

Section **Study on Infrastructure Planning for Establishing Industrial Zone to Encourage Foreign Investment at Northern Areas of Laos by Systems Approach Method**  
- Case study at Luang Namtha Province -

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## 1. General background

Since power internal investment is considerably weak, foreign investment plays a crucial role in developing industries of poor countries like Laos. To enhance the investment especially in industries and services sectors, the government established investment promotion policies which could be a practical tool to facilitate the investment in integrated areas. These policies covers two main technical terms which could be defined as hardware and software. The hardware consists of increasing construction basic infrastructure includes transportation networks, power supply and water supply. While software mentions about fast and reliable services, and flexible taxation. Many local areas across the country are supported to enhance investment by strengthening their own advantages, particularly provinces which share borders with foreign countries.

Luang Namtha has some advantages of its location. This Northern Province shares northern and eastern borders with China and Myanmar, respectively; and southern and western borders with two other interior provinces – Bokeo and Oudomxay, respectively (figure 1). These four main external parts are linked to the central area of Luang Namtha by a pretty good road network. Therefore, trade could be run smoothly through those roads. Furthermore, many areas of this province are fertile lands for cultivation so various agricultural products can be produced here such as rice, rubber oil, sugar cane and fruits. These large volumes of products would be good raw materials for medium industrial like food processing. Many natural ores found in this region, such as gold, copper, lead and coal which will be vast potential factors for large mining industries. Consequently, central area of Luang Namtha province which is the hub of surrounding regions would be a appropriate place for establishing industrial zone (figure 2.)

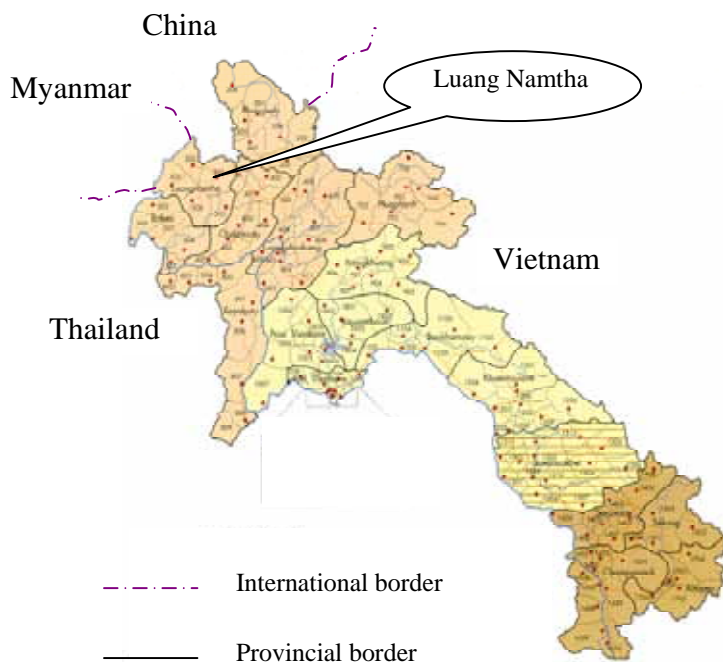


Figure 1. Study area



Figure 2. Proposed Industrial zone position

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However, current trading situation seem not to be active as it could be. Most farming activities are for self-consumption rather than for commerce. Because of lack of advanced technology and powerful internal investment, instead of producing completed goods with higher prices, agricultural products are sold directly in low prices. Such problem blocks the growth development from agricultural base to industrialization. The productivity is growing very slowly. Most products could not compete even in local market.

One of the most positive ways to deal with such problem would be establishing industrial zone where convenient facilities and reliable services for industrial investment are provided. If industrial zone is effectively managed, it could be an efficient tool for absorbing foreign investment. In this zone, not only the food processing will be active but other hard industries which use products from mining industries as in-put materials could also be promoted to increase their capability here.

## 2. Study Objectives

The main objectives of this study is to propose feasible and effective plans about how to invest more efficiently for infrastructure development – establishing industrial zones, to encourage the growth of industries in term of foreign investment in the northern part of Laos by applying advanced planning methodology and build up planning models.

## 3. Study procedure

### *Step 1. Analysis of condition*

First related data concerning society, economic indexes, geography and environment will be collected by reviewing reports and surveying. Then the problems will be clarified and defined as the subject of study. So the regional conditions should be judged synthetically by all the consecrations of the above analysis.

### *Step 2. Consideration of the analysis*

To master planning factors as following:

- the planning view
- the plan objective
- the plan subject
- the plan method
- the evaluation criterions

To describe and study the phenomena based on system approach:

- find the relationship between planning variables and objective variables
- make mathematical models for this relationship

### *Step 3. Consideration of the project*

- After setting up more concretely the subject, the object, the purpose and means of the plan assumed by step 2 of the point, we can describe a logical and regular “plan problem” by concrete and functional phrases.
- A mathematical plan model corresponds to the concrete contents of the plan problem expressed regularly first.

### *Step 4. Overall evaluation of the plan*

The alternatives are compared using the evaluation elements which were not able to be carried in the analysis of step 3. Synthetic and simultaneous evaluation is performed and the final solution plan is chosen.

## 4. Conclusion

The target of this research is to improve the living condition of people living in the research area. If investment for industries increases as a result of establishing industrial zone, people will gain more income; business will be performed more actively and overall economy in local areas will grow efficiently.