

Documentation Notes for Remote Sensing (RS) GIMMS NDVI Based Global Monthly ET from 1983 to 2006

Rev: Sept 20, 2010

(1) **Variable:** Monthly land surface evapotranspiration (mm/month).

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

(3) **Spatial resolution:** 8 km (nominal) and 0.07272727° .

(4) **Geographic extent:** The region covers from -179.9954° to 180.0046° longitudinally and from 89.2234° to -62.8494° latitudinally with a cell size of 0.07272727° . Therefore, there are 4950 cols and 2091 rows. The center of the first cell is $(-179.959^\circ, 89.187^\circ)$, while the center of the second cell is $(-179.886^\circ, 89.187^\circ)$. The center of the last cell is $(179.968^\circ, -62.813^\circ)$.

(5) **Data Format:** Binary data. Individual data elements are each stored as IEEE single precision 32-bit (4-byte per value, *Little-Endian*) float variables. **Missing data are marked as -9999.0.** The size of each data file is: **sizeof(float) * months of the year * cols * rows (bytes)**. The first 12 floating-point data elements are the monthly ET values for pixel (row 1, col 1). The second 12 data elements are the monthly ET values for pixel (row 1, col 2), and so on.

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

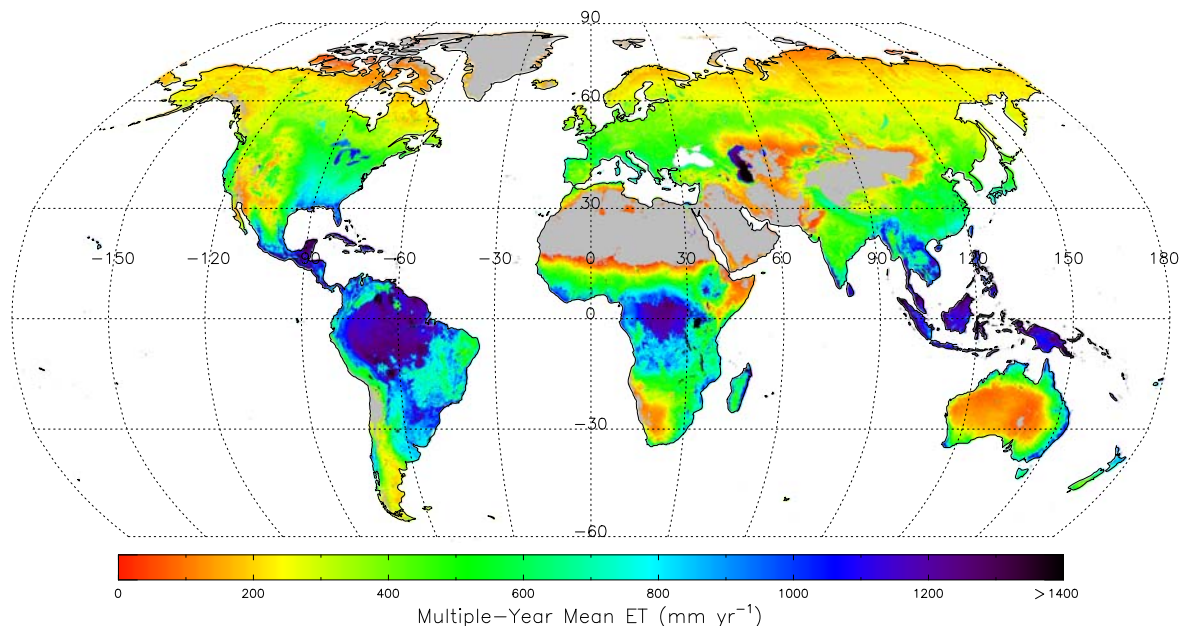


Fig.1 Spatial map of global multi-year (1983-2006) mean annual land surface ET.

(7) Validation of Daily 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) Contact

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(9) 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 1983-2006 (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, doi:10.1016/j.jhydrol.2009.09.047.