

# Z8100 GLOBÁLNÍ MAPOVÁNÍ

## 11

Global Mapping Project | Heightmap Generator | GRIP | Shorelines | GIS Resources

**Ondřej Kvarda**

# Global Mapping Project

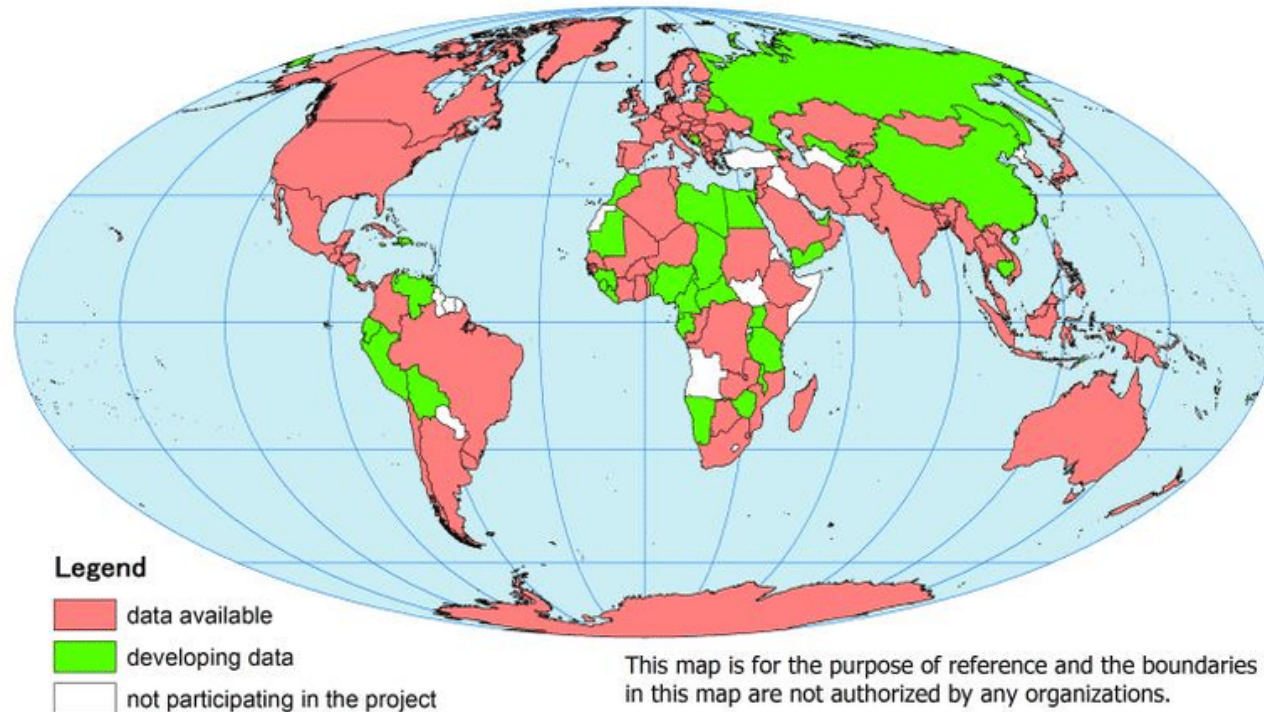
- Globální kolaborativní projekt – tvorba globální mapy pro **udržitelný rozvoj**, ochranu životního prostředí a **mírnění následků katastrof**.
- International Steering Committee for Global Mapping (**ISCGM**).
- Pod záštitou Geospatial Information Authority of Japan (**GSI**).
- 1996 – 2017 – > **Geospatial Information Section of the United Nations**
  
- **Global Map** – měřítko 1 : 1 000 000 (**8 kategorií** – 4 vektorové a 4 rastrové)
  
- **Volně dostupná data** vytvářena a spravována **jednotlivými zeměmi**.
  
- **168** zemí se zapojilo (**114** zemí vytvořilo data)

# Global Mapping Project

## Progress of Global Mapping Project

As of 2016-07-21

International Steering Committee for Global Mapping

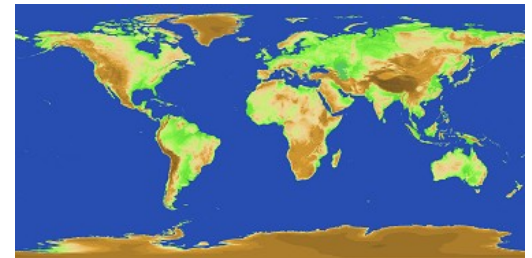


# Global Map – Data

– Globální Rastrová data – elevace, land cover, vegetace

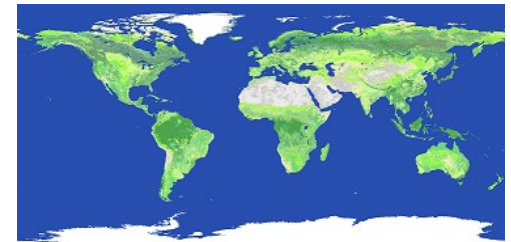
## – Elevace

- prostorové rozlišení – 1 km / 500 m
- GeoTIFF
- 2 verze



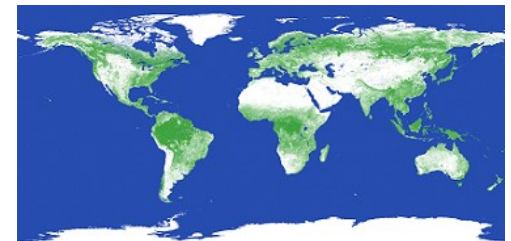
## – Land cover

- 20 kategorií (prostorové rozlišení – 1 km / 500 m)
- GeoTIFF
- 3 verze



## – Vegetace (procento zalesnění)

- (prostorové rozlišení – 1 km / 500 m)
- GeoTIFF
- 2 verze



# Global Map – Data

- Nejuspořádanější jsou data pro [Japonsko](#) (GSI).
- **Rastrová** (land use, land cover, vegetace, elevace) i **vektorová** (populace, transport, říční síť, hranice) data.

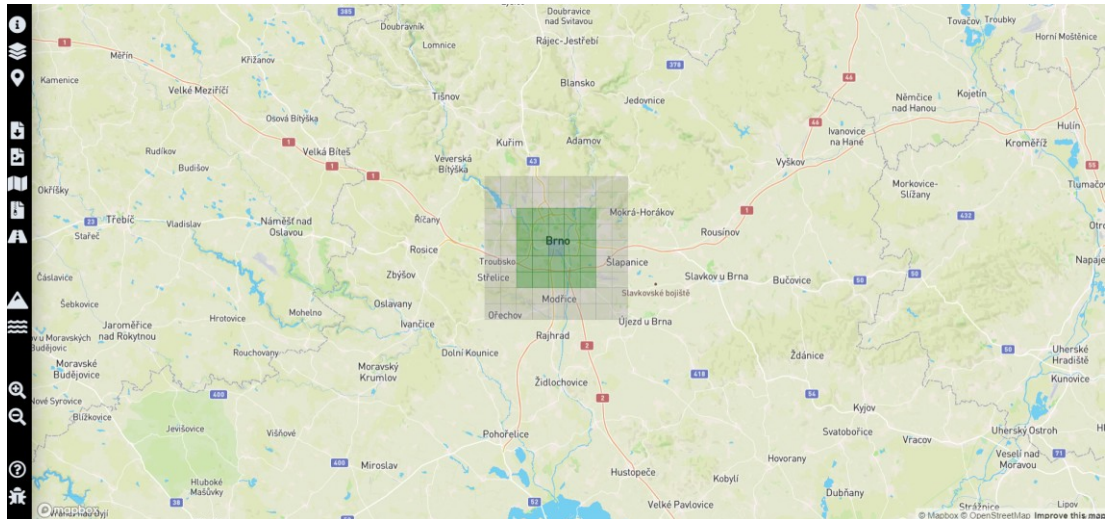


# Global Map – Data Archives

- Archivovaná data (některá).
- Vše uloženo na platformě [GitHub](#).
- **Rastrová** (land use, land cover, vegetace, elevace) i **vektorová** (populace, transport, říční síť, hranice) data.
- Data na **státní/regionální** úrovni.
- **Metadata** a **specifikace**.

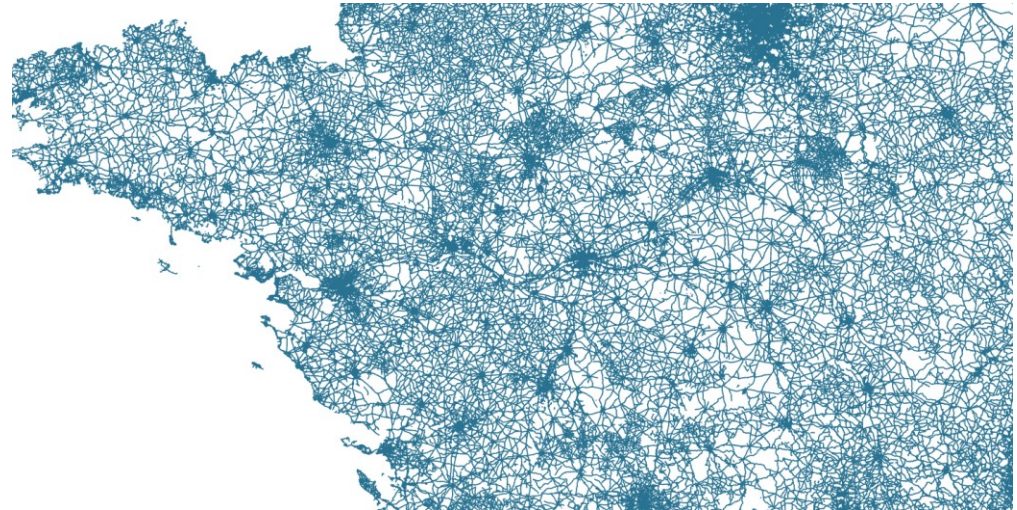
# Heightmap Skydark PL

- Primární využití – terény pro hru **Cities: Skylines**
- Lze celkem snadno a rychle získat data o **elevaci**, nebo **OSM data** – žádné přihlašování, žádné složité vyhledávání.
- Území o rozměrech **18 x 18 km**.
- **Heightmap** (.png); **OSM data** (.osm)



# Global Roads Inventory Project (GRIP)

- Globální síť komunikací (třída, povrch, status)
- Data pro jednotlivé kontinenty/regiony.
- Samotné vektory komunikací a rastry hustot jednotlivých tříd komunikací.
- Vektory (FGDB, SHP);  
rastry (ASCII grid)





# NOAA Shoreline

- Vektor pobřežních linií – globální pokrytí.
- Původně využíváno pro vojenské operace.
- SHP



NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Search

NOAA > NESDIS > NCEI (formerly NGDC) > Marine Geology and Geophysics > Bathymetry & Relief

All Bathy/Relief Coastal DEMs Fishing Global Lakes Multibeam NOS

privacy policy

## Shoreline / Coastline Resources

**Global Self-consistent, Hierarchical, High-resolution Geography Database (GSHHG)** is a high-resolution geography data set, amalgamated from two databases: World Vector Shorelines (WVS) and CIA World Data Bank II (WDBII). The former is the basis for shorelines while the latter is the basis for lakes, although there are instances where differences in coastline representations necessitated adding WDBII islands to GSHHG. The WDBII source also provides political borders and rivers. GSHHG data have undergone extensive processing and should be free of internal inconsistencies such as erratic points and crossing segments. The shorelines are constructed entirely from hierarchically arranged closed polygons.

GSHHG combines the older GSHHS shoreline database with WDBII rivers and borders, available in either ESRI shapefile format or in a native binary format. Geography data are in five resolutions: crude(c), low(l), intermediate(i), high(h), and full(f). Shorelines are organized into four levels: boundary between land and ocean (L1), boundary between lake and land (L2), boundary between island-in-lake and lake (L3), and boundary between pond-in-island and island (L4). Datasets are in WGS84 geographic (simple latitudes and longitudes; decimal degrees).

GSHHG is released under the [GNU Lesser General Public license](#), and is developed and maintained by Dr. Paul Wessel, SOEST, University of Hawai'i, and Dr. Walter H. F. Smith, NOAA Laboratory for Satellite Altimetry. **Please notify Dr. Paul Wessel and Dr. Walter H.F. Smith if any changes are made to the GSHHG data set for commercial use.**

- [Download GSHHG data version 2.3.7 \(June 15, 2017\)](#) (Access [Older versions](#))

GSHHG data are also available at: [SOEST server](#). See [readme.txt](#) documentation.

**Processing and assembly of the GSHHG data:**  
Wessel, P., and W. H. F. Smith (1996), A global, self-consistent, hierarchical, high-resolution shoreline database, J. Geophys. Res., 101(B4), 8741–8743, doi:10.1029/96JB00104.

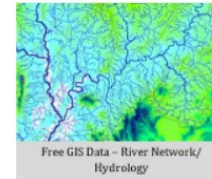
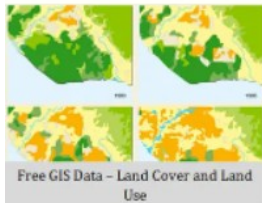
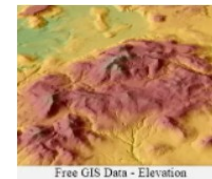
Coastline Extractor is no longer available, please use the [GEODAS software tool](#)

**Related Links**

- NOAA Shoreline Data
- NOAA Shoreline Data Explorer
- CIA World DataBank II (Rivers and Political Boundaries)

# GIS Resources

- [Free GIS Data](#) – kategorizované seznamy volně dostupných GIS dat.
- Ekologie, Land cover/use, Elevace, Hydrologie, Počasí a Klíma atd.



**Všechny datové zdroje kategorizované  
v jednom PDF (soon in Studijní materiály).**



**DOTAZY?**

**Interaktivní osnova**

**Děkuji za pozornost**