Precipitationshed data for the moisture recycling analysis within the article 'Megacity precipitationsheds reveal tele-connected water security challenges'

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- **Name of contact person –** Patrick Keys.
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- **Format of data files –** Matlab format, i.e. .mat files
- **Location where data were collected –** Data were processed using the Water Accounting Model 2 layers (hereafter, WAM-2layers). This model (available here: https://github.com/ruudvdent/WAM2layersPython). The original driving data for the model are reanalysis data from the ERA-Interim archive, produced by the European Centre for Mesoscale Weather Forecasting (ECMWF). These data were downloaded at the 1.5 degree x 1.5 degree resolution, including: 6-hourly zonal and meridional winds, surface pressure, and humidity; and 3-hourly evaporation and precipitation. These ERA-Interim data were processed in the WAM-2layers, first calculating the "fluxes_and_states" (see linked model description), and second using the backtracking procedure to identify the evaporative origins of precipitation for a given sink region. The data span nearly the entire planet, excluding the Antarctic continental region in the south and the extreme Arctic in the north.
- **Time period during which data were collected –** Data were not collected (since they were downloaded from the ERA-Interim archive, located at the ECMWF), but the timer period of analysis is from 1979-01-01 to 2014-12-31.
- **File Information –** There are 29 data files, in Matlab (.mat) format. The dimensions of the files are: [year,month,latitude,longitude]. The size of the files are: [36,12,92,240].
- **Variable information** – Each data point is the total monthly evaporation, corresponding to the appropriate [year,month,latitude,longitude] location.

- **Uncertainty, precision, and accuracy of measurements –** Model-based data with no uncertainty measures (since its not that type of model).
- **Environmental or experimental conditions** – Model-based data so N/A
- **Method(s)** – Please see the original published article for the Methods used.
- **Software** – Matlab
- **Limitations to reuse** – I recommend contacting the author of this work before use, simply to ensure that the user understands the output properly.
- **Date dataset was last modified –** September 2017
- **Related Files** – These data were used in the manuscript “Megacity precipitationsheds reveal tele-connected water security challenges” published in PloS ONE, (DOI pending).