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Instant and delayed effects of March biomass burning aerosols over the Indochina Peninsula

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Table S1. Evaluation Statistics for AOD, precipitation and 850-hPa wind.

Variable	Mean Obs.	Mean Sim.	Mean Bias	Relative Mean Bias (%)	RMSE	Pattern Correlation
AOD	0.44	0.33	-0.11	-25.63	0.23	0.71
Precipitation (mm day^{-1})	2.22	3.52	1.29	58.25	2.67	0.71
850-hPa zonal wind (m s^{-1})	-0.17	-0.55	-0.38	230.5	1.8	0.94
850-hPa meridional wind (m s^{-1})	0.44	0.30	0.14	-30.85	1.53	0.67

RMSE: Root mean square error.

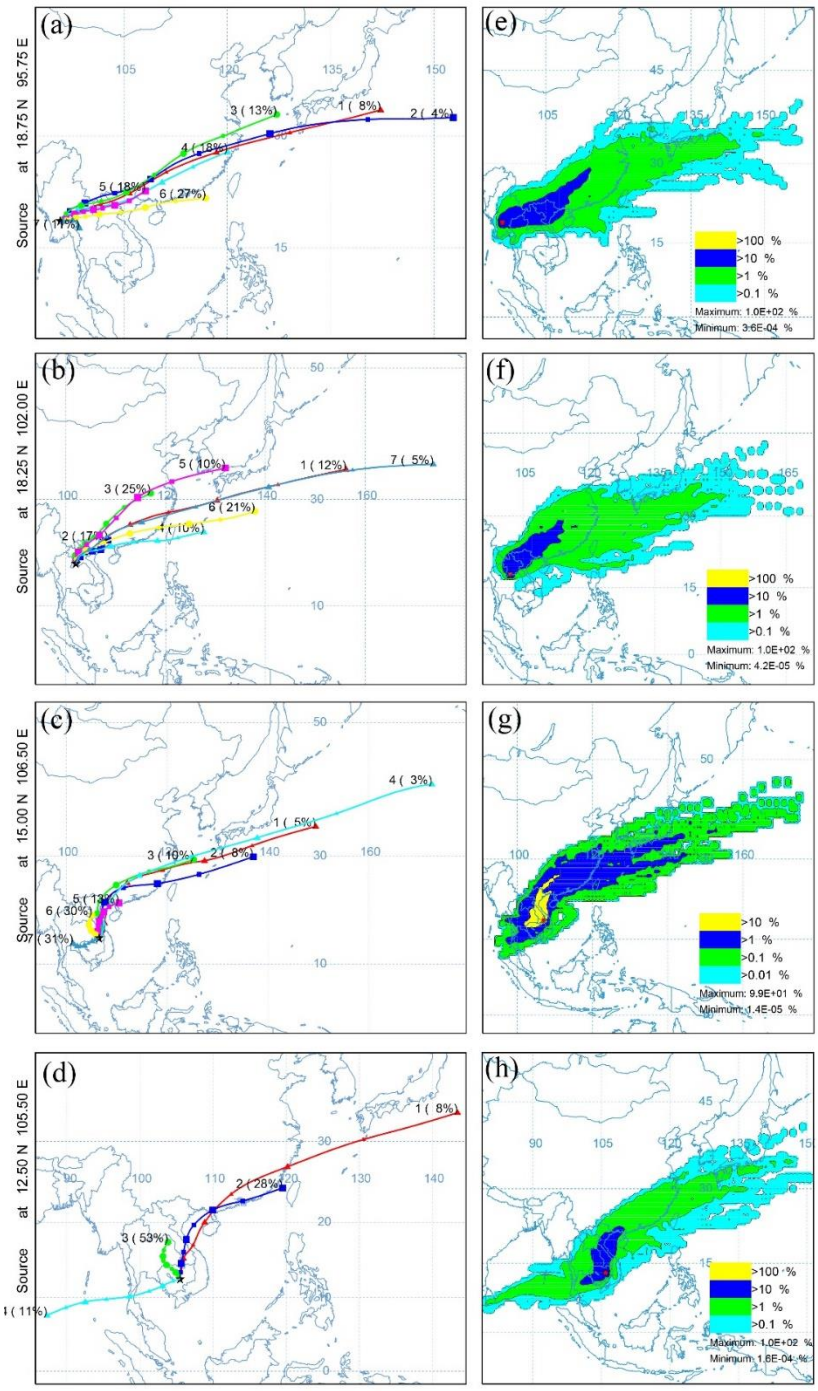

Figure S1: Distribution of cluster mean 96h (4 days) forward trajectories (a–d, left column) of air mass and their frequenies (e–h, right column) based on the Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model for north-western Indochina Peninsula (a, e; 95.75 ℇ, 18.75 ℕ), northern Indochina Peninsula (b, f; 102 ℇ, 18.25 ℕ), mid-eastern Indochina Peninsula (c, g; 106.5 ℇ, 15 ℕ), and southern Indochina Peninsula (d, h; 105.5 ℇ, 12.5 ℕ) from March 1st to April 20th, 2010. The 1-degree meteorological data from the Global Data Assimilation System (GDAS1) was used to run the model. Note that we did the trajectory analysis only for March, since the results were quite similar to those for March 1st–April 20th.

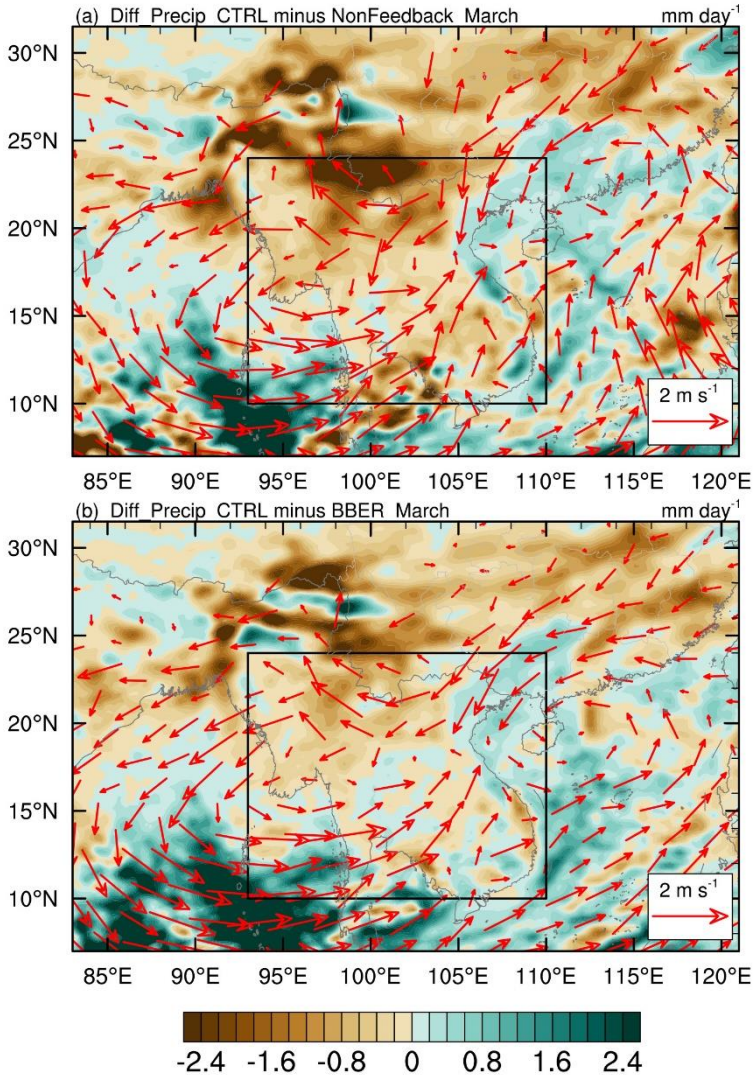

Figure S2: Comparison of model simulations with different model settings. (a) The differences in precipitation (shading; mm day^{-1}) and 850-hPa wind (vector; m s^{-1}) between CTRL and Non-Feedback (i.e., CTRL minus Non-Feedback) during March of 2010. (b) Same as (a), but for the differences between CTRL and BBER (i.e., CTRL minus BBER). Note that both CTRL and BBER runs here contain only one member of the ensemble runs, which started on February 25th 2010.

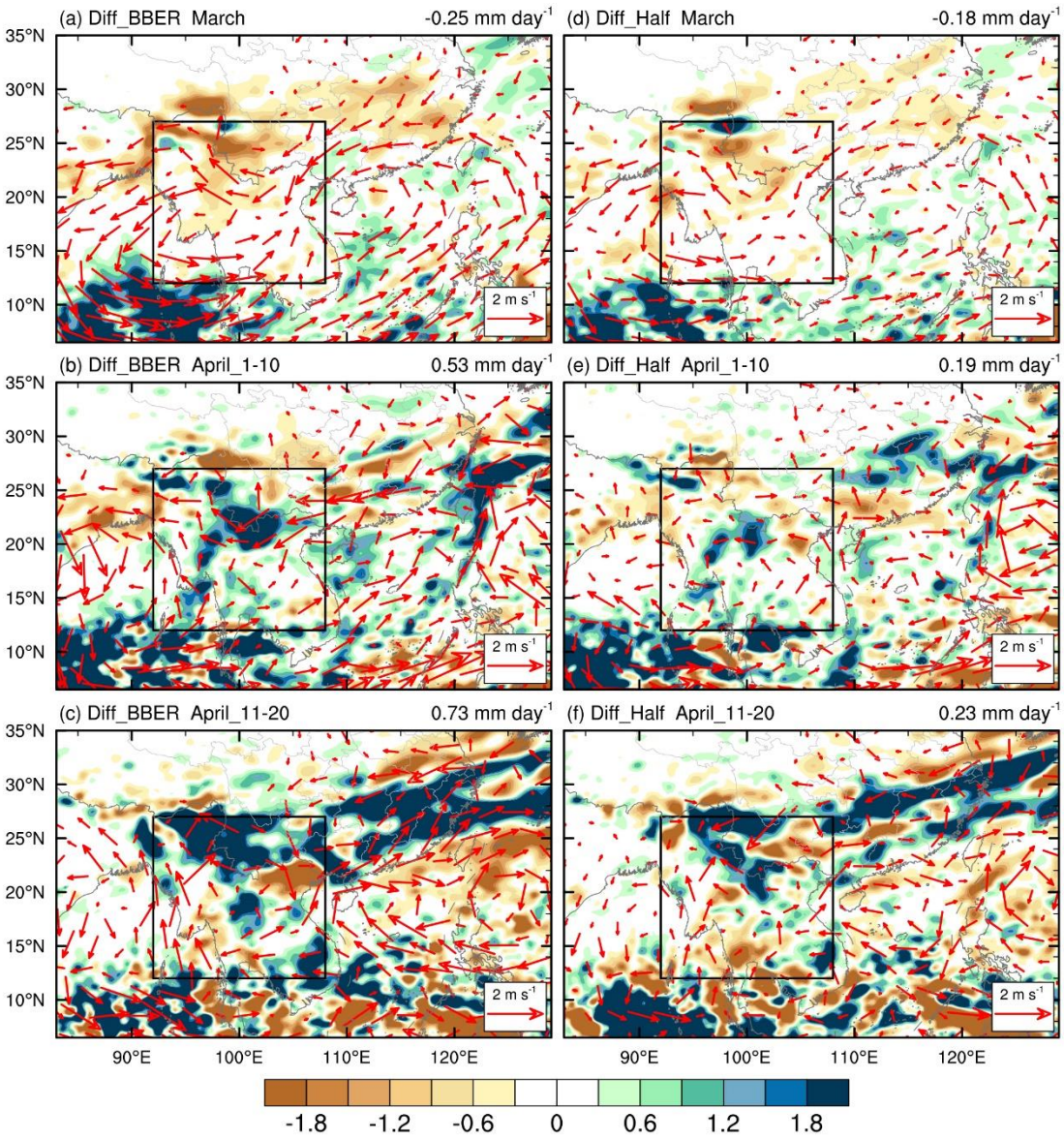

Figure S3: Comparison of model simulations with different BB emission reduction scenarios. (a–c) The differences in precipitation (shading; mm day^{-1}) and 850-hPa wind (vector; m s^{-1}) between CTRL and BBER (i.e., CTRL minus BBER) during (a) March, (b) early-April and (c) mid-April of 2010. (d-f) Same as (a–c), but for the differences between CTRL and Half (i.e., CTRL minus Half). The black box outlines the main region of precipitation anomalies in the ICP (92 º–108 ℮, 12 º–27 ℕ), and the regional mean is given at the top-left corner of each panel. Note that the CTRL and BBER runs here have only one member of the ensemble runs, which started on February 25th 2010.