENT

- 1. Schools Construction**
- 2. Water Resources Development**
- 3. Housing License (Building License)**
- 4. Rehabilitation and development of Government offices, hospitals, etc.**

5.RECOMMENDATIONS AND EXPECTATIONS

1. Due to West Sumatra condition that frequently affected by all kind of disasters, therefore mitigation preparation (risk reduction and preparedness) is urgently needed.
2. Post-disaster rehabilitation and reconstruction year 2009 necessitates huge amount of fund, thus it need financing from Local, Provincial and National Budget and also from institutions/donor countries.
3. Cooperation among all parties, both local and international, starting from preparedness to rehabilitation and reconstruction will be continued and developed in order to strengthen community preparedness and buildings infrastructure that function as shelter/tsunami evacuation place.

Shelter Existing



PADANG UNIVERSITY BUILDING (Jalan Hamka, Padang)

[BACK](#)

Shelter Existing



BUNG HATTA UNIVERSITY BUILDING (Jalan Khatib Suleman, Padang)

[BACK](#)

Shelter Existing



Mosque Nurul Iman Padang

BACK

Shelter Existing



Kantor BPK RI Perwakilan Provinsi Sumatera Barat Padang

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Shelter Existing



Kantor Wilayah Ditjen Perbendaharaan (Jalan Khatib Suleman, Padang)

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Shelter Existing



Gedung Bank Indonesia (Jalan Sudirman, Padang)

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Shelter Existing



Gedung DPRD Provinsi Sumatera Barat (Jalan Khatib Suleman, Padang)

[BACK](#)

Shelter Existing



Al-Azhar Junior School (Jalan Khatib Suleman, Padang)

[BACK](#)

Shelter Existing



Hotel Mercure (Jalan Purus, Padang)

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PUBLIC WORKS PROVINCIAL OFFICE

BASE SEISMIC ISOLATED



BAPPEDA PROVINCIAL OFFICE



LIVESTOCK SERVICES PROV OFFICE



PERSPEKTIF

ESCAPE BUILDING AT GOVERNOR OFFICE



RENCANA PEMBANGUNAN
ESCAPE BUILDING TAHAP II AKAN
MENYERAP DANA SEBESAR
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THANK YOU

