Dear Ashish Manoj J.,

Thank you for your efforts in reviewing our manuscript. We are extremely grateful to you for your thoughtful recommendations and questions on methodology. We provide here our responses to your comments and mention the changes made in the manuscript.

Major Comments:

1) ESSD generally encourages the sharing of all relevant processing steps and code required to replicate the results (Carlson and Oda, 2018). This is particularly important for datasets to build user confidence and to adhere to FAIR principle. A flowchart could be added to the Appendix detailing the different products and steps used in generating the dataset. Another possible suggestion is to create a separate repository to deposit all the relevant codes and link them to the data availability statement. Similar processing pipelines are already established for the CAMELS-DE (Dolich, 2024) and CAMELS-CH (https://camels-ch.github.io/).

Response: Thank you for your suggestion. All the processing steps have been described in the manuscript [Line 193-194, 219-220, 224, 332, 361-362, 381-382]. The data products used to derive the meteorological time series and catchment attributes are already provided in Table A1 to A9. The meteorological time series were derived from gridded data products using area-weighted averages at daily scale. Most of the catchment attributes, including topography, land use, soil, geology, and anthropogenic characteristics were derived using zonal statistics and zonal histogram tool of QGIS or directly compiled from the source data at catchment scale. We plan to create a separate repository in future to include relevant scripts for deriving climate indices and hydrological signatures, with a guiding document. This repository will then be linked to the data repository.

2) I went through the Zenodo entry and found that the dataset was previously named CAMELS-IND rather than CAMELS-INDIA. I feel that the former version better aligns with the naming conventions of other CAMELS products. In spirit of ESSD open discussion and for the benefit of future readers, I would like to raise this point so that the authors can reply with their reasoning here.

Response: Thank you for raising this point. Based on yours and other reviewer suggestion, we have revised the name of the dataset as "CAMELS-IND" to better align with the naming conventions of other CAMELS datasets.

3) Attribute file naming: This is again linked to my previous comment. Generally, only small letters are preferred in file names as this would aid in automation of code pipelines and other scripts. Hence for example, I would suggest camels_ind_name or camels_india_name instead of.

Response: Thank you for your feedback. Since modern scripting languages and tools typically handle file names in both uppercase and lowercase without issues, the use of capital letters in file naming should not impact usability or automation process. However, we renamed all files with small letters as "camels_ind_xxxx" to enhance consistency and user experience across different systems [Table 1, Line 206].

4) I have a minor concern regarding the different zip files for each folder. In general, this makes it more tedious to download and extract each file individually. The total file size seems to be under 1 GB only in any case, it would be worthwhile to consider having a single zip file with subfolders for the entire dataset (similar to the Caravan file structure).

Response: Thank you for your suggestions. The dataset is now provided as a single ZIP file containing subfolders for catchment mean forcings, attributes, shapefiles, and streamflow data, along with a changelog, disclaimer, and data description file.

5) I would also recommend adding the license/disclaimer as a text file within the dataset to ensure this is readily available when a user directly downloads the product.

Response: The disclaimer has now been added as a text file within the dataset.

6) Some vital information is missing in Section 7. Consider adding more details (including dataset access DOI) about the specific GLDAS model (Noah/CLM/VIC) and versioning (with

Response: Thank you for your valuable suggestion. The Global Land Data Assimilation System (GLDAS) data used for preliminary quality assessment was obtained from the GLDAS Noah Land Surface Model L4, with 3-hourly data at 0.25° x 0.25° resolution. Version 2.0 was used for the period 1980–2014 (Beaudoing and Rodell, 2019), and version 2.1 for 2014–2020 (Beaudoing and Rodell, 2020). The 3-hourly data was then resampled to daily data and used for the preliminary quality assessment. Details and dataset citation have been added to the manuscript [Line 463-465].

Beaudoing, H. and M. Rodell, NASA/GSFC/HSL (2019), GLDAS Noah Land Surface Model L4 3 hourly 0.25 x 0.25 degree V2.0, Greenbelt, Maryland, USA, Goddard Earth Sciences Data and Information Services Center (GES DISC), Accessed: [22 Nov 2022]. https://doi.org/10.5067/342OHQM9AK6Q

Beaudoing, H. and M. Rodell, NASA/GSFC/HSL (2020), GLDAS Noah Land Surface Model L4 3 hourly 0.25 x 0.25 degree V2.1, Greenbelt, Maryland, USA, Goddard Earth Sciences Data and Information Services Center (GES DISC), Accessed: [26 Nov 2022]. https://doi.org/10.5067/E7TYRXPJKWOQ

7) In the catchment and station shapefiles, I could find some minor mismatches between the flow outlets and catchment boundaries (For example, Station – 15028 (Thiruvattar)). I think this has already been mentioned in Goteti (2023) and the manuscript. I would again mention this in Section 8 so that future users are aware of possible mismatch issues.

Response: Thank you for your concern. We have now addressed this limitation in the revised manuscript as follows: "*The catchment boundaries included in the CAMELS-IND dataset are derived from Goteti (2023), who highlighted that the catchment delineation based on the 500 m HydroSHEDS v1 dataset may suffice for larger catchments but could introduce minor mismatches, particularly in smaller catchments and around flow outlets. The upcoming HydroSHEDS v2, with 12 m topographic data, is anticipated to improve spatial accuracy, enhancing the delineation of catchment boundaries and river networks for future dataset versions.*" [Line 520-524]

Minor Comments:

I have left a few minor comments on the annotated version of the manuscript. Some are more subjective and personal than others. Feel free to make changes that you feel fit.

Line 64: I am not sure if Caravan could be considered as a cloud based platform. While it does provide an interface to Google Earth Engine Cloud services. I would opt for more apt wording here. Possible suggestions - community-driven initiative

Response: Thank you for your comment. We have revised the sentence as follows: "*The community-driven initiative further extended Caravan datasets for Denmark (Koch, 2022) and Israel (Efrat, 2023).*" [Line 65-66]

Line 82: Since Goteti (2023) is already cited earlier in this paragraph and the next section details this work. I would suggest adding other relevant references here.

Response: Thank you for the suggestion. We reviewed the literature but found that Goteti (2023) remains the most relevant and comprehensive source for this context. To our knowledge, no additional studies address this issue with similar detail, so we have retained this citation.

Line 120: I liked this paragraph and the motivation of using the better quality national products. To further strengthen this argument you could add that recent studies have uncovered deficiencies in globally available products such as ERA5 Land (potential evapotranspiration : F. Clerc-Schwarzenbach et al. 2024) compared to the national products used in CAMELS.

Maria Clerc-Schwarzenbach, F., Selleri, G., Neri, M., Toth, E., van Meerveld, I., Seibert, J., 2024. HESS Opinions: A few camels or a whole caravan? Hydrol. Earth Syst. Sci. 1–29.

Response: Thank you for your positive feedback. While we appreciate the suggestion to include recent studies that identify deficiencies in globally available products compared to national data sources, specifically for the US, Brazil, and Great Britain, we believe that our preliminary assessments already provide sufficient evidence of the advantages of the national datasets utilized in CAMELS-IND for India. [Line 486-488]

Line 147: I would give the link to the start site for WRIS (https://indiawris.gov.in) as the current link seems broken to me. Date of Access - 08.10.2024

Response: Thank you for the suggestion. The links are updated throughout the manuscript as "https://indiawris.gov.in/wris/" [Line 70, 150, 516]

Response: Thank you. The citation has been added as "India-WRIS (2012)". [Line 200]

India-WRIS: River Basin Atlas of India, RRSC-West, NRSC, ISRO, Jodhpur, India, 1–144 pp., 2012. https://indiawris.gov.in/wris/#/atlas

Response: Thank you. We have corrected all the typos and incorporated all suggestions in the manuscript.

Response: Thank you. We have added the citation as "Myneni et al., 2015". [Line 334]

Myneni, R., Knyazikhin, Y., and Park, T.: MCD15A2H MODIS/Terra+Aqua Leaf Area Index/FPAR 8-day L4 Global 500m SIN Grid V006 [Data set], NASA EOSDIS L. Process. DAAC, https://doi.org/10.5067/MODIS/MCD15A2H.006, 2015.

Response: Thank you. As stated earlier, we used GLDAS Noah Land Surface Model L4 3 hourly 0.25 x 0.25-degree V2.0 and V2.1 for preliminary assessment of dataset. The data citation has been added. [Line 463-465]

Response: Thank you for raising this question. We have added a statement to clarify that "*The model was trained on data from 1991 to 2011 and tested on data from 2011 to 2015.*" [Line 480]

Line 532: Add website citation/acknowledgment.

Response: Thank you for the suggestion. We have added the image credits in the caption for Figure A1 and A2.

Overall, I feel the manuscript could have a moderate revision before it can finally be accepted in ESSD.

We greatly appreciate your feedback. We believe these changes address the concerns raised and improve the quality and clarity of the manuscript. Thank you once again.

Best regards,

Ashutosh Sharma (on behalf of all co-authors)