

Seconded to Asian Institute of Technology

By
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Several months have already passed since I have been seconded to Asian Institute of Technology (AIT), located in the suburb of Bangkok, Thailand. When I arrived, January semester had already started. I took over the class shared with another instructor, and finished final examination by early May. Because AIT has a two-semester system, the period from early May to early August is summer vacation for students. They seem to enjoy studying and staying at their home.

I'm seconded to Remote Sensing and GIS Field of Study, School of Advance Technology as an expert of Japan International Cooperation Agency (JICA). Dispatch of JICA experts to AIT by Japanese government started in 1969. Experts for long-term, i.e. more than six months, amount to 118 persons. Most of the experts have been seconded to departments related to civil engineering as they have expertise in the same field. At present, AIT has only two JICA experts. To date, Japan has contributed greatly to the improvement of AIT, especially in the fields of civil engineering. However, Japan started to withdraw support to AIT gradually as well as United States and Germany, which used to be important supporters for AIT. Other than JICA experts, there are other Japanese faculty members, four directly hired and three seconded by other institutes of Japan.

Regarding remote sensing, AIT has continued an outstanding position among the Southeast Asian countries. AIT has a "Geoinformatics Center" consisting of two divisions. One of them is "Asian Center for Researches of Remote Sensing", a research-oriented division. The other is "GIS Application Center (GAC)", a training-oriented division. Geoinformatics Center has two antennas for receiving satellite data, supported by Institute of Industrial Science (IIS), University of Tokyo. The received data are processed and distributed to IIS under several joint

projects between AIT and IIS. I am working at the Geoinformatics Center most of the times. As staffs are from many countries, e.g. Thailand, Vietnam, India or Sri Lanka, I enjoy talking and sharing a considerable amount of information with them.

From a research viewpoint, I've started fundamental researches related to disaster mitigation. This year, Thailand had severe drought in almost all of provinces. I cite some articles from Bangkok Post, an English newspaper published in Thailand.

Sugarcane plantations covering over 60,000 rai in three districts of Suphan Buri are dying as water supply from the local Kra Seaw dam stopped for the first time yesterday due to severe drought. Agricultural areas in Doembang Nangbuat, Nong Yasai and Sam Chuk districts also depend on water from the earth dam, which is located in Dan Chang district and has a capacity for storing 240 million cubic metres of water. The 4.25-kilometre-long dam blocks the Nam Seaw River which flows from Uthai Thani. Only 20 million cubic metres (cu/m) now remained in its reservoir so the dam must stop discharging water for cultivation and keep the water to maintain its own physical condition, according to Thongthos Nokchan, the dam's irrigation and maintenance chief. (March 21)

The number of provinces suffering from drought has been reduced from 72 to 16 by rain-making operations, Agriculture and Cooperatives Minister Sudarat Keyuraphan said. Of these only four or five, including Chumphon and Surat Thani, were now badly affected as there was insufficient water for agricultural use. Cloud-seeding would now focus on these areas. A total of 1,070 seeding flights to relieve the dry spell were made from nine rain-making centres from March 15 to April 9. On April 9 alone, rain was reported in 30 provinces: eight in the North, six in the Central Plain, seven in the

Northeast and nine in the South. (April 11)

Remote sensing can be a powerful tool for drought monitoring because onset of drought is gradual and can be detected by long-term monitoring. In order to develop a drought monitoring system, I started with field measurements to model the phenomenon on the surface from remotely sensed data. Finally, I'd like to contribute to the mitigation of such severe disasters through remote sensing technique for two-year stay in Thailand.

(by J. Susaki)



Drying dam in Nakhon Ratchasima province (Upper: April 23, Lower: June 11, 2005)



Seeding into dry paddy fields in Buri Ram province. Farmers are eager for rain. (June 12, 2005)