Supplementary Material for

Hyper-Resolution Land Surface Modeling for Farm-Scale Soil Moisture in India: Enhancing Simulations with Soil Vertical Heterogeneity

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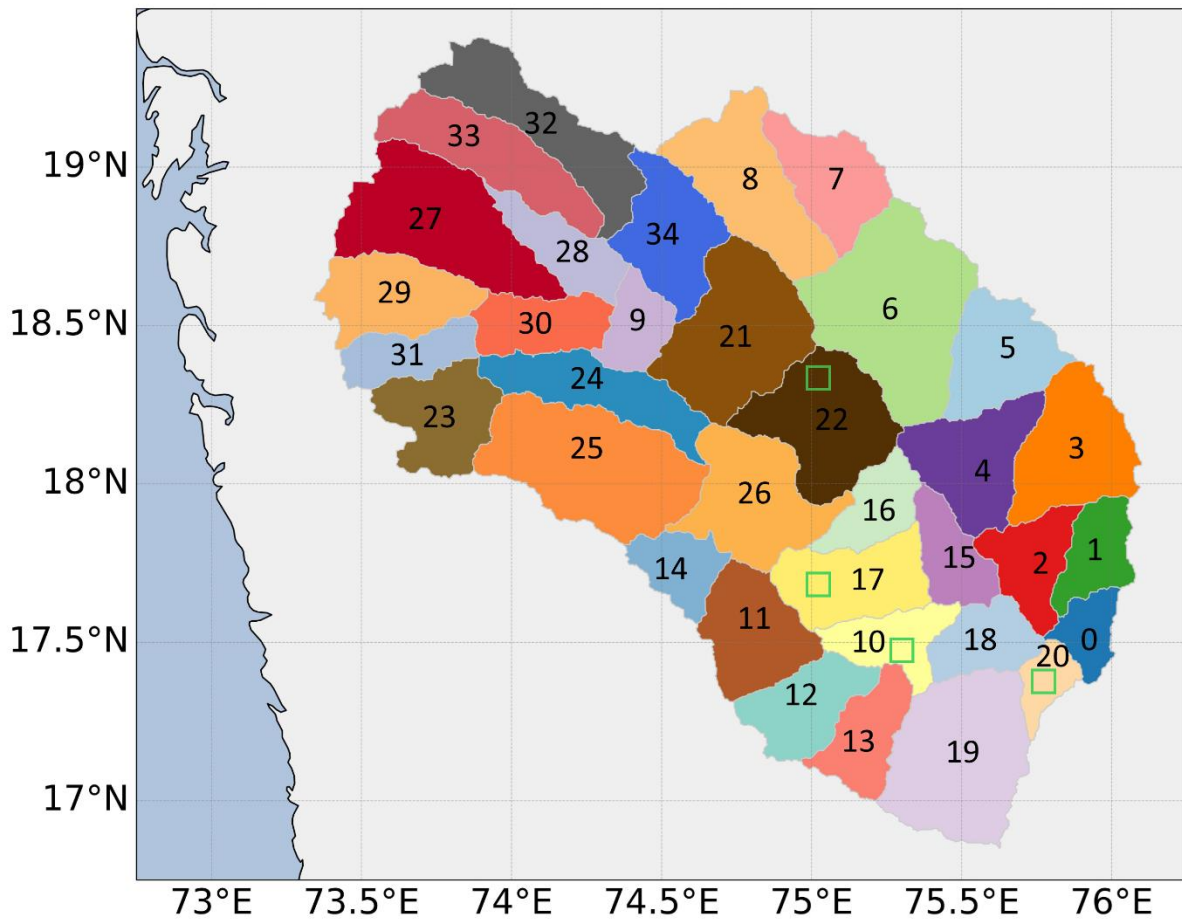
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Figure S1: Upper Bhima basins with its watersheds. The green box in watersheds 10, 17, 20, and 22 corresponds to the location of SMAP pixels based on which soil moisture values from all datasets are considered for time series plots (Fig.3 and Fig.4). In the case of HydroBlocks, all grid cells falling within this grid cell (green box) are considered. The colour code for each watershed is also used to identify watersheds in boxplots (Fig.9-Fig.10 and Fig.S2-Fig.S5).
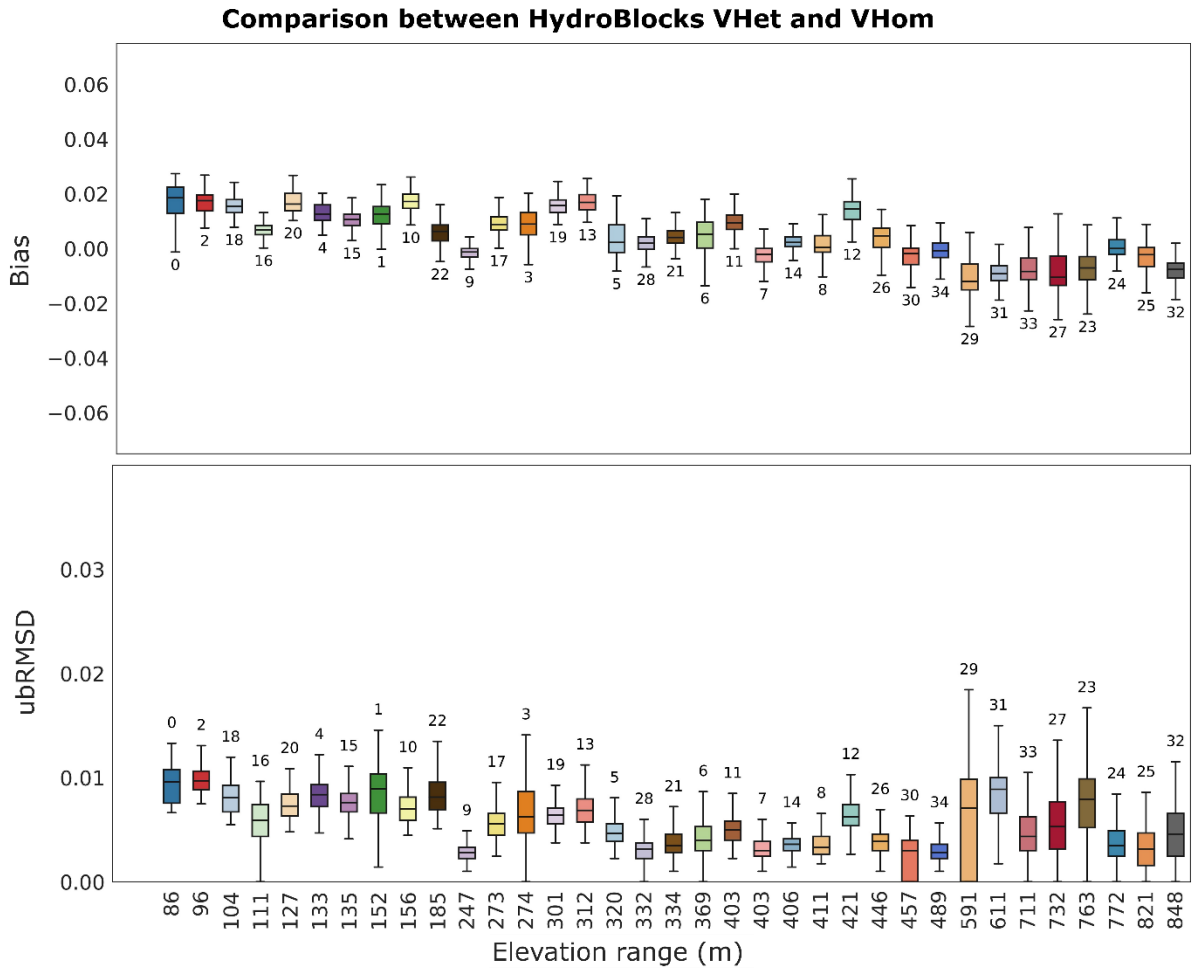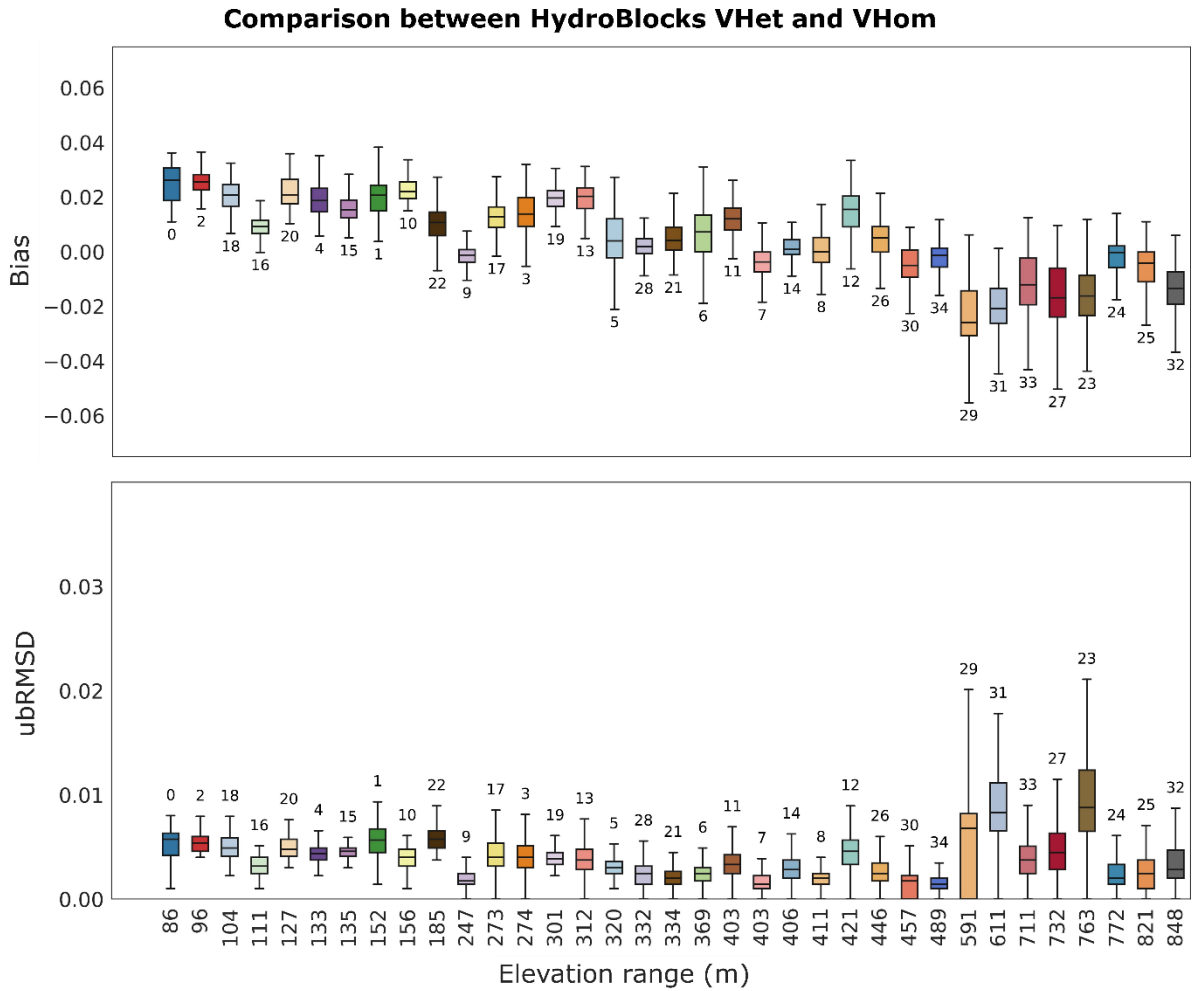
Figure S2: Box plot showing the comparison between HydroBlocks VHet and VHom model configurations in simulating soil moisture at 5-15 cm deep in terms of bias and ubRMSD

Comparison between HydroBlocks VHet and VHom

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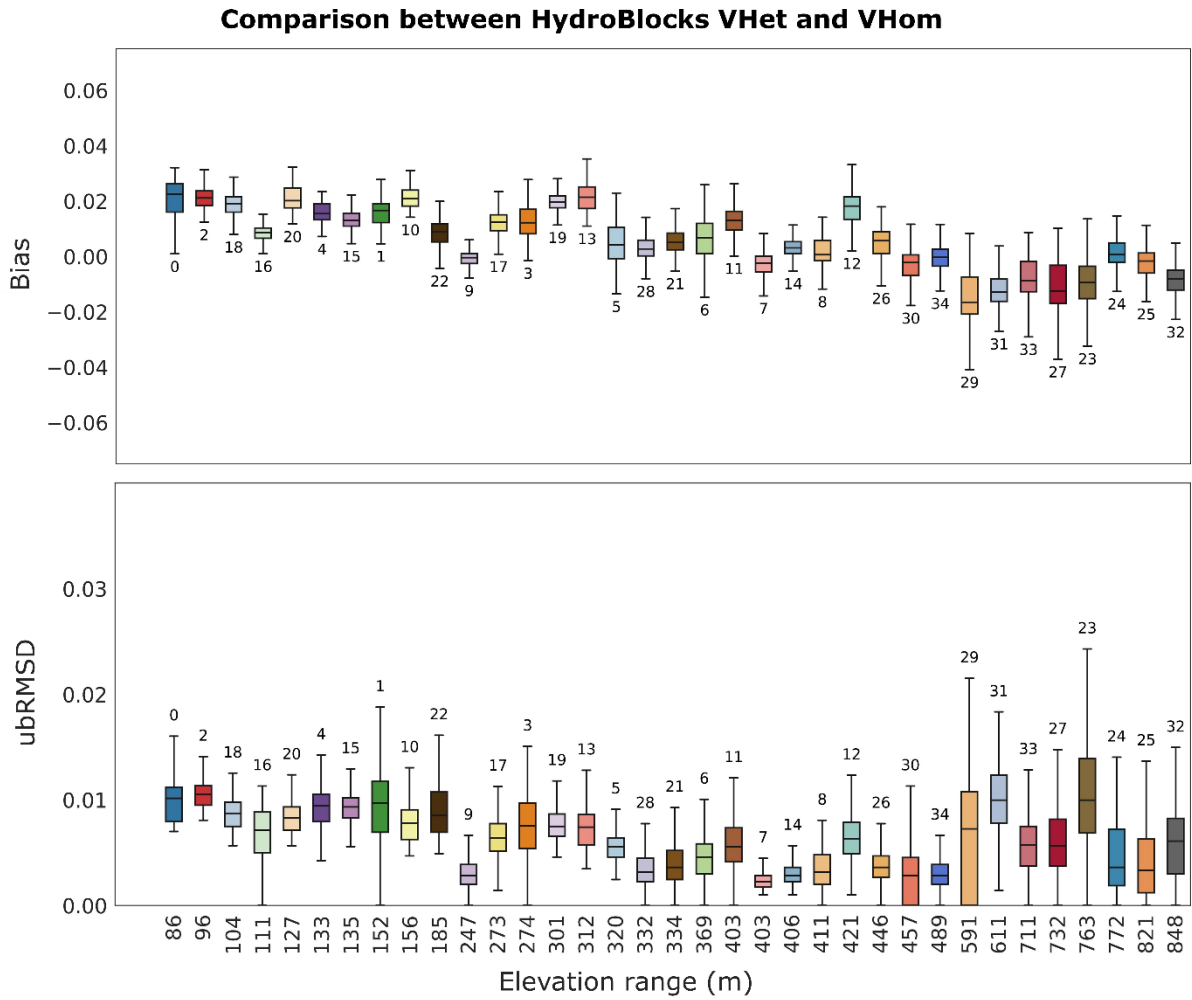
Figure S3: Box plot showing the comparison between HydroBlocks VHet and VHom model

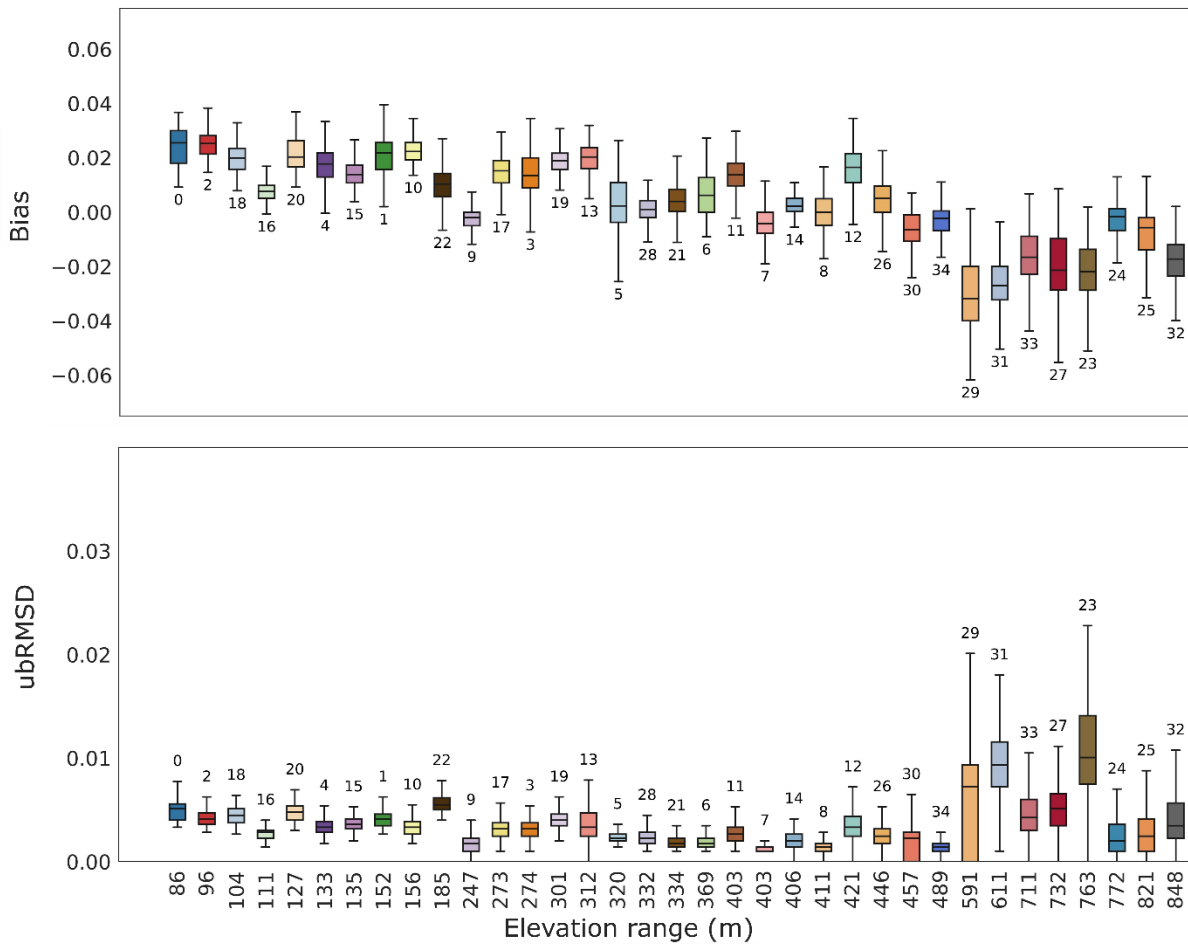configurations in simulating soil moisture at 15-30 cm deep in terms of bias and ubRMSD

Figure S4: Box plot showing the comparison between HydroBlocks VHet and VHom model configurations in simulating soil moisture at 30-60 cm deep in terms of bias and ubRMSD

Comparison between HydroBlocks VHet and VHom

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Figure S5: Box plot showing the comparison between HydroBlocks VHet and VHom model configurations in simulating soil moisture at 60-100 cm deep in terms of bias and ubRMSD.