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**NGEE-Tropics Data Management and Synthesis**

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The NGEE-Tropics project generates and utilizes ecological, hydrological, and meteorological datasets from tropical forests in Central and South America for scientific analysis and model parameterization and benchmarking. The goals of the Data Management and Synthesis team is to: 1) manage all project data in a community-accessible archive, and publicly release those data with appropriate citation and usage information, 2) standardize data and metadata collection for cross-site comparison, 3) curate data collected by the project and help acquire external data to create modeling testbeds, and 4) create priority data products such as meteorological model drivers, processed data with Quality Assurance/Quality Control (QA/QC), and cross-cutting synthesized datasets. The NGEE-Tropics Archive is used to internally curate and manage the project's data in preparation for public release. A public listing of all data shared publicly and with the team are available at http://ngt-data.lbl.gov/dois, where authenticated users can download data. In the future, NGEE-Tropics public data will be uploaded to the ESS-DIVE archive. Key data products include several rounds of QA/QC of meteorological model drivers for three sites in Panama (BCI, San Lorenzo, and Parque Metropolitano), including air temperature, relative humidity, solar radiation, barometric pressure, wind speed and wind direction. The QA/QC-ed datasets have already been used as input data for the Ecosystem Demography model (ED2-hydro) and FATES simulations. The meteorological drivers along with other project data and relevant external datasets are being assembled into testbeds to spin-up and validate model simulations. We have established collaborations with Brazil's Large-Scale Biosphere- Atmosphere Experiment in Amazonia (LBA) program to obtain high-value hydrological and micrometeorological datasets from the Amazon spanning several decades for use in NGEE- Tropics modeling efforts. Data processing of high-frequency data from the K-34 tower, and of soil moisture data in Manaus are underway. Standardized metadata reporting FRAMES templates have been used to extract critical information on sap flux measurements collected in NGEE-Tropics field sites during the 2015-2016 El Niño. This information is being used initially to synthesize data collected by different sensors in Manaus, to unify data formats and units, and to create a preliminary sap flux preprocessing QA/QC workflow. Together, the NGEE-Tropics Data Management and Synthesis objecting is focused on the long-term preservation of project data, and also create data products required to transform diverse and complex ecohydrological data into scientific understanding.