



SPACE-DERIVED GEOSPATIAL INFORMATION FOR SUSTAINABLE DEVELOPMENT IN INDONESIA

Sumaryono

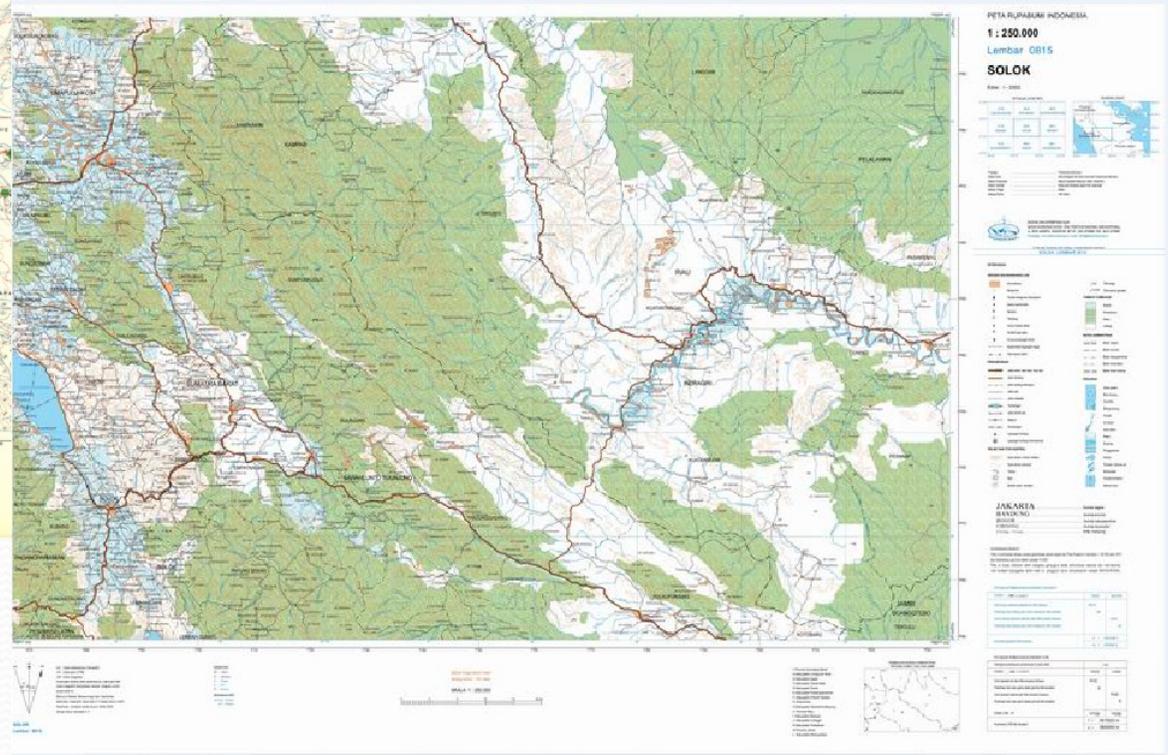
POLICY

- Act No. 4, 2011 : 2 Types of Geospatial Information (GI):
 - Base- GI
 - Geodetic Control Network (GCN)
 - Base Map (Topographic Map)
 - Thematic GI
 - Land Use/Land Cover
 - Forestry
 - Agriculture
 - Climate
 - Geology
 - Land System
 - Forest and Peat Moratorium

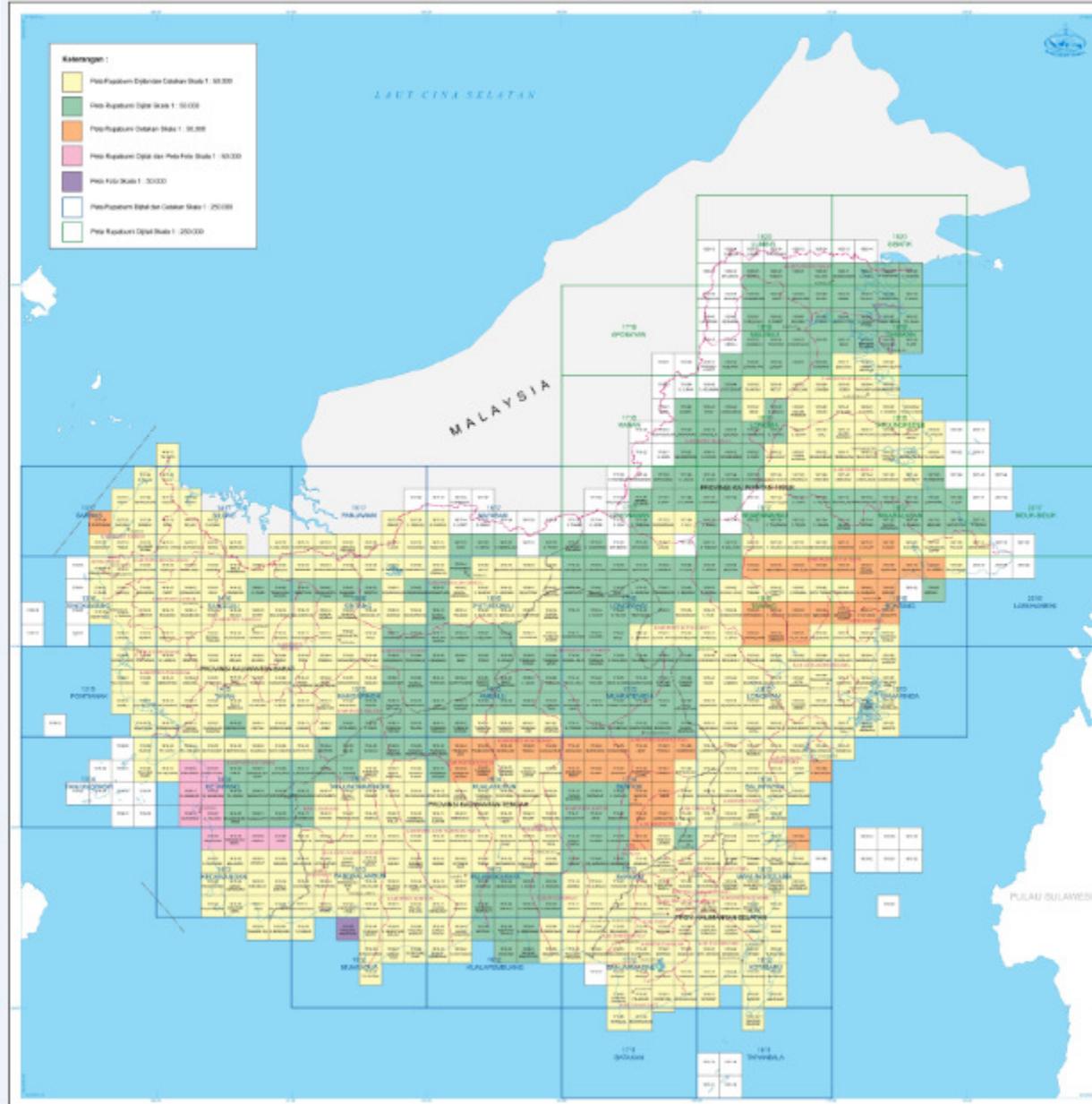
Base-GI and Satellite Data

- Geodetic Control Network and Base Map are provided by Badan Informasi Geospasial – BIG (Geospatial Information Agency – formerly named as Bakosurtanal) and regarded as the single national reference for any other Geospatial Information.
- GCN and Base Map was developed by utilizing Global Positioning System.

Base Map (Topographic Map)



INDEKS PETA KALIMANTAN



Topo-Map Index

Thematic GI and RS Imageries

- Thematic GI can be provided by any organizations or individuals based on their related task and authority and should comply with the single reference.
- National thematic GI should refer to the national standards.
- RS Imageries usually utilized:
 - Landsat
 - SPOT
 - MODIS
 - NOAA AVHRR
 - SRTM
 - IKONOS
 - QuickBird
 - Etc.

Landsat 7 ETM+ Mozaic

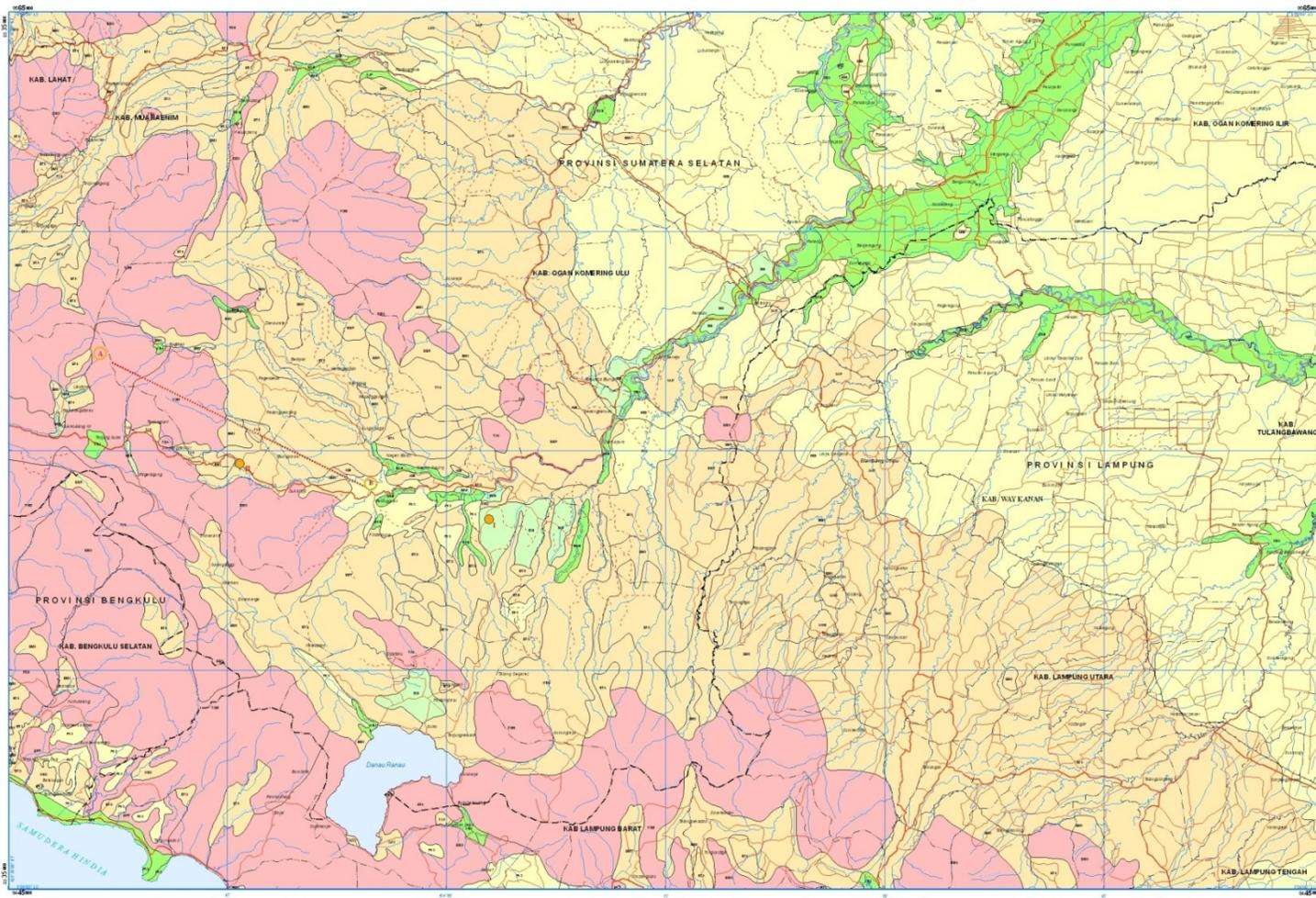




IMPORTANT THEMATIC MAPS

- Analytical Thematic Maps: directly derived from the analysis of GI data including Satellite Remote Sensing data: Land Cover Map,
- Synthetical Thematic Maps: derived from the integration of various thematic maps: Land System Map, Ecoregion Map, Primary Forest and Peatland Moratorium Map, Multi-Hazard Map

Land System Map



PETA SISTEM LAHAN

LEMBAR 1011
BATURAJA
SKALA 1 : 250 000



Proyeksi : Transverse Mercator
Zone : 48 S
Sistem Grid : GRID Geografis Dan UTM
Spheroid : WGS 1984 / DGN 1995

BANCAH KOORDINASI SURVEI DAN PEMETAAN NASIONAL
BANKOSURTANAL
Jalan Raya Jakarta - Bogor Km. 45 Cibungur

LEGENDA

BANGUNAN LAHAN DAN BATAS ADMINISTRASI

- Batas Provinsi
- Batas Kabupaten
- Batas Provinsi
- Batas Kabupaten
- Garis Pantai

PERHUBUNGAN

- Jalan Utama
- Jalan Arteri
- Jalan Kolektor
- Jalan Lokal
- Jalan lain
- Jalan Sepuluh
- Jalan Kereta Api
- Transk A - B

PERAIRAN

- Sungai
- Danau / Waduk

PELOPORAN

- Dataran
- Dataran Berombak
- Dataran Bergelombang
- Perbukitan
- Pergunungan

SISTEM LAHAN

NO	NOVA	TURUNJUK	KETERANGAN
101	101	101	101
102	102	102	102
103	103	103	103
104	104	104	104
105	105	105	105
106	106	106	106
107	107	107	107
108	108	108	108
109	109	109	109
110	110	110	110
111	111	111	111
112	112	112	112
113	113	113	113
114	114	114	114
115	115	115	115
116	116	116	116
117	117	117	117
118	118	118	118
119	119	119	119
120	120	120	120

CATANAN

Sistem lahan yang tidak tercantum diatas tidak merupakan potensi lahan untuk pertanian menurut hasil data RePPHOT. Potensi lahan yang tercantum hanya merupakan indikasi.

RIWAYAT PETA

Peta Sistem Lahan ini merupakan hasil updating peta RePPHOT dengan menggunakan data SRTM (Shuttle Radar Topographic Mission) Tahun 2000 dan CINA Landuse 7 E TM + Tahun 2000-2002. Suvei lapangan Juni 2009.

SUMBER PETA

1. Peta RePPHOT skala 1 : 250 000 Tahun 1988
2. Peta Lahan Nasional Tahun 2004 BAN/OSURTANAL
3. Peta Rupa bumi skala 1 : 250 000 esko BAN/OSURTANAL

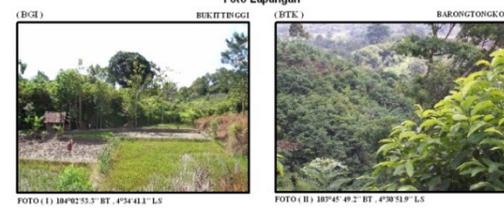
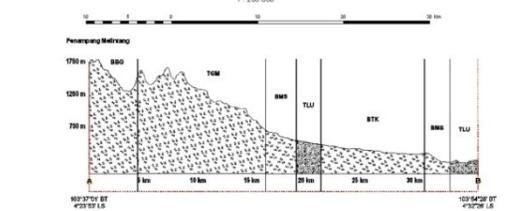
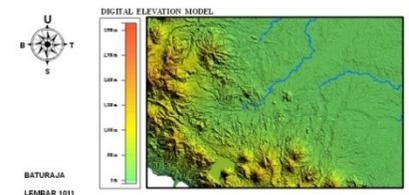
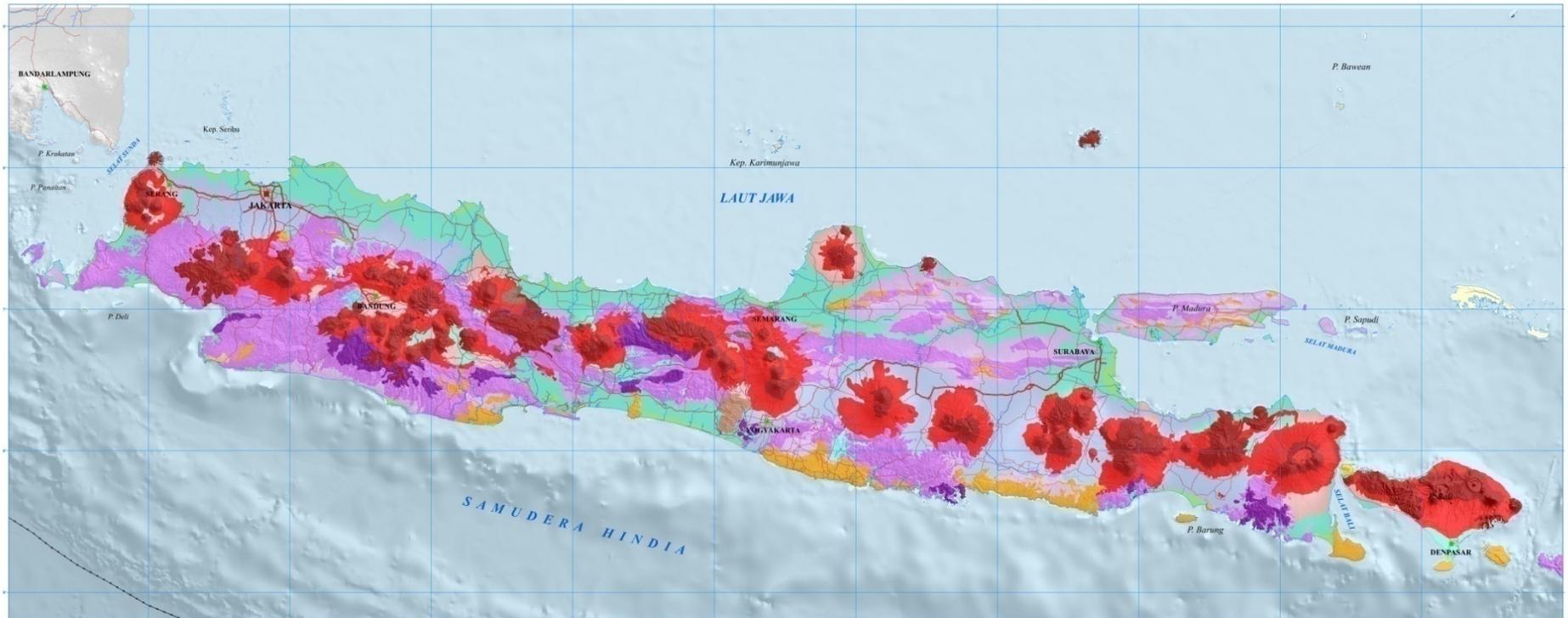


FOTO (A) 108°22'53.3" BT, 4°34'41.1" LS
FOTO (B) 108°45'49.2" BT, 4°30'51.8" LS

Ecoregion Map

PETA EKONUSA JAWA



SKALA 1 : 850.000



Kepulauan Aru



LEGENDA :

- Ibukota Negara
- Ibukota Provinsi
- Jalan Tol
- Jalan Arteri
- Jalan Kolektor
- Sungai
- Danau / Waduk
- - - Batas lempeng tektonik

- Dataran Fluvial
- Dataran Fluviovulkanik
- Dataran Karst
- Dataran Organik/Koral
- Dataran Pantai

EKONUSA

- Dataran Struktural
- Dataran Vulkanik
- Perbukitan Denudasional
- Perbukitan Karst
- Perbukitan Struktural

- Perbukitan Vulkanik
- Pegunungan Denudasional
- Pegunungan Struktural
- Pegunungan Vulkanik

Inset Lokasi

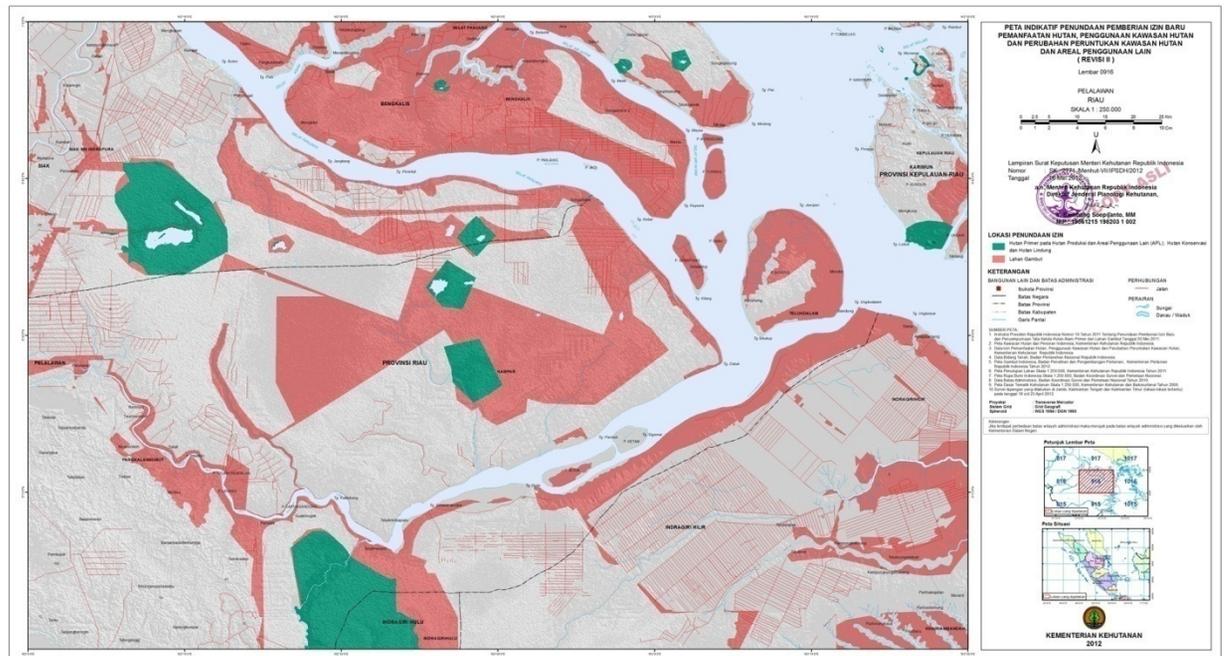
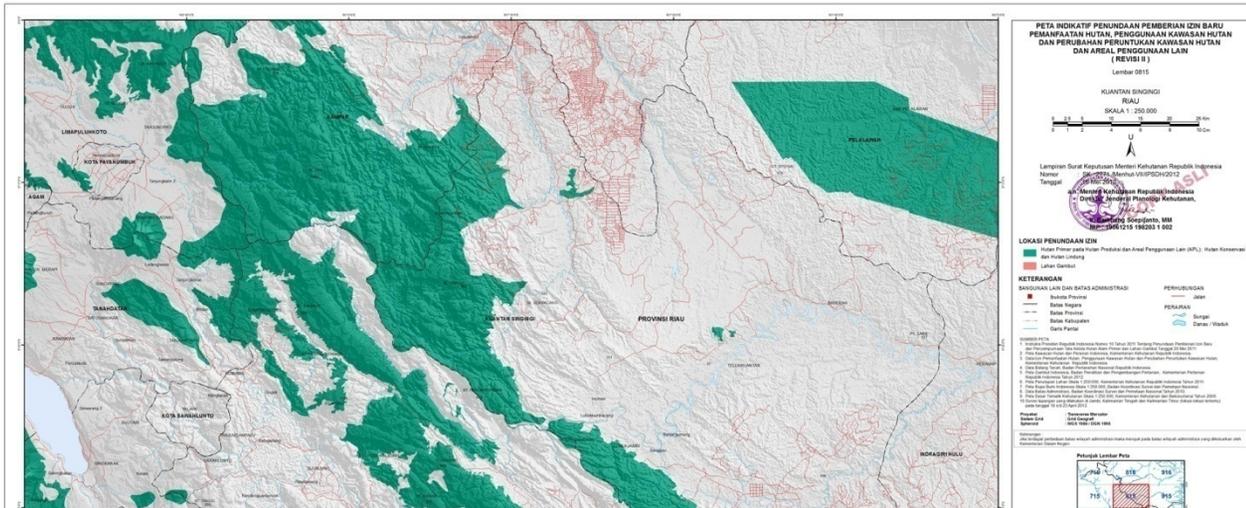


Sumber :

1. Peta Rupabumi Indonesia Skala 1 : 250.000 Bakosurtanal
2. Peta Sistem Lahan Skala 1 : 250.000 Tahun 1987-1988 RePPhoto Bakosurtanal
3. Peta Geomorfologi Indonesia skala 1:5.000.000 tahun 1999 ITC
4. Peta Geologi Indonesia skala 1:5.000.000 tahun 1996 PPPG
5. DEM SRTM (Shuttle Radar Topographic Mission) tahun 1999 - 2000

Riwayat Peta :
 Peta Ekonusa Jawa ini menggunakan prinsip-prinsip dasar pemetaan berbasis Sistem Informasi Geografi (SIG), melalui penggabungan informasi antara morfologi dan geesa. Informasi morfologi merupakan hasil integrasi dari kenampakan 2D DEM SRTM menggunakan referensi relief dari peta sistem lahan. Informasi geesa merupakan hasil analisis kenampakan 2D DEM SRTM, land type dari peta sistem lahan, dan peta geomorfologi Indonesia.

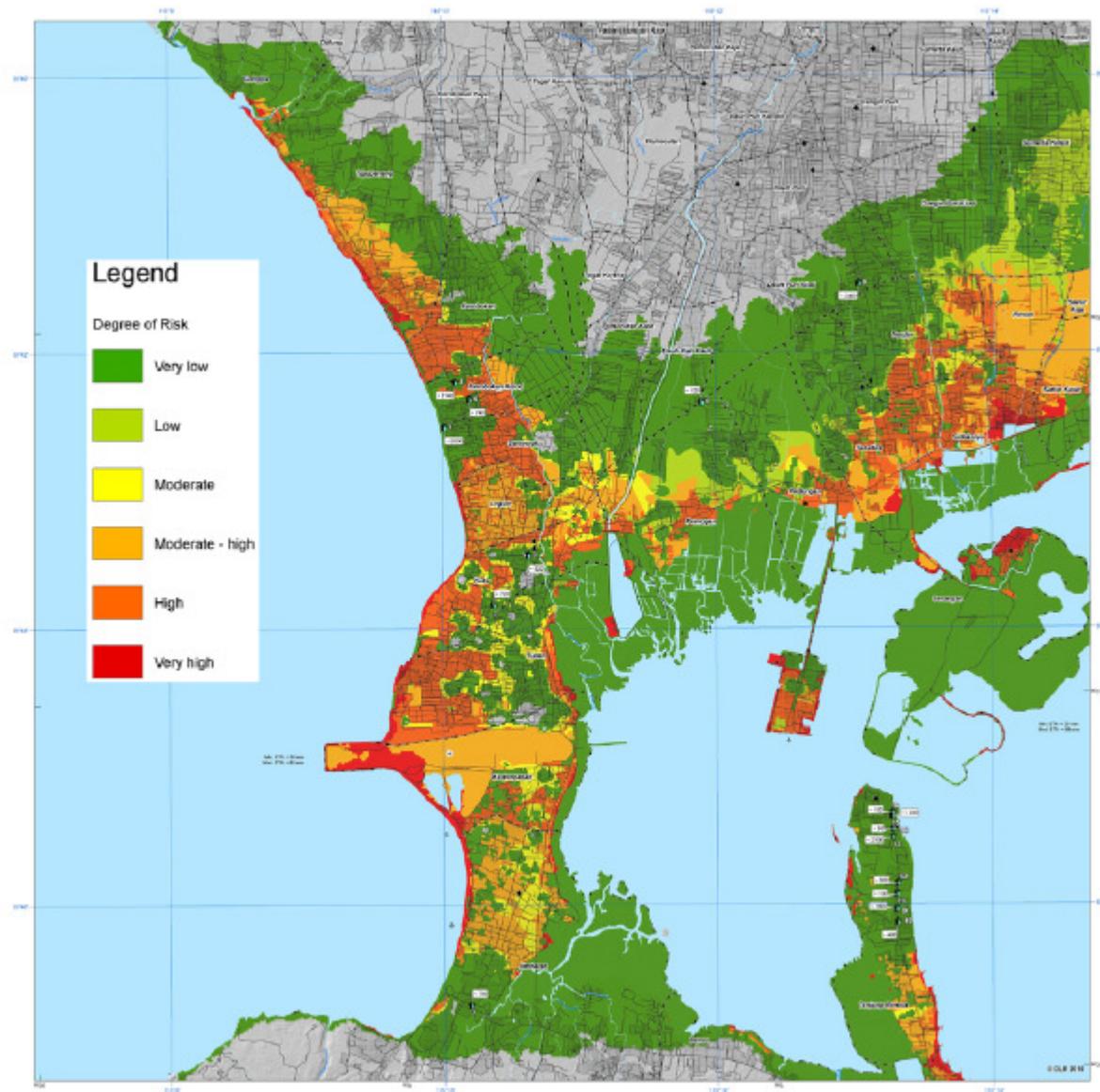
Forest and Peatland Moratorium Map



Satellite data for detecting impacts of earth quake in Yogyakarta



Tsunami Risk Map



Cooperation

- All Indonesian Ministries and Agencies, related to National Thematic Geospatial Information.
- DLR and GFZ of Germany, related to Tsunami Early Warning System and Maps
- USGS and USFS, related to Forest and Peatland Moratorium Mapping.
- ITC – The Netherlands, related to Coastal and Marine thematic mapping, as well as Geospatial Trainings.
- Norway, related to Base-Mapping
- UK, related to Land System Mapping
- Japan: KnC : Kyoto and Carbon Assessment



CHALLENGES

The increasing frequency of natural disaster in Indonesia as well as the demand of satellite remotely sensed data for environmental monitoring, Near-Real Time of medium and High Resolution Satellite Imageries are of the national attention to provide. Equatorial self-operated remote sensing satellite is expected to fill these demands.