

Regional Report

Asia

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Geological Survey of Japan, AIST

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- 2. CCOP Geoinformation Sharing Infrastructure (GSI) Project**
- 3. 3D Geological Model in Urban Area**

Progress of OneGeology Project in E and SE Asia Region

Registered Asian Geological Maps

Hosted by GSJ

1. 1:2M Geologic Map of East and Southeast Asia
2. 1:1M Japan Geologic Map
3. 1:1M Indonesia Geologic Map
4. 1:1M Philippine Geologic Map
5. 1:1M Malaysian Geologic Map
6. 1:1M Papua New Guinea Geologic Map
7. 1:1M Vietnam Geologic Map
8. 1:1M Myanmar Geologic Map

Own Server

1. 1:1M Lao PDR Geologic Map
2. 1:1M South Korea Geologic Map (KIGAM)
3. 1:1M Thailand Geologic Map

Waiting for Approval

1. 1:1M Cambodia Geologic Map
2. 1:1M Mongolian Geologic Map

<https://ccop-gsi.org/gsi/onegeologyasia/>

OneGeology Portal Covering East Asia

2D 3D Show Legend Map List Registered Catalogs Sites of Interest Tools and Services About This Site

guest Logout / Other ID

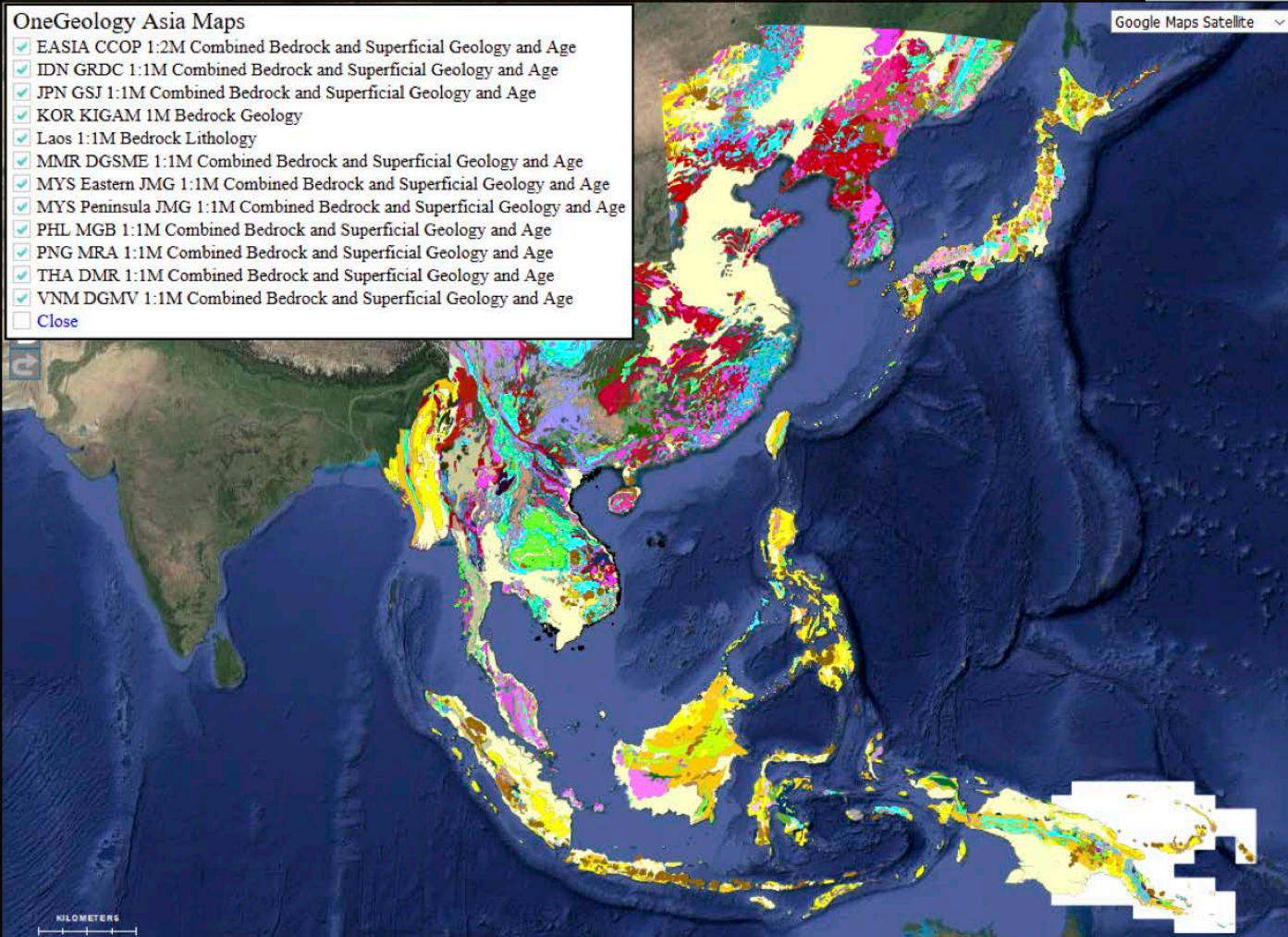
OVERLAYS

- EASIA CCOP 1:2M Combined Bedrock and Superficial Geology and Age
- KOR KIGAM 1M Bedrock Geology
- IDN GRDC 1:1M Combined Bedrock and Superficial Geology and Age
- PNG MRA 1:1M Combined Bedrock and Superficial Geology and Age
- VNM DGMV 1:1M Combined Bedrock and Superficial Geology and Age
- MYS Peninsula JMG 1:1M Combined Bedrock and Superficial Geology and Age
- MYS Eastern JMG 1:1M Combined Bedrock and Superficial Geology and Age
- MMR DGSME 1:1M Combined Bedrock and Superficial Geology and Age
- Laos 1:1M Bedrock Lithology
- PHL MGB 1:1M Combined Bedrock and Superficial Geology and Age
- JPN GSI 1:1M Combined Bedrock and Superficial Geology and Age
- THA DMR 1:1M Combined Bedrock and Superficial Geology and Age

>> Open Map Control

OneGeology Asia Maps

- EASIA CCOP 1:2M Combined Bedrock and Superficial Geology and Age
- IDN GRDC 1:1M Combined Bedrock and Superficial Geology and Age
- JPN GSI 1:1M Combined Bedrock and Superficial Geology and Age
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- THA DMR 1:1M Combined Bedrock and Superficial Geology and Age
- VNM DGMV 1:1M Combined Bedrock and Superficial Geology and Age
- Close



<https://ccop-gsi.org/gsi/onegeologyasia/>

ONE OneGeology Portal Covering East Asia

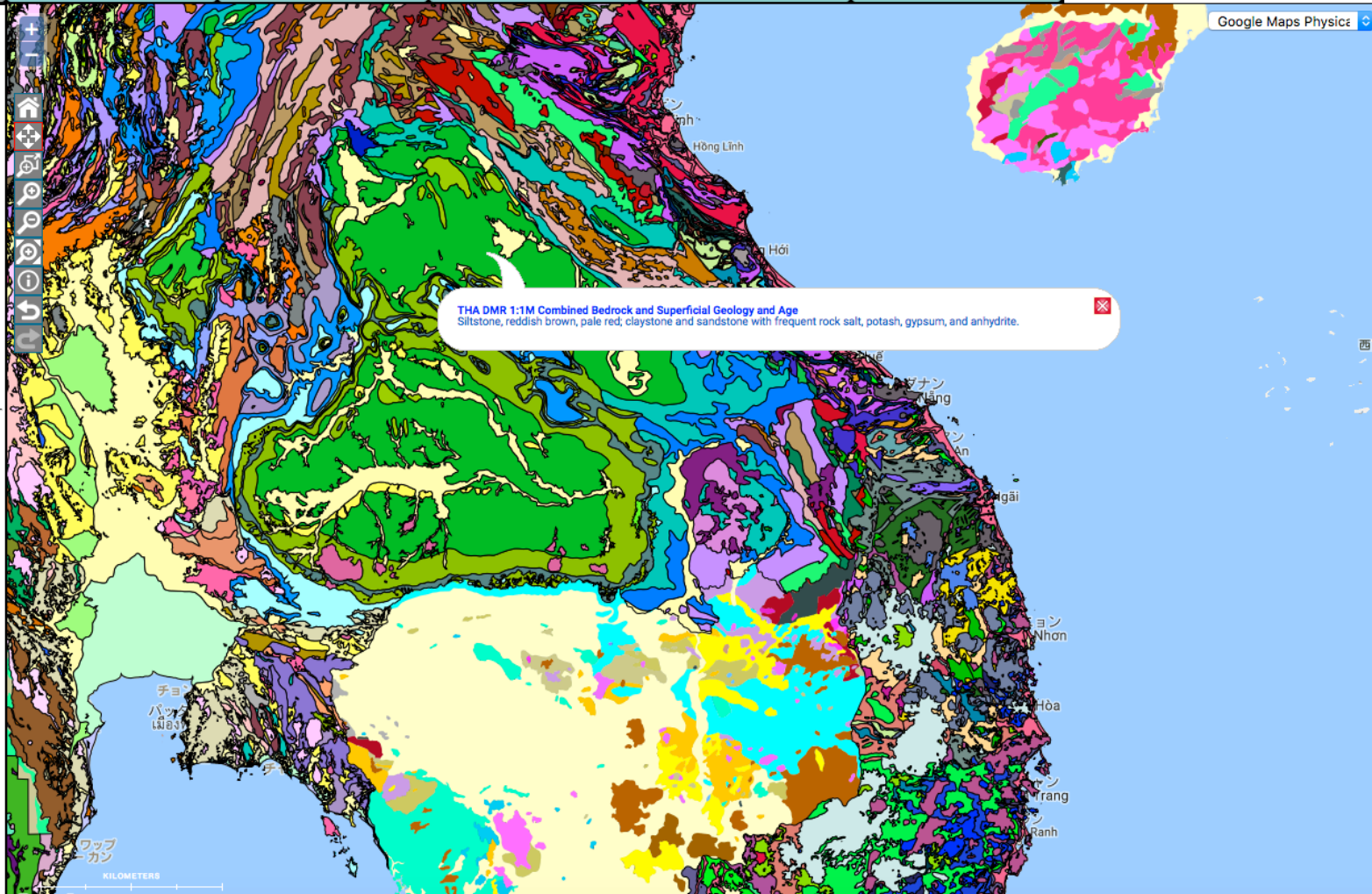
guest
Logout / Other ID

2D 3D Show Legend Map List Registered Catalogs Sites of Interest Tools and Services About This Site

OVERLAYS

- THA DMR 1:1M Combined Bedrock
- VNM DGMV 1:1M Combined Bedrock
- PNG MRA 1:1M Combined Bedrock
- PHL MGB 1:1M Combined Bedrock
- MYS Peninsula JMG 1:1M Combined
- MMR DGSME 1:1M Combined Bedrock
- Laos 1:1M Bedrock Lithology
- KOR KIGAM 1M Bedrock Geology
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- EASIA CCOP 1:2M Combined Bedrock
- IDN GRDC 1:1M Combined Bedrock
- MYS Eastern JMG 1:1M Combined Bedrock

>> Open Map Control

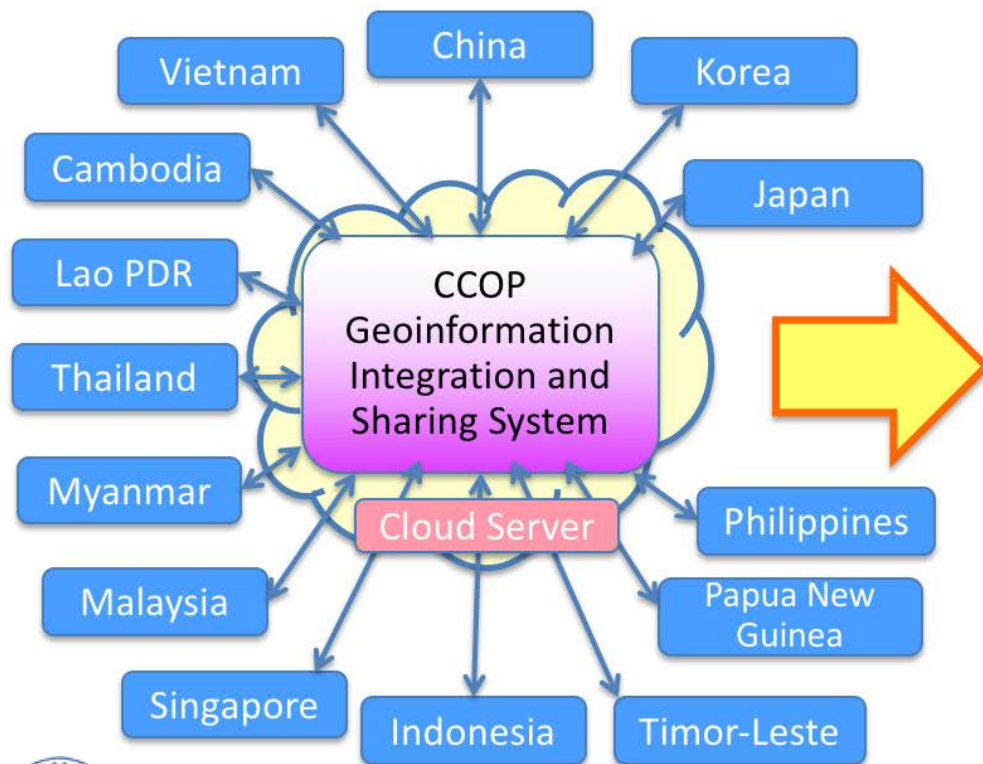


CCOP Geoinformation Sharing Infrastructure for East and Southeast Asia (GSi) Project

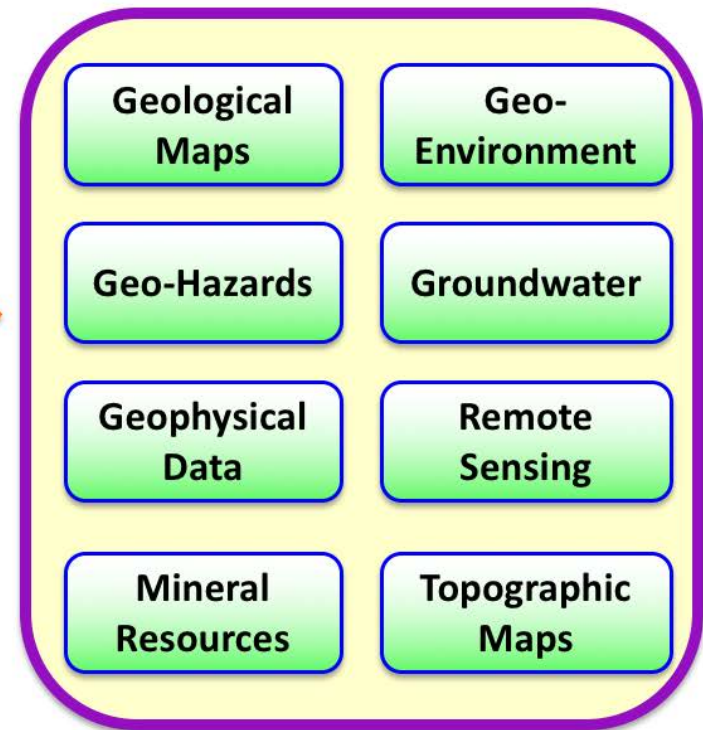
CCOP Geoinformation Sharing Infrastructure for East and Southeast Asia (GSI) Project



Develop a new geoinformation integration and sharing system using international standards and free and open-source software among CCOP countries



Geoinformation in CCOP Countries



CCOP: Coordinating Committee for Geoscience Programmes in East and Southeast Asia

Title:

Geoinformation Sharing Infrastructure for East and Southeast Asia (GSi Project)

Scope:

- ❖ Compile various **geoscientific information** in CCOP countries, and construct a **database on an open Web**, using the **world standard formats and GIS**,
- ❖ **Each member country is responsible** for updating the database and maintaining the data quality,
- ❖ Upload **published** geoscience data and maps with the GIS format,
- ❖ Establish a geoinformation infrastructure in Asia and for the world.

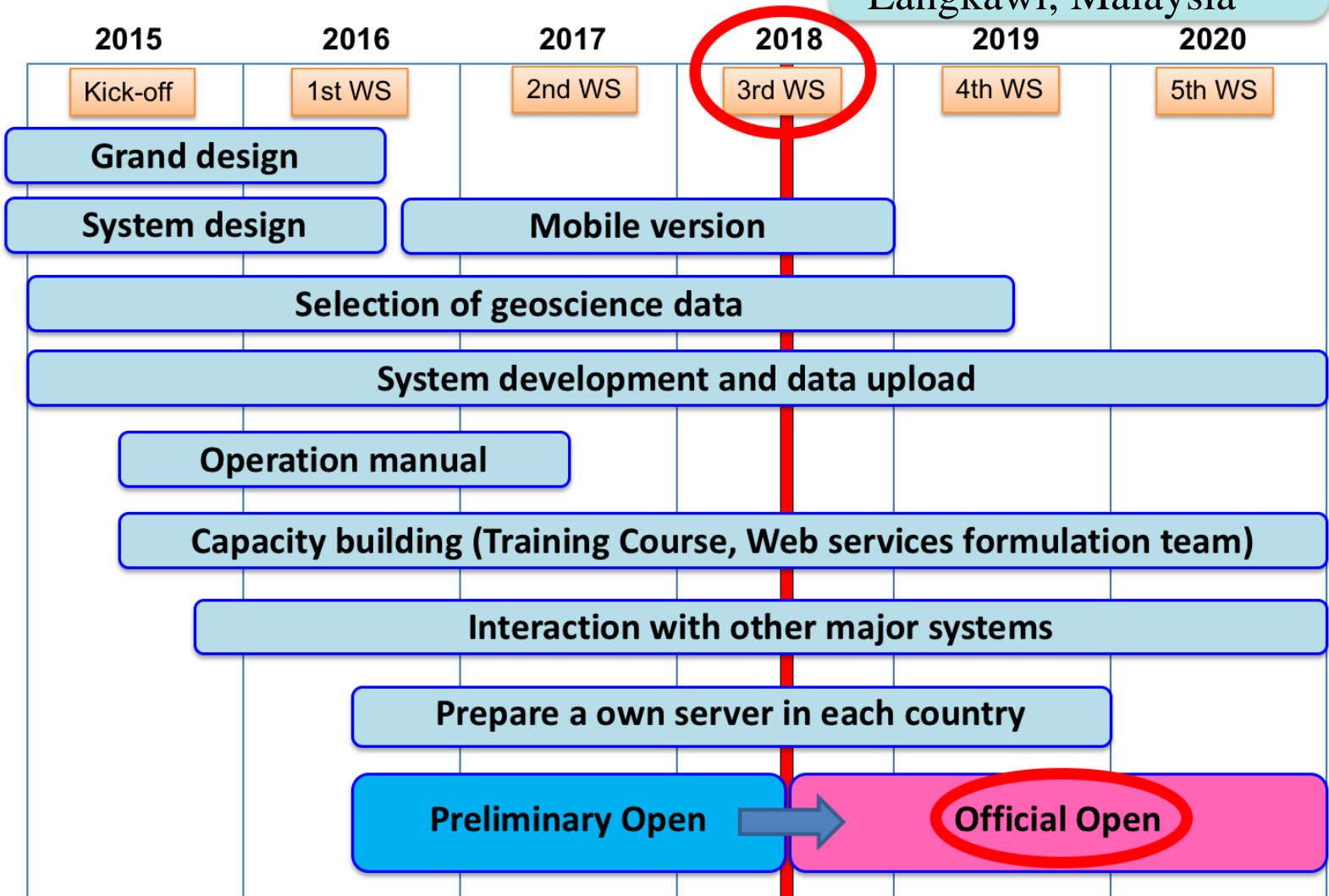
Duration:

- ✓ Year 2015 - 2020
- ✓ The first-version official database will be opened in 2018

Work Plan

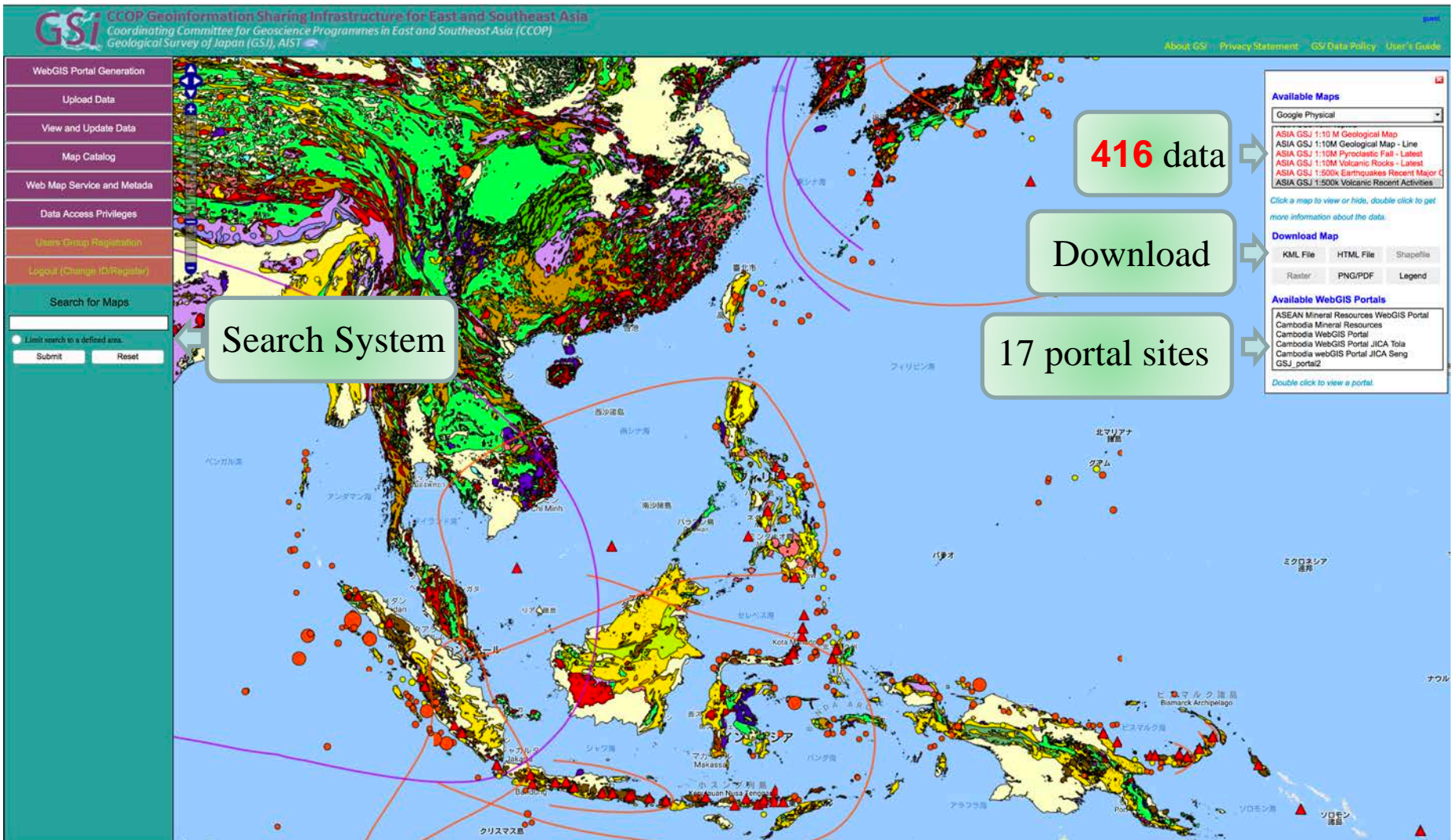


Official Open Sep. 2018
Langkawi, Malaysia





5-7 Dec. 2017, Luang Phabang, Lao PDR



416 data

Download

17 portal sites

Search System

Available Maps

- Google Physical
- ASIA GSI 1:10M Geological Map
- ASIA GSI 1:10M Geological Map - Line
- ASIA GSI 1:10M Pyroclastic Fall - Latest
- ASIA GSI 1:10M Volcanic Rocks - Latest
- ASIA GSI 1:500k Earthquakes Recent Major C
- ASIA GSI 1:500k Volcanic Recent Activities

Click a map to view or hide, double click to get more information about the data.

Download Map

- KML File
- HTML File
- Shapefile
- Raster
- PNG/PDF
- Legend

Available WebGIS Portals

- ASEAN Mineral Resources WebGIS Portal
- Cambodia Mineral Resources
- Cambodia WebGIS Portal
- Cambodia WebGIS Portal JICA Toia
- Cambodia WebGIS Portal JICA Seng
- GSI_portal2

Double click to view a portal.

<https://ccop-gsi.org/main/>

- 1. Geographical Data**
- 2. Geology (Land, Marine, Seamless)**
- 3. Geophysics (Gravity, Magnetics, Heat flow)**
- 4. Mineral Resources**
- 5. Groundwater**
- 6. Geohazards (Earthquake, Tsunami, Volcano, Landslide, Flood)**
- 7. Geo-Environmental Data (Land subsidence, Coastal Erosion)**
- 8. Remote Sensing (Volcano, Mineral, Ground Deformation)**
- 9. Energy Resources (Geothermal, Hydrocarbon)**
- 10. CO₂ Storage**

Dec. 2017 to Sep. 2018

(3rd year)

1. The 3rd CCOP GSi Project Workshop (in 2018)
2. **Open the official main GSi portal site** from CCOP by **Sep. 2018**.
3. **Open official portal sites from your own institutes** by Sep. 2018.
4. **Increase quantity and quality of the data** on the GSi system.
5. **System development and improvement.**
(data interaction, processing, etc.)
6. **Training courses and user manual** (local language) for further developments.
7. **Make interactions with other major international projects.**
8. **Disseminate the GSi System** to the world. (Press release)

eg: <https://ccop-gsi.org/gsi/thailand>

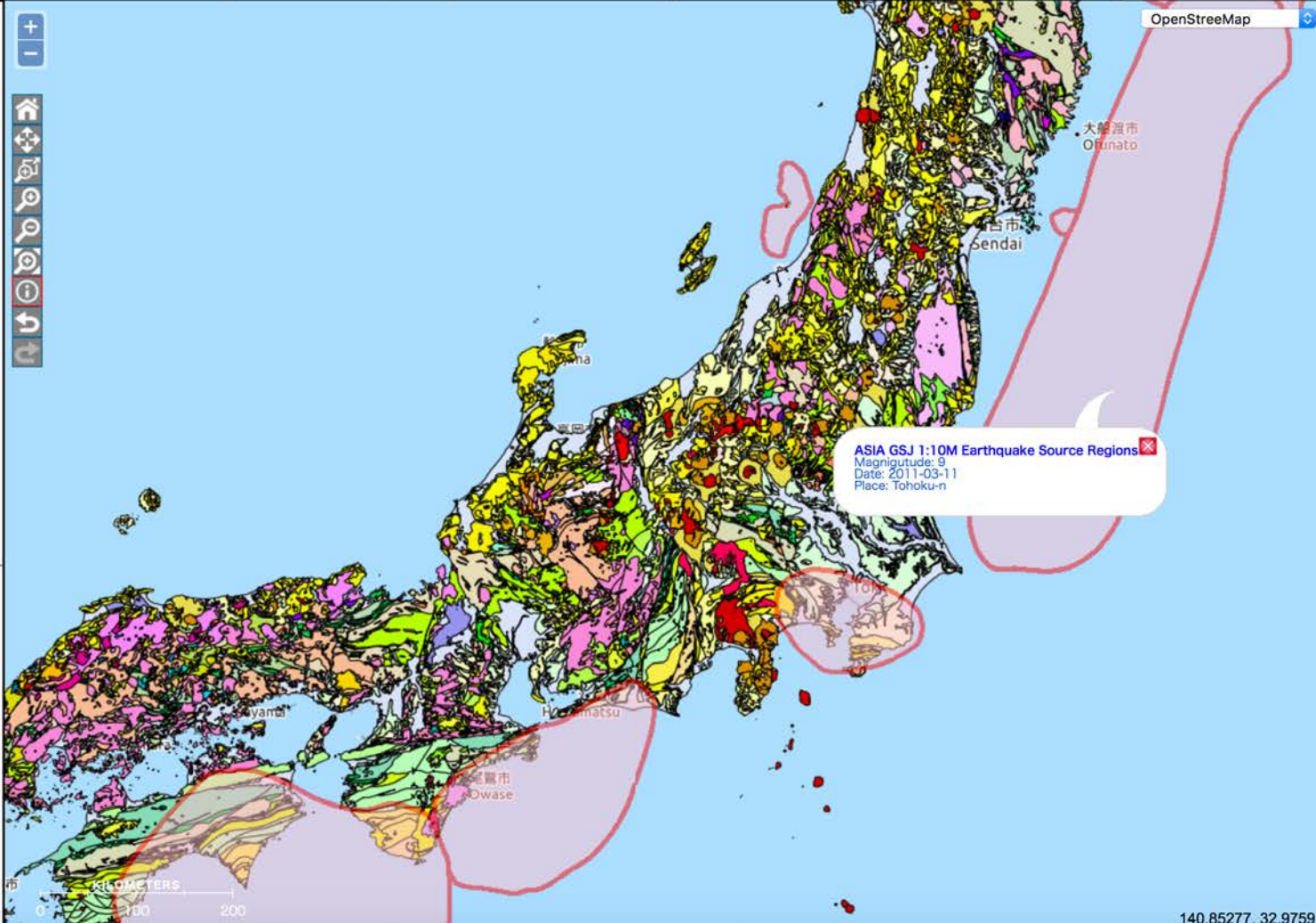
GSJ Geological Survey of Japan, AIST WebGIS Portal Log Out

2D 3D Show Legend JPN GSJ 1:200K Kanto Data Catalog Sites of Interest Tools and Services About This Site

OVERLAYS

- ASIA GSJ 1:10M Earthquake Source I
- JPN GSJ 1:200K Kanto Region Geolo
- JPN GSJ 1:200K Geological Map Yok
- JPN GSJ 1:200K Geological Map Utsu
- JPN GSJ 1:200K Geological Map Tak
- JPN GSJ 1:200K Geological Map Ota
- JPN GSJ 1:200K Geological Map Nik
- JPN GSJ 1:200K Geological Map Nag
- JPN GSJ 1:200K Geological Map Miy
- JPN GSJ 1:200K Geological Map Mit
- JPN GSJ 1:200K Geological Map Mik
- JPN GSJ 1:200K Geological Map Kof
- JPN GSJ 1:200K Geological Map Hac
- JPN GSJ 1:200K Geological Map Chil
- JPN GSJ 1:2M Geological Map of Jap
- JPN GSJ 1:1M Geological Map of Jap
- JPN GSJ 1:200K Seamless Geological
- JPN GSJ 1:200K Geological Map Shi
- JPN GSJ 1:200K Geological Map Tok

>> Open Map Control



OpenStreetMap

ASIA GSJ 1:10M Earthquake Source Regions

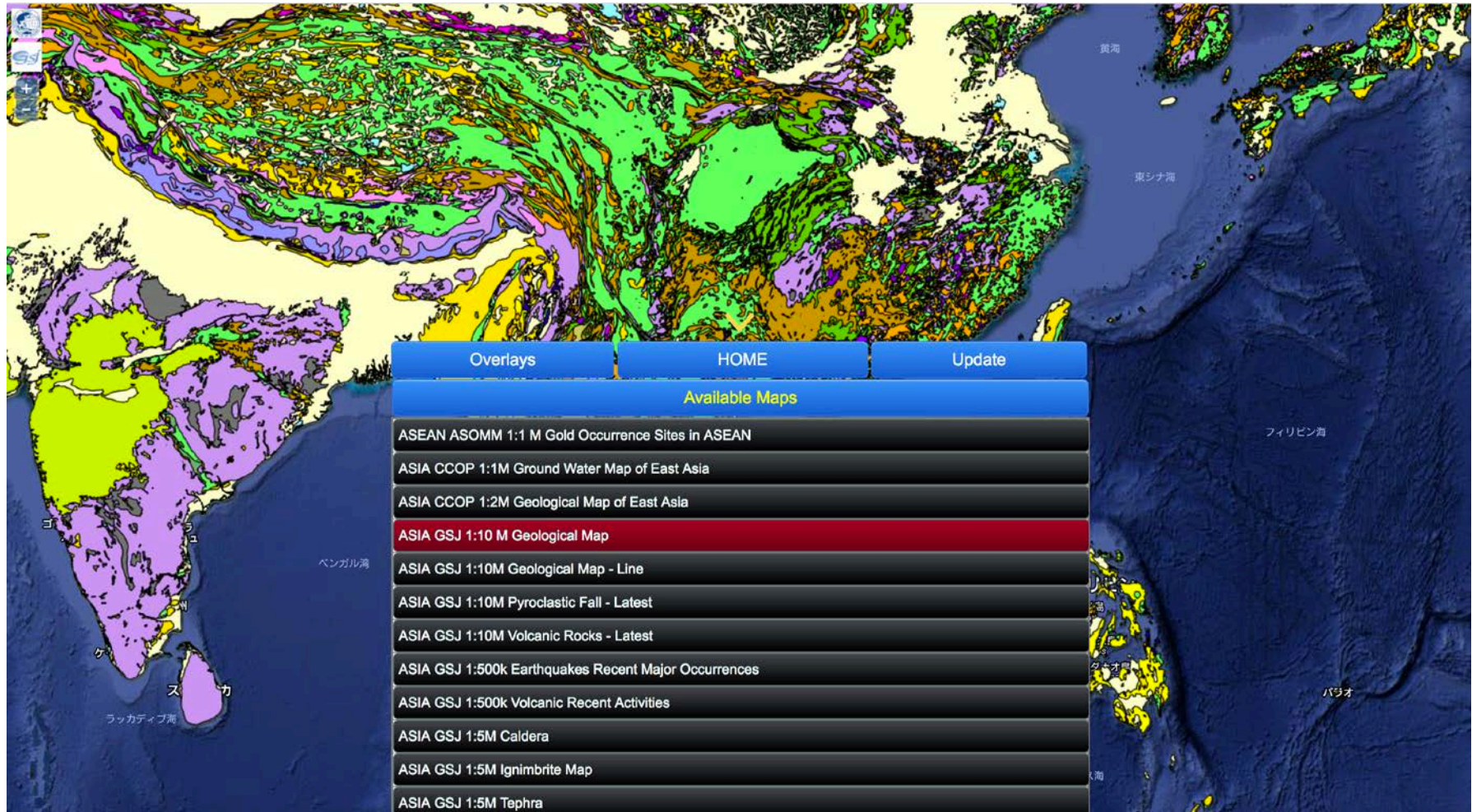
Magnitude: 9
Date: 2011-03-11
Place: Tohoku-n

KILOMETERS

0 100 200

140.85277, 32.97591

<https://ccop-gsi.org/gsi-mobile/>



The screenshot displays a mobile application interface for geological maps. The background is a map of East Asia, including parts of China, Korea, and Japan, with various geological features highlighted in colors like green, purple, and yellow. A menu is overlaid on the bottom right of the map, containing the following items:

- Overlays
- HOME
- Update
- Available Maps
 - ASEAN ASOMM 1:1 M Gold Occurrence Sites in ASEAN
 - ASIA CCOP 1:1M Ground Water Map of East Asia
 - ASIA CCOP 1:2M Geological Map of East Asia
 - ASIA GSJ 1:10 M Geological Map** (highlighted in red)
 - ASIA GSJ 1:10M Geological Map - Line
 - ASIA GSJ 1:10M Pyroclastic Fall - Latest
 - ASIA GSJ 1:10M Volcanic Rocks - Latest
 - ASIA GSJ 1:500k Earthquakes Recent Major Occurrences
 - ASIA GSJ 1:500k Volcanic Recent Activities
 - ASIA GSJ 1:5M Caldera
 - ASIA GSJ 1:5M Ignimbrite Map
 - ASIA GSJ 1:5M Tephra

Data on CCOP GSi system



Plan to register on OneGeology Portal

3D Geological Model in Urban Area

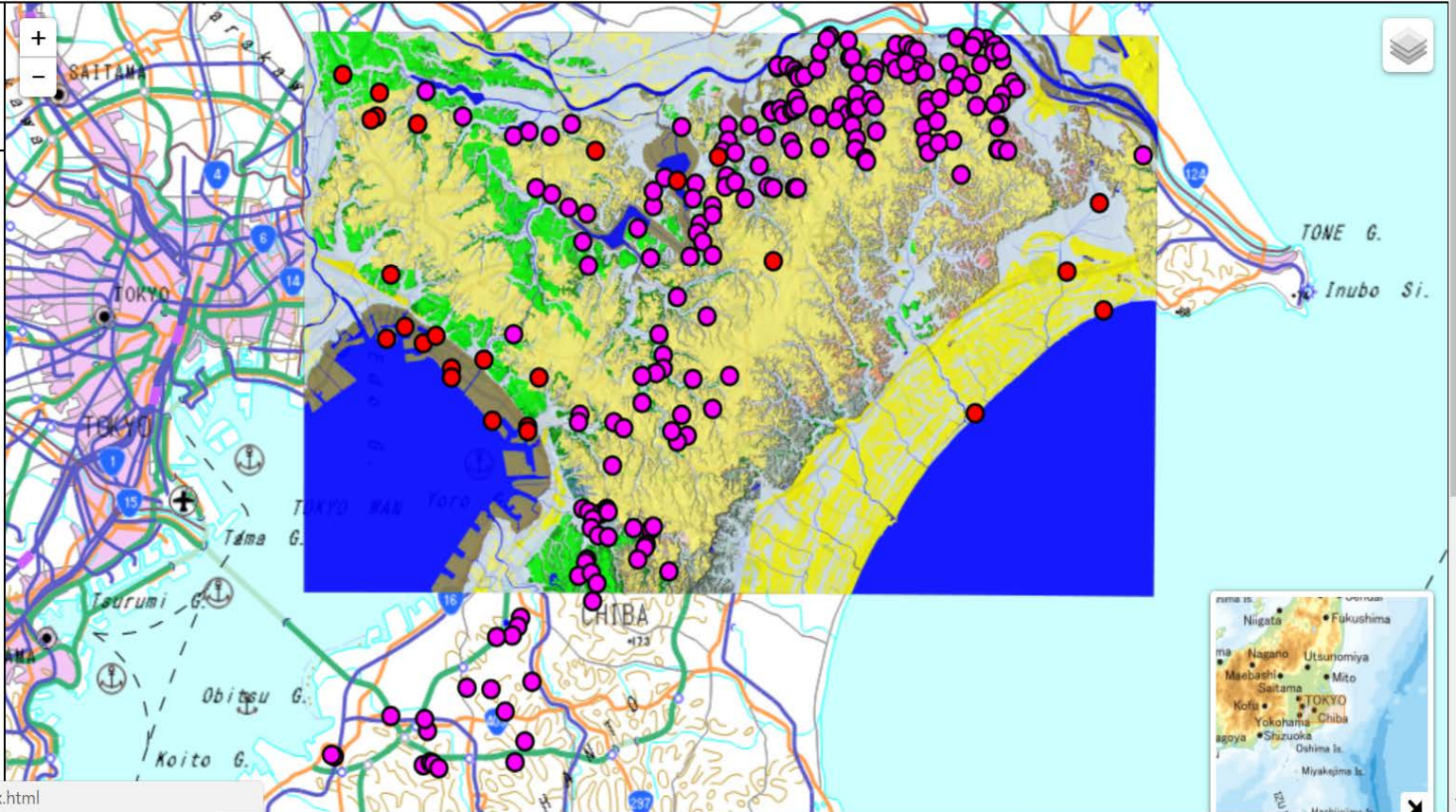
Urban Geological Map

[Top Japanese](#)

Opacity : 90%

- Normal
- Shaded relief

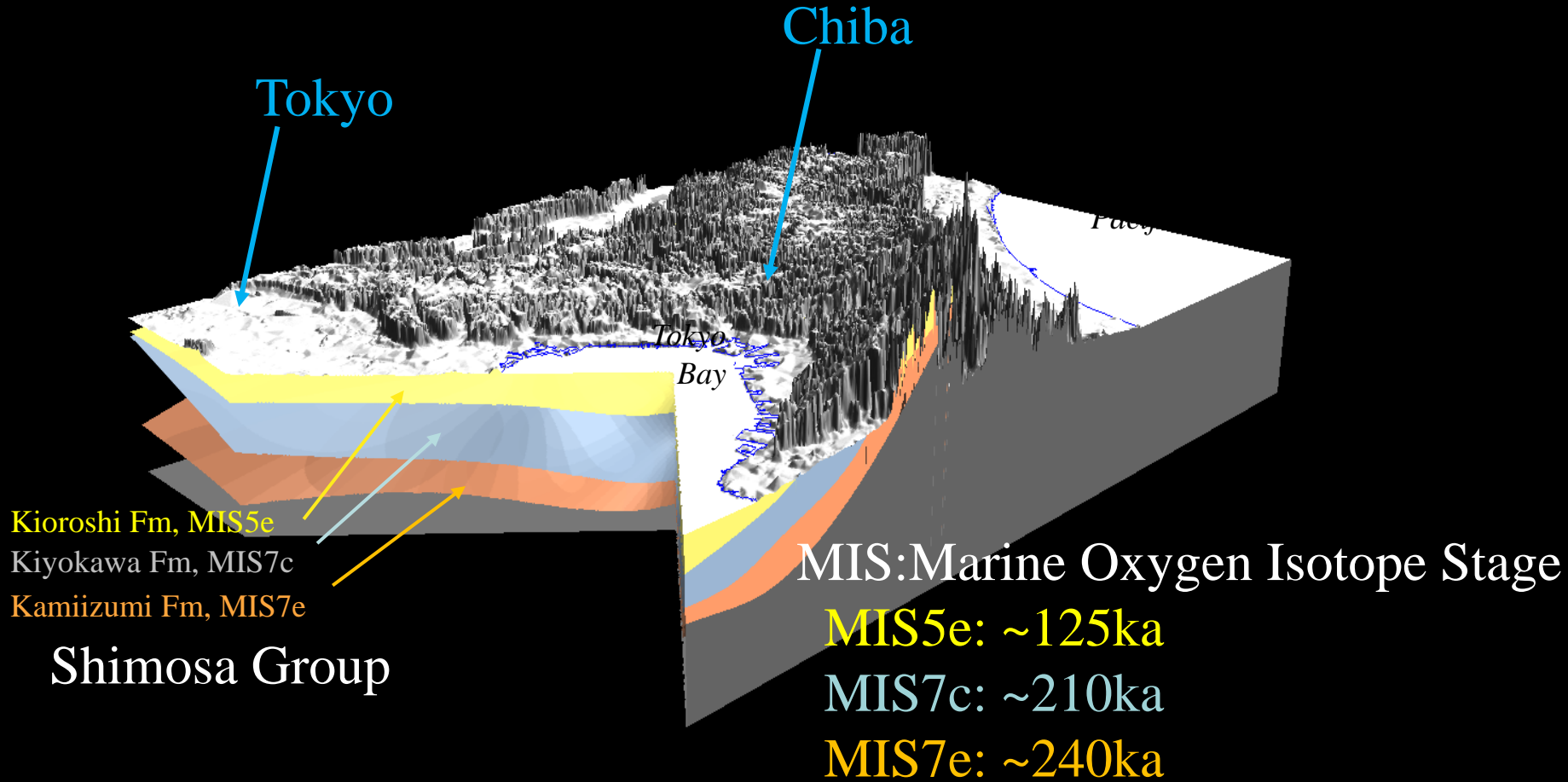
| | |
|-----------------------------------|----|
| Lake, pond, river and sea | w |
| Reclamation and banking | r |
| Sand bar and beach ridge deposits | as |
| Natural levee deposits | al |
| Abandoned channel deposits | ac |
| Marsh and valley floor deposits | ab |
| Younger terrace deposits | vt |
| Holocene | |
| Anesaki Formation | An |
| Kioroshi Formation | Ko |
| Yokota Formation | Yk |
| Pleistocene | |
| Shimosa Group | |
| Kiyokawa Formation | Ky |
| Kamiizumi Formation | Km |
| Yabu Formation | Yb |
| Jizodo Formation | J |
| Kazusa Group | |
| | K |



Please click the geological map to query the category values at specified location(s).
<https://gbank.gsj.jp/urbangeol/ja/map/index.html>



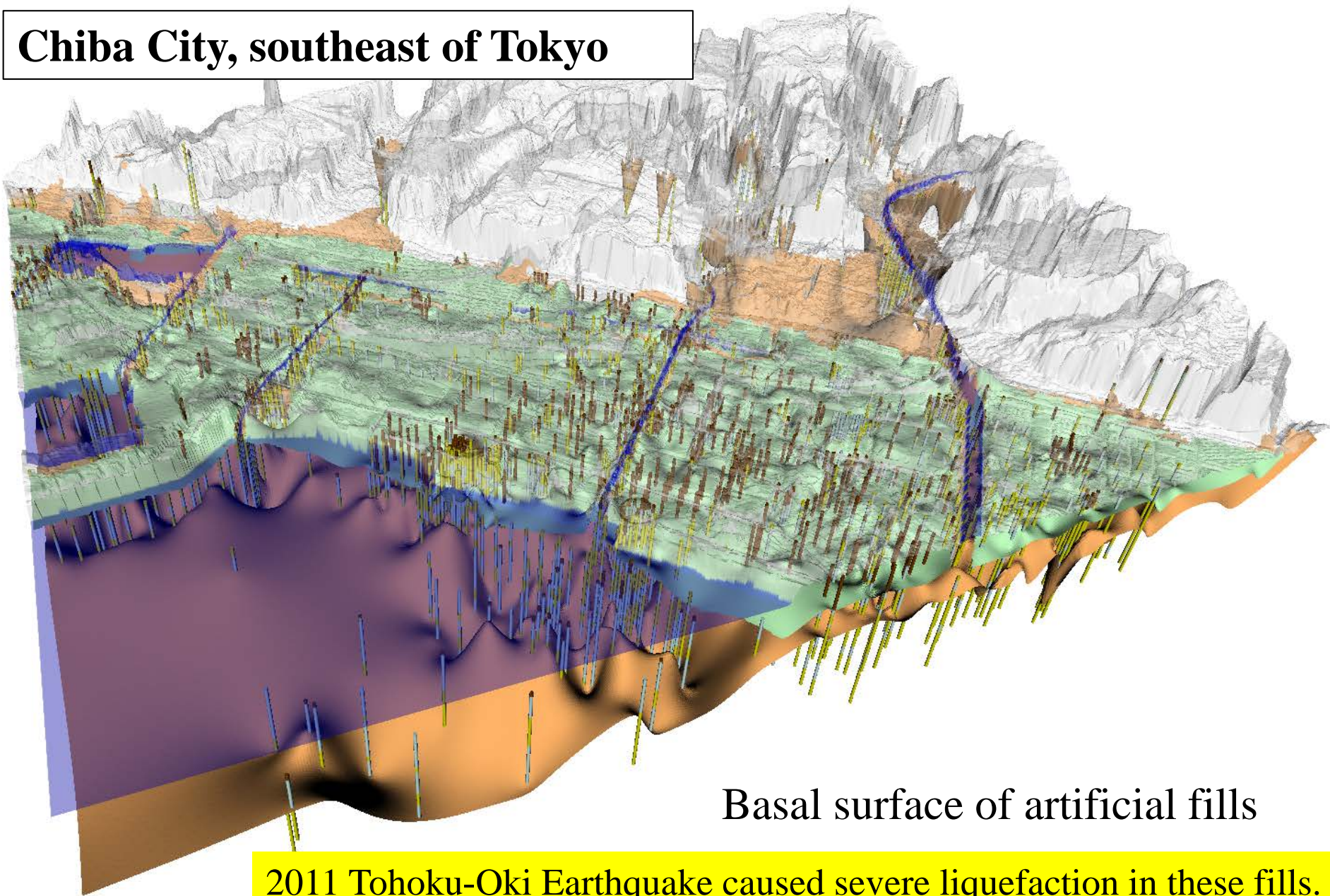
3D Geological Model of Pleistocene strata in Chiba area



Each Formation corresponds to sedimentary cycle (transgression-regression)



Chiba City, southeast of Tokyo



Basal surface of artificial fills

2011 Tohoku-Oki Earthquake caused severe liquefaction in these fills.

Thank you very much