

CHAPTER IV

GENERAL CHARACTERISTICS OF THE STUDY AREA

This chapter presented the result of the study on “general characteristics of the study area”, which shall be introduced separately into three parts as follows:

4.1 Location of the study area

Dong San Village is located in Akat Amnuai District of Sakon Nakhon Province (Figure 4-1). The village is about 786 km from Bangkok and about 76 km from Maung District, the center of Sakon Nakhon Province. The village area joins the Songkhram River and covers a rich but degraded river and flooded forest ecosystem, known in Thai as “*Paa Bung Paa Thaam*”. The area is a complex wetland ecosystem that includes a range of wetland habitats from rice fields, rivers and streams, to floodplains and seasonal ponds. It has provided plentiful natural resources which allow human civilisations to flourish in the village. In recent times, this village has favorable condition to benefit from agro- biodiversity and seasonally flooded forest. The location of study site is shown in the map below.

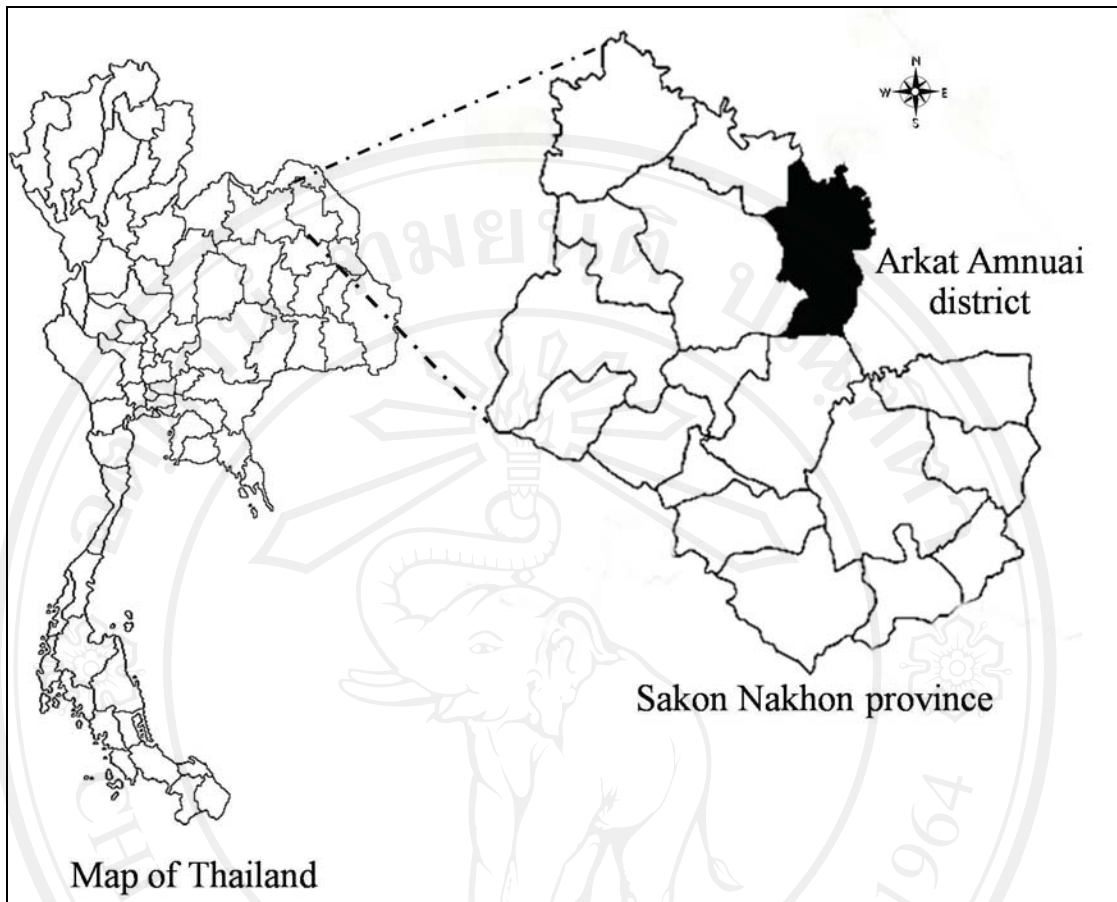


Figure 4-1: The study area

4.2 Climate, topography, and hydrology

Dong San Village experiences a tropical, semi-arid climate, with three distinct seasons. There are six to seven rainy season months (May-October). The rainy season normally peaks in August to September, when floods reach their maximum extent. The cool season extends from November to February. The hot season extends from March to mid or late May, if the rains arrive late. The total land area of the village is 740 hectare. The village is part of the catchments (Figure 4-2) of the Songkhram River, is just about 2 km to Songkhram River in North of village. So, the village has a direct impact on the extent of flooding of the Songkhram-Mekong River confluence

during rainy season (Figure 4-3 and 4-4). This hydrological conditions cause extensive flooding for 2-4 months a year, forming one massive shallow lake covering an area of about 4,000 rai (640 ha) in the upper North of Dong San Village.

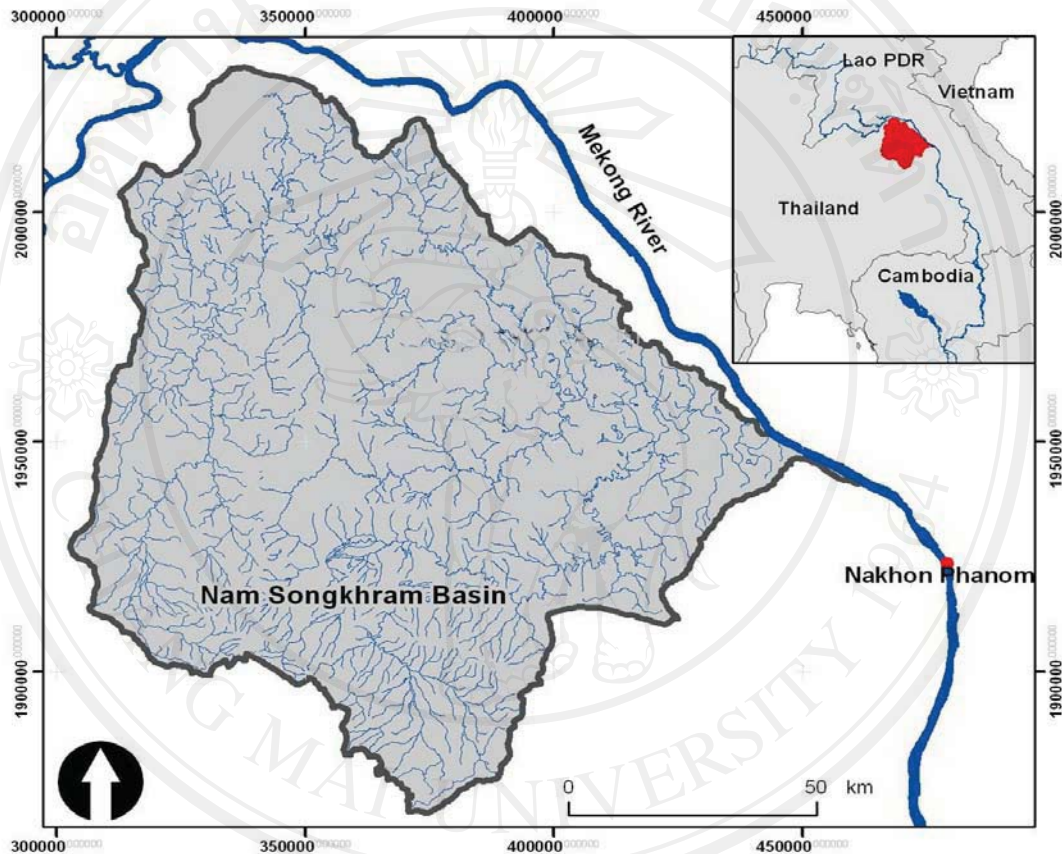


Figure 4-2: Songkhram river Basin (Blake *et al.*, 2006)

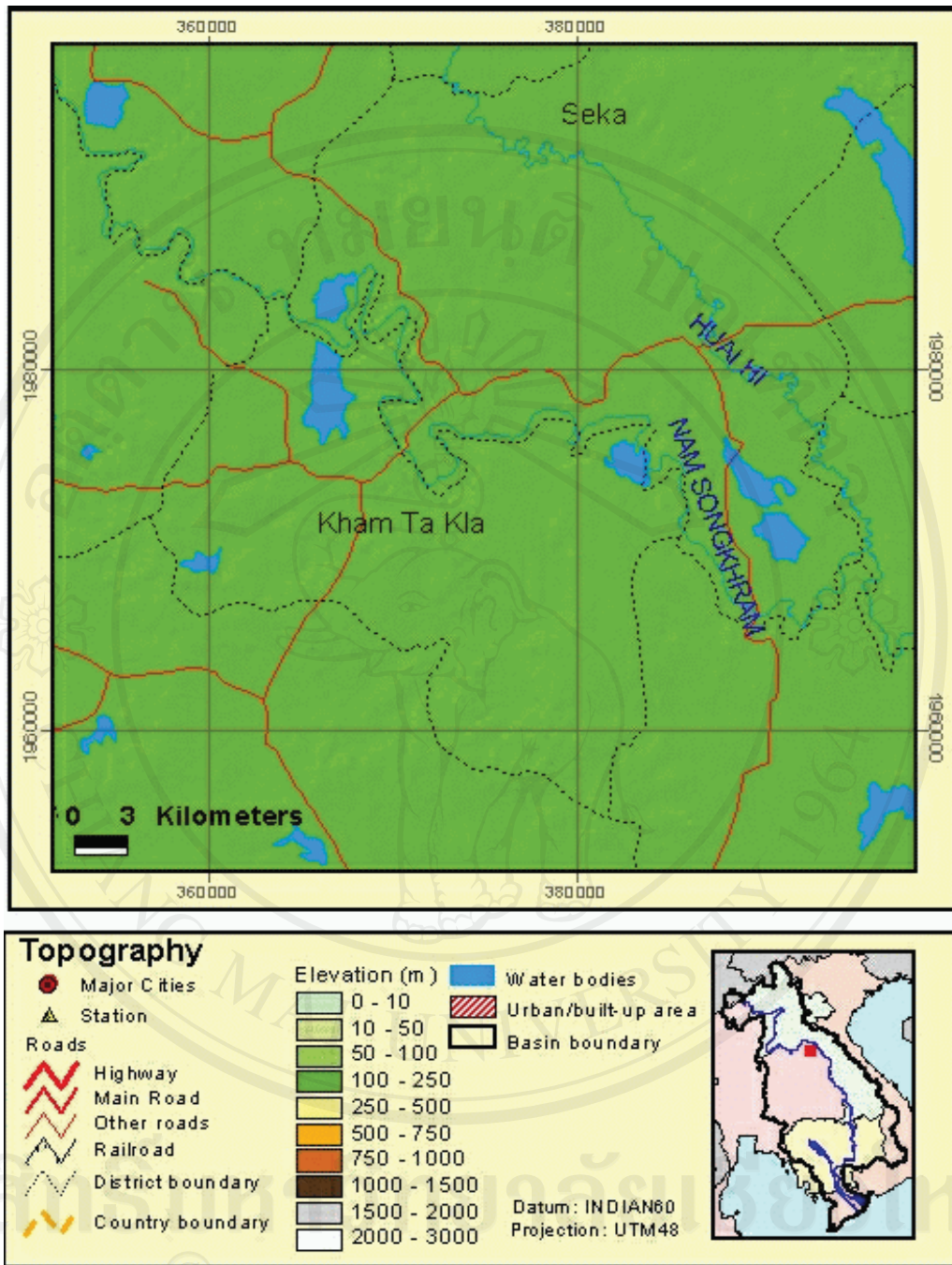


Figure 4-3: Topography of study area
Source: Technical Support Division, Mekong River Commission Secretariat, 2008

The Songkham River providing water for large reservoir, namely Kud Sew.

The village has one irrigation reservoir namely Nhong Mak Saeo Yai with a surface water area of 112 ha (700 rai) providing water for agriculture production and also for

domestic use. However major source of water for domestic use of local villagers is from open shallow and deep wells.

Major soil types in the village are mostly associated with alluvial soil types on the floodplain, levees and lower terraces surrounding floodplain with silty clays, clays and clay loams dominating.

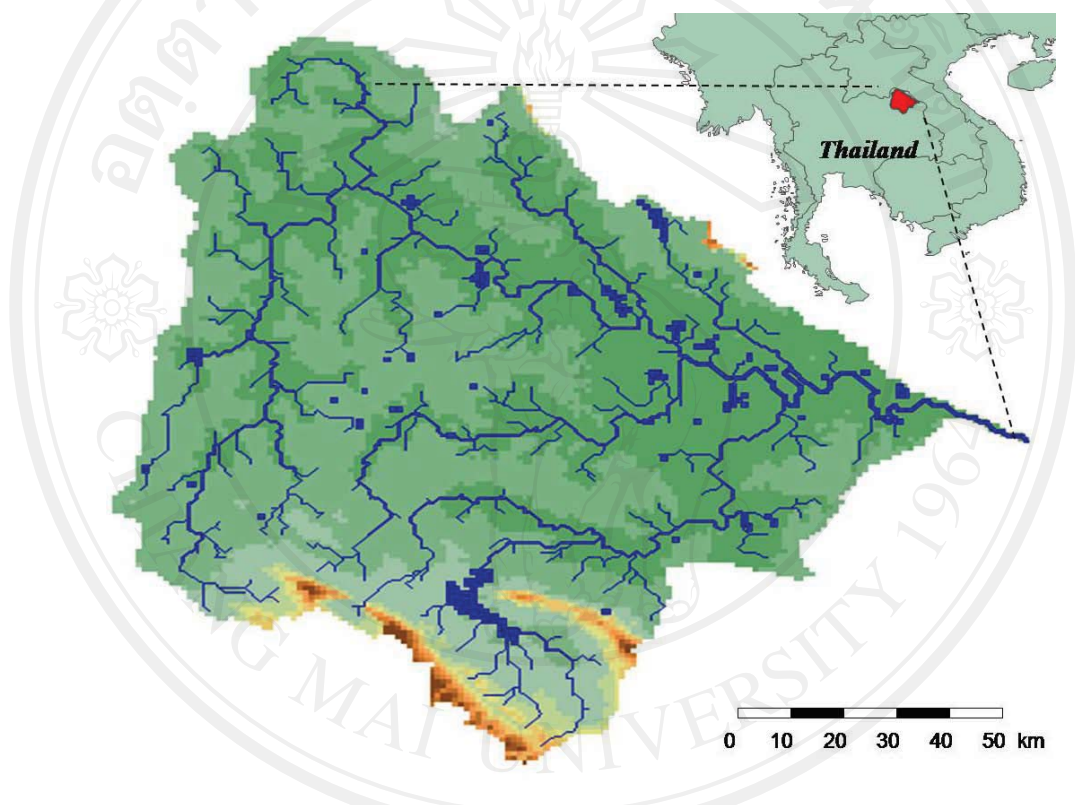


Figure 4-4: Hydrology of study area (Veijalainen *et al.*, 2007)

4.3 Demographic characteristic

4.3.1 Population and ethnicity

Dong San village has been a stable community for over 100 years. In 1897, most area of the village is covered by natural forest. Most people were living mainly based on agriculture and forest activities. After 1977, people from other area arrived from other part of the region to the village to open land for agricultural purpose.

Large forest area has been converted to agriculture. The population of the village increased rapidly over the last decades due to free migration from other provinces to this area. At present free migration is declining, as no longer possible to expand cultivation. Currently, the village has a total population of 251 households with 1,079 persons. There are three ethnic groups (Tai Yoh, Tai Lao and Tai Soh) living here and majority of them are Thai Yoh people.

Table 4-1: Population in Dong San village in year 2007.

Hamlet No.,	Households	Sex			Age				
		Male	Female	Total	≤13	14-20	21-40	41-60	≥61
1	42	103	80	183	43	25	64	43	8
2	41	89	79	168	33	34	52	41	8
3	21	54	48	102	25	11	34	19	8
4	14	31	35	66	17	11	23	12	3
5	49	106	100	206	65	28	61	38	12
6	30	69	66	135	28	15	55	24	4
7	54	123	96	219	51	25	82	45	17
Total	251	575	504	1079	262	149	371	222	60
%	100	53	47	100	24	14	34	21	6

Source: Bongbud *et al.*, 2007

Dong San village consists of 7 hamlets numbering from hamlet 1 to hamlet 7.

Population distribution among the 7 hamlets of the village is not equals. The hamlet 7, has the highest population and lowest population is found in the hamlet 4 (Table 4-1). About 70 % of population was working age and the aged population (over 60 years) was about 6 %.

4.3.2 Health care and education

The secondary data in the village shows that Dong San village has no a health centre, people have to go to neighbor communities such as Nong Sam Kha village and Phone Ngam village, is about 8 and 12 km respectively for access to health center. There is only a “Dong San school” located in the village with the total number of 11 class rooms with 11 teachers and 3 staffs. The total number of pupils in year 2007 is 272 pupils as provided in Table 4-2. For higher secondary school, village children have to go to the schools in sub-district and district center. The education status of the sampled population in the village will be further discussed in the section on household characteristics of the report.

Table 4-2: Education statistics in Dong San Village in year 2007.

Classes	Class rooms	Number of pupils		
		Male	Female	Total
Kinder garden	2	30	14	44
Primary (1-3)	3	45	29	74
Primary (4-6)	3	46	30	76
Lower secondary (1-3)	3	37	41	78
Total	11	158	128	272

Source: Office of The Basic Education Commission, 2007

4.3.3 Religion and beliefs

Dong San villagers are Buddhist. Most of the villagers (80%) believe in the sprit system. Today the rite is performed and observed annually by villagers are;

- *Pi Ta Haek* (a spirit) takes care of the rice paddy. The *Pi Ta Haek* ritual falls on the sixth lunar month before the start of the rainy season. Spirits play a significant role in village social control, particularly through the elderly. The term

Pid Pi, (doing something wrong to the spirit or making the spirit angry) explains the unacceptable behavior and negative consequences in a family or in the community.

- *Pi Na* (rice paddy spirits), the sacred rite is performed according to traditional beliefs, usually in the sixth lunar month. Farm yields are said to depend on performing these rituals.

- *Pi Pu Ta* (nature guardians) the villagers use the name *Por Pu* instead of *Pi Pu Ta*. The villagers have rules to protect the sacred land and natural resources. No one can cut trees at the *Don Pu Ta* where the shrine of *Pi Pu Ta* is located. The villagers perform a ritual ceremony in the sixth and twelfth lunar months to pay respect to *Pi Pu Ta*.

- *Pi Tai* (*Pi Thewada* or angel spirit) is the supreme spirit in the hierarchy. When villagers get sick, they go to the traditional spirit healer. In the third lunar month (February), those who follow the system observe the *Pi Tai* rite. They perform traditional dances and donate small amounts of money to the senior instructor in the *Pi Tai*. They must have flowers, incense, candles and money for the rite.

Besides these traditional spirit beliefs, the villagers observed Buddhist ceremonies and practice throughout the year.

4.4 Land ownership

Both public and private ownership land exists in the Songkhram Basin. The exact proportions of each type are unknown. Broadly speaking land title deeds in Thailand may be divided into 4 categories (Blake *et al.*, 2006):

1. Freehold title deed (*Chanote* or *Nor Sor 4*) – Grants the holder of this document full rights over the land

2. *Nor Sor 3 Gor* – Land awaiting a full title deed is awarded this document. The land is measured by the Land Department and therefore has exact boundaries recorded. This type of land may be sold, transferred or mortgaged, the same as land with full title deed (*Chanote*)

3. *Nor Sor 3* – This type of land it has never been measured by Land Department and hence the land has no exact boundaries. However, it may later be switched to *Nor Sor 3 Gor* and then *Chanote* after surveying by Land Department.

4. Possessory title – This type of land has never been substantiated by the Land Department and thus may not be bought or sold legally, but may be passed within a family as inheritance and is registered for tax purposes in the Local Administration Office. There is another form of land title common within the lowland floodplain of the Lower Songkhram Basin and some forest land on higher terraces, namely that administered under the Agricultural Land Reform Office (ALRO) schemes known as *Sor Por Gor* in Thai. Legally this land cannot be bought and sold, but can be inherited.

In study area, land was denoted as *Sor Por Gor* land in the early 1980s, prior to which it was classified as “public use land” or “vacant wasteland”. In fact, this land coincided with some of the last remaining tracts of seasonally flooded forest (*paa boong paa thaam*) and has since been converted to agricultural land, through various state subsidies granted to the landowners. This trend continues to this day, with strong push factors encouraging villagers to clear the remaining forest areas for agriculture or monocrop industrial tree plantations.

4.5 Brief history of resources management in Dong San village

Table 4-3, provides a brief summary of the primary problems /opportunities/ issues the study is addressing, and their primary causes / drivers in resources management:

Table 4-3: Major village changes in resources management.

Year	Context
1897	Dong San village was established.
1957	The government introduced of nylon fishing nets to village, replacing natural fibers.
1967-1976	Logging concessions and charcoal production cleared large areas of surrounding forests.
1977	Land in the “Thung Phan Kan” were obtained by the agri-business companies, large amounts of land were encroached to grow eucalyptus plantations or intensive tomato crops by companies.
1988	The paa thaam forest started to become degraded from being opened up to agriculture and intensive plantation by agri-business companies, conflicts with the Dong San community ensued. Villagers fought the company Suntech Ltd., over the return of some community land which the company had illegally bought and planted to eucalyptus plantations.
1995	Victories for the Dong San village, After a protracted court case, the community eventually won and the land was returned to the village.
1996	The village was established “Thung Phan Kan’s restoration group”.
1998	Agri-business company Suntech Ltd., permanently moved out from Thung Phan Kan.
2000	Set up conservation areas (Wang Pla) for fish.
2002	Awarded prize for fish conservation from Thailand Environment Institute (TEI).

Source: interviewed, 2008

Table 4-3: Continue.

Year	Context
2005	Later in year 2005, 201 ha (1,255 rai) of public forest Thung Phan Khan have been shared to 251 households and each claimant has about 0.8 ha (5 rai) of land.
2006	<ul style="list-style-type: none"> - Commercially-oriented fishing gears, factor which led to damaged fish species. - An earthworm was declined due to over harvested of Dong San village.
2007	Attempt to set up 50 rai Wang Pla in catchment of Songkhram River.

Source: interviewed, 2008