

**International Training Course on
“Natural Disasters Management”
Faculty of Environment and Resource Studies
Mahidol University, Thailand
4 - 24 June, 2025**

1. Course Title:

Natural Disasters Management

2. Duration

4 - 24 June, 2025 – (21 days)

3. Background and Rational

Currently, there are plenty of natural disasters phenomena in our earth. The recent ones that cause devastating damages are earthquake, tsunami, heavy rain, floods, landslides and sinking holes in our earth within many years ago. As our lives related to and reflected by the environment surrounded, one main cause of natural disasters occur by our activities in daily life, and the disasters attack us. Accordingly, natural disaster management is very important to our society, people living in risk area should be warned and in damaged areas need to be mitigated, relief their mind, rehabilitate their environment and promote appropriate occupations for living.

Therefore, the Faculty of Environment and Resource Studies intends to organize a training program in natural disaster management focusing on the occurrence and risk area of earthquake, tsunami, floods, landslides and sinking holes with management before and after the phenomena. The objectives are to develop knowledge about how natural disaster management is best conducted in areas of relevance of natural disaster academy. The capacity to manage and to prevent natural disasters depends on a large extent on effective collaboration and coordination between government and other sectors, which in turn require effective communication among them. Another focus is on community-based natural disaster management and holistic livelihood patterns aimed at building up capacity to manage and/or prevent natural disasters sustainability in the long term including the knowledge, experiences and skills concerned with environmental and resource preservation. Community motivation and mobilization will be discussed to ensure continued community ownership and responsibility for natural disasters proofing and preparedness activities.

4. Objectives

- 4.1 To develop people who have basic knowledge concerning about natural disaster risks and management
- 4.2 To improve the effectiveness of natural disaster risk management
- 4.3 To develop an important movement of natural disaster preparedness and awareness

5. Course Contents

5.1 Course Outline

- 1) General: An overview of natural disaster occurrence and management in Thailand
- 2) Climatologic Disaster: Drought: Occurrence and management
- 3) Climatologic Disaster: Storm and Heavy Rain: occurrence, risk and self-protection
- 4) Climatologic Disaster: Flood: occurrence, risk and self-protection and management
- 5) Climatologic Disaster: Landslide: occurrence, risk and self-protection
- 6) Geologic Disaster: Earthquake: occurrence, risk and self-protection

- 7) Geologic Disaster: Tsunami: occurrence, risk and self-protection
- 8) Geologic Disaster: Subsidence and sinkhole: occurrence, risk and self-protection
- 9) Geologic Disaster: Coastal Erosion Occurrence and management
- 10) Technology: LIDAR technology for management
- 11) Management: Lesson learned on disaster management
- 12) Management: Prevent loss of life and damage to critical infrastructure
- 13) Management: Mr. Awareness “a volunteer in a local area”
- 14) Management: Community-based natural disaster management
- 15) Management: A new Disaster Management agenda
- 16) Management: Incidence Command System (ICS)
- 17) Management: Social network for warning disaster
- 18) Management: Urban risk-disaster management
- 19) International Managements: Hyoko Frameworks Risk Reduction

5.2 Workshop/Practices

- 1) Case studies on natural disaster management
- 2) Practices on natural disaster preparedness and awareness, communication for natural disaster crisis

5.3 Study Trips/Field Trips

- 1) One-day field trip in the topic of “Earthquake, Flood and Landslide: Management and Mitigation”
- 2) Two-day field trip in the topic of “Environmental Management for Natural Disaster Reduction”

5.4 Advance Assignments

- 1) Country Report:

1.1 General information of participant (1 page of A4 size paper) including; Name of participant, Educational background, Country, Name of Organization, Participant’s position, Duties and responsibilities (Briefly)

1.2 General information of the Country (1-2 page of A4 size paper) including; Geographical status of the country, Climate, Population, Official language, Social, Educational and Economic conditions, Gross National Products (GNP), Per- capita Income, Major import and export goods, Natural resources and environmental situation, etc.

1.3 Content (up to 4-5 pages of A4 size paper): The detail in your country report should cover with the following topics.

- The current situation on natural disasters occurrence and natural disasters management in your country.
- Country policy related to natural disasters management and environmental management for natural disaster reduction.
- The best practices related to natural disaster preparedness and awareness, communication for natural disaster crisis.
- Lessons learned about natural disaster.

1.4 Summary and Recommendation (1 page of A4 size paper)

1.5 References and further information (If any) (1 page of A4 size paper)

1.6 Submission date: **No later than 15 May, 2025**

6. Number of Participants

6.1 Total Number of Participants: 20 persons

6.2 Participant Criteria:

- Age: Less than 40 years old
- Work experience in related fields: More than 2 years
- Knowledge Worker Positions in Practitioner Level or Junior
- Education: Equivalent to Bachelor Degree or Higher Degree
- Language: Good Command in English

7. Venue

- Faculty of Environment and Resource Studies, Mahidol University
- Accommodation:
 - Hotel at Salaya.
 - Hotel at the field site for 1 night

8. Expected Results

Expected key results or knowledge is available for participants after completing training:

- Basic knowledge in natural disaster management
- Meaningful information about current issue of natural disaster preparedness, awareness and reduction
- Better understanding in further application by practical session and excursions

9. Evaluation

- No paper examination after completing this training
- Participant must attend the class no less than 80% of total training period

10. Institution

10.1 Executing/Implementation Agency

- Implementation organization:
 - Faculty of Environment and Resource Studies, Mahidol University
- Staff availability:
 - 19 Lecturers will be involved in this training.
 - 30 Supporting staff will be in charge in this training.
- Training materials:
 - Hand-outs, documents and manual are available.
- Equipment:
 - Computers, printers, LCD, media equipment, laboratory equipment are available.
- Other facilities:
 - Phone, Fax, Internet hours are available
- Address:
 - 999 Phuttamonthon 4 Rd., Salaya, Phuttamonthon, Nakhon Pathom 73170, Thailand
- Course Leader:
 - Dean of Faculty of Environment and Resource Studies
- Course Director:
 - Assoc. Prof. Dr. Thamarat Phutthai

- Contact Person:

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 Faculty of Environment and Resource Studies, Mahidol University
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11. Expenditure and Funding

11.1 Sponsored by:

Thailand International Cooperation Agency (TICA)

11.2 Estimated Cost: Operational cost only

Number of trainees: 20 persons

Course duration excluding arrival and departure days: 21 days

| No. | Item | Rate | Calculation | Total (Baht) |
|-----|--|-----------------------|-----------------|--------------|
| 1 | In-class lecturers (54 hours) | 2,000 Baht/hour | 2,000 x 54 | 108,000 |
| 2 | Field lecturers (41 hours) | 1,000 Baht/hour | 1,000 x 41 | 41,000 |
| 3 | Facilitators and Overtime | | | |
| | Weekdays (5 persons, 12 days) | Baht/hour/person/day | 50 x 4 x 5 x 12 | 12,000 |
| | Weekends (5 persons, 6 days) | Baht/hour/person/day | 60 x 7 x 5 x 6 | 12,600 |
| 4 | Field trips | | | |
| | 4.1 Pre-survey | | | |
| | Daily subsistence (4 persons, 2 days) | 240 Baht/person/day | 240 x 4 x 2 | 1,920 |
| | Accommodation (4 persons, 1 night) | 800 Baht/person/night | 800 x 4 x 1 | 3,200 |
| | 4.2 Field trips | | | |
| | 4.2.1 Daily subsistence (6 persons, 3 days) | | | |
| | - Lecturer 3 persons | 270 Baht/person/day | 270 x 3 x 3 | 2,430 |
| | - Staff 3 persons | 240 Baht/person/day | 240 x 3 x 3 | 2,160 |
| | 4.2.2 Accommodation (6 persons, 1 night) | | | |
| | - Lecturer 3 persons | Baht/person/night | 1,200 x 3 x 1 | 3,600 |
| | - Staff 3 persons | 800 Baht/person/night | 800 x 3 x 1 | 2,400 |
| 5 | Refreshment Breaks | | | |
| | 2 times/day, 30 persons | Baht/person/time | 60 x 30 x 29 | 52,200 |
| 6 | Reception | | | |
| | Welcoming Dinner (40 persons) | 800 Baht/person | 800 x 40 | 32,000 |
| 7 | Opening/Closing ceremony | | | |
| | Site preparation/arrangement | 1,000 Baht/time | 1,000 x 2 | 2,000 |
| 8 | Transportation | | | |
| | 8.1 Pre-survey | | | |
| | Van rent (1 van, 2 day) | 3,500 Baht/day | 3,500 x 2 | 7,000 |
| | Taxi | Baht/person/time | 250 x 4 x 2 | 2,000 |
| | 8.2 In-class lecturers | | | |
| | Van rent (1 van, 9 days) | 2,500 Baht/day | 2,500 x 9 | 22,500 |

| No. | Item | Rate | Calculation | Total (Baht) |
|-----------|--|--------------------|---------------|-----------------------|
| | 8.3 Field trips | | | |
| | Bus rent (1 bus, 3 days) | 15,000 Baht/day | 15,000 x 3 | 45,000 |
| | Taxi | Baht/person/time | 250 x 6 x 4 | 6,000 |
| | 8.4 Excursion & Social Event | | | |
| | Van rent (3 vans, 6 days) | 3,500 Baht/day/van | 3,500 x 6 x 3 | 63,000 |
| 9 | Training materials and equipment | | | |
| | Course notes (19 Topics) | 2,000 Baht/topic | 2,000 x 19 | 38,000 |
| | Books and manuals | 1,000 Baht/person | 1,000 x 20 | 20,000 |
| | Course equipment, tool | 1,000 Baht/person | 1,000 x 20 | 20,000 |
| 10 | Course bag | 300 Baht/piece | 300 x 20 | 6,000 |
| 11 | Pen and Notebook | 10+30 Baht/piece | 40 x 20 | 800 |
| 12 | Miscellaneous | | | 62,420 |
| | Entry fees during fieldtrip | | | |
| | Entry fees during social cultural | | | |
| | Internet hours | | | |
| | Infrastructure & Maintenance | | | |
| | Communications (computer, phone, fax, courier) | | | |
| | Souvenir for the field trips | | | |
| | Photocopies | | | |
| | ID Neck strap | | | |
| | Name tags | | | |
| | Certificates | | | |
| | Others (Fresh drive + ink + scan cover + paper) | | | |
| | Sub Total | | | <u>568,230</u> |
| 13 | Overheads (14% of total operation cost) | | | 79,552 |
| | Total | | | <u>647,782</u> |

Remark 1: Miscellaneous details:

| | |
|-----------------------------------|---|
| Entry fees during fieldtrip | 1,000 baht 1) Space Inspirium, Chonburi Province - 50 baht x 20 person = 1,000 baht |
| Entry fees during social cultural | 5,820 baht 1) Grand Palace and Rattanakosin Exhibition Hall - Thai 70 baht x 4 person (including staff) = 280 baht - Foreigner 100 baht x 18 person = 1,800 baht - Local guide = 1,000 baht 2) Wat Pho - Foreigner 100 baht x 18 person = 1,800 baht 3) Wat Mahathat, Phra Nakhon Si Ayutthaya province - Thai 10 baht x 4 person (including staff) = 40 baht - Foreigner 50 baht x 18 person = 900 baht |

| | |
|--|--|
| Internet hours | 21,600 baht (300 baht x 12 days x 6 account) |
| Infrastructure & Maintenance | 10,000 baht |
| Communications (computer, phone, fax, courier) | 5,000 baht |
| Souvenir for the field trips | 7,500 baht (1,500 baht x 5 pieces) |
| Photocopies | 2,400 baht (120 baht x 20 photocopies) |
| ID Neck strap 20 pieces | 2,000 baht (100 baht x 20 pieces) |
| Name tags | 100 baht (5 baht x 20 pieces) |
| Certificates | 2,000 baht (100 baht x 20 pieces) |
| Fresh drive + ink + scan cover + paper | 5,000 baht |

Remark 2:

In-Class total 19 topics = **54 hrs.**

Field lecturers total 41 hrs. consist of:

Workshop = **11 hrs.** (Campus tour, Workshop, Country report presentation and Course discussion and overall conclusion)

Field trip = **30 hrs.**

1) **Field Trip 1: One-day field trip = 10 hrs. x 1 day = 10 hrs.**

1.1 Meteorological Department, Bangkok

1.2 Department of Disaster Prevention and Mitigation, Bangkok

2) **Field Trip 2: Two-day field trip = 10 hrs. x 2 days = 20 hrs.**

2.1 Baan Khun Samut Chin Community, Samut Prakan Province

2.2 Space Inspirium, Chonburi Province

2.3 THEOS Control and Receiving Station, Chonburi Province

Hotel for Participants: Hotel at Salaya.

12. (Draft) Schedule

| Wednesday 4 June, 2025 | |
|-------------------------------|---|
| Time | Activities |
| 13:00 – 14:00 | Registration |
| 14:00 – 15:00 | Opening ceremony |
| | ☒ Audio visual presentation: Faculty of Environment and Resource Studies |
| | ☒ Welcoming speech by Dean of the Faculty of Environment and Resource Studies |
| | ☒ Introduction to the training program by Course Director |
| | ☒ Introduction to academic and supporting staff |
| | ☒ Participants introduce themselves |
| 15:00 – 15:15 | ☒ Group photo |
| 15:15 – 16:15 | Refreshment |
| 16:45 – 18:45 | Salaya campus tour and open house |
| | Welcoming Dinner |

| Thursday 5 June, 2025 | | |
|---|---|---------------------------------|
| Time | Topic | Instructor |
| 09:00 – 12:00 | Topic 1: General: An overview of natural disaster occurrence and management in Thailand | Mahidol University |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Topic 2: Climatologic Disaster: Storm and Heavy Rain: occurrence, risk and self-protection | The Meteorological Department |
| Friday 6 June, 2025 | | |
| 09:00 – 12:00 | Topic 3: Climatologic Disaster: Drought: Occurrence and management | The Meteorological Department |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Topic 4: Management: Lesson learned on disaster management | Royal Irrigation Department |
| Saturday 7 June, 2025 | | |
| ☒ Social and Cultural Activities: <i>Rattanakosin Island - Bangkok</i> | | |
| Sunday 8 June, 2025 | | |
| ☒ Social and Cultural Activities: <i>1) Chatuchak Weekend Market 2) Samyan Mitrtown - Bangkok</i> | | |
| Monday 9 June, 2025 | | |
| 09:00 – 12:00 | Topic 5: Climatologic Disaster: Landslide: occurrence, risk and self-protection | Department of Mineral Resources |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Topic 6: Geologic Disaster: Tsunami: occurrence, risk and self-protection | Department of Mineral Resources |
| Tuesday 10 June, 2025 | | |
| 09:00 – 12:00 | Topic 7: Geologic Disaster: Earthquake: occurrence, risk and self-protection | Chulalongkorn University |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 14:30 | Topic 8: Geologic Disaster: Subsidence and sinkhole: occurrence, risk and self-protection | Department of Mineral Resources |
| 14:30 – 16:00 | Topic 9: Technology: LIDAR technology for management | GIS Co., Ltd. |
| Wednesday 11 June, 2025 | | |
| 09:00 – 12:00 | Topic 10: Geologic Disaster: Coastal Erosion Occurrence and management | Department of Mineral Resources |
| 12:00 – 13:00 | Lunch | |

| Time | Topic | Instructor |
|--|--|---|
| 13:00 – 16:00 | Topic 11: Climatologic Disaster: Flood: occurrence, risk and self-protection and management | Royal Irrigation Department |
| Thursday 12 June, 2025 | | |
| 07:30 – 17:30 | Field Trip 1: One-day field trip: Earthquake Flood and Landslide: 1) Meteorological Department and 2) Department of Disaster Prevention and Mitigation, Bangkok | MU and visited Office Staff |
| Friday 13 June, 2025 | | |
| 09:00 – 12:00 | Topic 12: Management: Community-based natural disaster management | Mahidol University |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Topic 13: Management: Knowledge management in community for natural disaster preparedness and awareness and communication for natural disaster crisis and Mr. Awareness “a volunteer in a local area” | Mahidol University |
| Saturday 14 June, 2025 | | |
| ☒ Social and Cultural Activities: <i>MBK/ Pratunam/ Platinum Fashion Mall - Bangkok</i> | | |
| Sunday 15 June, 2025 | | |
| ☒ Social and Cultural Activities: <i>1) Mae Klong Railway Market (Hoop Rom Market) (Unseen Thailand) 2) Amphawa Floating Market - Samut Songkhram province</i> | | |
| Monday 16 June, 2025 | | |
| 09:00 – 12:00 | Topic 14: Management: Incidence Command System (ICS) | Department of Disaster Prevention and Mitigation |
| 12:00 – 13:00 | Lunch | |
| 13:00 - 16:00 | Topic 15: Management: A new Disaster Management agenda | Department of Disaster Prevention and Mitigation |
| Tuesday 17 June, 2025 | | |
| 09:00 – 12:00 | Topic 16: Management: Prevent loss of life and damage to critical infrastructure | Royal Irrigation Department |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Topic 17: Management: Social network for warning disaster | National Electronics and Computer Technology Center |
| Wednesday 18 June, 2025 | | |
| 09:00 – 12:00 | Topic 18: Management: Urban risk-disaster management | Bangkok Fire and Rescue Department |
| 12:00 – 13:00 | Lunch | |

| Time | Topic | Instructor |
|---|---|-----------------------------------|
| 13:00 – 16:00 | Topic 19: International Managements: Hyogo framework for disaster risk reduction | Mahidol University |
| 19-20 June, 2023 | | |
| 07:30 -17:30 | Field Trip 2: Two-day field trip (1 night): Environmental Management for Natural Disaster Reduction: 1) Baan Khun Samut Chin Community, Samut Prakan Province, 2) Space Inspirium and 3) THEOS Control and Receiving Station, Chonburi Provinces | MU Staff and local administration |
| Saturday 21 June, 2025 | | |
| <ul style="list-style-type: none"> ☒ Social and Cultural Activities: 1) <i>Ayutthaya Elephant Palace & Royal Kraal</i> 2) <i>Wat Mahathat - Phra Nakhon Si Ayutthaya province</i> | | |
| Sunday 22 June, 2025 | | |
| <ul style="list-style-type: none"> ☒ Social and Cultural Activities: 1) <i>Khao San Road</i> 2) <i>Chinatown - Bangkok</i> | | |
| Monday 23 June, 2025 | | |
| 09:00 – 12:00 | Workshop: Field Trip Discussion | All Lecturers |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 16:00 | Country Report Presentation 1 | All Lecturers |
| Tuesday 24 June, 2025 | | |
| 09:00 – 12:00 | Country Report Presentation 2 | All Lecturers |
| 12:00 – 13:00 | Lunch | |
| 13:00 – 14:00 | Course discussion and overall conclusion | All Lecturers and Staff |
| 14:00 – 15:00 | Closing Ceremony <ul style="list-style-type: none"> ☒ Report by Course Director, Faculty of Environment and Resource Studies ☒ Speech by Director of Thailand International Cooperation Agency (TICA) ☒ Certificate presentation and closing speech by the President of Mahidol University ☒ Group photo | All Lecturers and Staff |

*** Please note that the schedule is subject to change.**