

4. Land Use and Concept of City Development

Basic information towards the land use and city development master plan:

Phitsanulok master plan, land use, and transportation systems are dominantly interrelated. Appropriate layouts of the city's land use will help very much eliminate traffic problems. On the contrary, transportation layouts will effect the formation of land use. Both of land use development and transportation development should be altogether planned in order to provide with better satisfactory result.

4.1 Roles and the Importance of Phitsanulok Province Physical Landscape of Phitsanulok Province and Community's Expansion

Phitsanulok has its own geographical strengths towards the varieties of transportation routes including cars, buses, railways, and air. The town itself performs effective development potentials towards a variety of arrays including service industries, tourist attractions, historical, cultural, and archeological sites as well as the agricultural production and its irrigation services.

Phitsanulok has been ranked by the City Plan Department as No.1 with its reputation towards its city planning which serve as the Northern region services center. The development of the town encourages the growth in various arena including public administration, economic growth, social development, education services, financial services, health services, tourism services, and agricultural services.

As the whole, Phitsanulok has its high potentials to serve substantial growths which will be able to serve the new investments, and new businesses to become flourish along its own province.

4.2 Physical Landscape of Phitsanulok Province and Community's Expansion

In general, Phitsanulok is divided by Nan River; the North and the South. The major transportation routes are the Highway No.12 which passes through tow between the eastern-western of the outskirt areas, and the Highway No.117 pass through the city between Northern and Southern sides.

The high density of population is gathered within the municipal areas of city district, especially the east of Nan River. Then, the density of population is scattered along Highway No.12 (Mittapab Rd.) Highway No.117 (Phitsanulok-Nakhon Sawan Rd.), Highway No.1086

(Phitsanulok – Prompiram Rd.), Highway No.1063 (Phitsanulok – Bang Kratum), and Highway No.1064 (Phitsanulok-Bung Pra Rd.)

The high density of the population and various services locate within the city district where there lay government organizations, public services, educational institutes, services center, and business centers. The density is on the east bank of Nan River where there locate shopping malls, well-known hotels, markets, pubs, restaurants, and other entertainment services. Various main streets: Baromtrai Lokkanart Rd., Ekatotsarot Rd., and Sri Thamma Tripidok Rd. which locate city municipal, educational institutes, airports, military camp 3, hospitals, and other residential buildings locate along the two sides of Nan River and perform substantial growths.

Apart from the central areas of Phitsanulok municipal authorities, various areas indicate substantial growths for example; the areas of Naresuan University (Nong Or Campus) which locates on the south bank of Nan River provide educational services to the locals and nearby provinces, especially the northern and lower-north regions. This type of development also tends to flourish around the areas of Rajjaphat Phiboonsongklam Institute (Tung Talay Kaew); however, different conditions of development are applied due to the town relocation, and the administration structures.

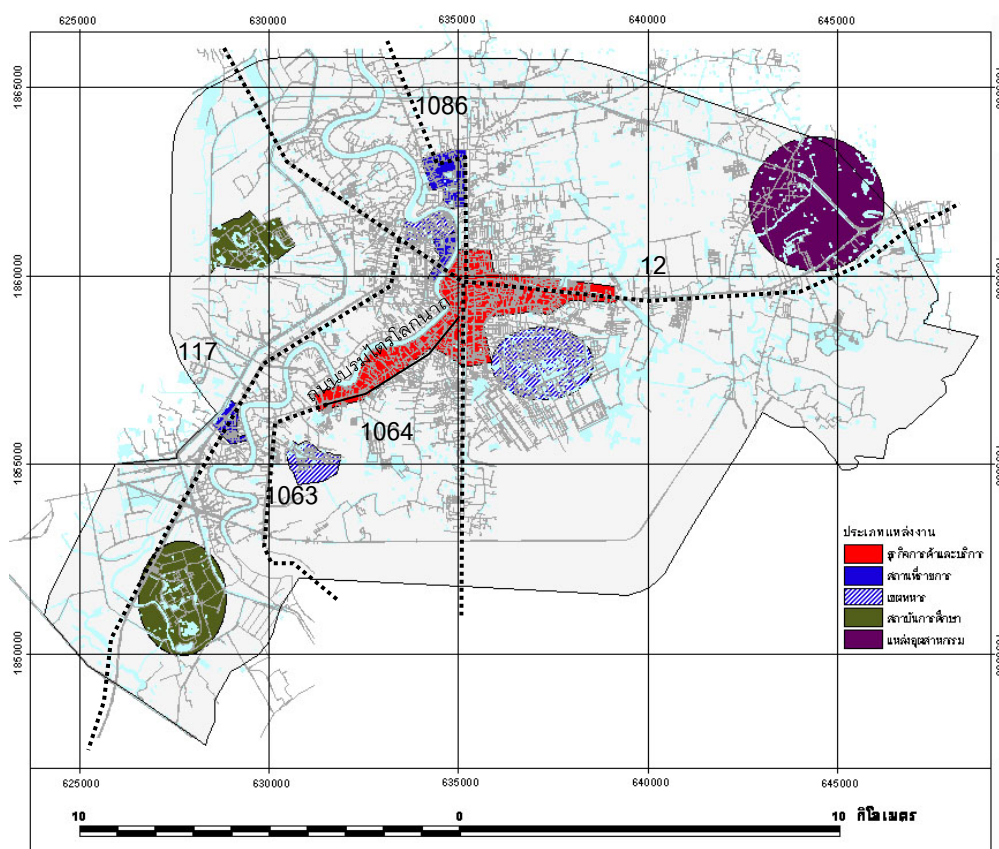


Figure 4.1 Major routes in Phitsanulok

4.3 Land Use

In 2003, the land use of Phitsanulok was operated as follows;

1. Residential Zone: It covered the areas of 15,627 Rais calculated as 9.67 of the total land use. The major residential areas include Baromtraï Lokkanart Rd., Ekatotsarot Rd., Sriharaj Deshochai Rd., Singhawat Rd., two sides of the Nan River, train station areas, along other collector roads, and the local roads.

2. Commercial Zone: It covered the areas of 840 Rais calculated as 0.52 of the total areas. Business areas were mostly located at the center of the city, along the east side of Nan River, especially around Baromtraï Lokkanart Rd., Ekatotsarot Rd., Sri Thamma Tripidok Rd, and scattered all around the residential areas, markets, and Night Plaza.

3. Industrial and Warehousing Zone: It covered the areas of 773 Rais calculated as 0.48 of the total areas. Most industries were SMEs including service industries and production industries which covered vehicle maintenances and automobile parts production, mechanical and electrical appliances production, soft drinks production, and other warehouses.

- Educational Institutes covered the areas of 3,176 Rais calculated as 1.9 of the total areas where there lay important educational institutes named Naresuan University, Rajjaphat Phiboonsongklam Institute, Technical College, Bung Pra Commercial College, Sarapad Chang College, Archeewa Suksa Phitsanulok College, Phitsanulok Pittayakom School, Chalermkwan Stree School, Anubarn Phitsanulok School, etc.

- Religious Institutes covered the areas of 752 Rais calculated as 0.47 of the total areas. Various temples were located along two sides of the Nan River including famous temple; Wat Prasri Rattana Mahathat (Wat Yai) where there lay the Buddha Jinnaraj Buddha Image, Arunyik temple, Chula-Manee temple, Jedi Yord Thong temple (Golden Pagoda), Nang Paya temple, Rajjaboonrana temple, etc including Christian churches, mosque, and other religious institutes.

- Government and other public services covered the areas of 13,720 Rais calculated as 8.49 of the total areas. These organizations mostly located on the central areas of Wang Chan Rd., the North of Ekatotsarot Rd., and others were scattered all around the city.

- Agricultural land use covered around the areas of 114,452 calculated as 10.80 of the total areas and scattered around the outskirts of the town and on the west side of Nan River.

4.4 Transportation and Land Use Relationship

Being placed strategically as a major economic hub of the lower North, Phitsanulok is substantial, inevitable impacted from the high density of population in town which resulted in poor traffic conditions due to improper and ineffectiveness in traffic system planning.

The future trend of the city expansion lay on the growths along the Highway No.12, Highway No.117, the outskirt areas both of the North and the South of Nan River, and along the two new bridges; Supun Kallaya Bridge, and Ekatotsarot Bridge.

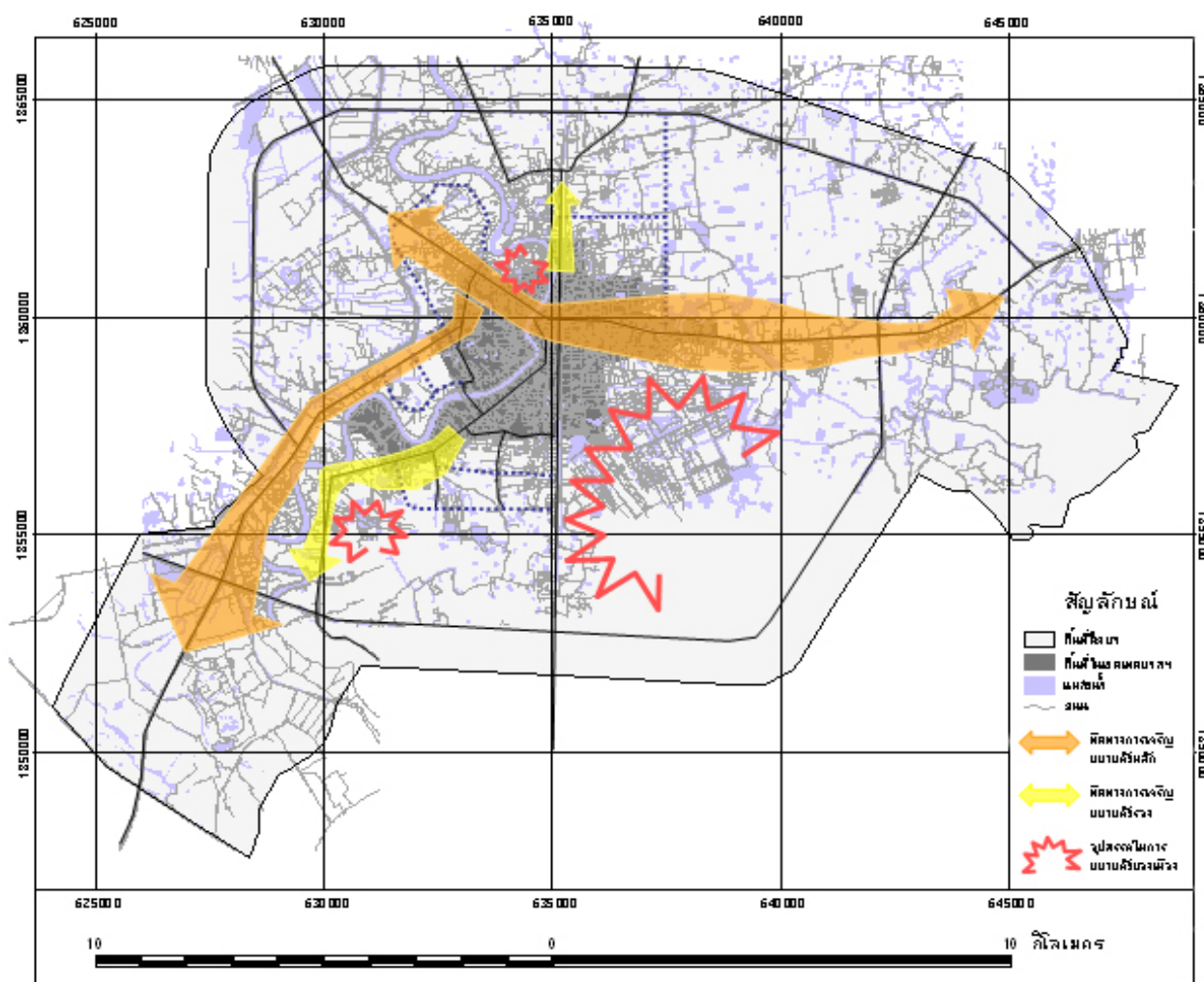


Figure 4.2 The future trend of the city expansion

Due to the city's substantial growths, various traffic problems arose. Partly, the damages occurred due to improper planning towards the land use. The problematic issues were listed as follows;

- Traffic problems occurred within commercial areas towards the main arterial routes.
- Inappropriateness traffic planning of the sub-arterial roads.

- High sensitivity of archeological sites located within town such as archeological sites near Naresuan Bridge.

From the studies, it was found that various traffic implementation plans are being conducted in accordance with the growths of the city. If those actions are put into serious practices, the traffic problems will continuously eradicated.