WORLD METEOROLOGICAL ORGANIZATION

SOUTH-EAST ASIA REGIONAL CLIMATE CENTRE NETWORK

The South-East Asia Regional Climate Centre Network (SEA RCC Network) includes three nodes:

- Node on Seasonal Prediction
  - Lead: Meteorological Services Singapore (MSS)
  - Consortium member: Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
- Node on Climate Monitoring
  - Lead: PAGASA
  - Consortium members:
    - Agency for Meteorology, Climatology and Geophysics of the Republic of Indonesia (BMKG)
    - MSS
- Node on Data Services
  - Lead: BMKG

The SEA RCC Network structure is flexible and open and can evolve in response to the requirements of the region's National Meteorological and Hydrological Services (NMHSs).

Linkage with WMO Regional Climate Outlook Fora

The Network actively contributes to the Association of Southeast Asian Nations Climate Outlook Forum (ASEANCOF).

Mandatory functions

All WMO RCCs fulfil a set of mandatory functions related to seasonal prediction, climate monitoring, data services and training. Listed below are those performed by the SEA RCC Network.

Seasonal prediction

The Node on Seasonal Prediction offers:

- Monthly and seasonal rainfall and temperature products (prediction and verification)
- Consolidated monthly and seasonal outlooks
- Tropical cyclone threat potential forecast for week 1 and 2 prior to the event and track climatology
- El Niño Southern Oscillation outlooks for the coming 3 to 6 months and the typical impact of El Niño and La Niña events on rainfall in South-East Asia
- ASEANCOF consensus statements
- ASEAN Specialized Meteorological Centre climate bulletins

OVERVIEW

Domain of responsibility: South-East Asia region

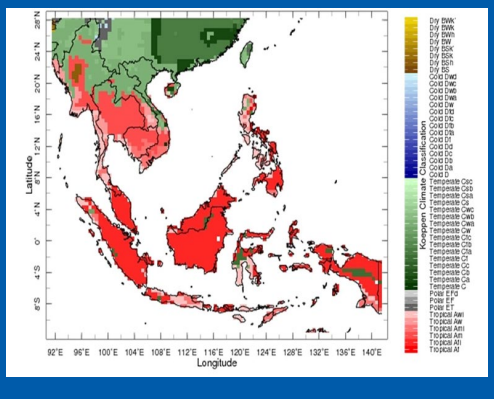
Language: English

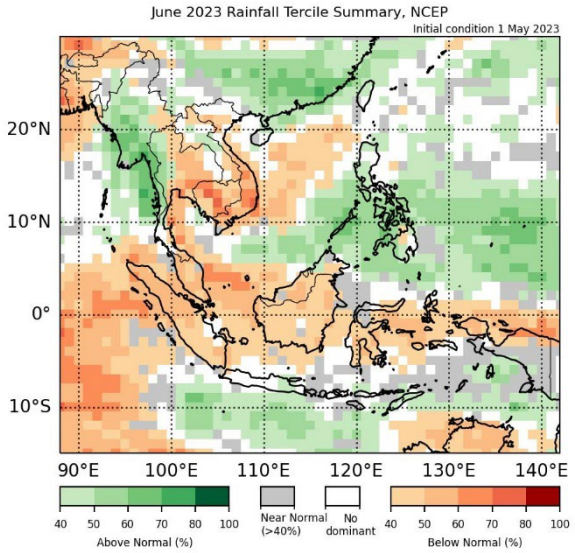
Status: Demonstration phase initiated in November 2017

Climate features

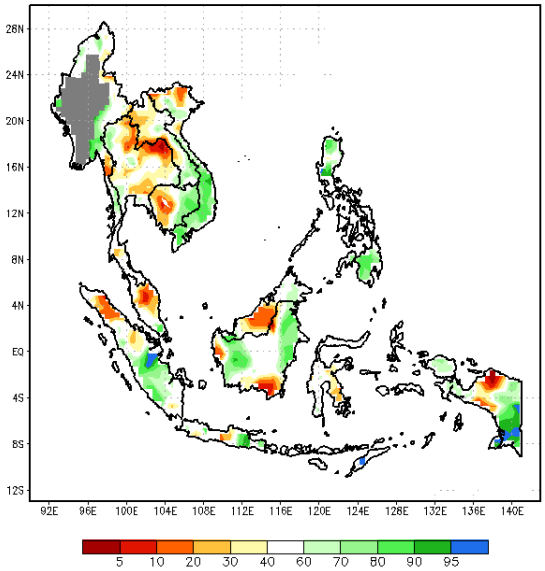
The South-East Asian region has a tropical climate that is characterized by relatively uniform hot and humid weather throughout the year. The climate is influenced by maritime wind systems originating in the South China Sea and the Indian Ocean. Two main monsoon seasons predominate in the region: the north-east monsoon from December to March and the south-west monsoon from June to September.

The various weather and climate phenomena that influence the region bring frequent climate extremes. These include the El Niño Southern Oscillation, the Indian Ocean Dipole, the Madden-Julian Oscillation, tropical cyclones and monsoon surges. All have the potential to cause climate-related calamities on seasonal or shorter timescales in the region.





Probabilistic rainfall prediction for June 2023 (initial condition: May 2023)



Run-off percentile for 1-month period ending in April 2023

Climate monitoring

The Node on Climate Monitoring offers:

- Monthly climate monitoring and assessments in the SEA region (rainfall, temperature, wind, sea level pressure, tropical cyclone tracks that passed or crossed the region)
- Monthly climate monitoring and assessments of sea surface temperatures in the Tropical Pacific and the Indo-Pacific Basin
- Monthly monitoring products for surface run-off, soil moisture percentage, vegetation health index and standard precipitation index
- Regional Climate Watch

Data services

The Node on Data Services offers:

- Updated database of regional datasets
- Quality control procedure for data
- Daily data for the following variables: temperature, rainfall, pressure, relative humidity, sunshine hours and wind
- Gridded data set for the region
- Various indices of extremes according to the Expert Team on Climate Change Detection and Indices (i.e. time series plots, trend maps, anomaly maps and climatology maps)

Training

Training sessions and workshops are coordinated by all three nodes. The Network conducts training sessions on managing risk and uncertainties in seasonal prediction using the MARITIES tool during ASEANCOF sessions and on climate tools from the Japan Meteorological Agency, i.e. the One-month Guidance Tool and iTacs (Interactive Tool for Analysis of the Climate System).

It also organized workshops on key topics such as climate monitoring and subseasonal to seasonal predictions. A list of training sessions and other events is available online.

BMKG