

# INTRODUCTION

## Previous Research:

Researches conducted in South Asia and Mainland China show that, monsoonal circulation and its pattern affects aerosol spatial dispersion, concentration, transport process, deposition, and chemical reaction on both region (Adhikary, et al., 2007; Zhang et al., 2010)



Source: Google Earth

## Research Domain:

Southeast Asia whereas strong monsoonal circulation also plays important role in climate on the region (Chang et al., 2005)

## Expected Outcome:

To study how monsoon circulation could affect aerosol dispersion in Southeast Asia, using meteorology-chemistry numerical modelling (particularly WRF-Chem), and how it will capture the phenomena

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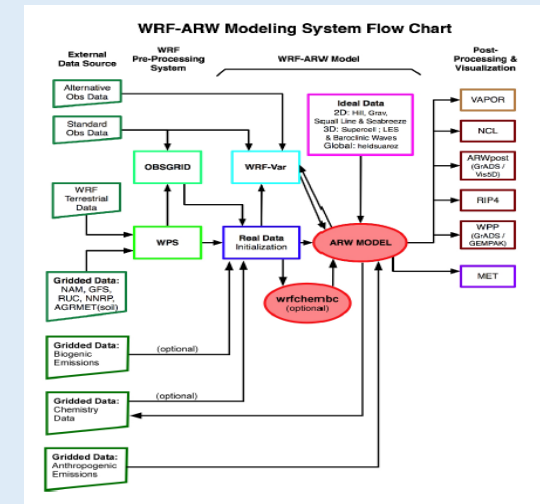
# METHODS

## WRF-Chem:

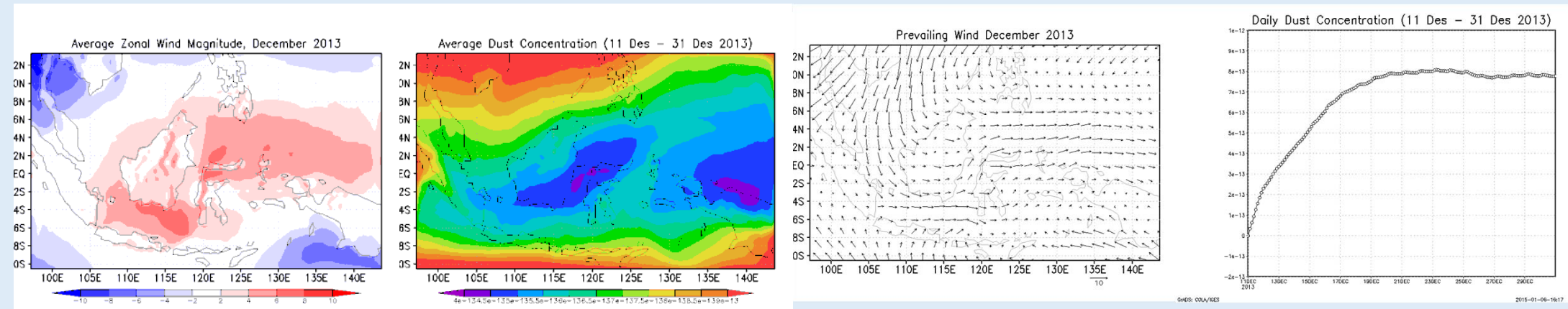
- Mesoscale atmospheric chemistry numerical model
- *Coupled* with WRF (Weather Research and Forecast model)
- Capable of calculating meteorological and atmospheric chemistry parameter simultaneously

## Time Domain:

June 2010, December 2010, June 2013, December 2013



Source : WRF-Chem 3.5 User Guide



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