



## Workshop on Spatial Data Management: Belize

### Outline:

### NSDI Pilot Stakeholders (3-day workshop)

Intended audience: IT managers and GIS Data managers

**DAY 1: Wednesday 30<sup>th</sup> January, 2013**

**8:30 – 8:45 Registration of Trainees**

**8:45 – 9:15 Introduction to the Workshop**

Presentation of participants  
Presentation and discussion of agenda

**9:15 – 11:15 Introduction to Spatial Data Infrastructures (2 hours)**

**SDI\_1**

(includes examples of SDI implementations)  
Concept of SDI  
Non-technological elements to build a national SDI  
Technological structure  
Benefits  
SDI use in risk management, land use management  
Current use trends  
Challenges in SDI implementation

**11:15 – 11:30**

**B R E A K**

**11:30 – 12:30 SDI technological components & standards (1.0 hour)**

**SDI\_2**

Three-tier architecture and the SDI 'stack'  
Spatial databases, Web services, client technologies (desktop and Web GIS)  
Standards for basic Web services and their use  
Web Map Service: getting maps as images, feature information  
Web Feature Service: getting geometry and attributes by query  
Web Coverage Service: getting raster values  
Catalog Service: searching for data via metadata

12:30 – 1:15 L U N C H B R E A K

1:15 – 1:45 **SDI technological components & standards Cont... (0.5 Hour)**

Metadata

- Concept and use in search and documentation
- ISO standards
- Required and optional information
- Best practices
- Metadata tools

SDI access control

Advanced Web services and current technology trends

1:45 – 5:30 **GeoNode basic use (4 hours)**

**GeoNodeDM\_1**

(includes practical exercises)

GeoNode scope

Registration and login

Managing data

Styling

Creating maps

Exploring maps

Sharing maps in Web sites, printing

Sample GeoNode communities

## DAY 2: Thursday 31<sup>st</sup> January, 2013

**8:30 – 9:00 Summarize Day 1**

**9:00 – 12:30 GeoNode integration with GIS and data workflows (5 hours) Part 1**

### GeoNodeDM\_2

GeoNode components

Direct access to GeoServer

- Styling with SLD

- Adding data from external databases

Direct access to GeoNetwork

Direct access to the Geonode spatial database

- Examples of DB analysis processes

- Projecting data in DB

Access from desktop GIS (FOR DATA MANAGERS)

- Connecting and displaying map and feature services

- Editing the DB

- Projecting data in GIS

- Access to metadata catalogs

- Exporting styles through SLD

- Access to Catalog Service

- Georeferencing data

- Uploading mobile data

- Topology

Collecting data in mobile devices

**12:30 – 1:15 LUNCH BREAK**

**1:15 – 3:15 GeoNode integration with GIS and data workflows (Part 2)**

**3:15 – 5:15 GeoNode integration within SDIs (2 hours)**

### GeoNodeDM\_3

Accessing other SDI services

Catalog harvesting through Geonetwork

Cascading external services manually

Preparing GeoNode metadata for external access

Other community mapping initiatives (FOR DATA MANAGERS)

GeoCommons, Open Street Map

## DAY 3: Friday 1<sup>st</sup> February, 2013

### 8:30 – 9:00 Summary of Day 2

### 9:00 – 12:00 GeoNode Installation and Configuration (3 hours)

GeoNodeIT

(FOR IT MANAGERS)

- The GeoNode software stack
  - PostgreSQL - PostGIS
  - Geoserver, Geonetwork
  - Django, GeoExt, OpenLayers
- Preparation of environment: virtualization
- GeoNode installation process: from packages and from tarball
- Additional tools installation
- Basic GeoNode configuration
- URL configuration and change
- User administration and registration
- Printing configuration
- Management commands
- Web customization
- Debugging GeoNode

### Reference information

- Access to workshop materials
- Advanced installation documentation
- GeoNode user support
- Advanced GeoNode courses

### 12:00 – 1:00 L U N C H B R E A K

### 1:00 – 2:30 Open discussion: SDI challenges in Belize (1.5 hours)

SUGGESTED TOPICS:

- National and thematic policies on information sharing
- Status of data and infrastructures
- NSDI progress
- Application in risk management, climate change, natural resources management...
- Main challenges identified and possible solutions
- How can the World Bank contribute?

### 2:30 – 3:00 Workshop evaluation (0.5 hour)