

Supporting Information for

Unravelling the future role of internal variability in South Asian near-surface wind speed

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Figure S1

A assumption:

NSWS can be divide into **IPO-related NSWS component** and **IPO-independent NSWS component**

$$NSWS(i, t) = r(i)_{NSWS, IPO} \times IPO(i, t) + NSWS_{non-IPO}(i, t)$$

what we need:

$$NSWS_{non-IPO}(i, t) = NSWS(i, t) - r(i)_{NSWS, IPO} \times IPO(i, t)$$

Remove the NSWS component that is linearly associated with IPO index

$$r(i)_{NSWS, IPO} = \frac{\partial NSWS(i, t)}{\partial IPO(i, t)}$$

Equation used to calculate:

$$NSWS_{non-IPO}(i, t) = NSWS(i, t) - \frac{\partial NSWS(i, t)}{\partial IPO(i, t)} \times IPO(i, t)$$

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Figure S1. Procedures for method used to remove IPO-related NSWS component.