Geospatial Data Needs and Priorities in Cambodia – Open Development Cambodia Current and Future Plans on Forest Cover

Open Development Cambodia

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Background

Open Development Cambodia (ODC) is an '***open data***' website, the first of its kind in Southeast Asia, which does *not promote any particular perspective, agenda or bias* other than to provide objective information about Cambodia and its development.

https://opendevelopmentcambodia.net

The importance role in using spatial data

I. Spatial data for Natural Resources Management

Spatial data in natural resources management provides graphical data that helps in monitoring the environment. It identifies the qualitative and quantitative data on environmental issues such as pollution, land degradation, soil erosions etc. Using spatial data in natural resources management is in confronting environmental issues like flood, landslide, soil erosions, drought, deforestation etc.

I.   Spatial data for Natural Resources Management

Change detection

Spatial data provides information about land area change between time periods. The land change documents detected through satellite imagery or aerial photographs.

Natural resource inventory

Natural resource inventory is a statistical survey of the condition of natural resources. It provides relevant information about the environmental condition and policy including conservation program that is obtained through GIS in natural resource management. The information through Geospatial data provides information about the location and current resources.

Disaster management

Spatial data is used in the planning, preparation, identify or assess the hazard, vulnerability and risk as well as capacity response to flood, landslide, soil erosion, deforestation, and drought etc.

II.   Spatial data for Development and Economic Development

Geospatial data and technology are already being used innovatively to improve services, urban planning management, create jobs, and improve the quality of lives.

Land administration:

- Securing land tenure

Urbanization development:

- How geospatial technology can help urban plan for a sustainable future
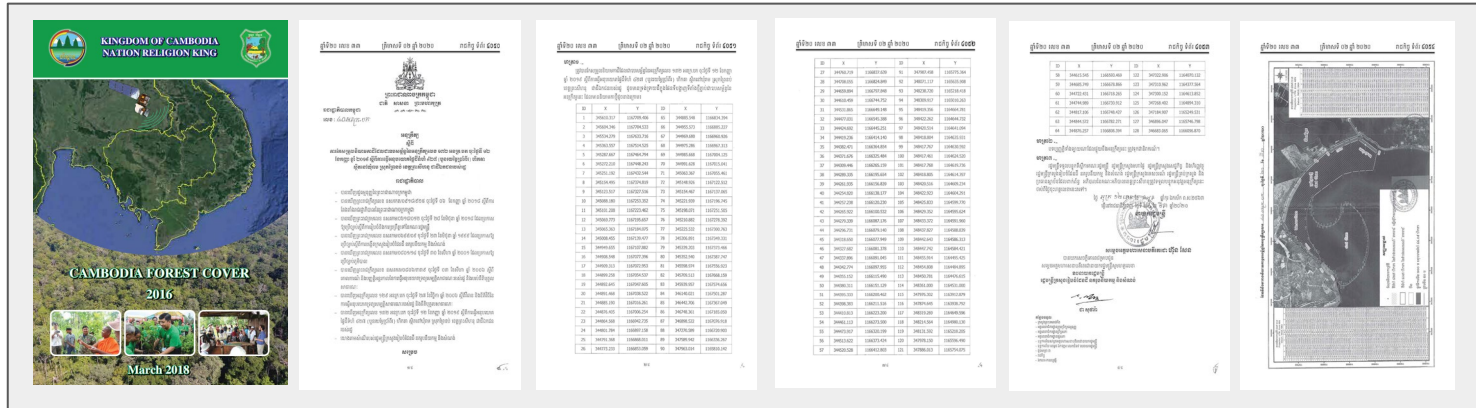
Disaster risk management:

- When disasters displaced people, land records and geospatial data are key to protect property rights and build resilience
- Geospatial information is critical for countries' ability to respond to the COVID-19 pandemic.

Geospatial Data Needs and Priorities in Cambodia

Geospatial data is also a foundational elements of virtual reality (VR) development. There is an increase in the use of geospatial data to inform policy-making. Spatial data related to urban sociology, demography, and statistics are becoming an essential element of many local, private, state, and federal government decision processes.

In Cambodia, the geospatial data was found in the international portals or regional portals rather than the Cambodia government portal. Mostly the geospatial data was found in the government report or publication in the hard copy or unstructure formats.
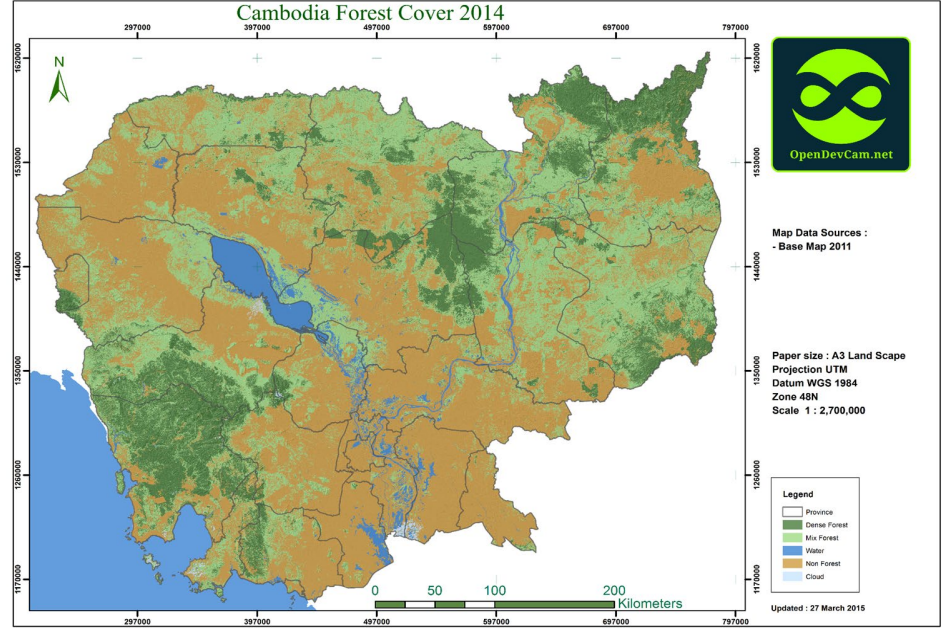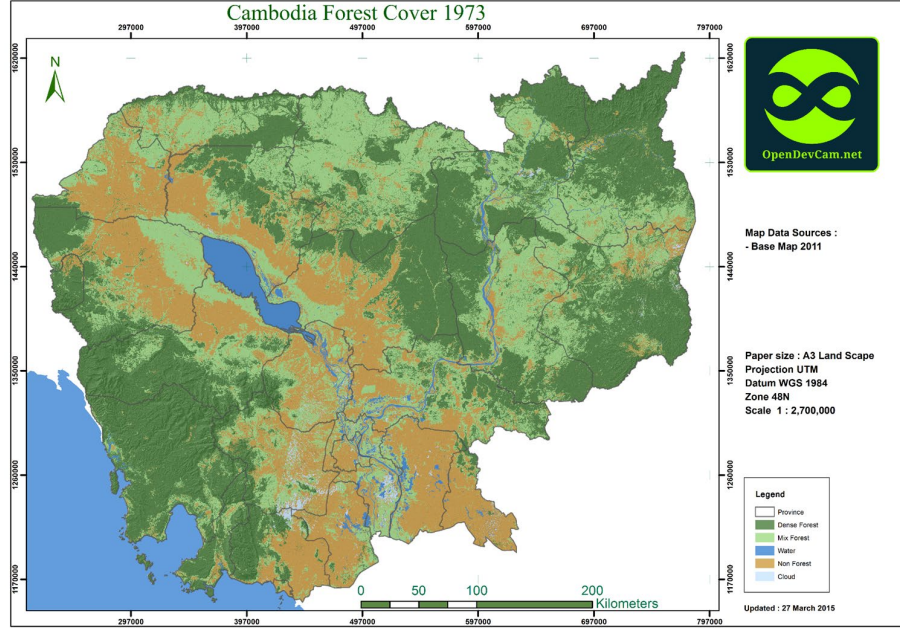
Rationality

In 2006, Cambodia's Department of Forestry Administration (FA) published a map showing Cambodia forest cover in 2002. Then in 2011, Forestry Administration, supported by the International Tropical Timber Organization and the Government of Denmark, published Cambodia Forest Cover 2010, which included maps of forest cover change between 2006-2010, and between 2002-2010.

As no official maps or analysis specific to Cambodia have been published since this date, ODC decided to create a set of updated forest cover maps (1973-2014).

Overview

❖ The ODC forest cover map for each year was made from 16 to 19 satellite images, obtained from the United States Geological Survey (USGS). The images are free, publicly available and can be downloaded from the USGS website.

❖ The earliest images available for Cambodia date from the early 1970s. ODC selected satellite images for analysis from 1973, 1989, 2000, 2004, 2009, and 2014 based on their quality.

❖ ODC forest cover

Cambodia Forest Cover 1973

Cambodia Forest Cover 2014

Detail Data publishing on the ODC current platform

Forest cover profile page:
https://opendevelopmentcambodia.
net/km/profiles/forest-cover/

Open data of forest cover in
Cambodia (1973-2014):
https://data.opendevelopmentcamb
odia.net/km/dataset/forest-cover-in-
cambodia-1973-2014

Future plan

ODC prepare to create a set of updated forest cover maps (2015-2020).

- Gather and compile existing resources as well as the methodology to make improvements for Forest Cover mapping.

- Collect and aggregate satellite imagery

- Conduct sectoral advisory meetings

- Review and revision based on the experts' comments and suggestions