

Documentation Notes for Remote Sensing (RS) GIMMS NDVI Based Global Monthly ET at One-Degree Spatial Resolution from 1983 to 2006

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(1) Variable: Global monthly land surface evapotranspiration (mm/month) with a spatial resolution of 1 degree. This data set is a spatially aggregated version of the global 8-km RS GIMMS NDVI based monthly ET data set

(ftp://ftp.ntsg.umd.edu/pub/data/global_monthly_ET/Global_8kmResolution/).

(2) Temporal extent: Monthly data for 1983 through 2006 inclusive.

(3) Spatial resolution: $1.0^{\circ} \times 1.0^{\circ}$.

(4) Geographic extent: The region covers from -180° to 180° longitudinally and from 90° to -90° latitudinally with a cell size of 1.0° .

(5) Data Format and Organization: The data are saved in the Hierarchical Data Format (HDF5). Data of each year are saved in a single HDF5 file. There are two HDF5 groups in each HDF5 file, i.e. "DATA" and "METADATA". Group "DATA" includes 12 HDF5 datasets storing the monthly gridded data and 2 HDF5 datasets storing the coordinates of grid cell centers. The attributes of each HDF5 dataset include detailed description and statistics for the data of each month. Group "METADATA" provides detailed description on this data set.

(6) Spatial Map of Mean Annual ET from 1983 to 2006

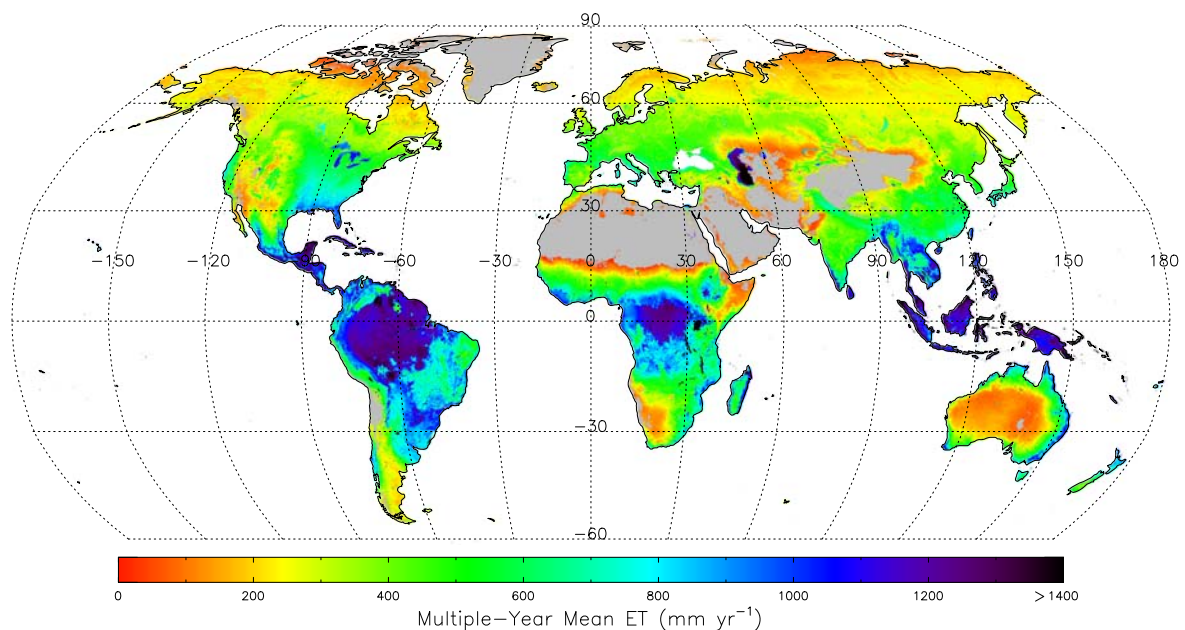


Fig.1 Spatial map of global multi-year (1983-2006) mean annual land surface ET.

(7) Validation of ET

Detailed comparison of this data set with site-level observations can be found in *Zhang et al.* (2010) and *Zhang et al.* (2009).

(8) Tools to Open/View HDF5 Data

Please refer to <http://freezethaw.nts.g.umt.edu/tools.htm>.

(9) Contact

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(10) References

1. Zhang, K., J.S. Kimball, R.R. Nemani and S.W. Running. A continuous satellite-derived global record of land surface evapotranspiration from 1983 to 2006 (2010), *Water Resources Research*, **46**, W09522, doi:10.1029/2009WR008800.
2. Zhang, K., J.S. Kimball, Q. Mu, L.A. Jones, S.J. Goetz and S.W. Running. Satellite based analysis of northern ET trends and associated changes in the regional water balance from 1983 to 2005 (2009), *Journal of Hydrology*, **379**, 92-110, 10.1016/j.jhydrol.2009.09.047.