

Thesis Title Study on Application of Linear Programming  
Technique in Coastal Port Activities :  
A Case of Thathong Port, Surat Thani  
Province.

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ABSTRACT

Nowadays, goods and some other materials have been popularly transported by trucks. Trucks are more convenient for the local entrepreneurs in carrying goods. However, trucks are able to carry goods and materials less than ships. Therefore, in long distance like the Southern Thailand, coastal navigation is still suitable in all respects. The government has realized the importance of the coastal ports and has constructed a number of standard coastal ports, for example, Thathong, Krabi, Kantang ,etc.. Those coastal ports are located on or near the shore or at the river mouth. Thathong Port is located at Surat Thani

Province. It has been constructed for many years but currently it is facing many problems such as the shallow draft of the waterway, the administration problems and the most important, few vessels berthing for cargo transloading.

The study objectives are to formulate the Linear Programming Model for Thathong Port and to find the optimal solution or optimal number of coastal vessels of various types berthing at Thathong Port for cargo transloading in order to maximize the total revenue of the port. Linear Programming Technique is the approached method in finding the solution considering to constraints: Cargo volume, time for transloading and port capacity for berthing.

The result of the study indicated that there should be number of coastal vessel type 60, 529, 590 and 1000 GT berthing at the port by 1, 26, 248 and 3 vessels, respectively. This generates maximize revenue totally 13,744,990 baht/year.