Climate Change in Indonesia’s New Developmentalism

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Indonesia faces the same climate change threat mostly as Pacific countries. Indonesia's geographic position is very vulnerable to impact, especially in coastal areas (IPCC, 2001).

Virtue signaling behavior based on real emission reductions can be carried out by developing and middle-income countries such as Indonesia (World Bank 2010). Indonesia uses low-carbon development methods as the main key. Low-carbon development is not a choice between economic development or environmental protection. However, to make development sustainable without reducing the quality of the environment which results in even higher economic development. Indonesia focuses on three aspects that affect carbon emissions; forests (eradicating deforestation and promoting reforestation), renewable energy, transportation (DW, 2018).

Indonesia uses space applications in the development, especially providing Earth observation satellite data that is accurate and efficient and develops atmospheric research to monitor levels of CO2 and greenhouse gases.

Indonesia's space development is developed with disaster risk mitigation standards due to climate change.

The concept of new developmentalism from Christopher M. Dent which shows that state development can continue to be relevant in the development of the current agenda setting with a combination of state capacity and ecological modernization.
The Presidential Regulation No. 59/2017 is the government policy on the implementation of SDGs achievements:

- **Documents of SDGs Regional Action Plan (2017-2019)** was published on 10 Jul 2018.
- **Roadmap of SDGs Indonesia (2017-2030)** was launched during HLPF on SDGs in New York (16-18 Jul 2019).

Mainstreaming SDGs into:

- The National Midterm Development Plan (2020 – 2024)
Presidential Regulation No. 59/2017 on Implementation of SDGs Achievement

Smart City

Data
Low, medium, high, and very high resolution

Information
Disaster mitigation, urban heat, green space, settlement

Platform
Dashboard system, mobile-based applications

Mosaic data
http://www.spacemap.lapan.go.id

Data catalog
https://inderaja-catalog.lapan.go.id/dd4

Hotspot information
http://www.spacemap.lapan.go.id
Climate change is one of priorities area of Indonesia’s space applications for achieving resilient and sustainable development

**Activities**
- Monitoring of Disaster Risk Indices, such as Standardized Precipitation Index, Enhanced Vegetation Index, Fire Danger Rating System etc.

**Challenges**
- Integration the Disaster Risk Indices into national risk disaster system.

- National Medium-Term Development Plan Target 2015-2019 formed inventory and MRV greenhouse emission reporting on document biennial update report
- National target (2015 - 2019) - To decrease the Disaster Risk Indices through national and regional risk reduction strategy

LAPAN (National Institute of Aeronautics and Space) is national focal point for Indonesia space activities include the use and development space applications and technology with its derivation geospatial information systems, etc.
Returning the environment by increasing the use of efficient, clean, and waste reduction technologies

Indonesia’s development based on comprehensive and strategic environmental analysis through government cooperation with research institutes, developers, international organizations and the private sector

Indonesia’s forest monitoring system is known as SIMONTANA. It is available online at http://geoportal.menlhk.go.id/arcgis/home/, coupled with the WebGIS at http://webgis.dephut.go.id/

Climate Change Knowledge Center on http://ditjenppl.menlhk.go.id/kcpi/index.php

LAPAN provides Earth observation satellite data for measurement, reporting, verification (MRV) in the implementation of reducing emissions from Deforestation and Forest Degradation (REDD+) and supports the Indonesian National Carbon Accounting System (INCAS).
Space Application for National Forest Monitoring System

- EVI monitoring: July 2019
- SPI monitoring: July 2019
- DC monitoring: 20 August 2019

Natural resources and environmental information

https://spbn.pusfatja.lapan.go.id

Natural resources, environmental and disaster monitoring information
National Forest Monitoring System
Republic of Indonesia

Source: http://nfms.dephut.go.id/ipsdh/

Note:
1990s = period of NFI, 2000-2009 = period of limited Landsat data used, >2009 = period of free download Landsat data
DATA CATALOG (LANDSAT, MODIS, etc.)

SATELLITE IMAGERY GALERY (VERY HIGH, HIGH, LOW)
The Indonesian government is transforming its space development objectives through indices and standardized systems for mitigating disaster risks due to climate change. As well as making a green space development strategy in the plan of action both nationally and regionally. The implication of this result is that space development can continue in the face of climate change challenges.
Thank You – Terima Kasih

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