

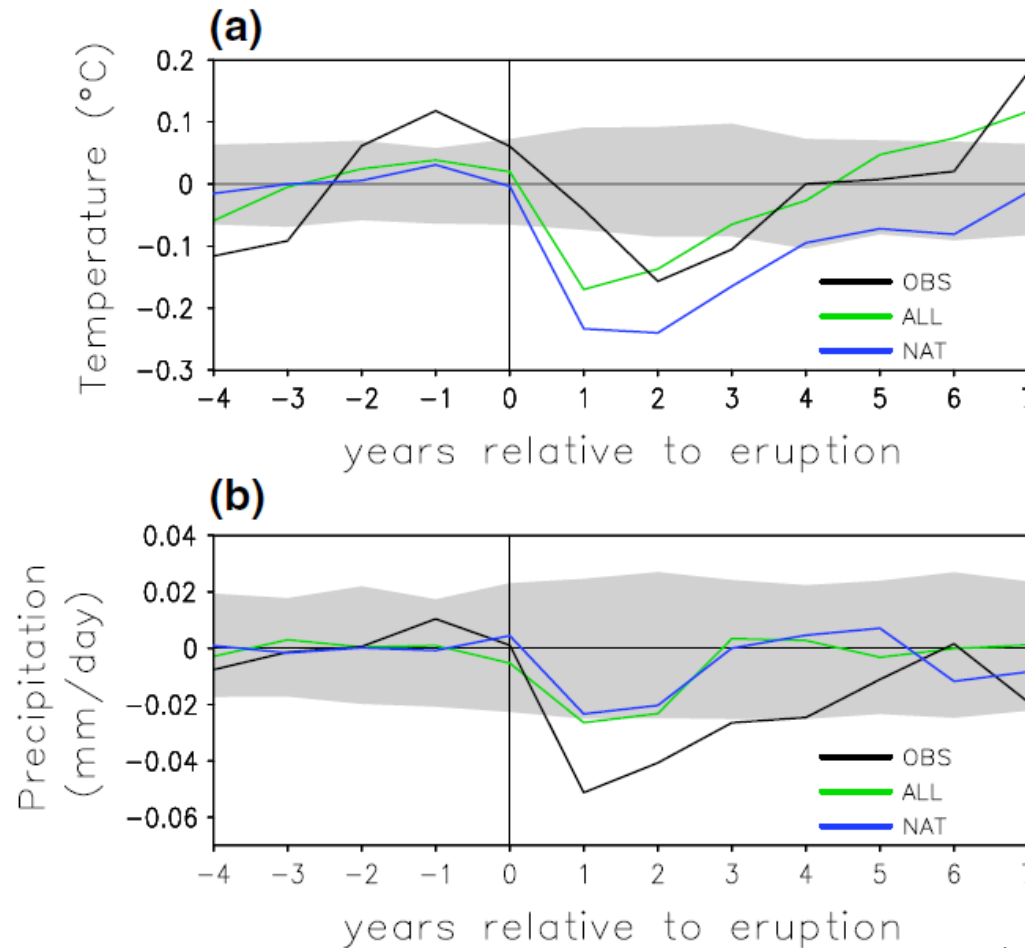
2017 WCRP-JNU Training School

# **Climate responses to volcanic eruptions : Hydrology cycle in monsoon regions**

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(POSTECH)

# Climate responses to volcanic eruptions

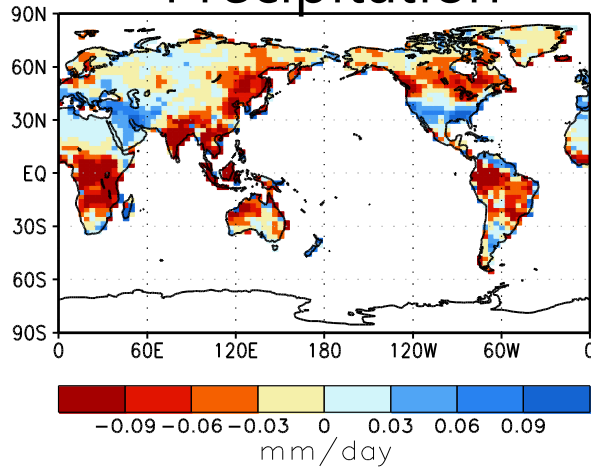


Paik and Min (2016)

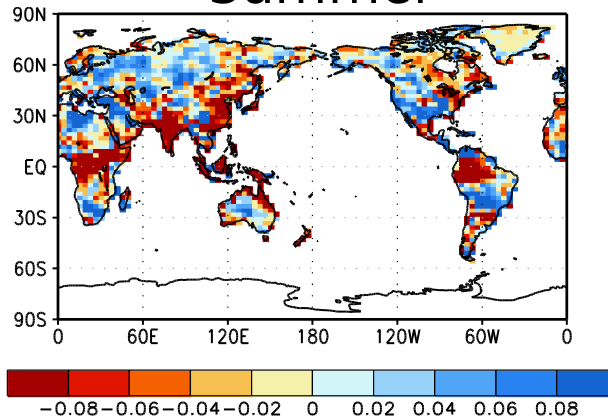
- Global mean temperature and precipitation reduction following volcanic eruptions

# Precipitation reduction : Monsoon circulation

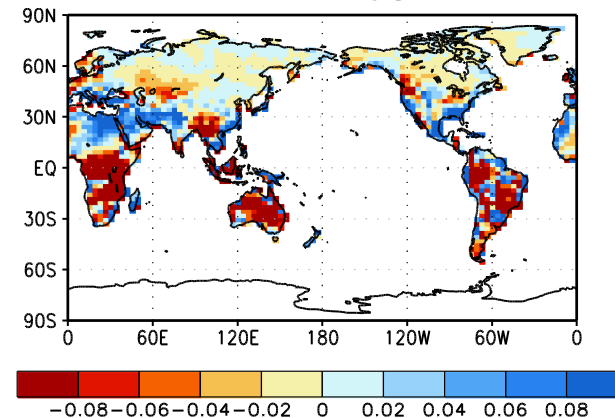
## Precipitation



## Summer



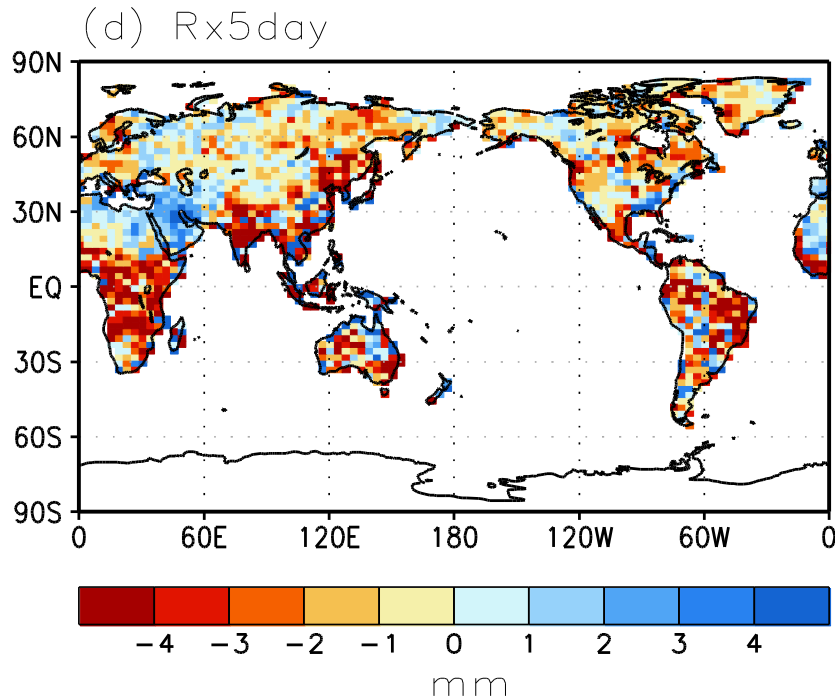
## Winter



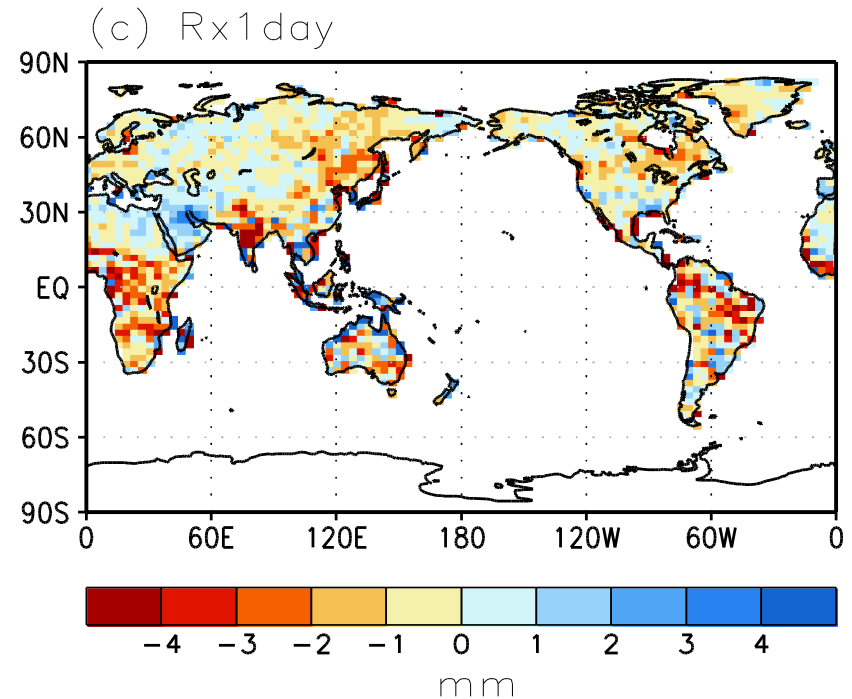
500-hPa  
omega

- Precipitation reduction concentrated on monsoon regions  
: Related to monsoon circulation reduction  
(due to greater cooling in land than ocean)

## Rx5day



## Rx1day



- Extreme precipitation decrease to volcanic forcing  
: Concentrated on monsoon regions
- Challenge for my research : Find evidence whether monsoon circulation reduction is really due to land-sea contrast

Thank you !