atmosphere

Supplementary Materials: The Influence of Urbanization on the Development of a Convective Storm—A Study for the Belém Metropolitan Region, Brazil

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As an example of the ensemble spread, Figure 1S shows the precipitation accumulated at 20:00 UTC. The first column displays the 18h run, which started at 06:00 UTC on June 7th, 2011. The second column is the 24h run, which started at 00:00 UTC on June 7th, 2011. The third column is the 30h run, which started at 18:00 UTC on June 6th, 2011. The last row is the ensemble mean of the three runs. Each row corresponds to one land use/cover scenario: 2017 (top row), 1986 (middle row), and Forest (First, bottom row).

The idea behind an ensemble forecast is to account for the uncertainties inherent to weather forecasting and to have a range of possible future weather conditions. The results presented in Figure 1S clearly show the difference that the initial time has on the simulation of each scenario. Even though each simulation is different, they have some features in common: the 2017 members simulated a more focused precipitation accumulation in the middle of the Belém Metropolitan Region; the 1986 members had the most precipitation occurring to the south, over the river; the forest members also had precipitation over the middle of the region of interest, but it was more spread out than the 2017 members.

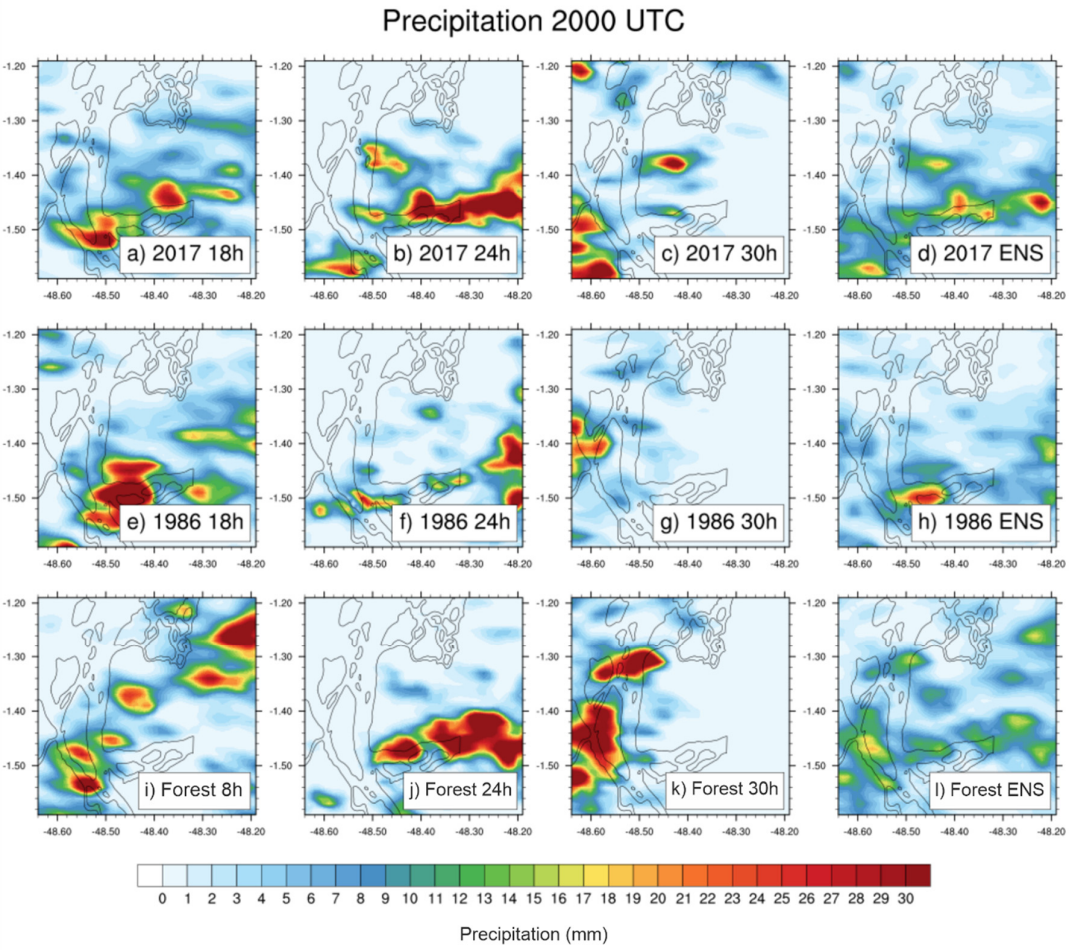

Figure S1. Accumulated precipitation (mm) at 20:00 UTC for each ensemble member (first three columns) and the ensemble mean (rightmost column) for each land use/cover scenario (rows).