

Supplementary Information:

# Returning impact of long-range PM<sub>2.5</sub> transport over East Asia in 2021 after Chinese economic recovery from the COVID-19 pandemic

**Syuichi Itahashi<sup>1,\*</sup>, Yuki Yamamura<sup>2</sup>, Zhe Wang<sup>3</sup>, and Itsushi Uno<sup>4</sup>**

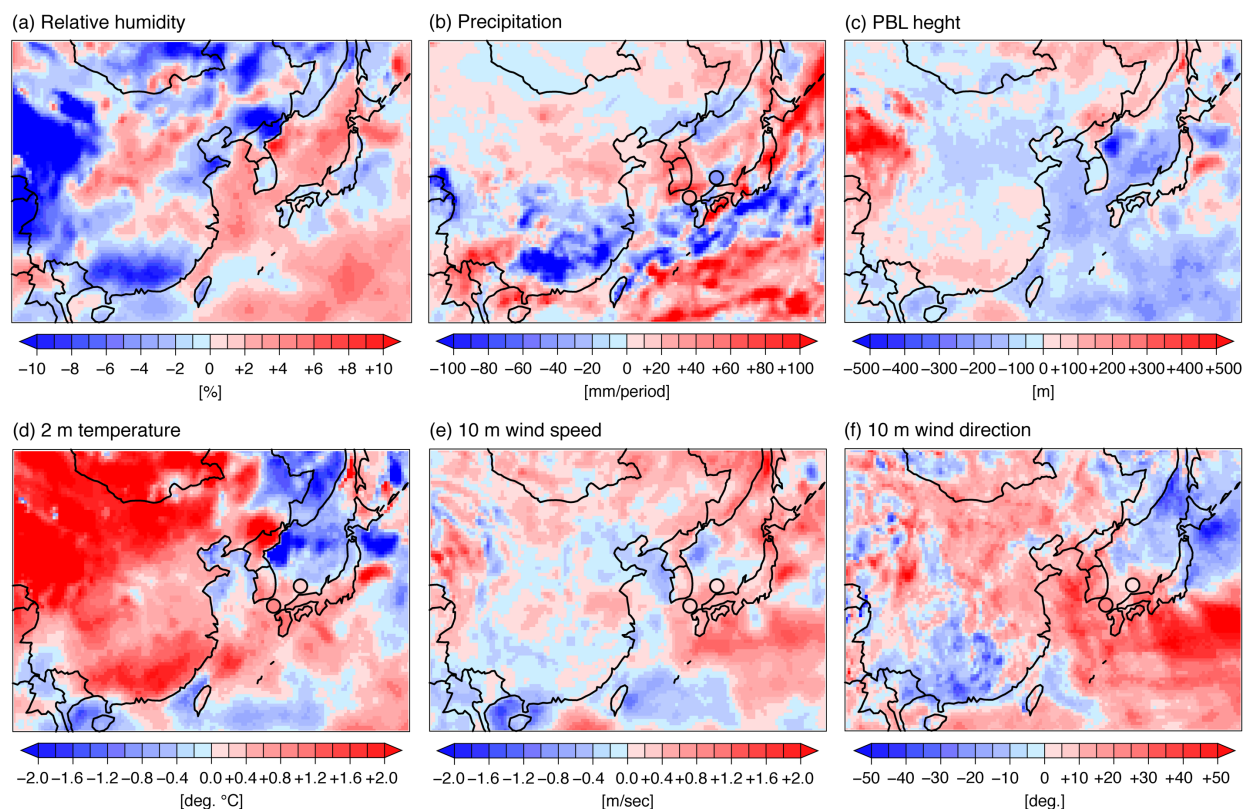
<sup>1</sup> Sustainable System Research Laboratory (SSRL), Central Research Institute of Electric Power Industry (CRIEPI), Abiko, Chiba 270-1194, Japan

<sup>2</sup> Fukuoka Institute of Health and Environmental Science, Dazaifu, Fukuoka 818-0135, Japan

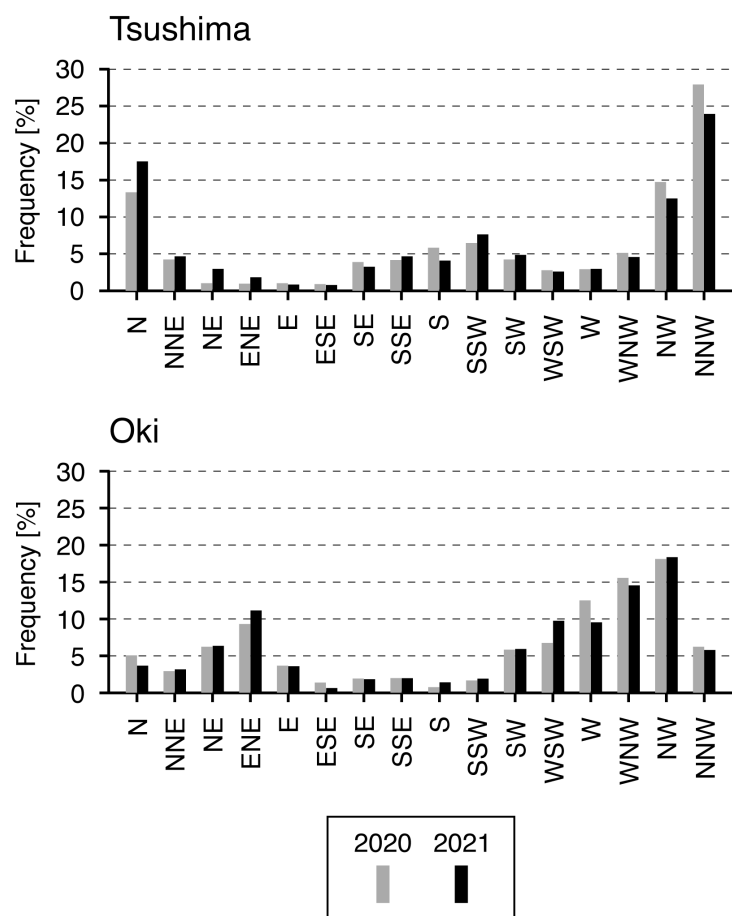
<sup>3</sup> State Key Laboratory of Atmospheric Boundary Layer Physics and Atmospheric Chemistry (LAPC), Institute of Atmospheric Physics (IAP), Chinese Academy of Sciences (CAS), Beijing 100029, China

<sup>4</sup> Research Institute for Applied Mechanics (RIAM), Kyushu University, Kasuga, Fukuoka 816-8580, Japan

\*Corresponding author: [isyuichi@criepi.denken.or.jp](mailto:isyuichi@criepi.denken.or.jp)



**Supplementary Figure S1.** Changes in the meteorological parameters of (a) relative humidity, (b) precipitation, (c) planetary boundary layer (PBL) height, (d) 2-m temperature, (e) 10-m wind speed and (f) 10-m wind direction by calculating the M21 WRF meteorological field minus the M20 one. The observational results at Tsushima and Oki are overlaid with circles.



**Supplementary Figure S2.** Observed surface wind direction in 16 directions at Tsushima and Oki.