

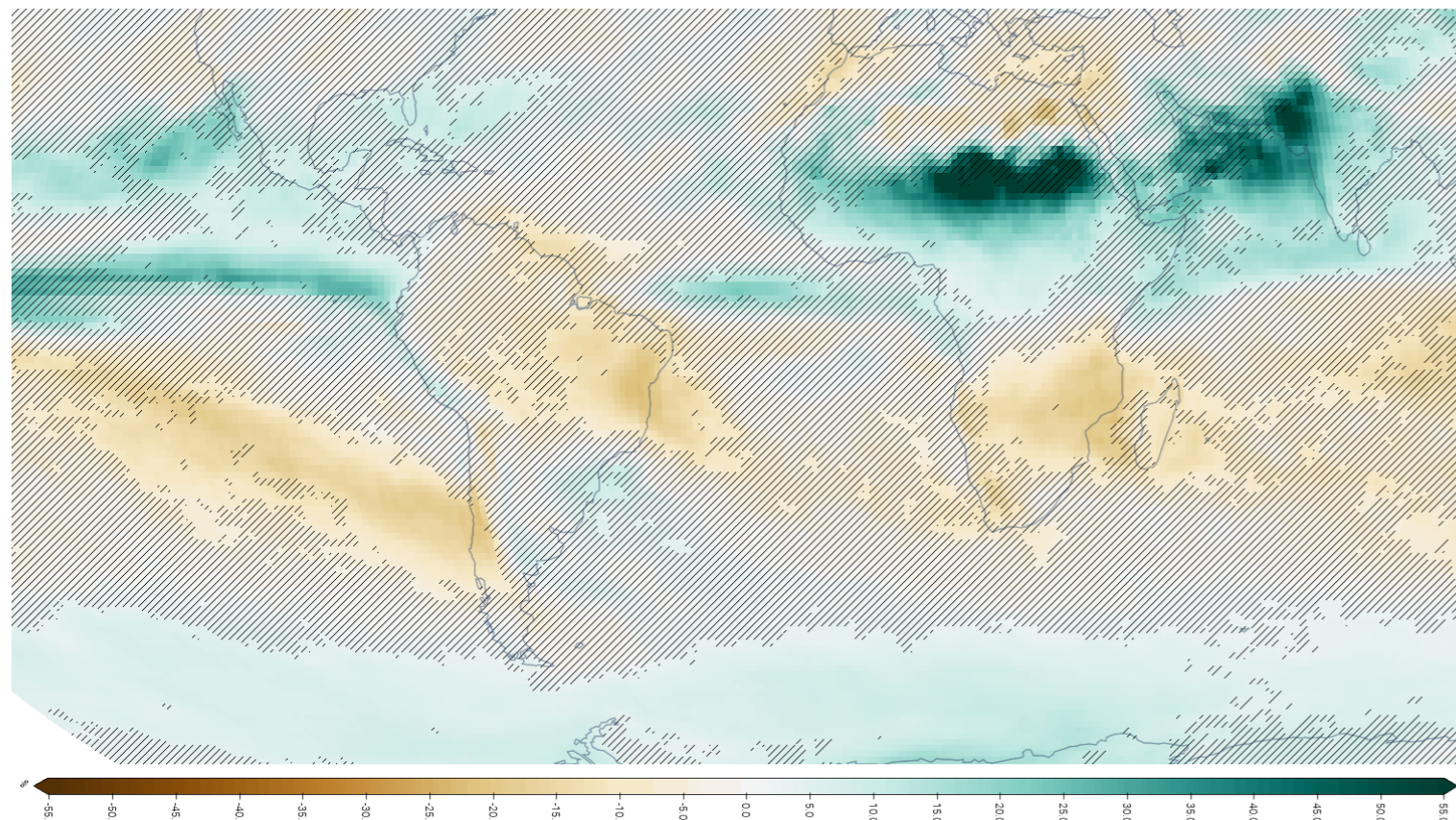
Future changes in the characteristics of the dry-to-wet transition period in Southern Africa and South America using convection-permitting simulations

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An Emerging Problem



Percentage change in spring (SON) precipitation rate in 2021-2040 period (SSP1-2.6) compared to 1961-1990, considering the CMIP6 archive. Hatching indicates areas with low agreement among models. [Source: IPCC Atlas available at https://interactive-atlas.ipcc.ch/]

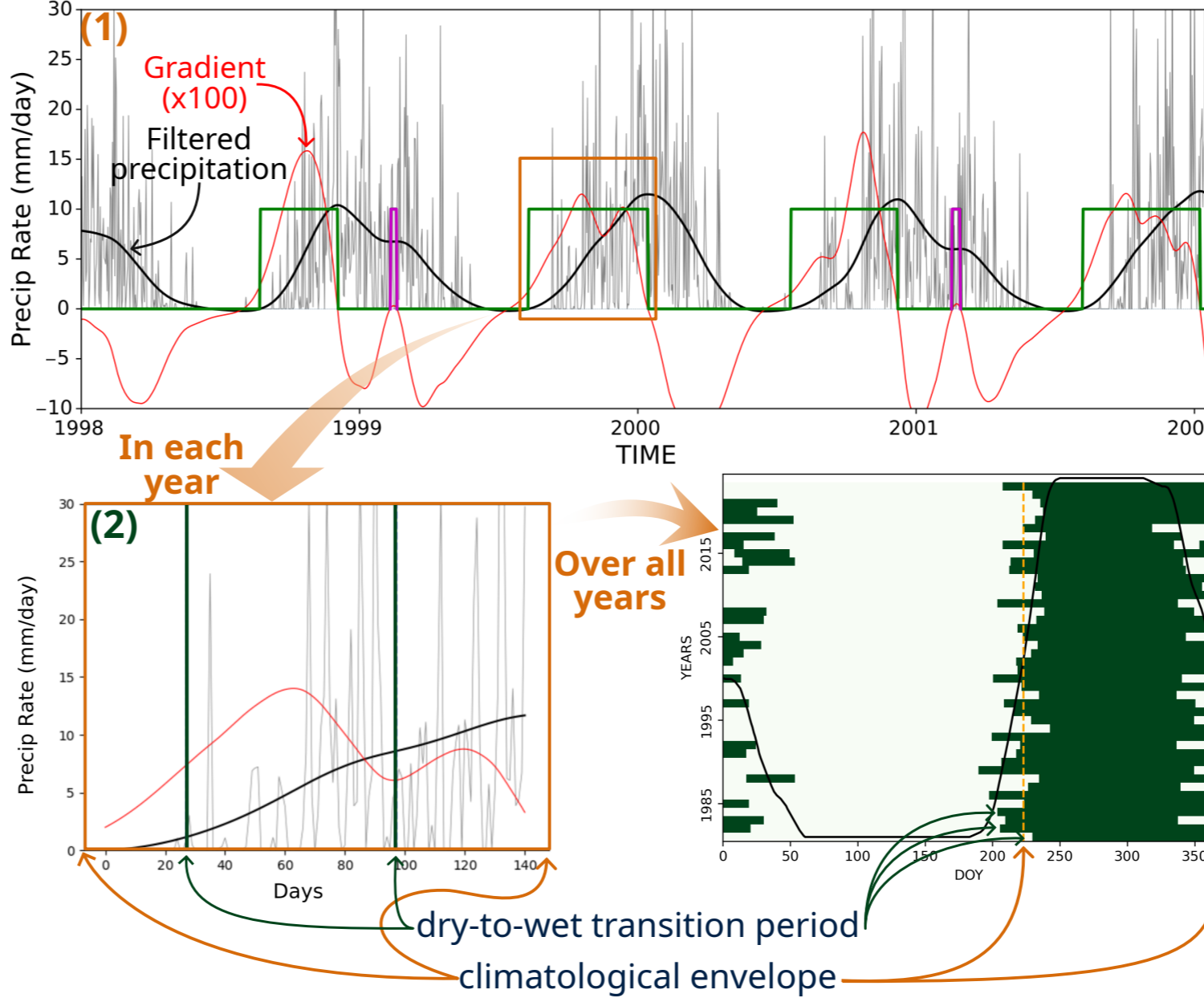
- Sept-Nov drying signal clear in CMIP6 (and CMIP5) historical simulations
- ~ 2-weeks delay on the rainy season onset in Southern Africa [1] and South America [2]
- Changes in other characteristics of the dry-to-wet transition?

Dry-to-wet transition

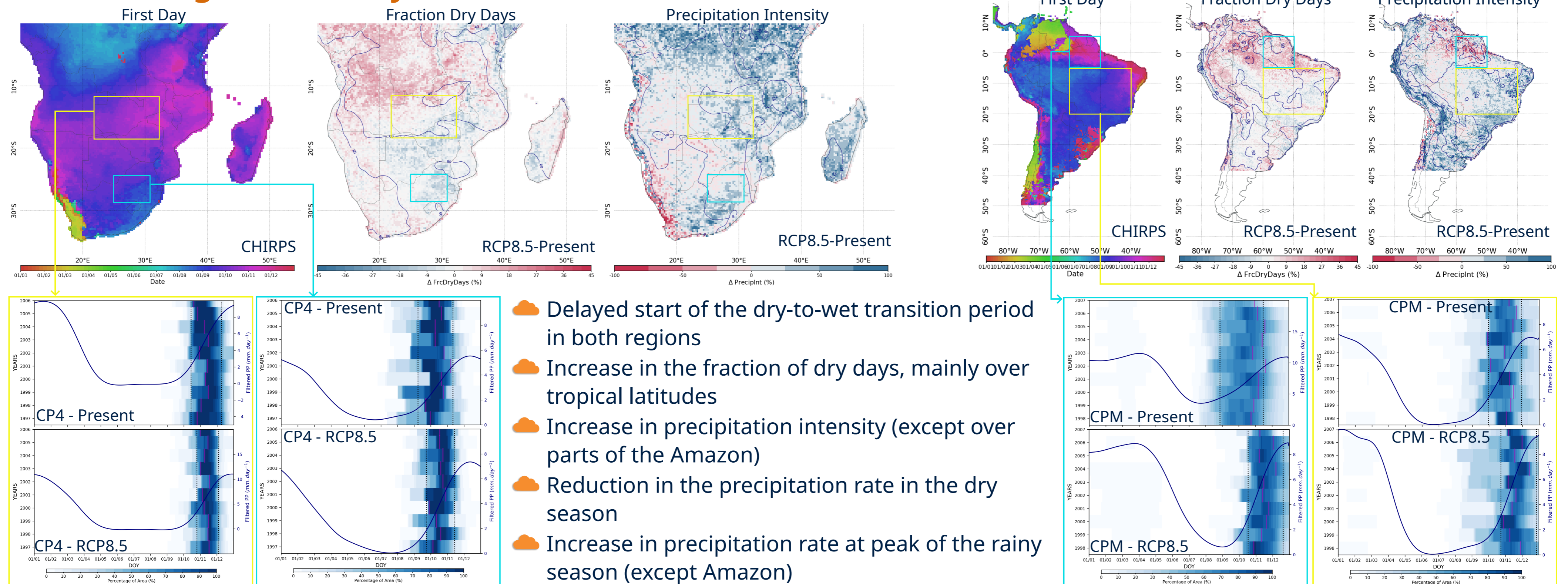
Two-tier approach:

(1) climatological envelope when the transition should occur

(2) dry-to-wet transition in each year/season



Future changes in the dry-to-wet transition



Implementation in the seasonal and sub-seasonal forecast

