Development of Geospatial Information in Indonesia: Progress & Challenge

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Regulation Coordination Production Distribution Usage



Progress

Regulation

- Law No. 4/2011: Geospatial information
- Law No. 26/2007: Spatial planning
- Law No. 1/2014: Management of coastal and small island
- Presidential Regulation No. 27/2014 : National Geospatial Information Network
- Presidential Instruction No. 6/2013: Suspension on new permit and improving forest governance of primary forest and peatland
- Presidential Instruction 6/2012: Management of high resolution satellite imagery
- Presidential Regulation: Acceleration of onemap policy implementation [draft]

Coordination

- Updating members of thematic geospatial information working groups
- Technical meeting: focusing on the development of large scale standard mapping
- Regional meeting: supporting and supervising provincial & district governments to develop network nodes which are integrated with the NSDI Network in BIG
- National meeting: developing onemap and standard mapping for thematic maps related with the detail spatial planning, rural development, disaster management, food security, maritime development, and climate change





Production

• National geodetic reference system





Production

• Topographic basemaps: 1:10.000, 1:25.000, 1:50.000, 1:250.000





Production

• Marine and coastal basemaps: 1:25.000, 1:50.000, 1:250.000







7 One Map for Land Cover



SATU PETA MANGROVE NASIONAL



ADAN

8 One Map for Mangrove



9 One Map for Seagrass

DAN INFORMASI GEOSPASIAL



¹⁰ One Map for Oceanography

BADAN INPORMASI GEOSPASIAL









NSDI Network (Ina-Geoportal)





Distribution

- National geoportal for data sharing
- Participatory mapping for data updating





Usage

- Agriculture
- Mining
- Industry
- Forestry
- Transportation
- Natural Conservation
- Spatial planning
- Maritime & Fishery
- Disaster management



Production Distribution & usage Human resource

Technology & industry



Challenge

Production

- The geodetic control system is not evenly distributed
- Large scale basemaps [1: 5000] and standards are required for detail spatial planning and rural development
- Not all thematic maps are integrated through one map
- Current and limited high resolution of remote sensing imageries

Distribution and Usage

- National geospatial infrastructure is not yet fully functional
- The data sharing among stakeholders is still not smooth
- Limited availability of thematic geospatial data with the scale of 1:50.000 or larger



Challenge

Human resource

- More geospatial experts are needed
- Limited number of universities on geospatial study
- Technical experts are mostly not certified
- Trained personnels are moved to another division (Administrative)

Technology and Industry

- There are more technology users than technology developers
- There is no good quality of remote sensing imageries for thematic mapping of marine resources
- Research on geospatial is not prioritized
- Limitation of the geospatial industry on trained human resource and infrastructures (updated hardware and software of geospatial)
- The association of geospatial industry is not well established
- Incentives for geospatial research and industry is not well provided



Closing Remarks

- For land resource survey and mapping, the development of geospatial data in Indonesia is being focused on large scale for detail spatial planning rural and development. For marine resource survey and mapping, good quality of remote sensing imageries are needed
- For data sharing and distribution, the network nodes of NSDI in national, province, and district levels continue to be developed
- The progress of geospatial information needs to be improved. The challenges to be overcomed are in terms of production, distribution, usage, human resource, technology and industry
- The impact of geospatial information on national economy has not been studied
- The cooperation with foreign countries, especially with ASEAN countries, should be enhanced to face the challenges

The cooperation can be in the form of ASEAN working group or network whose aim is to improve human resource capacity building and the geospatial industry in the ASEAN region



IndONEsia

Bersama Menata Indonesia yang Lebih Baik



Integritas, Visioner, Tanggung Jawab, dan Kerja Sama

Thank you very much....

Badan Informasi Geospasial

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