Kanchanaburi Demographic Surveillance System (KDSS): Operation and Networking Strategies

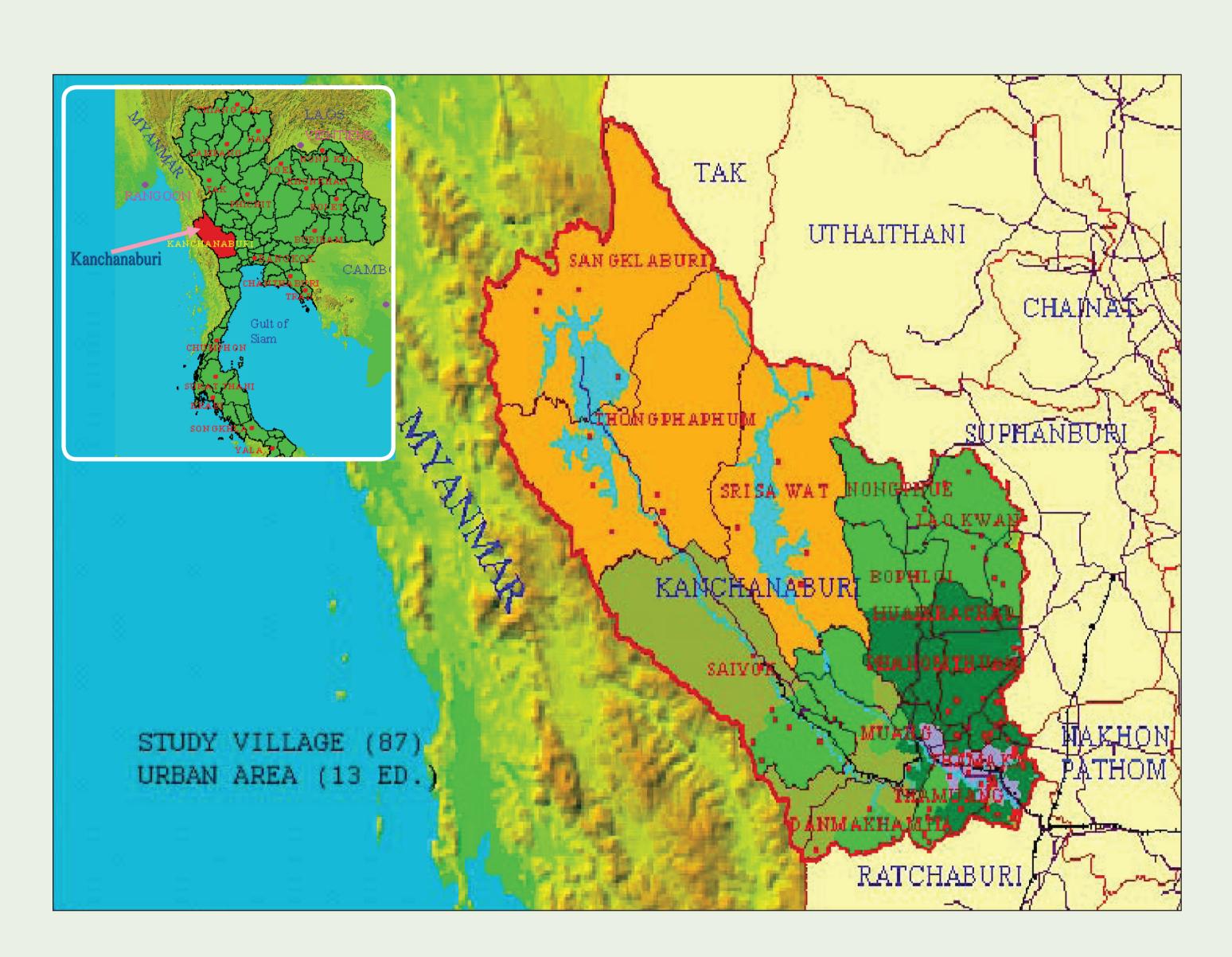## Institute for Population and Social Research, Mahidol University, Thailand

History and Location

With support from the Wellcome Trust of the United Kingdom, the Kanchanaburi Project commenced in January 2000. It is implemented by the Institute for Population and Social Research (IPSR), Mahidol University, Thailand. This project has as its main aim the establishment of a field research and training centre dedicated to the monitoring of population change and the evaluation of the effects of intervention-based research.

Kanchanburi is a province in the western part of Thailand. It borders Myanmar and is located approximately 120 kilometers from Bangkok, the capital city of Thailand. Kanachanburi, one of the largest provinces of Thailand, has a population of almost one milllion and has a diversified economy that includes tourism, industry and agriculture.

Demographic Survelliance

The central component of the project is an annual enumeration of all households and individuals aged 15 years and over in the field site communities. The annual enumeration was undertaken from 2000-2004. Subsequently, enumeration has been undertaken every years. The study units are 100 villages/census blocks distributed throughout Kanchanaburi province.

STUDY VILLAGE (87)
URBAN AREA (13 ED.)

Data collected

The Kanchanaburi DSS database includes both spatial and social data. The spatial data are in forms of aerial maps of the communities and their surrounding. The social data are community, household and individual level data. Community and household databases have been constructed and incorporated within a Geographic and Information System (GIS). The social data is in a relational database based on MySQL.

The population in the field site communities includes approximately 12,000 households, 45,000 household members and 28,000 individuals aged over 15 years old.

Capacity Development

To increase regional research capacity, KDSS has started a scheme to have more researchers focusing on use of data. This includes the appointment of one-year post-doctoral fellows and short-term research fellows. Research undertaken under this mechanism include:

- Dynamic interface between demographic transition and livelihood diversification in KDSS
- A Gender synthesis on NCD Risk factors: evidence from KDSS
- The impact of migration on the nutritional status of children left behind
- The impact of household economy and household migration on education trajectory of Kanchanaburi adolescents
- Intended and unintended pregnancies: experiences from the Kanchanburi DSS, Thailand 2000-2004

The Kanchanaburi DSS has promoted networking in the areas of population and health. This includes providing data for researchers who request to use the data in collaboration with IPSR staff, hosting researchers from other countries in visits to the Kanchanaburi field site and also visits to field sites by Kanchanaburi field staff.

Within Thailand, the KDSS is also well known and the models and methods of the KDSS have been transferred to other organizations working in the field of population and health in Thailand. Staff associated with KDSS have also used their skills learned from KDSS in helping other development organizations, such as the Royal Project in Doi Tung in Northern Thailand, improve their program monitoring systems.

Networking

The first priority for building networks has been within the field sites. Results from the research are disseminated to the local communities.

Research networking has also been undertaken with academic institutions in Thailand and internationally. This networking has led to a number of collaborative projects. Currently there are three major ongoing research projects in the Kanchanaburi DSS. The first is a research project with the Institute of Psychiatry King's College London, on "Depression, disability and socio-economic position among older adults left behind". The project is supported by the Wellcome Trust, U.K.

The second project is with the Department of Public Health, Tulane University, supported by NIH, USA on "Rural-to-urban migration and health outcomes".

The third project supported by the Rockefeller Foundation, is in collaboration with the Pattanarak foundation in Thailand. The project uses the DSS data as a tool for program intervention "Participatory assessment of the integrated health interventions for people living on the Thai/Myanmar border".

The Kanchanaburi DSS is an active member of the INDEPTH network. The network supports work in collaboration with other Demographic Surveillance System sites in the Asia-Pacific region. Ongoing projects associated with this collaboration are:

- Non-Communicable Disease (NCD) Risk Factors in Asia: A collaborative Study Among INDEPTH Network sites
- Developing a prototype for data showing building capacity in data management across India, Thailand and Papua New Guinea

To further transfers skills. the Kanchanaburi DSS organized regional conferences in 2004 and 2007 on longitudinal data analysis. These conferences built regional networks and helped development capacity. The conferences attracted about 150 participants, including those from other Demographic Surveillance System Sites in Asia-Pacific region. Twenty-eight papers were presented at the 2007 conference. Selected papers from this conference will be published in a special volume of the Asia-Pacific Population Journal. The two regional conferences have also contributed towards promoting collaboration on data collection, analysis and utilization of results from demographic surveillance systems.

Research outputs

There have been a wide range of research outputs from the KDSS. These include paper presented at conferences, dissertations and theses, and papers for publication.

Output from KDSS : 2001-2005

- Baseline Reports - 5
- Reports of Related Research - 18
- Publications in International Journal - 11 (and 10 are sent for review)
- M.A. theses - 25
- Ph.D. dissertations - 20 (including 9 on-going dissertations)
- Conference Papers - 43
- Post-doc/Research fellow - 5