## **Indian Rainfall Erosivity Dataset**

## IRED (Indian Rainfall Erosivity Dataset): The data repository for Rainfall Erosivity Data for India.

- This dataset consists of raster layers of Rainfall Erosivity (R-factor), and Erosivity Indices (Fournier Index and Modified Fournier Index), and District-average R-factor datasets in tiff format.
- These datasets are annual average (single files each) of rainfall erosivity factor and indices.
- R-factor\_India.tif Long term yearly average R-factor (MJ-mm/Ha/h/yr) map for India in tiff format having 0.12-degree resolution. R-factor was estimated using hourly IMDAA (The Indian Monsoon Data Assimilation and Analysis) precipitation dataset for 40 years (1979-2018).
- MFI\_India.tif Long term yearly average MFI (Modified Fournier Index) map for India in tiff format 0.12-degree resolution. MFI for India was estimated using hourly IMDAA precipitation dataset for 40 years (1979-2018).
- FI\_India.tif Long term yearly average FI (Fournier Index) map for India in tiff format 0.05-degree resolution. FI over India was estimated using daily CHIRPS (Climate Hazards Group InfraRed Precipitation with Station data) precipitation dataset for 39 years (1981-2019).
- Dist\_avg\_R-Factor.tif Distribution of average R-factor (MJ-mm/ha/h/yr) values corresponding Districts of India. District average R-factor reflects the mean rainfall erosivity corresponding to each district
- Citation: Raj, R., Saharia, M., Chakma, S., Rafieinasab, A., 2022. Mapping rainfall erosivity over India using multiple precipitation datasets. Catena 214, 106256. https://doi.org/10.1016/j.catena.2022.106256
- Credit: HydroSense Lab, IIT Delhi (<u>https://hydrosense.iitd.ac.in/</u>)

Maps have been added below including colorbar/legends corresponding to each data to be displayed on VEDAS:



Rainfall Erosivity Map of India



District Average Rainfall Erosivity corresponding to each Districts of India While displaying district average R-factor, district shapefile was added for better visualization.



Fournier Index map of India



Modified Fournier Index map of India