

## Downloading DEM data

### Bodo Bookhagen

There exist several sources of DEMs, with different quality and purposes. One of the most useful DEMs at a global scale is the SRTM DEM, because it is openly available and has seen lots of quality control.

### Radar-based DEMs

#### Reprocessed SRTM - NASADEM

The SRTM data have been reprocessed and merged with ICESAT data for a continuous surface model. The Geoid has been adjusted and changed (so it aligns with the TanDEM-X DEM). This reprocessing has been initiated during the MEaSURES project. The NASADEM is described [here](#) with a more detailed [Guide to NASADEM](#).

**HydroSHEDS** SRTM DEM has been adjusted and corrected for drainage networks and is available at the [HydroSHEDS](#) site. Vector files can be downloaded as well.

#### ALOS 2 Palsar

[ALOS - PALSAR](#) is an L-band radar. The 12.5 m historical datasets (2006-2011) processed into a high-resolution DEM is available at the ASF Data Facility through EarthData.

```
cd AP_08149_FBD_F0610_RT1
gdaldem hillshade AP_08149_FBD_F0610_RT1.dem.tif AP_08149_FBD_F0610_RT1.dem_HS.tif
#making color relief maps
echo '1000 0 0 0
1500 110 220 110
2500 240 250 160
3000 230 220 170
3500 220 220 220
4000 250 250 250' > color-relief.txt
gdaldem color-relief -of PNG AP_08149_FBD_F0610_RT1.dem.tif color-relief.txt AP_08149_FBD_F0610_RT1.dem_HS.tif
```

#### TanDEM-X

Commercial data. High quality, but not available for general use.

## Stereogrammetry from optical imagery

### ASTER GDEM

[ASTER GDEM V3](#) has been made publicly available in August 2019.

### HMA high resolution

For some parts of the Himalaya, the (High Mountain Asia 8-meter Digital Elevation Models)[<https://nsidc.org/the-drift/data-update/high-mountain-asia-8-meter-digital-elevation-models-now-available/>] with (more detailed documentation)[<https://nsidc.org/data/highmountainasia>].

*Compiled with:*

```
pandoc --listings --variable papersize=a4paper \  
  --variable urlcolor=blue \  
  -V lang=en-GB \  
  -s downloading_DEM_data.md \  
  -o downloading_DEM_data.pdf
```