

## UPDATED HIGH-RESOLUTION GRIDS OF MONTHLY AIR TEMPERATURE OBSERVATIONS - PISCOT V1.2

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Recently, researchers have shown an increased interest in the development of high-resolution gridded datasets (HRGD) by its utility in different fields such as hydrology, climatology, and ecology. Previous studies in HRGD are largely based on regions with dense stations, however, there is no established methodology for sparse and heterogeneous areas as Peru. Therefore, a climatological aided merging (observed and satellite) for monthly / daily temperature (maximum and minimum) spanning from 1981 to 2016 at 0.1° (PISCOT v1.1) has been developed by the National Service of Hydrology and Meteorology (SENAMHI). In this work, we update PISCOT into 0.01° spatial resolution and through an independent validation in glacierized areas (Southern Peru) we evaluate its performance. We expect this new HRGD can be suitable for operational and research studies in complex mountain regions.

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