climada module elevation models[1] 10 May 2016
https://github.com/davidnbresch/climada_module_elevation_models
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This module implements a global digital elevation model (DEM), based on ETOPO, a global bathymetry (and topography) dataset[2] or based on SRTM, a global digital elevation data[3]. It's a separate module, since topographic (and bathymetry) information can be used in various contexts – and since the dataset is quite large (ETOPO1 is 933 MB, ETOPO2 still 233 MB).

There are two relevant codes, **`etopo_get`** and **`climada_srtm_get`**.

For ETOPO, there are two datasets, ETOPO1 in high-res and ETOPO2 in mid-res. See http://www.ngdc.noaa.gov/mgg/global/global.html and the readme files in .../dem/data. Since ETOPO1 is globally consistent, its use is highly recommended (use ETOPO2 only if e.g. running into memory issues)

If there is no ETOPO data file, means no file .../dem/data/ETOPO1.nc, proceed as follows:

1. Download the file http://www.ngdc.noaa.gov/mgg/global/relief/ETOPO1/data/ice_surface/grid_registered/netcdf/ETOPO1_Ice_g_gmt4.grd.gz
2. Move it to .../dem/data/
3. Unzip it (it might do so automatically, e.g. on a Mac)
4. Rename it to ETOPO1.nc
5. Test it using **`etopo_get`** without any argument

For SRTM, there are different tiles across the globe. See http://srtm.csi.cgiar.org/SELECTION/inputCoord.asp.

1. Type **`climada_srtm_get('El Salvador')`** or any other country name into the command line.
2. The command line will tell you what tiles you need to download from http://srtm.csi.cgiar.org/SELECTION/inputCoord.asp
3. Move it to .../dem/data/
4. Unzip it (it might do so automatically, e.g. on a Mac)
5. Do not rename the file
6. Test it using **`climada_srtm_get('El Salvador')`** or any other country name

Further sources (not yet implemented, but would be straightforward): www.ngdc.noaa.gov/dem/squareCellGrid/map 10m model from NOAA, coverage most of US, some other patches, total 1.13GB, published 2010.

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[1] Named climada_module_etopo until 20151224

[2] It uses ETOPO dataset, see http://www.ngdc.noaa.gov/mgg/global/global.html and the readme files in .../dem/data/

[3] SRTM dataset consists of global digital elevation data on a 90 m resolution, it stands for Shuttle Radar Topographic Mission and is provided by NASA, see http://srtm.csi.cgiar.org/Index.asp