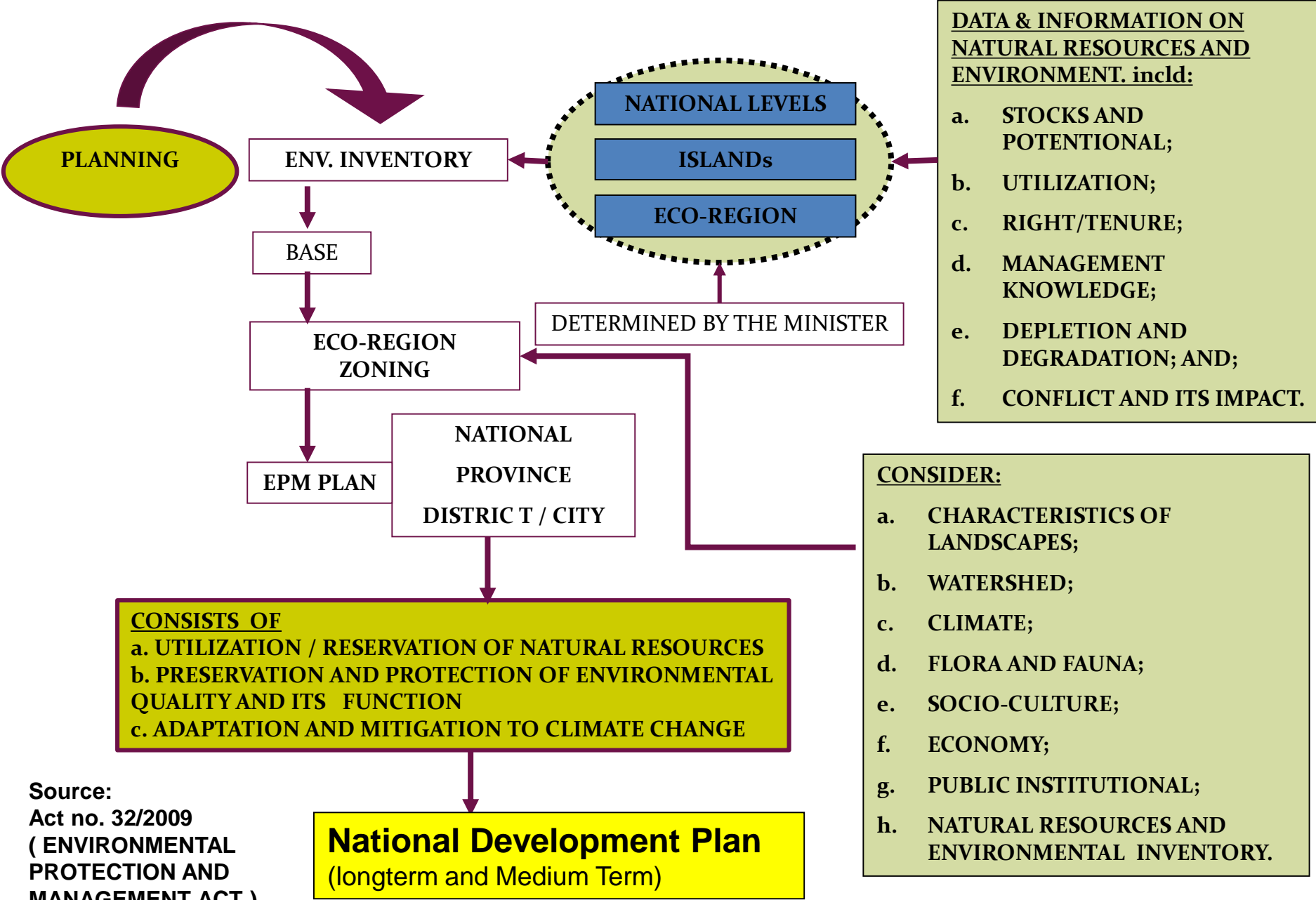


Ecoregion Map

Indonesian model and experiences in
developing ecosystem conditions and ecosystem
services through ecoregion zoning

PLANNING OF ENVIRONMENTAL PROTECTION AND MANAGEMENT (EPM PLAN)



DATA & INFORMATION ON NATURAL RESOURCES AND ENVIRONMENT. incld:

- a. STOCKS AND POTENTIAL;
- b. UTILIZATION;
- c. RIGHT/TENURE;
- d. MANAGEMENT KNOWLEDGE;
- e. DEPLETION AND DEGRADATION; AND;
- f. CONFLICT AND ITS IMPACT.

CONSIDER:

- a. CHARACTERISTICS OF LANDSCAPES;
- b. WATERSHED;
- c. CLIMATE;
- d. FLORA AND FAUNA;
- e. SOCIO-CULTURE;
- f. ECONOMY;
- g. PUBLIC INSTITUTIONAL;
- h. NATURAL RESOURCES AND ENVIRONMENTAL INVENTORY.

CONSISTS OF

- a. UTILIZATION / RESERVATION OF NATURAL RESOURCES
- b. PRESERVATION AND PROTECTION OF ENVIRONMENTAL QUALITY AND ITS FUNCTION
- c. ADAPTATION AND MITIGATION TO CLIMATE CHANGE

Source:
Act no. 32/2009
(ENVIRONMENTAL PROTECTION AND MANAGEMENT ACT)

National Development Plan
(longterm and Medium Term)

The Multi-divers ecosystem of Indonesia

Specific ecosystem → specific ecosystem condition and ecosystem service → different indicators for environmental accounting

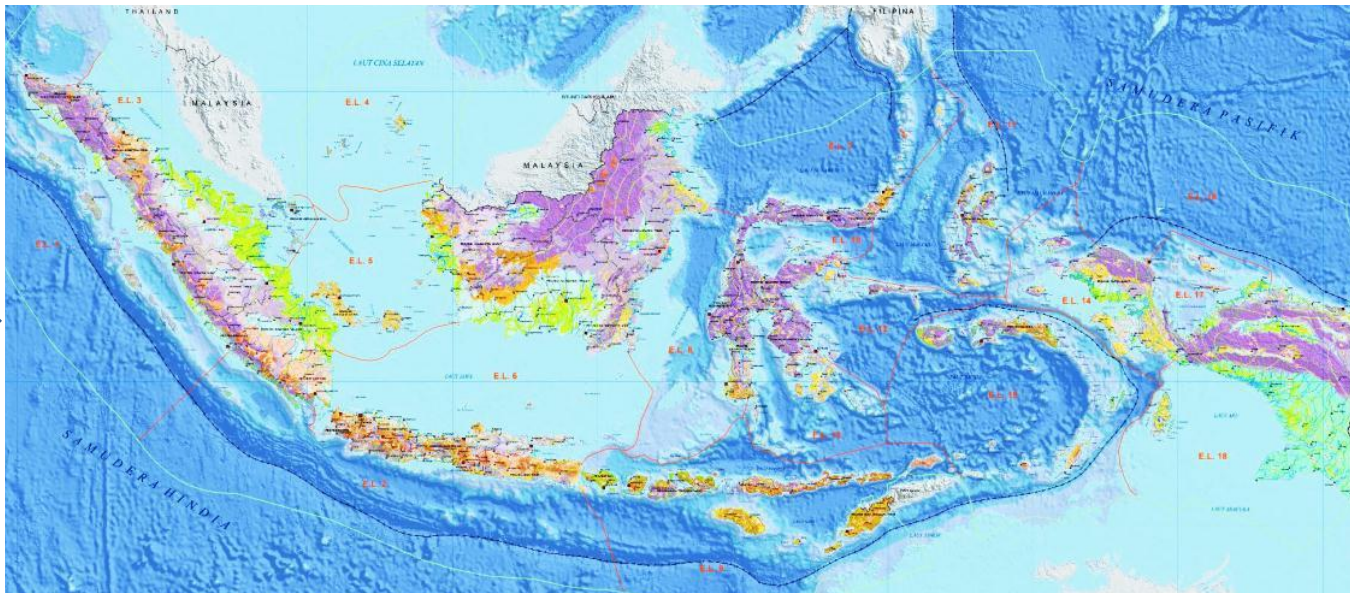
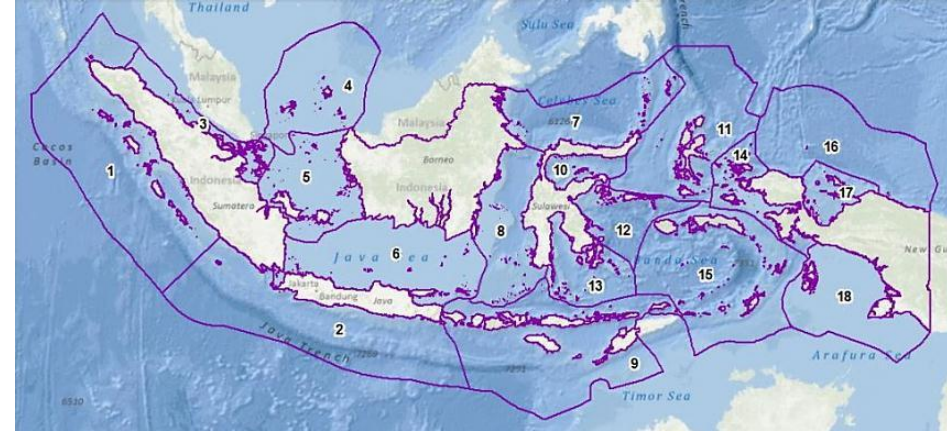


Ekoregion Mapping Process

Land Ecoregion



Sea Ecoregion



National Ecoregion Map

The 18 Sea Ecoregion

14 : Seram Sea and Bintuni Bay

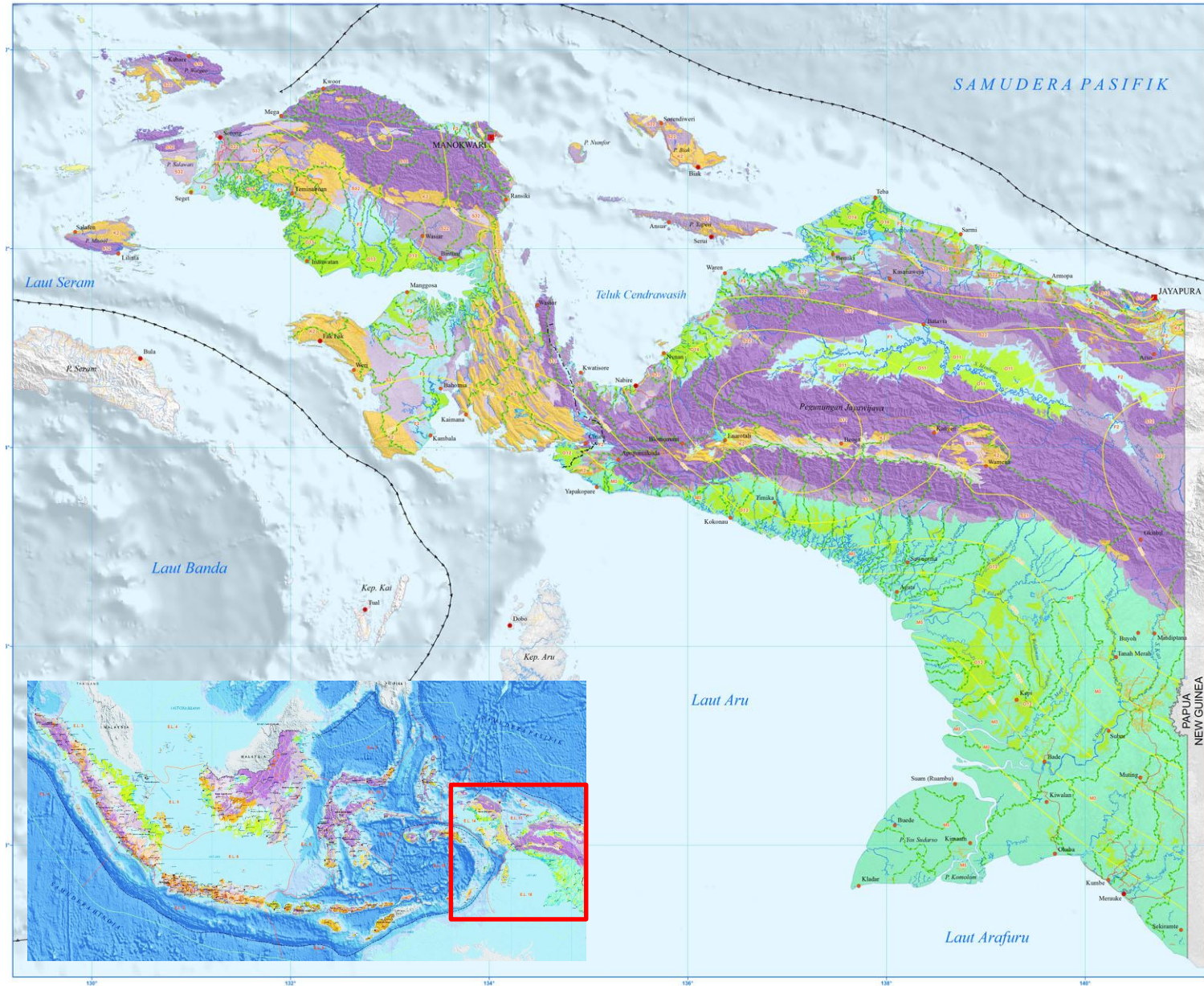
- Subduction Zone
- Semidurnal tide type
- Raja Ampat as the highest coral reef biodiversity and mangrove in Bintuni Bay
- Variation on fish exploitation between moderate to over exploited
- Vulnerable to tsunami and earth quake
- Potential polution from oil and gas activity. 7 (seven) oil and gas location with potention of total discharge 304.433 m3/day

No	Sea Ecoregion	Area (km ²)
1	Indian Ocean western part of Sumatera	782.861
2	Indian Ocean eastern part of Sumatera	111.343
3	Malaka Strait	360.402
4	Naruna Sea	270.859
5	Karimata Strait	323.866
6	Java Sea	287.005
7	Sulawesi Sea	625.018
8	Makassar Strait	70.021
9	Bali and Nusa Tenggara Waters	625.018
10	Tomini Bay	169.160
11	Halmahera Sea	140.040
12	Banda Sea Eastern part of Sulawesi	583.096
13	Banda Sea Southern part of Sulawesi	459.857
14	Seram Sea and Bintuni Bay	93.369
15	Banda Sea	326.793
16	Pasifik Ocean Nothern part of Papua	
17	Cendrawasih Bay	
18	Arafura Sea	

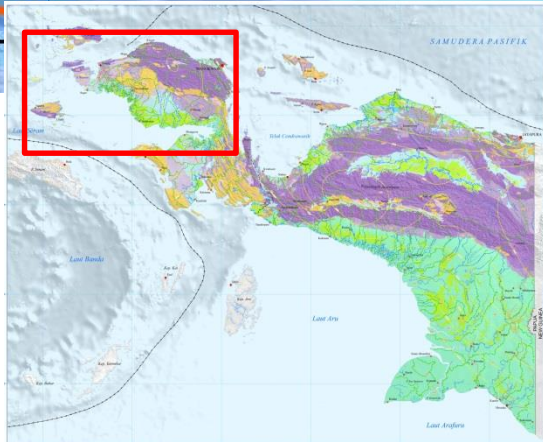
Descriptors of each ecoregion

1. Position, Location, Area, delineator
2. Geology dan Geomorphology
3. Oceanografy
4. Biodiversity
5. Utilisation
6. Disaster vurnerability
7. Polution

(Land) Ecoregion of Papua Island



O1 = Memberamo Organic/Peat Plain



- | | | | | | |
|---|----|--------------------|---|----|---------------------|
|  | S2 | Structural Hill |  | S1 | Structural Mountain |
|  | O1 | Organic/Peat Plain | | | |
|  | F | Fluvial Plain | | | |

O1 = Memberamo Organic/Peat Plain Characteristics

Parameters	Description
Location and size	Southern, middle and northern part of Papua Island with total 35,394.06 square km
Climatology	Wet tropics climate, average temp 26-30° C, annual rain intensity 2,500 – 3,500 mm
Geology	Consist of vegetatif organic material. Spreads within plain areal, generally adjoining with fluvial plain
Geomorphology	Highly variation in elevation conform to fluvial plain spread, dominantly < 250 m above sea level. Relief and slope : flat/wavy/hilly with relief amplitudo 0-50 m and slope < 15 %. Organic soils formed by long time – vegetation decomposition – flooded by water
Hidrology	Abundance surface water, but in low quality
Soil and land use	Peat/organic/organosol/histosol/ soil type with various kematangan organic compund (fibric and hemic) and variative depth depend on hidrotopografic position and low vertility rate. Limited land use and land cover type such as swamp forest, brushes and limited areal of settlement and dry agricultural field
Flora and fauna	Monsoon lowland peat swamp, lowland peat swamp, mountainous peat swamp. Lot of endemic in this ecoregion area.
Cultural	Peoples in peat plain usually grows sweet potatoes or others that suited in peat soil. They who lives in this ecoregion usually low education due to
Environmental vulnerability	Fresh water, environmental health, malaria endemic, flood, drought and forest/peat fire
Ecosystem services	Provision : food and ground water Regulation : water and climate regulation Culture : peat land education Supporting : flora and fauna breeding habitat

Development Stage

- Time frame :
 - 2010 – 2012 → Ecoregion Map with map scale 1: 500,000 **(done)**
 - 2013 – 201? → Ecoregion Map with map scale 1 : 250,000 **(on progress)**
 - 20.. – 20.. → Ecoregion Map with map scale 1 : 100,000 / 1 : 50,000
- The more details ecoregion map, more specific ecosystem services available