2. Twenty Year Journey in Global Mapping

ISCGM Secretariat made a presentation about the history of Global Mapping Project and the proposal on the conclusion of ISCGM, at 23rd ISCGM meeting in New York on August 2, 2016.
Chapter 2 reprints this presentation material.

Twenty Year Journey in Global Mapping

Mapping the World, Advancing Global Understanding

International Steering Committee for Global Mapping

Toru Nagayama
ISCGM Secretariat

23rd ISCGM Meeting

New York, 2 August 2016

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2. History of Global Mapping Project
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1. Introduction of Global Mapping Project

Global Mapping Project

- Develop reliable geospatial information (Global Map)
- Provide a tool to solve global scale problems
- Steered by ISCGM (International Steering Committee for global mapping)
- Participated by National Geospatial Info. Authorities.

Global Map: Digital geospatial info. at a scale of 1:1 million

National/Regional version: Vector (Boundary, Transport, Drainage, Population centers), Raster (Elevation, Land use, Land cover, Vegetation)

Global version: Elevation, Land cover, Vegetation

2. History of Global Mapping Project

History of Global Mapping Project

- 1992-1996: Establishment of ISCGM
- 1996-2000: Toward Global Map Data Release
- 2000-2007: Promotion of Data Development
- 2008-2013: Development and Release of Version 2
- 2013-2016: Facilitate the Use of Geospatial Information
- 2016: Conclusion of the Project

1992-1996: Establishment of ISCGM

1992	***Earth Summit "Agenda21"*** Proposal of "Global Mapping Concept"
1993	
1994	International Workshop "Resolution of Izumo Conference" Start of JICA group training course "Environment Seminar"
1995	
1996	Establishment of ISCGM at the Second International Workshop on Global Mapping First meeting of ISCGM

Agenda21 – Earth Summit (1992)

Chapter 40: Information for Decision-Making

*Various types of data which indicate the status and trends of global environment need to be collected.

Earth Summit in June 1992: From Ministry of Environment web site (https://www.env.go.jp/)

Global Mapping Concept（1992）

"In order to solve global environmental problems, what should surveying and mapping community do? "

Global Mapping Concept

Develop geospatial information (Global Map)
that covers the entire globe
at a scale of 1: 1 million
through international cooperation

The First International Workshop on Global Mapping 1994
The Second International Workshop on Global Mapping 1996

- To develop and update Global Map and widely release the data
- To provide technical and economic assistance to promote developing Global Map
- To recommend establishment of International Steering Committee for Global Mapping (ISCGM)

Second Workshop in February 1996

First Meeting of ISCGM（1996）

NMOs should actively release their own geographic data sets that are necessary and effective for developing global scale data equivalent to the scale of Global Map.

- Investigate the existence of global scale data
- Assist undeveloped areas
- Investigate data specifications
- Agenda 21 follow up
- Start strategy planning

1st Meeting of ISCGM in February, 1996

1996-2000: Toward Global Map data release

1996	Interregional Seminar on Global Mapping for the Implementation of Multinational Environmental Agreements
1997	***19th Special Session of UN General Assembly (Rio + 5)***
1998	**Invitation letter was sent from UN to Member States** **Adoption of Global Map Specifications**
1999	Meeting of the Global Map Development in Asia
2000	**Declaration of release of Version 1 at Global Map Forum**

Global Mapping initiative had been introduced to many people through various activities

- International Global Mapping seminars and forums
- Promotion campaigns at relevant international academic meetings and international conferences
- Coordination with international organizations

UN Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21 (Rio+5) (1997)

"Programme for Further Implementation of Agenda 21"

Necessity of global mapping was mentioned.

UN Letter of Invitation to Join Global Mapping Project (1998)

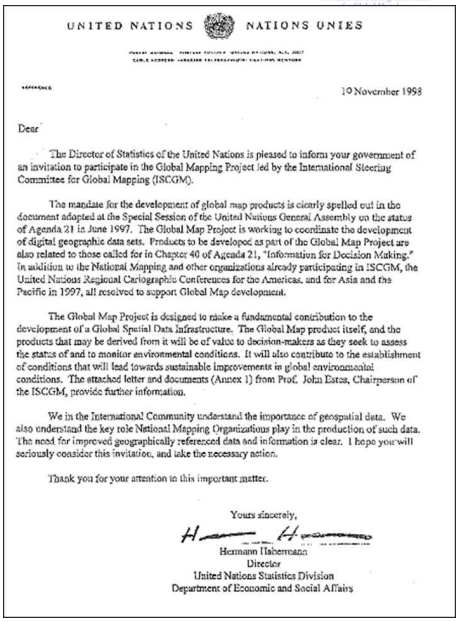
plus

Various activities of promoting the Global Mapping Project

resulted in

Rapid increase in GM Participation

12 countries (1998)→**81** countries（2000）



UNITED NATIONS NATIONS UNIES

10 November 1998

Dear

The Director of Statistics of the United Nations is pleased to inform your government of an invitation to participate in the Global Mapping Project led by the International Steering Committee for Global Mapping (ISCGM).

The mandate for the development of global map products is clearly spelled out in the document adopted at the Special Session of the United Nations General Assembly on the status of Agenda 21 in June 1997. The Global Map Project is working to coordinate the development of digital geographic data sets. Products to be developed as part of the Global Map Project are also related to those called for in Chapter 40 of Agenda 21, "Information for Decision Making." In addition to the National Mapping and other organizations already participating in ISCGM, the United Nations Regional Cartographic Conferences for the Americas, and for Asia and the Pacific in 1997, all resolved to support Global Map development.

The Global Map Project is designed to make a fundamental contribution to the development of a Global Spatial Data Infrastructure. The Global Map product itself, and the products that may be derived from it will be of value to decision-makers as they seek to assess the status of and to monitor environmental conditions. It will also contribute to the establishment of conditions that will lead towards sustainable improvements in global environmental conditions. The attached letter and documents (Annex 1) from Prof. John Estes, Chairperson of the ISCGM, provide further information.

We in the International Community understand the importance of geospatial data. We also understand the key role National Mapping Organizations play in the production of such data. The need for improved geographically referenced data and information is clear. I hope you will seriously consider this invitation, and take the necessary action.

Thank you for your attention to this important matter.

Yours sincerely,

Hermann Habermann
Director
United Nations Statistics Division
Department of Economic and Social Affairs

Release of Global Map Version 1（2000）

- Global Map Forum 2000
  Hiroshima, Japan November 2000
  - ➢Declaration of Release of GM Version 1
    - Japan
    - Laos
    - Nepal
    - Sri Lanka
    - Thailand
  - ➢Adoption of Hiroshima GM Declaration

Chairperson declaring first GM release in Nov. 2000

2001-2007: Promotion of data development

2001	Death of Prof. John E. Estes, Chair of ISCGM
2002	Prof. D. R. Fraser Taylor assumed chair 1st Global Mapping Seminar in Kenya ***Johannesburg Summit (Rio+10)*** Esri Grant programs started.
2005	Intergraph Grant programs started. 1st Global Mapping Seminar in Senegal
2006	Global Mapping Workshop “Use of geospatial information for mitigating large scale disasters and attaining sustainable development”
2007	Achieved releasing the data of 47 countries/regions **(about 50% of the land area)**

World Summit on Sustainable Development (Johannesburg Summit, Rio+10) (2002)

- The Adopted " Johannesburg Implementation Plan" mentions
  "Promotion of Initiative and Partnership for global mapping"
- A symposium "Global Mapping Partnership –Sustainable Development and Geographic Information" organized as a side event.

Johannesburg Summit in 2002
Web site of Ministry of Foreign Affairs
(http://www.mofa.go.jp/mofaj/index.html)

Global Mapping Seminars in Africa (2002-2008)

- **Nairobi (Kenya)**
  2002/2003/2004
  58 people from **25** countries participated.
- **Dakar (Senegal)**
  2005/2006/2008
  28 people from **11** countries participated.

A scene from the Third GM Seminar in Dakar, 2008

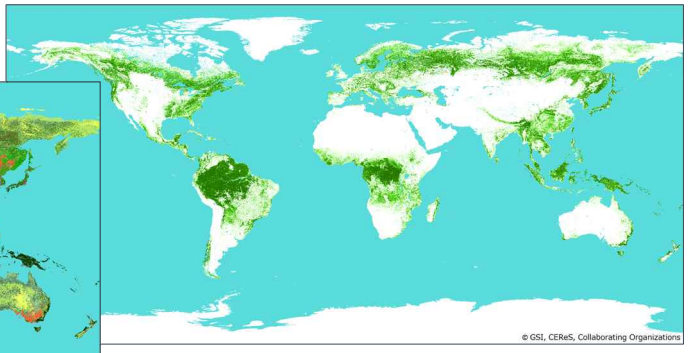
26 countries / regions participated to the Project
18 countries / regions released Global Map data

2008-2013: Development and Release of version 2

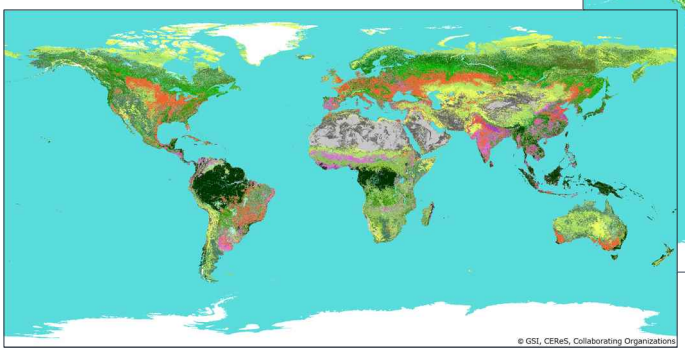
2008	Global Mapping Forum 2008/Global Map Tokyo Declaration "Global Map Global Version"ver.1 was released.
2009	Global Map Specifications (ver.2) was adopted.
2010	First release of Global Map ver. 2 (national / regional).
2011	**1st UNCE-GGIM**
2012	***UN Conference on Sustainable Development (Rio+20)***
2013	"Global Map Global Version"ver.2 was released.

Release of Global Map Global Version (2008)

- Land Cover (GLCNMO) / Percent Tree Cover (PTC) data
- WG4/ISCGM has mainly developed and 40 countries cooperated in verification.



PTC Ver.1



GLCNMO Ver.1

Revision of Global Map Specifications (2009)

- Innovation in geospatial information field
- Increase of Global Map data users and a change in user base
- Revision work of Global Map Specification was carried out from 2007 to 2009.

Major changes between Global Map ver.1 and ver.2

- Modification of Data Dictionary
- VPF → GML (vector data)
- Correspondence of metadata with International Standards

A scene of discussion at a workshop

Establishment of UNCE-GGIM (2011)

- UNCE-GGIM was launched as a forum for Member States and international organizations to discuss promotion of cooperation, improve interoperability, and technical transfer on global geospatial information.
- ISCGM also joined UNCE-GGIM as it had carried out the Global Mapping Project in collaboration with NGIAs of the world.
- ISCGM Advocated the GM4SD concept.

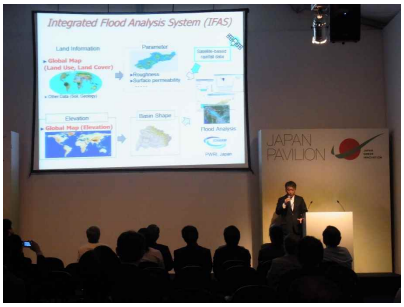
1st UNCE-GGIM, October 2011

UN Conference on Sustainable Development (Rio+20)

- A conference to follow up the Earth Summit after 20 years

> 274. We recognize the importance of space-technology-based data... In this context, we note the relevance of **global mapping** and…
>
> From "the Future We Want" adopted at Rio+20

Rio+20, June 2012

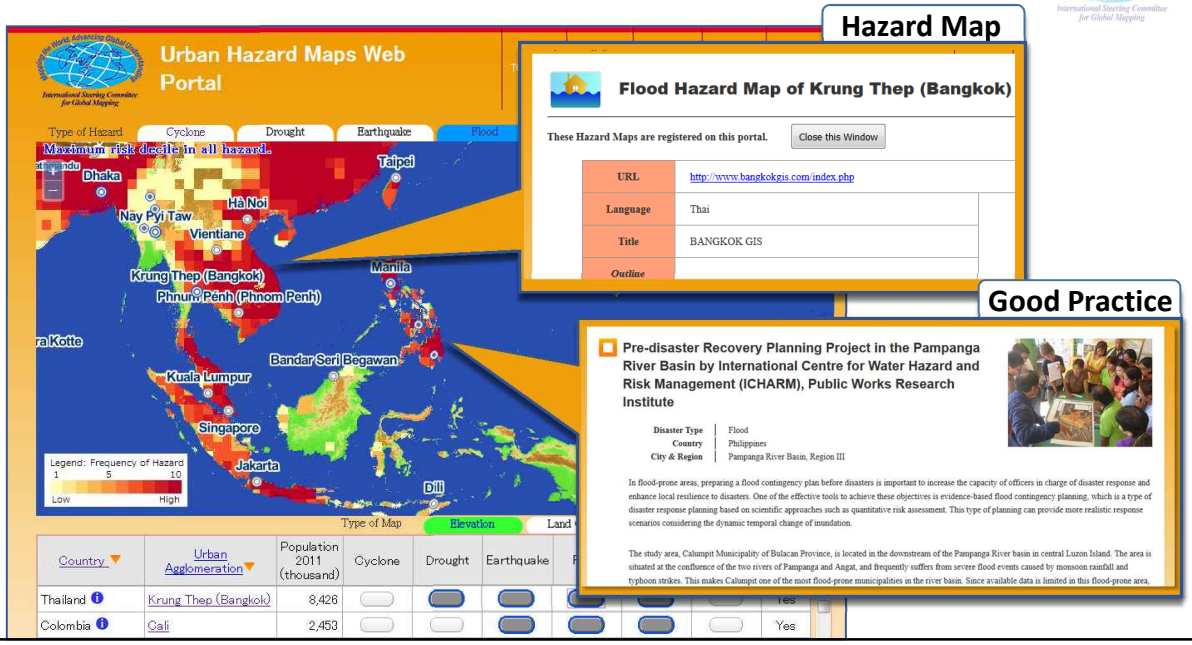


Rio+20 side event "Global Mapping Seminar"

2013-2016: Facilitate the use of geospatial information

2013	Over the 30 countries released Global Map data as EuroGlobalMap became OpenData. Professor Paul Cheung assumed new Chair
2014	Hazard Maps Web Portal site and Catalogue Service were released.
2015	***The 3rd WCDRR*** Symposium "Application of Geospatial Technology in Urban Disaster Management"
2016	Global Land Cover NMO Version ver.3 was released. **23rd Meeting of ISCGM / Data transfer ceremony**

Release of Hazard Maps Web Portal (2014)



The 3rd WCDRR (2015)

- A conference to make disaster risk reduction strategies of the world
- Adopted Sendai Framework for Disaster Risk Reduction 2015-2030.
- Proposed the use of ISCGM portal site as an index to measure achievement of Sendai Framework for Disaster Risk Reduction 2015-2030.
- Organized a disaster risk reduction symposium as a pre-event.

3rd WCDRR

Symposium on Application of Geospatial Information Technology In Urban Disaster Management

3. Outcome of Global Mapping Project

Outcome 1 : Provide a global forum for discussion on geospatial information

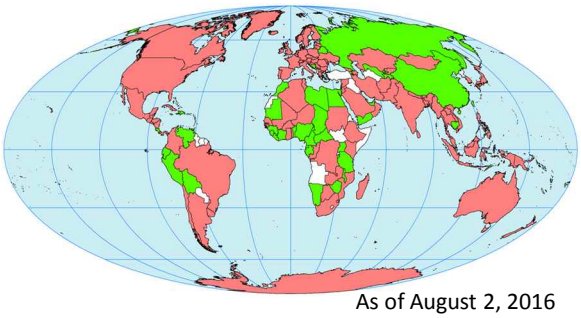
Prof. John E. Estes

Prof. D. R. Fraser Taylor

Prof. Paul Cheung

Under the strong leadership of three chairs, a total of 23 meetings were held to have provided a forum to discuss issues on geospatial information for collective contribution of NGIAs to the global society.

Outcome 2: Developing Global Map data in cooperation with NGIAs



As of August 2, 2016

Project participating and data releasing countries

Project participating countries

Participation: **184** countries and regions
（About **96%** of global land area ）

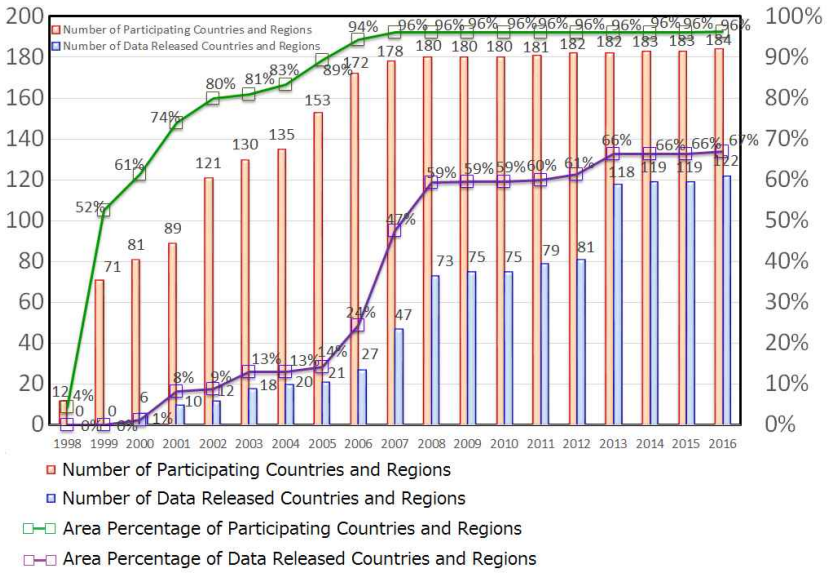
Data release: **122** countries and regions
（About **67%** of global land area ）

Global version: Land cover and Percent Tree Cover collaborating with NGIAs of respective countries.

Open data; ISCGM has promoted open data policy from the start of the project in 1990's.

Outcome 2: Developing Global Map data in cooperation with NGIAs

Participation and Data release Status 1998-2016



Outcome 3: Data dissemination

53,329 users registered

275,412 Global Map data downloaded

From Nov. 2000 to Jul. 2016

Outcome 4: Capacity building

・**112** people from **60** countries joined Global Map training in Japan (1994-2012)

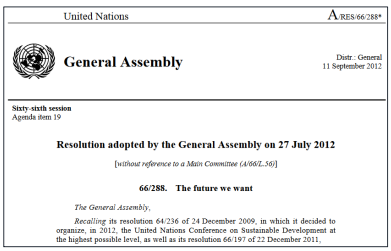
・Global Mapping Seminars in Kenya and Senegal had **86** people from **36** countries

・Supported the development of Global Map data by providing three kinds of tools for supporting Global Map data development, and manuals.

・ESRI/INTERGRAPH grant programs

JICA Training Course on Global Mapping in 1995

Outcome 5: Facilitate the development and use of geospatial information



United Nations A/RES/66/288*

General Assembly

Distr.: General
11 September 2012

Sixty-sixth session
Agenda item 19

Resolution adopted by the General Assembly on 27 July 2012

[without reference to a Main Committee (A/66/L.56)]

66/288. The future we want

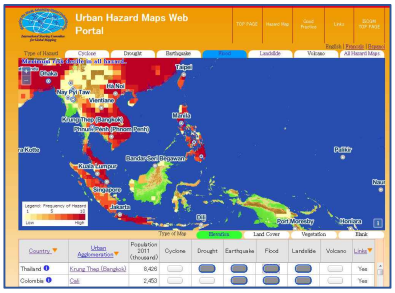
The General Assembly,

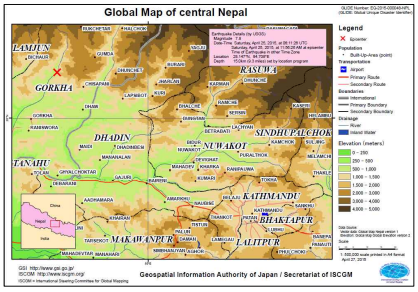
Recalling its resolution 64/236 of 24 December 2009, in which it decided to organize, in 2012, the United Nations Conference on Sustainable Development at the highest possible level, as well as its resolution 66/197 of 22 December 2011,

- Global Mapping project: facilitating develop and use of geospatial information.
- Reference to geospatial information in post-Rio conference documents.
- Calling for geospatial information in other processes such as GGIM, WCDRR

ISCGM: advocator of geospatial information for more than 20 years.

Outcome 6: Supporting international activities in various fields





- Developping Hazard Maps web portal as a voluntary commitment of WCDRR3
- Application to calculating emission and removal of green house gases
- Provision of disaster status maps to UNOCHA (ReliefWeb) at the time of disasters
- Material for children's international exchange education
- Application to Global Flood Alert System（GFAS）, etc….

Summary of the outcomes

・Twenty-four years have passed since the Earth Summit, which triggered starting the Global Mapping Project, and Twenty years have passed since the establishment of ISCGM.

・ 122 countries and regions, covering 67% of whole land areas released Global Map data as well as Global version data.

・ISCGM contributed to building capacity of digital mapping technology of NGIAs, particularly in developing world.

・ISCGM and all the participating members contributed to the world through promoting geospatial information including Global Map data.

4. Resolution and Global Map Transfer Plan

Scheme for Implementation of Global Map Data Transfer

The resolution of the 23rd meeting of the ISCGM

It refers to conducting the Global Map transfer Plan.

The Global Map transfer Plan (by ISCGM)

It refers to the agreement for detailed term of use.

The agreement between ISCGM and UNGIS

- Basically no restriction within UN operations.
- No attributes in products derived from or using Global Map data.
- Global Map data cannot be released outside the physical control of UN personnel.
- The UNGIS can enrich its databases with Global Map data or merge Global Map data with its own databases.

Resolution of the 23rd Meeting of the ISCGM

1. Under the understanding that the Global Mapping project is going to conclude in the end of March 2017, ISCGM agrees not to gather anymore after the 23rd meeting.

2. ISCGM acknowledges the Global Map transfer Plan and instructs the secretariat to conduct it.

3. ISCGM instructs the secretariat to register the contents of the Urban Hazard Maps Web Portal to the Knowledge Base of UNCE-GGIM.

ISCGM Secretariat will keep its minimum function until Mar. 2017 for carrying out the Global Map transfer Plan, not continuing the following.

a) Update of the Internet site except the matters related to the report of the 23rd meeting.
b) Administrating works related to the participation to the project, developing and updating Global Map data, and so on.

Urban Hazard Maps Web Portal will be closed after completion of registering to Knowledge Base.

Global Map Transfer Plan

1. The secretariat of ISCGM sends the Global Map data to UNGIS on behalf of the organization.

2. Global Map data can be used within the United Nations System without any restriction including mandatory attribution. The detailed terms of use are described in the agreement titled "Dissemination and handling in the use of the Global Map data provided from the International Steering Committee for Global Mapping (ISCGM) to the United Nations Geospatial Information Section (UNGIS) in support of the United Nations operations."

3. In order to ensure availability of Global Map data on the Web, the secretariat will work to provide the availability of the data if they are not yet released from the participating organization. In this case, any user authentication or access logging are not provided.

This plan is 'opt-in': this plan is applied according to the agreement by respective participating organizations. Otherwise the Global Map data of the organization stays its own.
ISCGM Secretariat will carry out the actual transfer of Global Map data no later than Mar. 2016.

Agreement between ISCGM and UNGIS

1. The International Steering Committee for Global Mapping (ISCGM), representing all its participating members, provides a copy of its Global Map data to the United Nations Geospatial Information Section (UNGIS), free of charge, and authorises perpetually its use in support of the United Nations operations without any restriction except the ones enumerated below.

2. The Chief of the Geospatial Information Section, Department of Field Support, United Nations (UNGIS) will act as the central repository and dissemination point for all Global Map data for its use in support of the United Nations operations and will assure that users are fully aware of the dissemination, handling and use condition of the Global Map data.

3. Global Map data shall only be used for the official purpose of supporting United Nations operations. Any other use beyond the scope of this official purpose is not authorized.

4. Global Map data cannot be released outside the physical control of United Nations personnel directly involved in supporting United Nations operations.

Agreement between ISCGM and UNGIS

5. Global Map data shall not be displayed, stored or distributed on publicly accessible networks or systems, nor be posted to or transmitted over the internet system.

6. Cartographic products using Global Map data can be disseminated by the United Nations with no restriction as is useful to support its operations at the sole opinion of the United Nations.

7. The UNGIS can enrich its databases with Global Map data or merge Global Map data with its own databases and use the result with no restriction as is useful to support its operations at the sole opinion of the United Nations.
All products derived from or using the Global Map data are exempt from the need to provide attribution to the Global Mapping Project.

ISCGM Secretariat keeps its Internet site until the necessary measures are taken for the accessibility and availability to Global Map data onward.
Please contact to sec@iscgm.org if you have question about the transfer of Global Map data.

Thank you for your attention