

# SEARRIN Network

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GOFC-Fire Implementation Team Meeting, ESA,  
Frascati, March 23-25, 2010



SOUTH EAST ASIA REGIONAL INFORMATION NETWORK

# Milestone

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- **LUCC Phase I**
  - 1993: Network is established in Manila, Philippines for development of an operational methodology for monitoring LUCC
  - 1994: common method and data collection protocols were initiated
    - ✦ Four case studies selected
      - Malaysia : Klang-Langat watershed
      - Philippines : Magat Watershed
      - Thailand : Mae Chaem Watershed
      - Indonesia : Citarum Watershed

# Milestone

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- 1994-1997:
  - ✦ the internal coordination workshops conducted in rotating locations among participating countries
- 1998 :
  - ✦ all the participating countries have produced their country reports, in hard and soft copies.
  - ✦ Individual countries also set their own web page in Lucc project which are linked to SEA START network
- Lucc Phase II
  - 1999:
    - ✦ Develop case studies to determine deforestation dynamics
    - ✦ Regional network was expanded through involvement of more scientists and case studies

# Milestone

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- **LUCC Phase II**
  - **2000:**
    - ✦ The regional network compilation of LUCC dataset for outreach package was also strengthened through
    - ✦ Web page on LUCC project for each country
    - ✦ Interactive CD ROM developed in cooperation with the IGBP-DIS
    - ✦ Development of regional integrated metadata system was also initiated (SEA START RC, DIF)
- **LUCC Phase III**
  - **2001-2002**
    - ✦ SEARRIN Science Meeting and Field Training took place from APN funding

# Milestone

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- **Post LUCC phase I-III**
  - **2004:**
    - ✦ **SE-Asia Burnt Area Workshop in Selangor, Malaysia**
  - **2009**
    - ✦ **NASA-LCLUC Science Team Joint Meeting with MAIRS, GOFC-GOLD and SEA START in Khon Kaen Thailand**

# Current & Future Projects

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- **Current Projects**

- South East Asia collaborations on Carbon measurements and markets.
- The role of land cover change in montane mainland Southeast Asia in altering regional hydrological processes under a changing climate.
- Modelling and Data Integration for the study of land use and land cover change in the southern Johor : Focus on deforestation.

- **Future Projects**

- ESA Climate Change Initiative proposal submitted by Emilio Chuvecio??

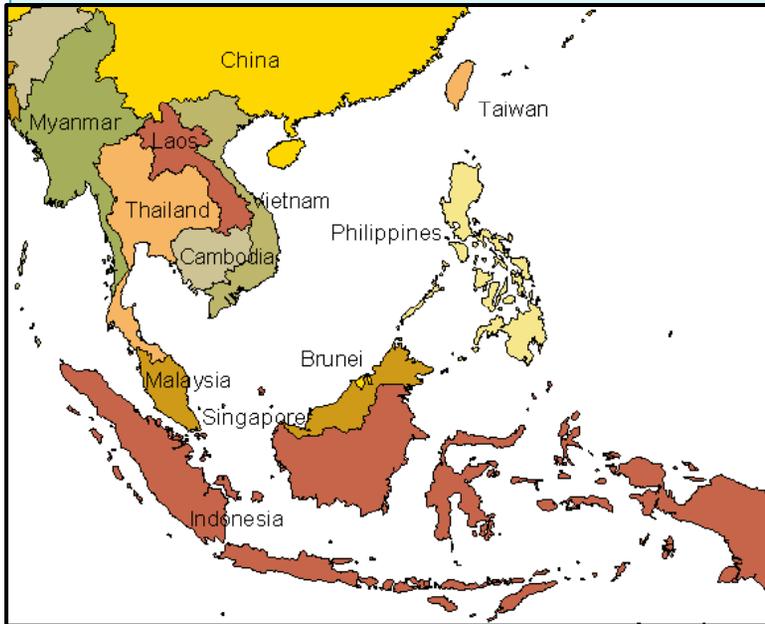
# Situations of Network

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- Lack of funding for projects to keep up activities and strength of the network -> scientists work on their own resources
- Network is not recognized by local government -> difficult to take further actions on mitigation process

# Biomass Burning Activities in SE-Asia

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- Usually occurs from land clearing and/ or crop residue burning during dry season ( May-Sep for lower part of region and Nov-Apr for upper part of region)



# Biomass Burning Activities in SE-Asia

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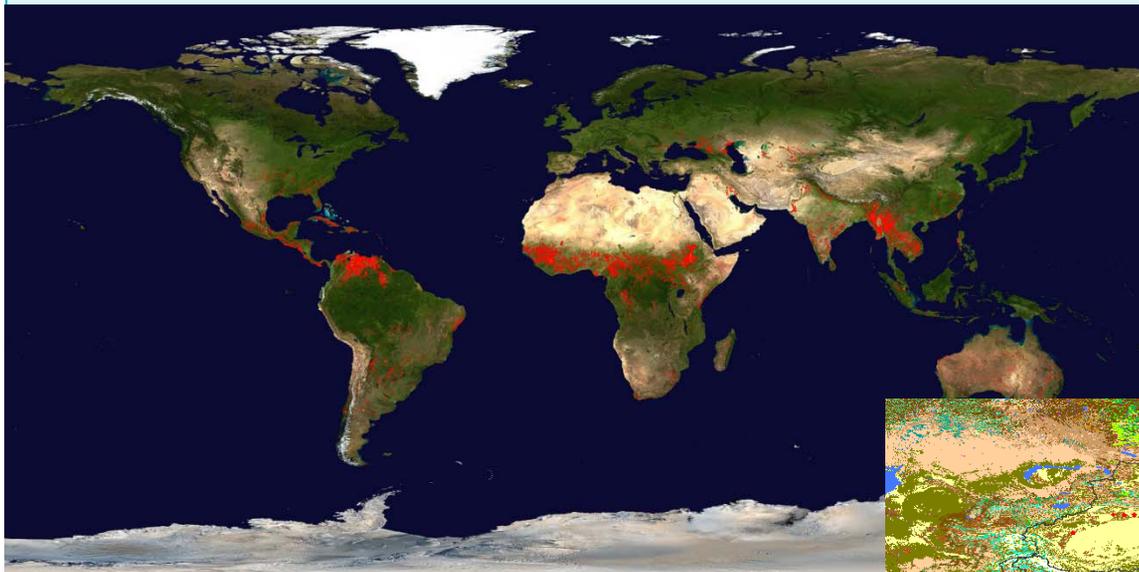
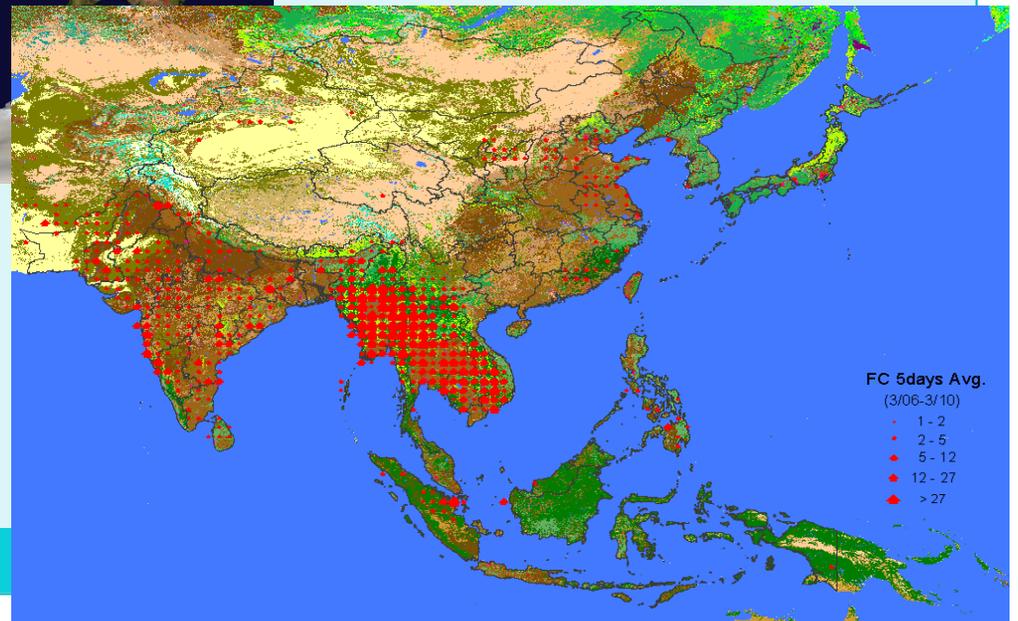


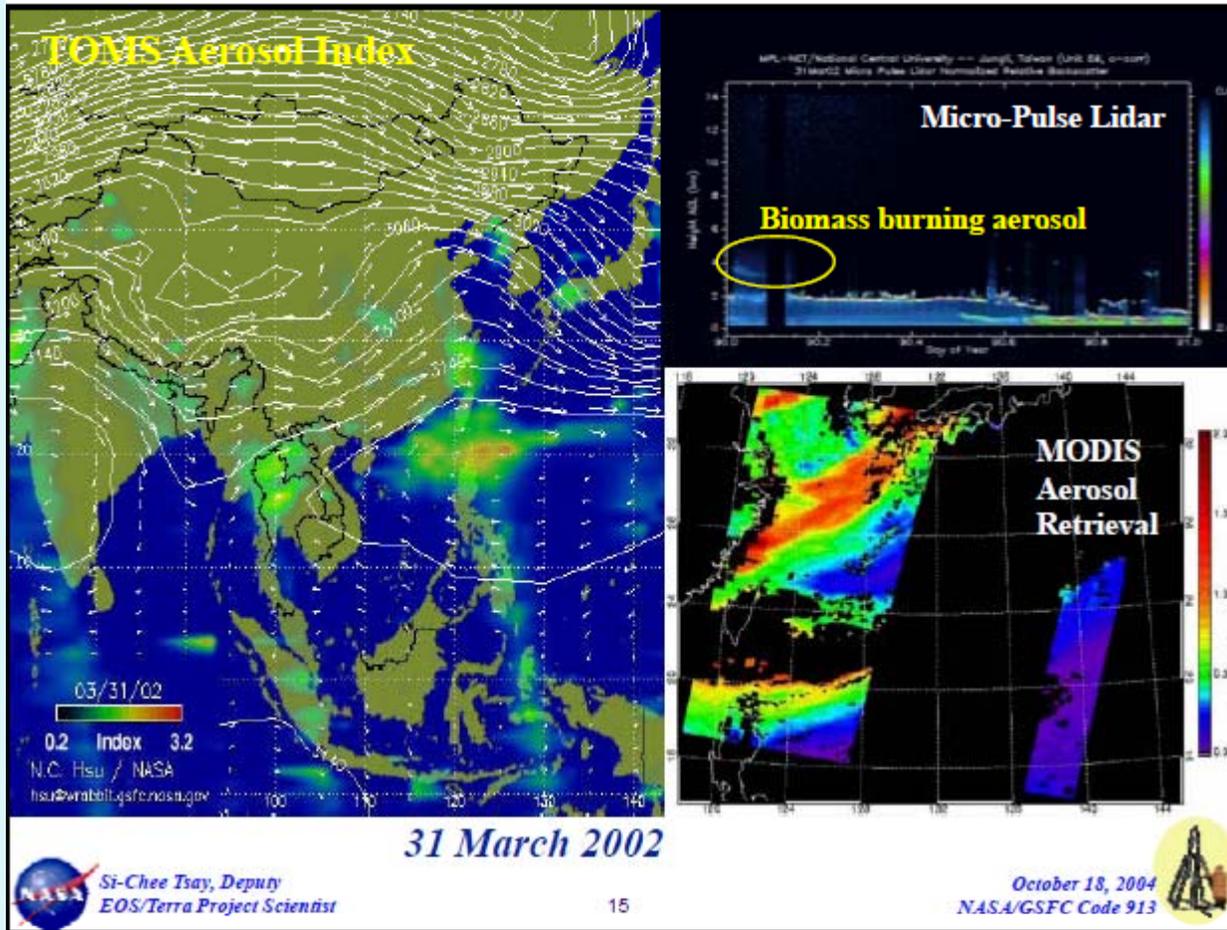
Image from MODIS on board NASA Aqua/Terra (Mar 4-13, 2001)

Image compiled from NOAA-AVHRR (March 6-10, 2002)

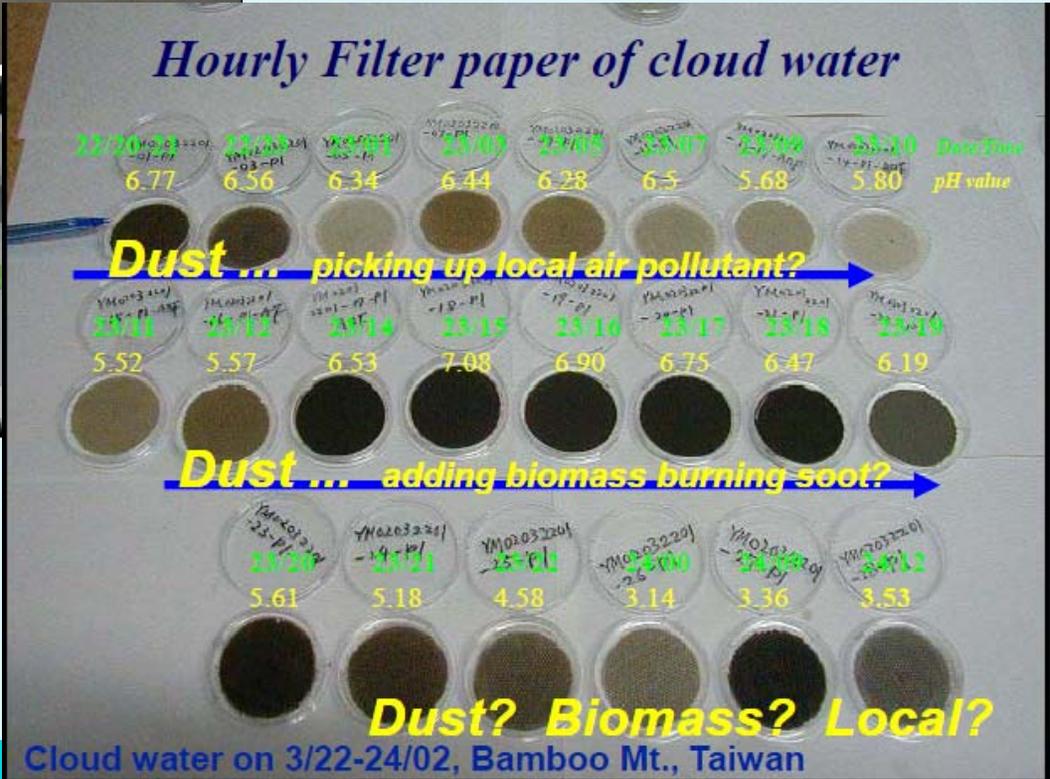
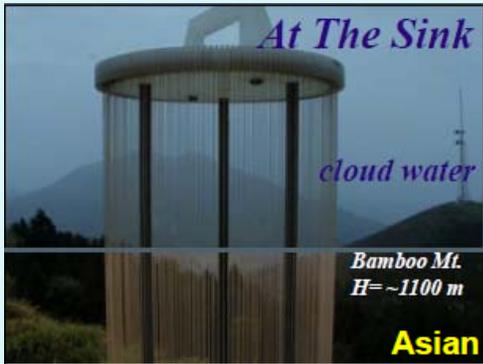


# Biomass Burning Activities in SE-Asia

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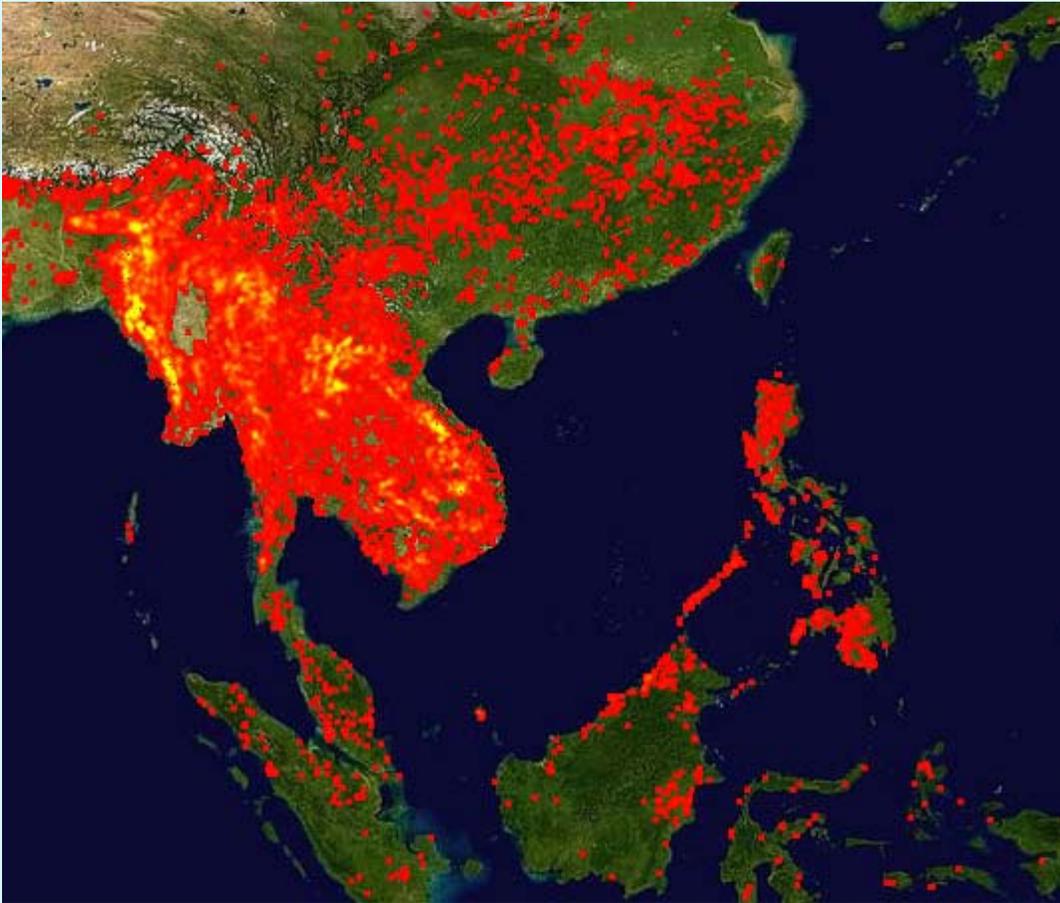


# Biomass Burning Activities in SE-Asia



# Biomass Burning Activities in SE-Asia

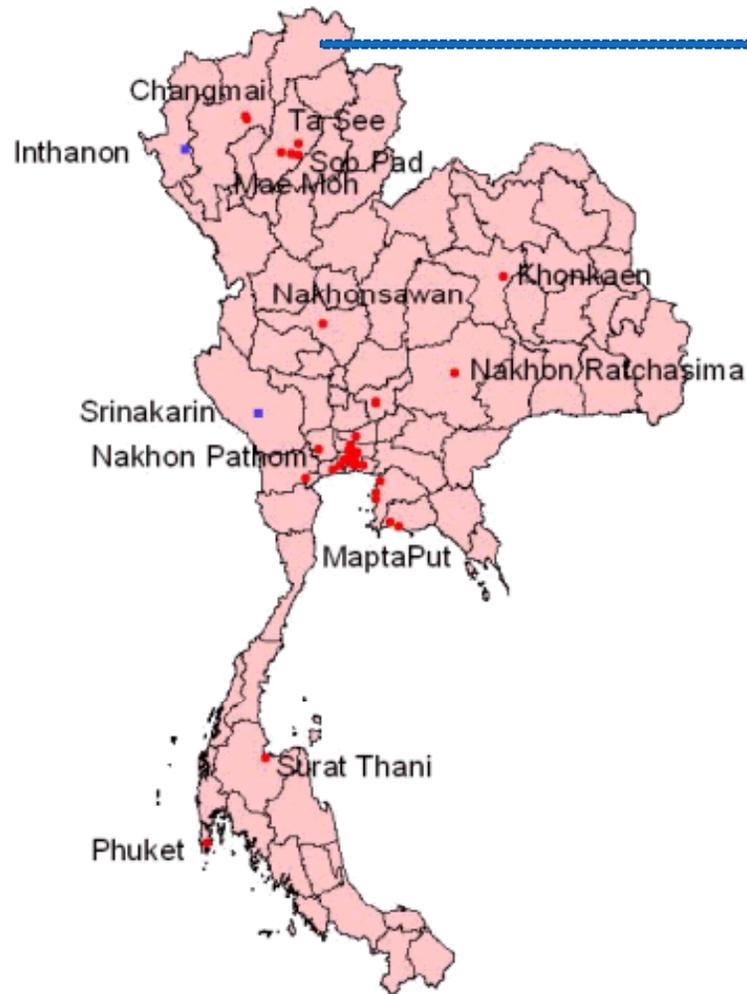
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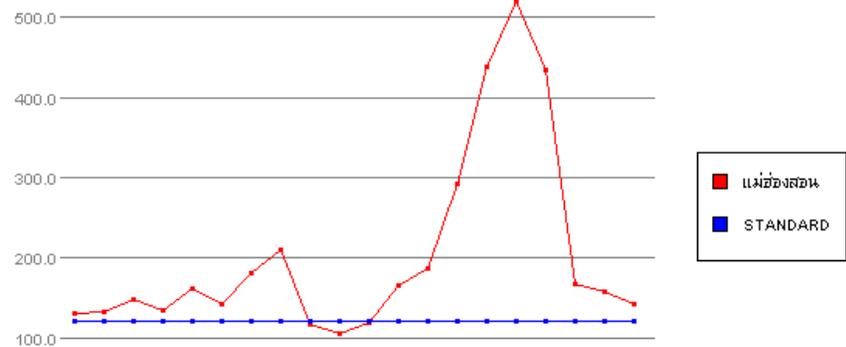
fire map available:  
03/12/10 -03/21/10

# Biomass Burning Activities in SE-Asia

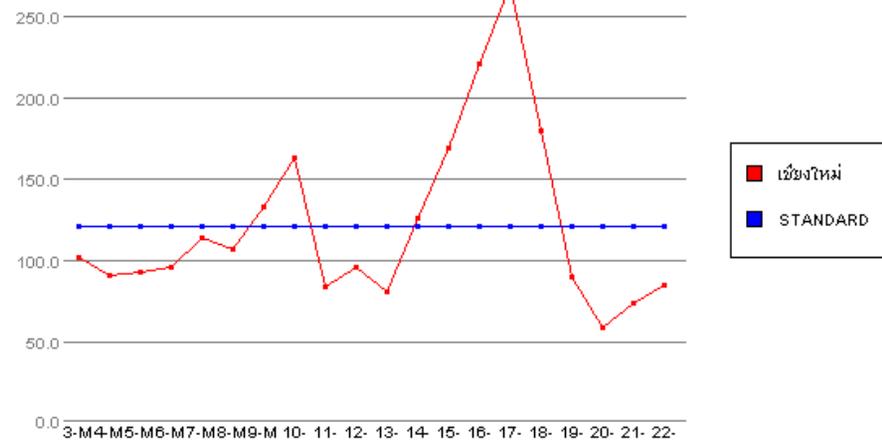
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## Mae Hong Son



## Chiang Mai



Average Particulate Matter

# Current Research Activities in Biomass Burning

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- Haze forecasting project for upper part of Thailand: JGSEE and Pollution Control Department of Thailand
- The South East Asia Fire Information and Research Center (SE-FIRE) project: KMITL & SSD/NESDIS/NOAA
- WRF-SD forecasting system: KMITL & US Firelab
- Field Experiment for measurement of gaseous species and aerosols during forest fire burning season in Chiang Mai, Thailand during March 22-25 and mid-Apr 2010 by Dr. George Lin, National Taiwan University

# Possible projects w/ GOFC-GOLD

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- Validation of FRP project during same time with Taiwanese field campaign
- Comparison of Emission inventories of Trace gases and aerosols w/ *Liousse van der Werf*