

THIRD COUNTRY TRAINING PROGRAMME

**Training Course on
“Health and Geographic Information System”**

6 – 17 February 2012

**To be conducted by
Thailand International Development Cooperation Agency
(TICA), Ministry of Foreign Affairs of Thailand in collaboration with
Technical Cooperation Directorate
(TCD), Ministry of Foreign Affairs of Singapore**

**International Training Course on
“Health and Geographic Information System”
Faculty of Environment and Resource Studies, Mahidol University**



1. Course Title

Health and Geographic Information System

2. Duration

6 – 17 February 2012

3. Background and Rationale

An uncertain world environment has forced national leaders to re-assess medical support requirements. Changes in global climate, disease patterns, epidemiology, coastal zone erosion, natural disasters and complex emergency events such as avian flu, SARS, dengue, malaria, AIDS have emphasized the central role to be played by the healthcare community in helping to mitigate the impact of these threats. Recent advances in technology have enabled the visualization of these distributions through the use of Geographic Information Systems (GIS) and have since become an indispensable tool both in research and practice in public health and environmental management. A strategy to prevent their emergence is the key to ensure safety from these deadly diseases. These diseases emerge due to various spatial factors such as climate, environment, water quality and management, education, air pollution, natural disasters, social and many others. There is a need to understand the spatial relationship and impact of these factors on the human health.

Environmental management and impact of human health have been an active area of study, research, training and teaching of the Faculty of Environment and Resource Studies. The Faculty is concerned with all stakeholders: environmentalist, scientist, palaeoenvironment, dendrochronologist, epidemiologist and those involved with human health impact. For these reasons the Faculty of Environment and Resource Studies intends to organize a training program in Health and Geographic Information System. This program will provide an understanding of the principles of health related with environment, to integrate GIS tools in research of environment and public health practice. The lectures will cover the community participatory management in environmental problem and healthcare. The course will rely on the expertise that the Faculty has gained through hands on research and also on the experience of Thailand over the last decade in tackling this issue. State of the art GIS techniques will be disseminated and the current challenges faced will also be debated. It is expected that this program based on practical experiences in Thailand will be of use to countries' participants in the future.

In addition, this course will also provide relevant information and experiences of the development and movement of health and GIS system in Thailand. The Royal Thai Government in collaboration with the Government of Singapore responded to the emerging health crisis by undertaking radical health system reform that reflects responses to past crisis in health and GIS from last few years. Hopefully, the topic of this current issue will be useful for countries participants in the future.

4. Objectives

4.1 To introduce the concepts and principles of epidemiology, health and geographic information system

4.2 To develop well-educated people who have basic knowledge concerning health, GIS and control and environment management.

4.3 To share the practical knowledge and technology of disease prevention and control, Geo-Health and experience on integrating of GIS technology with health problem.

5. Course Contents

5.1 Course Outline

1. Overview of Geo-informatics and health application
2. Climate Change Impact on Dengue fever in Thailand using spatial analysis
3. Overview of Geo-informatics
4. Overview of Epidemiology
5. Climate Change Impact on human health using spatial analysis
6. Geo-informatics on Environmental Issues
7. Animal behavior and its impact on human health using spatial analysis
8. Climate Change Impacts and Health: GIS and Spatial Modeling
9. Integration of GIS technology in Health Care system and service
10. Using GIS informatics in biomedical research and in public health
11. Risk and Health Impact from Environmental Disaster

5.2 Workshop/Practices

Case studies on health and geographic information system

5.3 Study Trips/Field Trips

Two - day field trip in the topic of “integrated Health and GIS applications” at Chonburi Province

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.

- a) The current situation on public health, epidemiology and GIS and the emphasis on application to public health, epidemiology, healthcare and environment in your country

- b) Country policy related to communication and non-communication disease control
- c) The best available technologies/ practices related to public health, epidemiology, and healthcare
- d) Lessons learned from past practices of GIS, environmental management and public health
- e) The prevention, rapid surveillance systems that used to control sites in your country
- f) The current situation on health problems, technology and its application in your country

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 17 January, 2012

6. Number of Participants

6.1 Total Number of Participants: 22 persons

6.2 Participants' Criteria:

- Age: Less than 45 years old
- Work experience in related field in Health more than 2 years.
- Education: Equivalent to Bachelor Degree or higher degree
- Language: Good command in English

7. Invited Countries

ASEAN countries and Timor -Leste

8. Venue

Faculty of Environment and Resource Studies, Mahidol University

Accommodation: 1. Salaya Pavilion Hotel at Mahidol University, Salaya Campus

2. at the field site for 1 night

9. Expected Outcomes

Expected key results for participants after completion of the training course:

- Basic knowledge of health and geographic information system
- Meaningful information about advanced technology for mapping, assessment, monitoring and management related to epidemiology and environmental disaster in Thailand and participants' countries
- Better understanding of further applications through field trips
- Information about current Laws, Regulations and Policies of prevention, rapid surveillance systems and environmental management in Thailand and participants' countries

10. Evaluation

- No paper examination after completing this training
- Participant must attend the class, workshop, presentation and field trip for no less than 80% of total training period.

11. Institution

11.1 Executing/Implementation Agency

- Implementation organization:

Faculty of Environment and Resource Studies, Mahidol University

- Staff availability:

25-30 Lecturers will involve in this training, both in-class and field lecturers.

30 Supporting staff/general assistants will be in charge in this training.

- Training material:

Handouts, CDs and other documents related to course topics will be given/available to trainees.

- Equipment:

Computers, printers, LCD, media equipment and laboratory equipment are available

- Other facilities:

Phone, fax and internet access are available

- Accommodation:

Salaya Pavilion Hotel at Mahidol University, Salaya Campus

- Address:

Faculty of Environment and Resource Studies, Mahidol University
999 Phuttamonthon 4 Rd., Salaya, Phuttamonthon,
Nakhon Pathom 73170, Thailand

- Course leader:

Assoc.Prof.Dr. Kampanad Bhaktikul
Dean of Faculty of Environment and Resource Studies
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- Course coordinator:

Dr. Kanchana Nakhapakorn
Lecturer
Tel: 0 2441 5000 ext. 1240
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- Contact person:

Miss Laksanavadee Jaturapat
Head of Research and Academic Services Section
Tel: 0-2441-5000 ext. 2108-2110
Fax: 0-2441-9509-10
E-mail: enljt@mahidol.ac.th

11.2 Collaborative Organization

- Faculty of Public Health, Mahidol University
- Ministry of Public Health

12. Allowance and expenses

(I) The following allowances and expenses will be borne by the Royal Thai Government:

1. An economy class electronic air ticket ¹ (e-ticket) from an appropriate international airport to Suvarnabhumi International Airport will be sent to each participant by facsimile or e-mail upon receiving completed acceptance form of each participant. A return air ticket will be issued to each participant one week before the course ends. Participants should not buy air tickets themselves and should be advised that if they do so, the cost cannot be reimbursed.
2. The Faculty of Environment and Resource Studies, Mahidol University has already arranged the staff to pick up all participants upon your arrival at the Suvarnabhumi International Airport.
3. Each participant will receive a daily allowance of 500 baht to cover meals, local transportation and other personal expenses. Accommodation will be arranged by the Royal Thai Government and all participants will stay at the same place. It is suggested that each participant bring some pocket money to cover the expenses before the allowance is paid.
4. Participants should be in good health and must not have any health condition which may require treatment in Thailand during the course. Medical insurance for participants to cover accident and hospital treatment will be borne by the recipient government.
5. The Royal Thai Government will provide transportation for the authorized field trips undertaken as part of the course.
6. Participants shall make their own arrangements for any financial matters of private nature not provided for by TICA.
7. The Royal Thai Government will not be indemnified or liable for illness, accident, disability and loss of life resulting from participation in the programme.

(II) The expenses to be borne by the Government of Singapore:

The Government of Singapore will be responsible for the despatch of Singaporean lecturer.

13. Application procedures

1. Applicants interested in participating in the course must be nominated by their governments and must submit 3 (three) copies of the completed nomination forms to the Royal Thai Embassy or Consulate in their respective countries before the closing date for application, and send one (1) copies directly, as soon as possible, to

Director

Countries Partnership Branch (Bilateral and Trilateral),

Thailand International Development Cooperation Agency (TICA),

Ministry of Foreign Affairs,

962 Krung Kasem Road, Bangkok 10100

Tel. + 66 (2) 281 2623 Fax +66 (2) 281 1002 or +66 (2) 281 7125

2. In general, each country may nominate up to 4 (four) nominees. Only 2 (two) nominees will be selected for the course.
3. The Royal Thai Government will inform the nominating government (or relevant authority) whether or not the nominee(s) have been accepted for the course, four weeks before the course starts.

¹ For the courses of 1-week duration, a roundtrip ticket will be sent to each participant.

14. Other Information

Participants are required to observe the following regulations:

1. Participants may only stay at places designated by the Royal Thai Government.
2. Participants are required to observe strictly on the course schedule.
3. Participants are requested not to bring any member of their families. The living allowance paid by the Royal Thai Government is sufficient only to cover normal living expenses for one person. No allowance of any kind will be paid for their dependents.
4. Participants are required to arrive in Thailand on the date as designated by TICA after its confirmation of acceptance.
5. Participants must return to their home countries after the course completion at the scheduled date. Participants are required to fly only on the route designated and must not make any alterations. Please be informed that the maximum allowable baggage that can be loaded on flights is 20 kilograms. Participants will be responsible for any cost incurred in exceeding this limit.
6. Participants must observe the rules and regulations of the training institute.
7. Participants must refrain from engaging in political activities, or any form of employment for profit or gain.

15. Contact Persons (TICA)

If the participants wish to obtain more information about the training course, please contact TICA staff as follows:

1. Miss Piyavan Rakpanich

Thailand International Development Cooperation Agency

962 Krung Kasem Road, Bangkok, Thailand 10100

Tel. + 66 (2) 2035000 ext: 42411 Fax + 66 (2) 2035001 ext: 42400

Email : piyawanr@mfa.go.th