

# Impacts and Lessons from Recent Fires and Transboundary Haze in Northern ASEAN

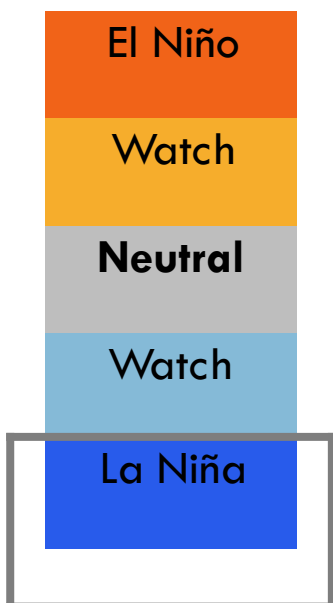
Webinar: 2003 El Nino Season and Transboundary Haze  
May 11, 2023



**Siwaporn Rungsiyanon, THAILAND**

# Status and Outlook of El Niño/La Niña and IOD

## El Niño/La Niña:

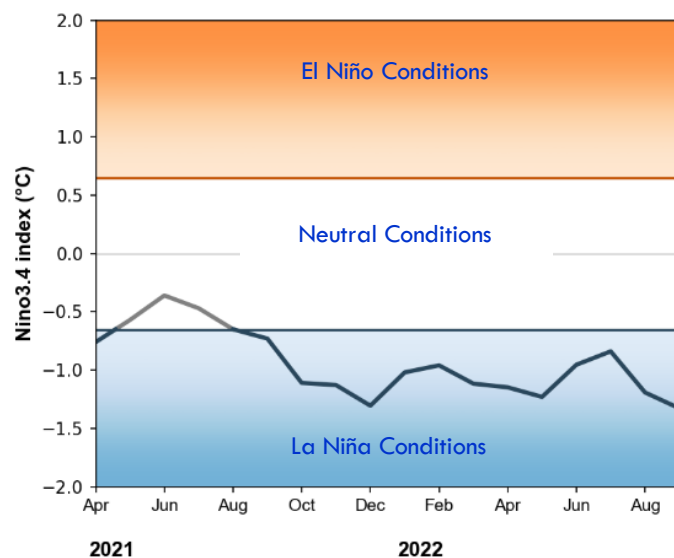


**Current status:** La Niña Conditions

### Outlook:

La Niña conditions are weakening, likely returning to ENSO neutral during March to April 2023

Nino3.4 Index using 1-month SST anomalies



## Indian Ocean Dipole (IOD):

**Current status:** Negative phase

### Outlook:

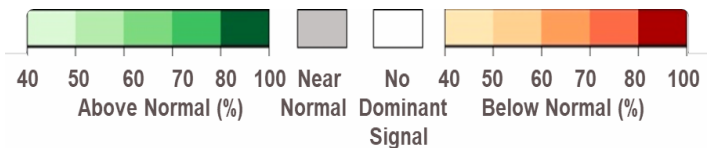
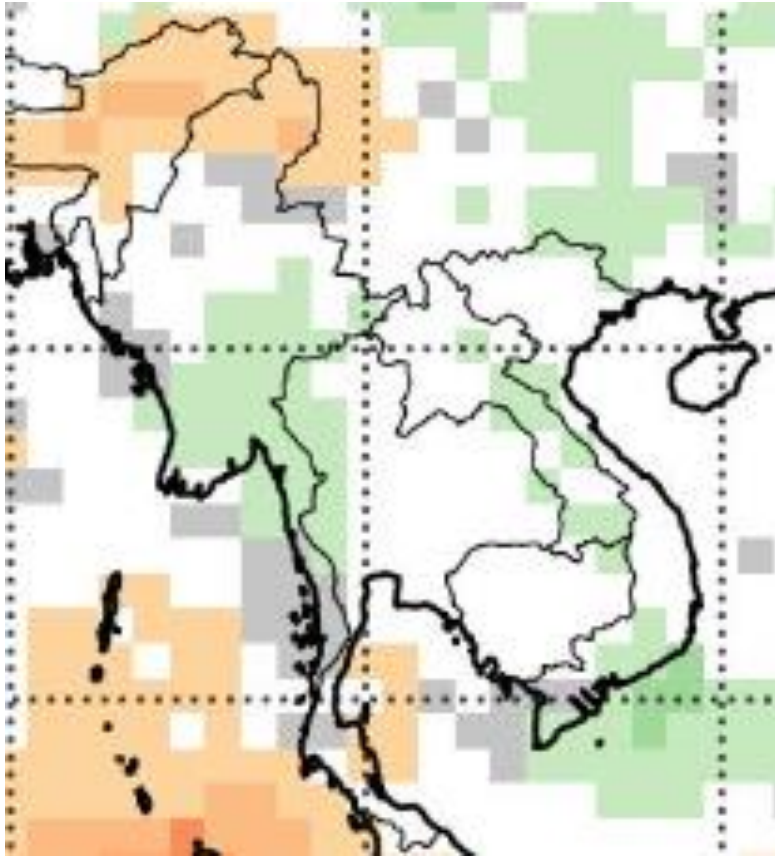
The Indian Ocean Dipole is in its negative phase. Models predict the negative IOD to return to neutral phase by the end of the year

[1] La Niña conditions are associated with wetter weather over most parts of the ASEAN region, while El Niño conditions are associated with drier weather over most parts of the ASEAN region

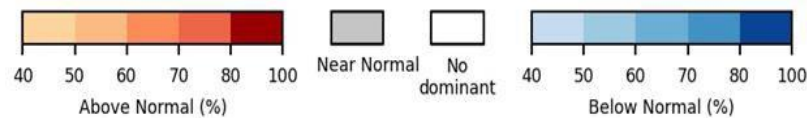
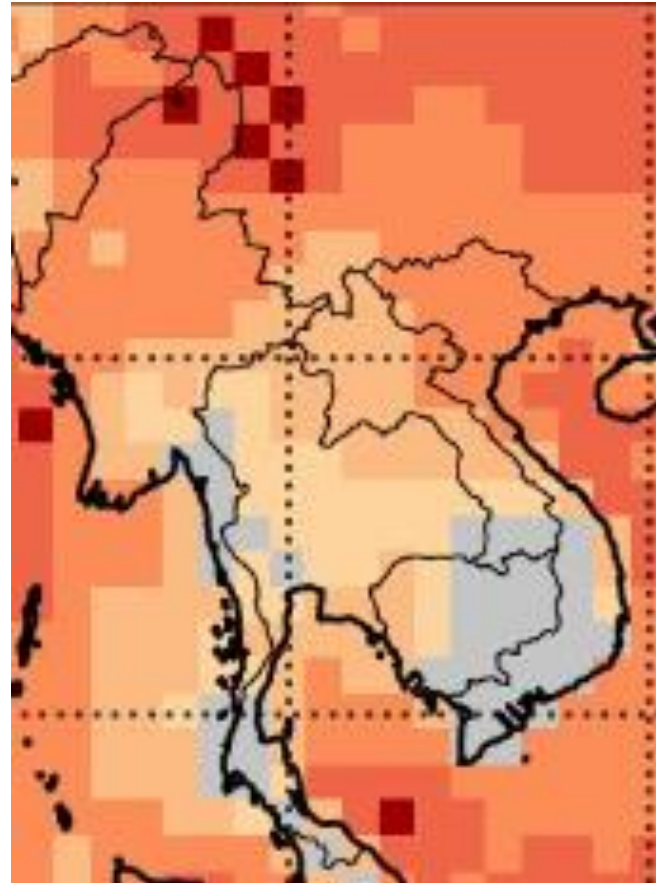
[2] Negative IOD conditions are associated with wetter weather over most parts of the ASEAN region, while Positive IOD conditions are associated with drier weather over most parts of the ASEAN region

# Regional Weather Outlook (April – June 2023)

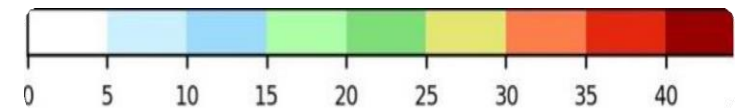
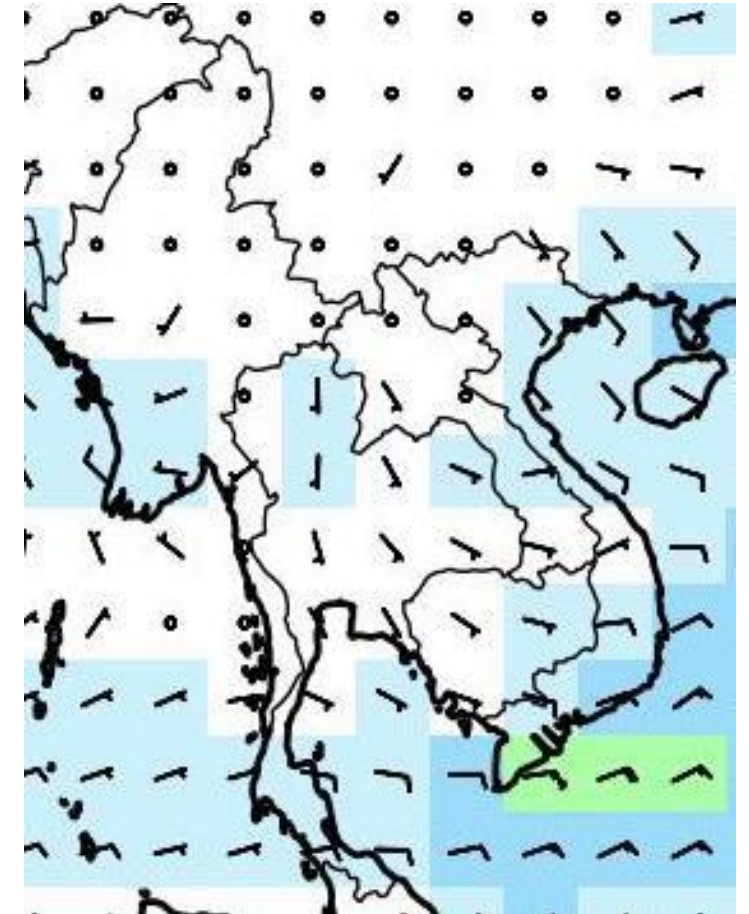
## Rainfall



## Temperature



## Wind



Source: ASMC

# Review of Regional Haze Situation (Mekong sub-region)

## 2022

11 Apr '22

**Alert Level 3**  
Spike in hotspot numbers and widespread haze in the sub-region

29 Apr '22

**Downgrade to Alert Level 2**  
Increase in shower activities, air quality improved

10 May '22

**Downgrade to Alert Level 1**  
Further improvement under persistent showers

## 2023

15 Dec '22

**Alert Level 1**  
drier conditions expected to prevail over much of the northern ASEAN region

27 Jan '23

**Alert Level 2**  
Moderate smoke haze in the sub-region

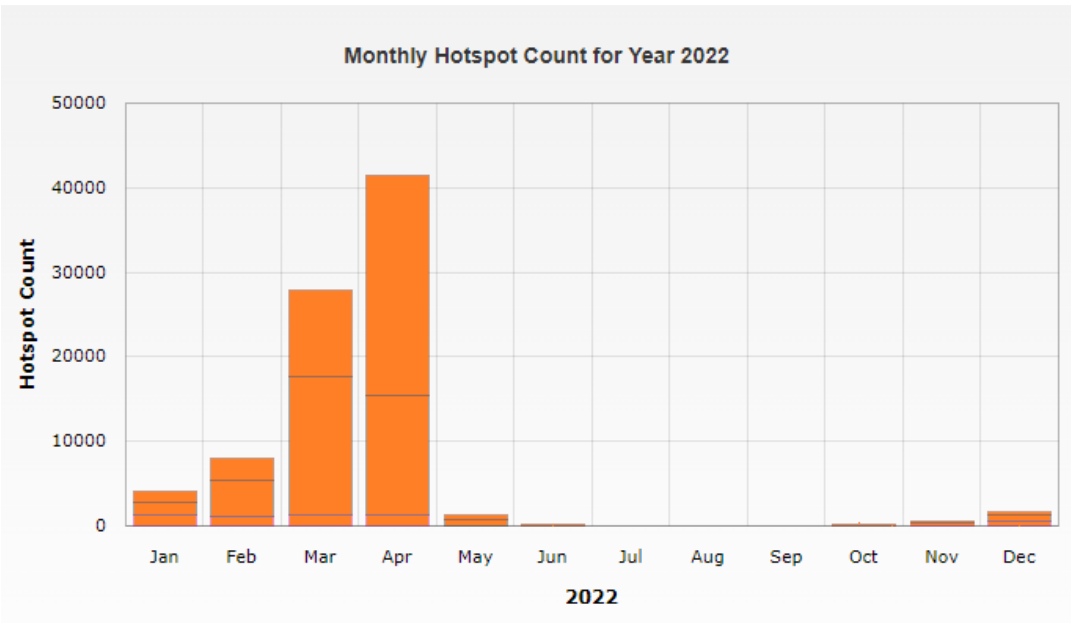
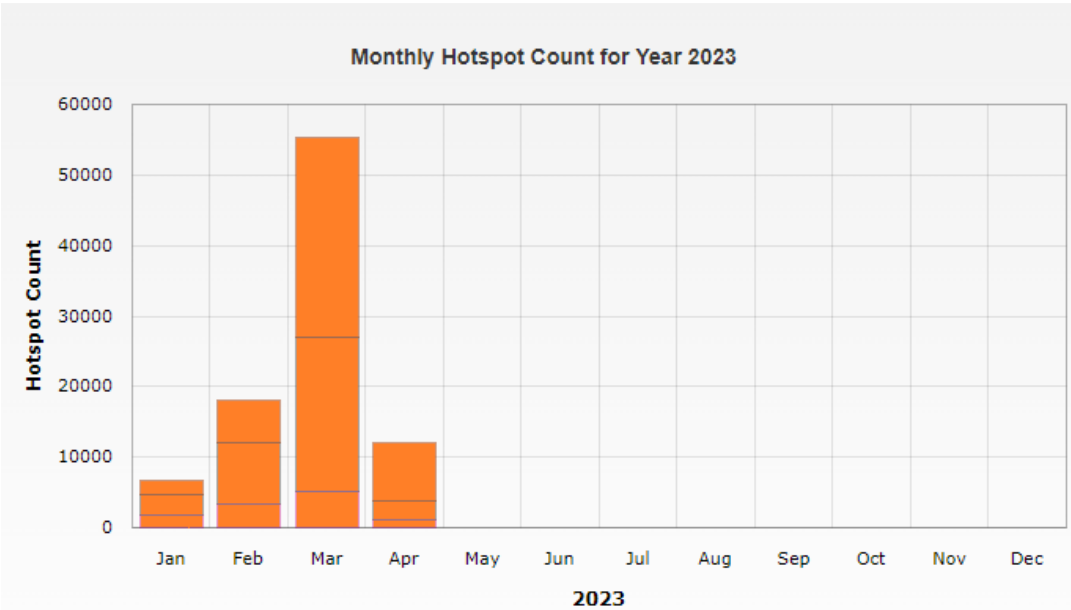
2 Mar '23

**Alert Level 3**  
Spike in hotspot numbers and widespread haze in the sub-region

24 Apr '23

**Downgrade to Alert Level 2**  
Increase in shower activities, air quality improved

# Haze Situation in Northern ASEAN



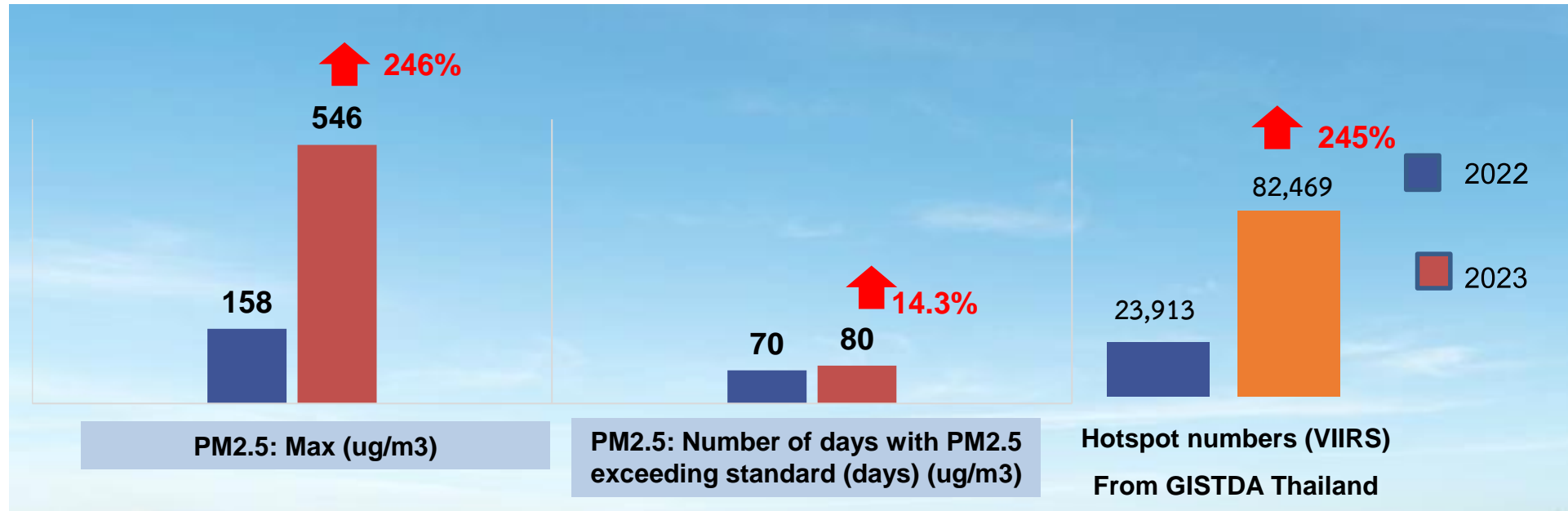
## Situation during 1 January – 5 April

**Total hotspot count**  
in Lao PDR, Myanmar, and Thailand,

- Year 2023 = 92,262
- Year 2022 = 47,710

**Increase 93%**

# Haze Situation in Northern Thailand



(Data in Year 2023 starting from 1 Jan to 5 Apr)

**Haze situation in 2023 is worse than 2022**

**Increase of 24-hr average PM2.5 concentration,**

**Number of days with 24-hr average PM2.5 exceeding the national standard,**

**And Cumulative hotspots**

# What have been done in Thailand ?

- ➔ **Particulate Matters is Thailand National Agenda since 2019**
- ➔ **Ad-hoc plan for Particulate Matters mitigation year 2023**  
**“3 areas” urban-forest-agriculture**

## 7 measures

### **“Proactive Communication”**

1. **Enhance public relation and warning people in advance for 7 days when problems tend to occur**

### **“Stepping up actions”**

2. **Step up measures to achieve the Action Plan to drive the national agenda on “Solving the Problem of Particulate Matter (PM2.5)” and relevant plans.**
3. **Step up fuel management (Systematic Fuel Management: BURN CHECK Collect and Use)**
4. **Closely command, supervise, and evaluate**
5. **Decrease hotspots/ prevent and control open burning/ develop Fire Danger Rating System (FDRS)**
6. **Enhance international mechanism in order to prevent and solve transboundary haze pollution**

### **“Building Participation ”**

7. **Promoting all stakeholder to join the particulate matter mitigation in the process of setting plan and solving problem**

# What need to be done in Northern ASEAN ?

# Strengthening of Cooperation: Trilateral

**Trilateral Consultation on Transboundary Haze Pollution on 7 April 2023 among the leaders of the Lao PDR, Myanmar, and Thailand**



the Meeting agreed to enhance cooperation and develop a joint action plan under the 'CLEAR Sky Strategy'





# **‘CLEAR Sky Strategy’**

aims to effectively address transboundary haze pollution

- C** – ‘Continued Commitment,’ to working closely towards the goal of reducing hotspots, as charted in the Chiang Rai Plan of Action adopted by five countries in the Mekong sub-region in 2017;
- L** – ‘Leveraging Mechanisms,’ at all levels including through relevant bilateral mechanisms at local levels with Lao PDR and Myanmar;
- E** – ‘Experience Sharing,’ by exchanging information and implementation of legislative measures;
- A** – ‘Air Quality Network,’ whereby increased and concerted cooperation among air quality networks of countries in the sub-region are encouraged;
- R** – ‘Response,’ that is effective and timely.

Thank you for your  
attention



**#Beat Air  
Pollution**