

**Third Party Evaluator's Opinion on
Wat Nakorn-In Bridge and Connecting Road Construction Project (I) (II)**

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Criteria-1 (Efficiency)

The target output of the project has been achieved i.e. the construction of a bridge and a road. The two relevant efficiency measures are: construction time performance and construction cost performance.

Construction Time Performance: Phases I and II of the project were planned to be completed in 4 years and 4 months. The actual construction time was 8 years and 4 months. This represents a time overrun of 92.3% of planned construction time. The delay factors in Phase I are: land acquisition (314%); selection of consultants (144%); selection of contractors (4.8%); and construction delay (46.7%). Phase II of the project also suffered delays in: land acquisition (88.9%); selection of consultants (-60%); selection of contractors (133%); and construction delay (37%).

Overall, the delay experienced by this project is not atypical of public construction projects in Thailand. Since the delay percentages do not add up to 100%, there would have been much concurrent delays. Judging from the drop in delay percentages, there is clear evidence of learning between Phases I and II. There is a significant drop in the delays caused by land acquisition and in consultant selection. This is to be commended. However, there is deterioration in the efficiency of contractor selection process; suggesting there could be much room for improvement. The construction delays of 46.7% in Phase I and 37% in Phase II are not explained. It would be beneficial to the overall project management effort of JBIC if reasons are documented. Land acquisition continues to be a major problem in the management of public projects in Thailand. Authorities need to devise strategies for improvement.

Cost Performance: There is a clear evidence of cost efficiency. I suspect that the timing of the cost prediction and the changes in the economy could have contributed significantly to the cost savings on the project. The cost estimators could have been very generous (conservative in making the original cost predictions. It would be beneficial if the data would allow assessing the tender prediction results.

Criteria-2 (Effectiveness)

The project has been very effective in attracting more traffic. This is to be expected since good roads normally draw traffic from bad roads. The improvement in the economy has also resulted in increased traffic volume in the Greater Bangkok area. The project has significantly improved travel time. This is commendable in that it would have resulted in savings in fuel costs; reduction in environmental pollution from exhausts fumes; and energy savings. The reported improvement in ex-post economic internal rate of return (EIRR) is excellent justification that the project is very effective. Accidents seemed to have increased since the project was completed. This is to be expected since traffic volume has increased significantly and the travel time (proxy for maximum speed) has reduced.

Overall, it would seem that the road is good value for money. Authorities need to investigate ways for reducing accidents. The plan to introduce underpass as a solution to accident problem in the junction (intersection of Nakorn-In Road and Ratcha Phruk Road), though welcomed, is a clear example of projects originating from current inadequacy of yesterday's solutions. Project management effort could focus on how to avoid such costly additions in future.