

IV JICA/OECF Joint Evaluation

Thailand

Eastern Seaboard Development Program

Project Sites

Laemchabang



1. Background and Objectives of Evaluation Survey

Through the Japan International Cooperation Agency (JICA) and the Overseas Economic Cooperation Fund (OECF; at present, the Japan Bank for International Cooperation (JBIC)), Japan had actively provided assistance to the Eastern Seaboard Development Program, which had been one of the most important issues of the Government of Thailand's National Economic and Social Development Plan since the 1980s. Development of the eastern seaboard region, which was promoted under a powerful initiative of the Thai government, is currently attracting domestic and foreign investment to the region and is spurring Thai industrialization.

Projects designed and planned during JICA's development studies were largely realized with yen loans, and the cooperation program in the eastern seaboard region is being held up as an example of a successful organic collaboration between technical cooperation and financial aid.

Given this background, because organization and verification of the planning and implementation process of eastern seaboard development, strengthening of collaboration between JICA and OECF, and extracting lessons for future regional development would be extremely beneficial for both JICA and OECF, JICA conducted this evaluation in conjunction with OECF.

However, there was a dissimilarity of interests regarding the evaluation: as opposed to JICA, which comprehensively analyzed the cooperation planning, the implementation process, and the results (impact of the cooperation) and evaluated feedback for the implementation of similar proposals in the future, the OECF evaluation focused on proving the utility of performing infrastructure development through a yen loan in order to spur the integration of industry. Also, as the OECF evaluation tended to focus on activities in the eastern seaboard region implemented entirely with yen loans, it did not completely accord with the scope of the JICA development study. Therefore, JICA and OECF each created their own reports while cooperating in the implementation of surveys in Thailand and sharing information to the fullest extent possible. JICA focused this evaluation on the development study on the

Laemchabang Export Processing Zone/General Industrial Estate (EPZ/GIE) Industrial Promotion hoping to learn lessons that would prove useful for JICA's future cooperation in other regional development projects centered around industrial development.

2. Evaluated Projects

Laemchabang EPZ/GIE Industrial Promotion (1987-1988, development study (F/S))

3. Members of Evaluation Team and Period of Evaluation

(1) Preliminary Study (conducted jointly with OECF) (3 August 1999-11 August 1999)

Evaluation Planning:

Ms. Sachiko IMOTO, Office of Evaluation and Post-Project Monitoring, JICA

(2) Full-Scale Study (8 November 1999-28 November 1999)

Evaluation Planning:

Ms. Sachiko IMOTO, Office of Evaluation and Post-Project Monitoring, JICA

Industrial Development Policy Evaluation:

Mr. Michio FUJIHASHI, Daiwa Institute of Research, Ltd.

4. Background and Outline of Cooperation on the Eastern Seaboard Development Plan

After natural gas was discovered in the Gulf of Siam in 1973, Thailand, which previously had no oil resources, began a process of industrialization based on energy self-sufficiency. Also, the eastern seaboard-comprised of Chachoengsao, Chonburi and Rayong provinces-is a good environment for industrial development due to its proximity to the capital of Bangkok and the possibility for topographical deep-sea port construction. Against this background, the Thai government made the development of the region one of the priority issues in the Fifth National Economic and Social Development Plan (1982-1986), and actively promoted the foundation of the Eastern Seaboard Development Committee with the Prime Minister serving as chairman. The main issues of the Eastern

Seaboard Development Plan include the construction of the Map Ta Phut Industrial Estate, which focuses on the development of heavy chemical industries, the construction of the Laemchabang Industrial Estate, as a location for non-polluting export-oriented industry, and the establishment of related infrastructure (such as ports, roads, and subways).

The Japanese Government expressed positive support for the plan, and has cooperated on it through JICA since the 1980s. JICA had conducted cooperation in the following fields:

(1) Development of Water Resources

- East Coast Water Resources Development Project (F/S, 1980-1982)
- East Coast Water Resources Development Project Phase II (F/S, 1981-1983)
- Dok Krai-Mab Ta Pud Water Pipeline Project in East Coast Area (D/D 1981-1982)
- Nong Kho-Leam Chabang Water Pipeline Project (F/S, 1983)

(2) Port Development

- Development Project of the Industrial Port on the Eastern Seaboard (M/P, F/S, 1982-1983)
- Establishment of a Large Repair Shipyard (F/S, 1982-1985)
- Measures to Promote the Container Handling System through Leam Chabang Port (M/P, 1988-1989)

(3) Industrial Development Plan Creation

- Development Project of Leam Chabang Coastal Area (M/P, F/S, 1983-1984)
- Laemchabang FPZ/GIE Industrial Promotion (F/S, 1987-1988)

(4) Promotion of Investment

- Advisor on Economic Development (Individual expert, 1987-1989)



Laemchabang Port

(5) Environmental Protection

- Environmental Protection Project for Eastern Seaboard Development (Grant aid, FY1984)

5. Results of Evaluation

(1) Status of Development in the Eastern Seaboard Region

Industrialization in the eastern seaboard region has progressed remarkably, and the region has developed into Thailand's second-largest industrial center after the Bangkok metropolitan area. Investment licensing activities in the eastern regions of Thailand, including the eastern seaboard region, comprised approximately 50% of all licensing activities in the country in 1977, and increased to a total of 64.7% between 1995 and 1997. Of the total 644,000 people newly hired by licensed companies during the same period, approximately 38% of the jobs (242,000 people) were generated in the eastern seaboard region. Also, per capita income in the eastern seaboard region, which reached 2.76 times the national average in 1996, greatly contributes to development in the region.

Table 1 Current Status of the Eastern Seaboard Region

Plan	Project	Date of Completion	Current Status
Map Ta Phut Plan	Map Ta Phut Industrial Port	Phase I (February 1992) Phase II (scheduled for 1999)	Handling approximately 2.72 million tons of cargo yearly
	Map Ta Phut Industrial Estate	Phase I (May 1990) Phase II (August 1992) Phase III (in the process of land acquisition)	4,093 rai (residential: 498 rai) 1,507 rai (residential: 1,502 rai) 1,097 rai (residential: 498 rai)
	Other: Natural gas separation plant, water lines, subway construction		
Laemchabang Plan	Laemchabang	Phase I (December 1991)	Handling approximately 1.04 million tons of containers yearly
	Commercial Port	Phase II (scheduled for 2008)	Handling approximately 5 million tons of containers yearly
	Laemchabang Industrial Estate	Phase I (March 1991) Phase II (April 1996) Phase III (in the process of land acquisition)	2,908 rai 648 rai 500 rai
Other: Water lines, reservoirs, subway construction, etc.			
Other	Road and subway construction in the eastern seaboard region outside of Map Ta Phut/Laemchabang		

(Note: 1 rai = 1600 m², Source: OESB "The Eastern Seaboard Program Sep. 1998")

Table 2 Factory Concentration in Three Eastern Seaboard Provinces

	1981	1996	1996/1981
3 provinces on the eastern seaboard	5 companies	25 companies	x 5.0
5 provinces in central Thailand	4 companies	18 companies	x 4.5

Table 3 Change in Per Capita Income in Three Eastern Seaboard Provinces

	Average of 3 provinces on the eastern seaboard	Average of entire country	Eastern seaboard /entire country
1990	70,000 baht	35,000 baht	x 2.0
1996	138,000 baht	50,000 baht	x 2.76

The current status and future expectations for eastern seaboard development are as shown in Table 1 to 3:

(2) JICA Cooperation on the Eastern Seaboard Development Plan

JICA has played a major role in industrialization and regional development in the eastern seaboard region, and the evaluation of JICA's total cooperation in the Eastern Seaboard Development Plan is as follows:

1) Efficiency

JICA's various development studies and the dispatch of experts corresponded well with the timing of development on the Thai side, and served as a guiding force for the Eastern Seaboard Development Plan. An additional survey was not conducted by the Thai government between the implementation of the development studies and yen loans provided by OECF, it can be determined that planning and fund-raising were efficiently conducted between the time of the development studies and the yen loans.

2) Effectiveness

Most projects whose master plans were created through JICA development studies have progressed largely according to plan, and accomplished their desired effect. Although changes were observed in part of the plan, these were appropriate changes made by the Thai side in response to economic and other conditions.

3) Impact

The proportion of Office of Board of Investment (BOI)-certified investments throughout Thailand that were located in the eastern region increased from 23% in 1991 to 75% in 1997, and the Eastern Seaboard Development Plan has brought about the development of the eastern seaboard region as an industrial base in Thailand. It is also significant in that 200 companies have relocated to the eastern seaboard region from the Bangkok metropolitan region, where overconcentration had become an issue. On the other hand, environmental problems such as air pollution have been pointed out at the Map Ta Phut Industrial Estate, and although this situation is not currently serious, continuous monitoring of environmental pollution by the Thai side will be necessary.



Map Ta Phut Port

4) Relevance

The location of the Map Ta Phut Port and residential estates and the commissioning of operation of the terminal to the private sector, which were proposed in the JICA development studies, were realized by the Thai side, and aided in the success of the Eastern Seaboard Development Plan. The Thai government is currently planning to promote continued development in previously developed areas and expand development farther inland through the establishment of a highway network. The nature of the JICA development studies can be considered relevant even under current conditions.

5) Sustainability

Use of the developed port is increasing briskly. The Industrial Estate Authority of Thailand is also operating at a profit, since the development of industrial estates in the eastern seaboard region has been largely achieved. As the Thai Government has also expressed its continual support for future eastern seaboard development, sustainability is extremely high.

(3) Evaluation of the development study on the "Laemchabang EPZ/GIE Industrial Promotion (recommendation for measures to attract investment)"

1) Efficiency

The Laemchabang EPZ/GIE Industrial Promotion was implemented at an ideal time-one year before the opening of the Laemchabang Industrial Estate-which contributed to the decision on the basic direction of the base's development.

2) Effectiveness

By 1997, all of the land at the Laemchabang Industrial Estate was in use. This meant that the study's purpose, which was to attract non-polluting, export-oriented and labor-intensive industries, except for heavy chemical industries, had been achieved. In particular, the enrichment of communications equipment, which was proposed by this study, was instrumental in estate sales promotion.

3) Impact

In the Laemchabang region, there was private investment of 75 billion baht (of which over 80% was foreign capital). About 48,000 jobs were created, of which over 80% were in

joint ventures with Japanese and other partners, which helped the transfer of technologies to local companies in Thailand. The largest company was an automobile manufacturer which was in the process of relocating from metropolitan areas. Hospitals, schools, shopping centers, golf courses and other facilities were built around the industrial estate, which contributed to the development of the community.

4) Relevance

The objective of attracting industry through the construction of the Laemchabang Industrial Estate accorded with the industrial policies of the Thai Government and can be said to be relevant even now. During an examination of study of optimal industries, the types of work were chosen in accordance with this study's recommendation (non-polluting, export-oriented, labor-intensive, non-heavy or chemical industries). The recommendation to unify the various sectors of the Thai Government involved with recruiting and selecting relocating companies was also effective.

5) Sustainability

Companies which have relocated to the industrial estate are hoping for future establishment as well. The Industrial Estate Authority of Thailand is currently actively developing business activities and enticement schemes. Although there are problems on the management front, the location of the Laemchabang Industrial Estate has a great deal of merit, and it is likely that developments can be maintained in the future.

6. Lessons Learned and Recommendations

The following lessons learned concerning regional development projects that focus on the establishment of an industrial estate can be drawn from the current status of the Laemchabang Industrial Estate and the results of surveys of companies that have moved into the estate:

(1) Importance of the Construction Period

An industrial estate cannot be successful unless it attracts private companies. As it is greatly influenced by the country's economy and the economy of surrounding regions, it is essential that a thorough study be conducted beforehand on the market environment in order to find the best timing for construction. In Thailand, the demand for industrial estates skyrocketed after 1985 and approached oversupply at its peak in 1993. After a survey was conducted in 1988, the Laemchabang Industrial Estate was completed and put on the market in 1990 and has been almost fully occupied for seven years.

(2) Geographical Conditions

Although many corporations relocating to the Laemchabang Industrial Estate are dissatisfied with the management of the Industrial Estate Authority, they responded that they were not considering moving because of the prime location. The Laemchabang Industrial Estate is close to a harbor, and it is also convenient from the employees' point of view, as it is situated within a 20km range of the provincial capital where basic social infrastructure is provided. As a result, most companies hope to remain in the estate in the future. It is therefore important to investigate the location, with aspects of



Panoramic view of Laemchabang Industrial Estate (Laemchabang Port can be seen to the left)

the employees' living conditions in mind.

(3) Attracting Key Tenants

If the project is successful in attracting large companies, such as assembly manufacturers and local conglomerates, it will become comparatively easier to lure their affiliated companies. By placing emphasis on the attraction of key tenants, the burden of sales activities will be reduced. Moreover, this may encourage supporting industries and small and medium sized companies to move to the surrounding area, which in turn will help promote local industry. Thus, the formulation of a strategy to attract key tenants is crucial for the success of a regional development project.

(4) Enriching Management and Maintenance

As stated above, when location conditions are good, companies tend to become established. However, if day-to-day maintenance activities are insufficient, companies will be generally dissatisfied with the industrial estate. There are other problems, such as an inadequate budget, but it appears that the lack of a service spirit is also a contributing factor in the insufficiency of management. It is important to emphasize maintenance and management after the completion of the industrial estate, including the streamlining of private-sector commissions.

(5) Long-term Perspectives Towards Investment Planning

The Laemchabang Industrial Estate operates by leasing its land, and has set relatively low leasing fees. This is beneficial to companies that have moved into the estate, but in a country like Thailand with very high interest rates, the Industrial Estate Authority has to bear a heavy financial burden. Because it is likely that this will be influenced by faulty maintenance and management due to an inadequate budget, it will be necessary to design an investment plan with a more long-term perspective, including the costs of maintenance and management activities.

