COVID-19

The Response of the Geospatial Information Management Community

Name	Geospatial Information Agency of Indonesia (BIG)
Ministry	The Ministry of National Development Planning
Country	Indonesia
Mandate	Geospatial Information Agency has the task of carrying out governmental tasks in the field of Geospatial Information.
Core Functions	Formulation and control of technical policies in the field of geospatial information;
	Preparation of plans and programs in the field of geospatial information;
	Implementation of basic geospatial information which includes data collection, processing, data and information storage, and use of basic geospatial information;
	Integrating thematic geospatial information organized by government agencies and / or regional governments in accordance with statutory regulations;
	Organizing thematic geospatial information that has not been carried out other than BIG including data collection, processing, data and information storage, and use of thematic geospatial information;
	The implementation of geospatial information infrastructure includes the storage, security, dissemination of data and information, and the use of geospatial information;
	Organization and development of geospatial information networks;
	Accreditation of certification bodies in the field of geospatial information;
	Implementing cooperation with governmental, private, and community bodies or institutions at home and / or abroad;
	Coordination, integration, and synchronization in the BIG environment;
	Coordination of planning, reporting, compilation of laws and regulations and legal assistance;
	Fostering administration services, administration, organization and governance, staffing, finance, protocol, public relations, cooperation, relations between institutions, archives, coding, state property, equipment, and BIG households;
	Implementation of education and training, research and development, and promotion and service of products and services in the field of geospatial information;
	Formulation, preparation of plans, and implementation of functional supervision.



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Logo	BADAN INFORMASI GEOSPASIAL



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Geospatial Information for COVID-19 Pandemic Response

Regarding the utilization of geospatial information, the Act No 4/2011 stated that:

1. Fundamental Geospatial Data is conducted by BIG

2. BIG can integrate:

a) More than One Thematic Geospatial Information held by government and local institutions into a new thematic geospatial information

b) Thematic Geospatial Information held by more than one government and local institutions into a new thematic geospatial information.

3. BIG can create thematic geospatial information that has not been provided by other institutions. According to the official data from 'Gugus Tugas COVID-19 Indonesia' (National COVID-19 Reduction Committee) until late May 2020, more than 15.000 people infected during COVID-19 Pandemic spreads in Indonesia. In response to the COVID-19, BIG has a role to support policy makers and related stakeholders with making geospatial information dashboard and some analyses which are integrated from many data from each authorized data custodian (In compliance to Thematic Geospatial Data Custodian of BIG Head Regulation). The geospatial capabilities, datasets and/or tools deployed for the response (150 words)

For geospatial capabilities, BIG has deployed a dashboard which integrate geospatial information using shared services with each authorized data custodian that related to all this dashboard contents and also updated daily National case (infection, death, recovery cases); Spatial Analyses Map (Jakarta, Bogor, Jakarta Greater Area case); and provide official base map.

We have used some main datasets in order to make spatial analyses, such as positive cluster suspect, location points of public spaces (which is the center of public crowd), distribution of transportation hubs, location points of economic sectors that are still allowed to operate, distribution of vulnerable ages, and population density.

Those datasets have been utilized with some kind of spatial analysis tools, such as spatial distribution and clustering analysis, prevalence analysis, hotspot analysis, origin destination cost analysis, service area analysis, overlay and scoring tools to make hazard vulnerability analysis as well.



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BIG has developing a dashboard which contains some information, such as national daily suspect distribution (based on Ministry of Health and Local Government Data), story map, and so on, we can access through the website as shown above. This dashboard was applied by integrated geospatial information using shared services with each authorized data custodian that related to all this dashboard contents.

This web dashboard contains:

- Updated daily National case (infection, death, recovery cases)
- Distribution map of temporal case
- Distribution map of referral hospital and community health center
- Story Map
- Spatial Analyses Map (Jakarta, Bogor, Jakarta Greater Area case)
 - o Spatial Distribution and Prevalence Analysis
 - o Clustering Map and Hotspot Analysis
 - o Origin Destination Cost and Service Area Capacity Analysis
 - o Hazard Vulnerability Analysis
 - \circ ~ Integrating to Hazard Vulnerability with Capacity into Risk Map

Our key success in supporting COVID-19 responses is related to the used spatial data and statistics data for analyze and integration, and data sharing policy. For spatial data, we have good collaboration with other ministries and agencies and share the role. BIG is responsible for the official basemap and others thematic map produced by ministries and agencies as data custodian in One Map Policy Regulation. We also integrate our spatial analysis with statistical data such as from Ministry of Health and National Disaster Management Authority to provide better information.

To contribute in COVID-19 response, we also provide open data sharing for public. Open data sharing policy is very beneficial for public. As an example, BIG dashboard and spatial analysis for COVID-19 utilize by Bogor Regency as a basis consideration for policy makers to apply partial lockdown regulation. Several regions also emulate BIG spatial analysis to support policy maker in COVID-19 response as well.

