

Kieu, X., H. Vu, T. Nguyen, D. Le, L. Nguyen, I. Takayabu, H. Sasaki, and A. Kitoh, 2016: Rainfall and tropical cyclone activity over Vietnam simulated and projected by the non-hydrostatic regional climate model – NHRCM. *J. Meteor. Soc. Japan*, **94A**, 135-150.

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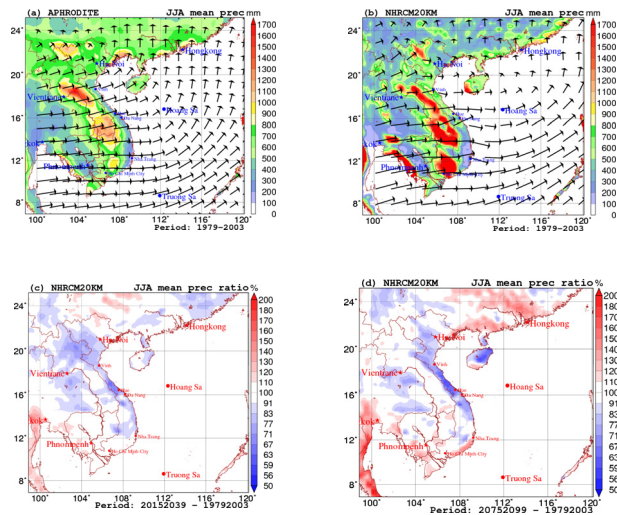


Figure 4. (a) JJA mean APHRODITE rainfall and JJA-25 850-hPa winds during 1979-2003 period. (b) Same as (a) but given by the NHRCM model. (c) JJA mean rainfall ratio between 2015-2039 and 1979-2003 period. (d) Same as (c) but between 2075-2099 and 1979-2003 period

- The non-hydrostatic regional climate model (NHRCM) is used to simulate and project rainfall and tropical cyclone (TC) activity over Vietnam.
- Using outputs of the Meteorological Research Institute atmospheric general circulation model 3.2 with RCP8.5 scenario, the NHRCM model shows that the projected rainfall will clearly decrease in Northwest and Central Vietnam in June-August, while remarkably increase in Northeast and Central Vietnam in September-November in near and far future.
- Projected TCs indicate a decrease in both TC number and activity area. Rainfall induced by TCs increases in North Vietnam in the projected climate as compared to the baseline period. It also increases in Mid-Central Vietnam in near future, but decreases in southern Central Vietnam in near and far future.