

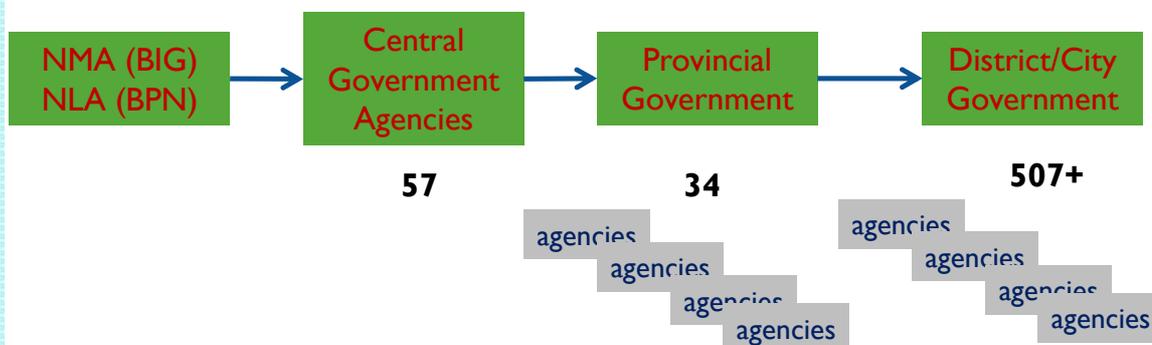
# Developing Local Government Capacity for SDI Development in Indonesia

Mulyanto Darmawan\*, Heri Sutanta,\*\* Adi Rusmanto\*

- \* Centre for Standardization and Institutional Aspect of Geospatial Information, Geospatial Information Agency
- \*\* Research Centre for Spatial Data Infrastructure Development Universitas Gadjah Mada

## SDI Development

- SDI has been developed in Indonesia for around twenty years



## National Coordination meeting

- Policy and institutional development coordinated through series of meetings
- SIGNAS (1991) to IDSN (2000) to IIG (2011)

National  
Coordination  
Meeting on  
National GIS

National  
Coordination  
Meeting on  
National SDI

National  
Coordination  
Meeting on  
Geospatial  
Information  
Infrastructure

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

## Laws and Regulation

- **Law on Geospatial Information** 4/2011
- Presidential Decree 85/2007 on Spatial Data Network, later renewed into Presidential Decree 27/2014
- Some Provincial Government Regulations or Governor's Regulation
- Some District/City Government Regulations or Mayor's Regulation
- BIG's guidelines

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

# Local Government Setting

- 507+ districts/cities, 34 provinces



## SPATIAL DATA REQUIREMENTS

### Mandates from Laws

According to 171 laws, **94 types** of geospatial data are required

### National Development Priorities

Of the 11 national development priorities, **40 types** of geospatial data are required

### Regional Development

Of the sample from 9 provinces, **27 types** of geospatial data are required (14 types for spatial planning)

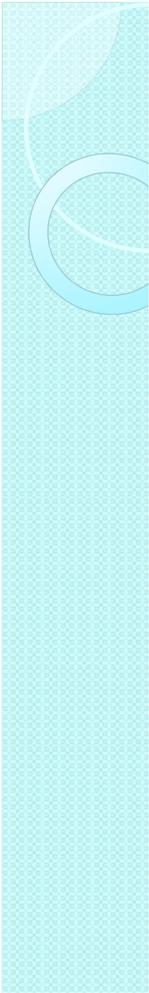


## Issues and challenges

### Policy and Regulation

- Law on geospatial information has just been enacted
- Presidential decree on SDI has just been issued
- Only small amount of local governments have issued regulation on spatial data management
- Lack of expertise on legal drafting on spatial data management
- Time required to enact local government regulation is considered long, mayor's or governor's regulation is preferred, but will have less power

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



## Issues and challenges

### Human resources

- Lack of the required number of staffs
- Lack of qualified staffs, based of formal education or training activities
- Frequent staff changes, due to promotion or other assignments

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



## Issues and challenges

### **Institutional setting and funding**

- GIS unit may not in existence in many local government, due to lack of staff or policy
- Difficulties in setting up a new dedicated GIS unit
- Difficulties in getting funding for producing the necessary spatial data and for their maintenance
- Difficulties in getting initial funding for developing spatial data centre
- Options: central government funding or international grants

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



## Issues and challenges

### **Spatial Data and Technology**

- Main source of spatial data is BIG, however they yet to cover the whole country with sufficient accuracy
- Problems with data visibility, availability and accessibility
- Available data may not fulfill the whole requirement, therefore selection of spatial data were based on availability rather than suitability
- Lack of hardware (PC and server) and software

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

# Developing Capacity - 1

- Coordination meetings:
  - Annual national coordination meeting for policy dissemination and showchasing success stories
  - Regional meeting for more in-depth discussion
  - Awarding local governments who successfully developing SDI



The screenshots illustrate the workflow of the SDI system:

- Screenshot 1:** A data entry form for a village head (Kantor Bupati / Walikota). Fields include name, address, and contact information. A photo of the official is also visible.
- Screenshot 2:** A table titled 'Anggota Rukun Tetangga' (RT Members) with columns for RT name, RT number, RT type, and RT status. The table lists several RTs in the Babakan Huluwotan area.
- Screenshot 3:** A map showing the location of the RT within the Cianjur district. A red pin marks the location, and a green line indicates the route from the district office.
- Screenshot 4:** A detailed view of the 'RUMAH KEPALA RTS "916001"'. It provides the address: 'MAMAN, KP BABAKAN HULUWOTAN RT 01 RW 05 DUSUN 2, RW 05, RT 001'. It also shows the distance from the district office (8.25 km) and the nearest village (61.40 km). A list of nearby locations is provided at the bottom.



## Developing Capacity - 2

- **Technical Assistance**
  - Site visit to local government
  - Visit of local government delegates to BIG
  - Training in BIG or PPIDS
  - Developing more technical guidelines

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



## Developing Capacity - 3

- **Funding and policy**
  - Hardware and software grants to selected local government, only one batch
  - Helping drafting budget
  - Issuing national regulation to be used as legal umbrella for local government
  - Coordinating with Ministry of Home Affairs and National Planning Agency for policy development
  - Assisting legal drafting of local government regulation and/or mayor's / governor's regulation

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

# Server from BIG

Sehubungan dengan kegiatan Pengadaan Perangkat PPIDS di lingkungan Pusat Pengelolaan dan Penyebarluasan Informasi Geospasial (PPPIG) BIG yang akan ditempatkan di 6 (enam) lokasi PPIDS dan 2 (dua) lokasi calon PPIDS pertengahan bulan Agustus 2013, kami mengharapkan kepada PPIDS untuk:

1. menyiapkan ruangan beserta infrastruktur pendukungnya (AC, listrik, dan jaringan LAN);
2. menunjuk tenaga teknis yang terkait dengan perangkat PPIDS dan mohon kiranya nama tim teknis dan nomor telepon yang dapat dihubungi tersebut dikirimkan paling lambat tanggal 25 Juli 2013 ke Agus Subagya melalui email [agus.subagya@big.go.id](mailto:agus.subagya@big.go.id) atau melalui fax. 021-8753366.

Demikian yang dapat disampaikan, atas perhatian dan kerjasamanya diucapkan terimakasih.



Dodi Sukmayadi

Tembusan Yth.:

1. Deputi Bidang IIG
2. Ka. Pusat SKIG



XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

## Developing Capacity - 4

- Establishing resources centre at regional universities (Centre for SDI Development: PPIDS)
- Eight PPIDSs have been established, two in progress
- PPIDS' functions
  - Assisting local government on user needs assessment, policy development, specify technical specification, and human resources development through meeting and Focus Group Discussion.
  - Consultation on technical aspect, dataset creation and management, and website development.
  - Training for staff for basic and new technology required for SDI deployment.
  - Research on all aspects of SDI required for better implementation and development.

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014

## Future Activities

- Reorientation of SDI development at local government level, more focused on capacity building
- National surveys on SDI readiness and Implementation
- Empowering PPIDS to enable them assisting their nearby local governments

XXV International Federation of Surveyors  
Congress, Kuala Lumpur, Malaysia, 16 – 21  
June 2014



**Thank you**