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GLOBAL MAPPING NEWSLETTER 78

Introduction of Global Map Raster Development Tool (GMRD)

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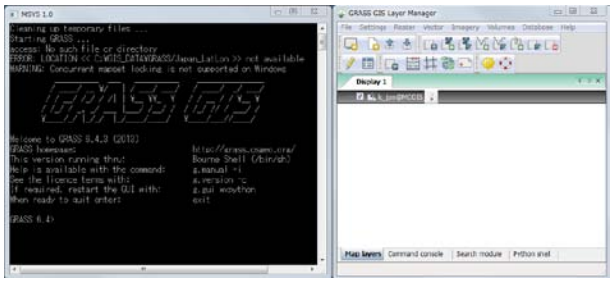


Figure 1 GRASS GIS interface

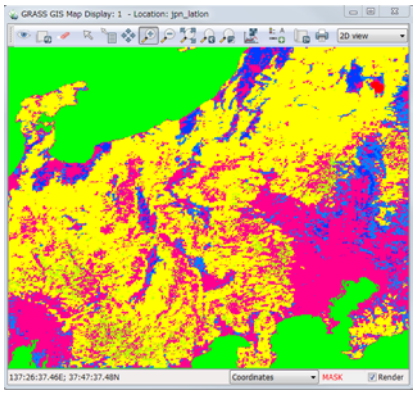


Figure 2 Example of land cover data developed

Geospatial Information Authority of Japan (GSI), which is in charge of the secretariat of ISCGM, developed Global Map Raster Development Tool (GMRD) to encourage each National Geospatial Information Authority (NGIA) to develop Land Cover and Vegetation of Global Map. With this tool, Land Cover and Vegetation (Percent Tree Cover) data in concordance with Global Map Specifications Ver. 2.2 can be developed using satellite imagery acquired by MODIS mounted on the Terra and Aqua satellites, OLI on the Landsat-8 satellite, and VIIRS on the Suomi NPP satellite.

GMRD consists of a series of shell scripts which run on a free and open-source software piece, GRASS GIS. Therefore, users can develop Land Cover and Percent Tree Cover data even if they do not have any onerous paid software. In addition, raster data development manual, which summarizes the flow of developing raster data in a tutorial format, has also been prepared in order to enable users, who are unfamiliar with developing raster data, to understand the development method reasonably. This manual has been prepared mainly in a document format, however, movies are also attached to appropriately supplement the operation flow of the parts for which visual explanation is needed, such as using GUI (graphical user interface) of GRASS GIS.

The software and the raster data development manual are available for download from the GSI website shown below, as well as from the ISCGM website on the page exclusive for participating organizations.

http://www.gsi.go.jp/kankyochiri/globalmap_e.html

Giving appropriate credit is enough to use this software and manual. Terms of use is attached to them for detail.

This software and manual can be used not only by each NGIA to develop its Global Map, but also by research institutes which are engaged in developing land cover data and so on, by universities for education of remote sensing technology, and by open source GIS community to develop relevant tools.

GSI will continue to disseminate Global Map by providing useful tools for the development and utilization of Global Map.

LANTMÄTERIET

As Simple as Possible for as Many as Possible, to Access, Understand and Use Spatial data

Anders Sandin
Director at Lantmäteriet, the Swedish mapping and cadastral and land registration authority

Mr. Anders Sandin

This is the Swedish vision to create a National Spatial data Infrastructure (SDI). For the work we have a National Geodata Strategy that describes the strategic objectives to achieve the vision. Lantmäteriet has been commissioned by the government to coordinate the Swedish spatial data infrastructure for access and exchange of spatial data. The national spatial data infrastructure is part of the European infrastructure according to the EU Directive INSPIRE.

Why a spatial data infrastructure? We are constantly under threat from climate change, natural disasters, diseases, extinction of species and lack of natural resources. In order to prevent and deal with situations that arise, spatial data is needed. The infrastructure for spatial data facilitates exchange of information.

In Sweden we have a national portal for spatial data where different actors describe their data. The portal provides the ability to search, find and view spatial data that is hosted by many different organizations.

To use and combine spatial data from different providers the data needs to be harmonized and in a uniform reference system. Standardized information is a necessary part of a spatial data infrastructure.

Another important part of the infrastructure is that the responsibility for coordinating the work is defined. A crucial factor for success is that there is a collaborative way of working
for the process of building an infrastructure for geodata. Network and forums for the development and exchange of experience are important components in the construction
of an infrastructure.

It becomes more common with major natural disasters, fires, floods and landslides. It can happen anywhere, at anytime and can spread over large areas. Easy access for authorities, municipalities, landowners and other stakeholders are required and is important to achieve a common picture before, during and after a disaster. Right kind of information and knowledge simplifies both planning, decision making and analysis.

At www.geodata.se you can read more about the Swedish spatial data infrastructure and also view good examples and social benefits of using spatial data.

Geodata
SWEDEN BIT BY BIT

Global Mapping Project in Viet Nam

Do Thi Thu Thuy

Expert of Science and International Cooperation Office

Department of Survey and Mapping of Viet Nam

Mrs. Do Thi Thu Thuy

Viet Nam has participated in the Global Mapping Project since 2002. This is an International project, which could create the cooperation between the countries members in mapping field as a condition for the countries members may share geographic data for general global activities.

In 2007, the Global map version 1 of Viet Nam territory was completed and published on the website of International Steering Committee for Global Mapping http://www.iscgm.org. This data has been warmly users download and Global map version 1 of Viet Nam is one of the most widely used. This shows that the contribution of Viet Nam to the Global Mapping Project has brought significant results. The publication of geographic data of Vietnam territory brings scientific signification, which service for study, sustainable development of global.

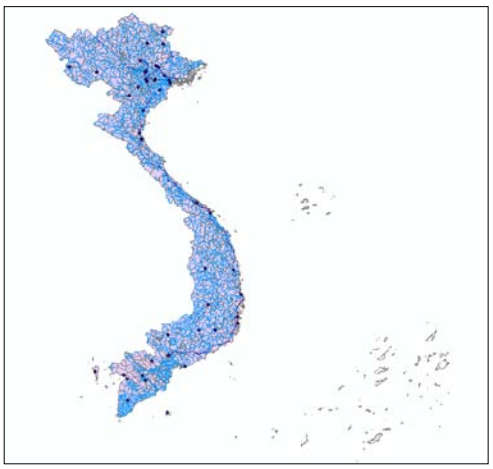
Follows the request of ISCGM, Department of Survey and Mapping of Viet Nam has approved the project to update the Global map version 2 in 2013. The project made plan to update 8 layers in accordant with Global map specifications Version 2.

The data sources:

- 04 vector layers: transportation, drainage, boundaries, population centers were developed based on digital topographic map at 1: 1.000.000 scale, administrative map at 1: 1.000.000 scale and information of traffic, population, geographical names.
- 04 Raster layers of the Global map were established based on the following data sources:

  - The elevation layer was established based on terrain elevation on topographic maps at 1: 1,000,000.
  - The land use layer was established based on the land use map cover whole country.
  - The land cover and vegetation layers were established based on MODIS and Landsat satellite images.

At present, Viet Nam almost has completed the project. We are checking the last time before handing over Global map version 2 to International Steering Committee for Global Mapping.

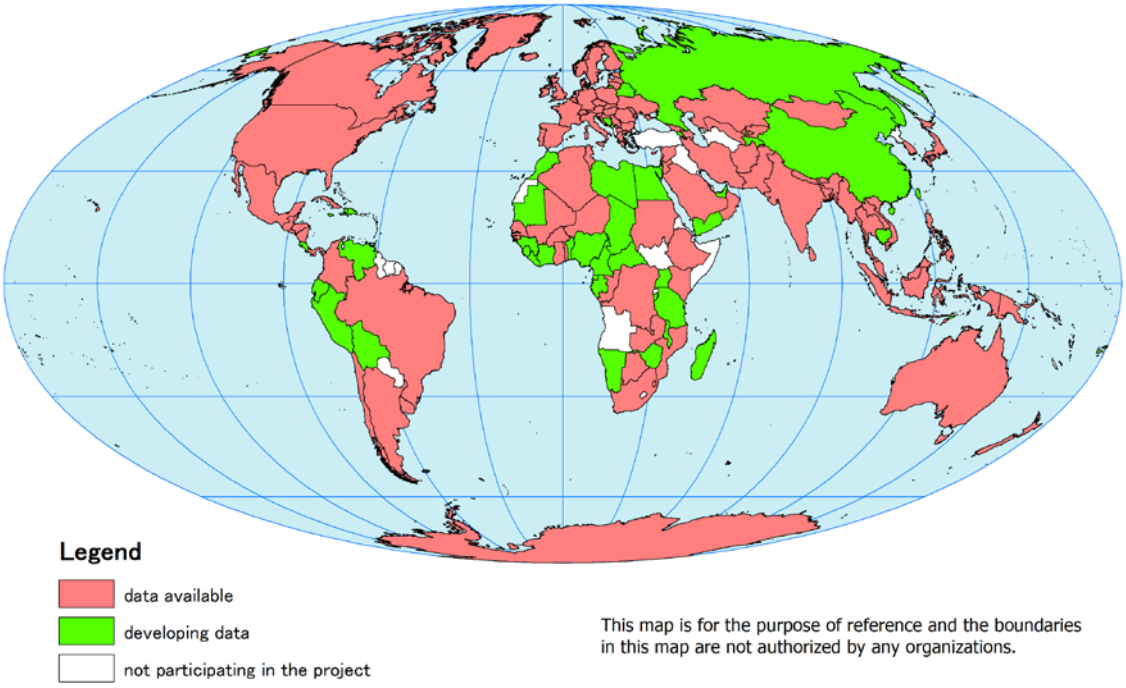


Global Map of Viet Nam

From the Secretariat

Global Map Data Release and Participation in the Global Mapping Project

Currently 167 countries/16 regions participate in the Project. Among them, data of 111 countries/8 regions have been released (Version 2 data are for 74 countries/4 regions).



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Global Map and Related Meetings

Followings are Global Map and related meetings. Information on related meetings is highly appreciated.

2015

- **August 4, New York, USA**
  The 22nd Meeting of ISCGM
  (Related information is uploaded to the ISCGM website as needed.)
- August 5-7, New York, USA
  UNCE-GGIM Fifth Session
- August 23-28, Rio de Janeiro, Brazil
  27th International Cartographic Conference
- October 5-9, Jeju Island, Republic of Korea
  20th UN Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP)
- October 9, Jeju Island, Republic of Korea
  Fourth UN-GGIM-AP Plenary Meeting

The Newsletter is distributed as information paper on Global Mapping to more than 1,200 people of NGIAs, Global Map data users and other interested people of the world. Your contribution of articles, requests for subscription and provision of relevant information will be very much appreciated.
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