

ABSTRACT

COST-BENEFIT ANALYSIS OF FLOOD PREVENTION PROGRAMS FOR BANGKOK AND VICINITY

by

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Schemes E2, E4, E7 and E6 are found to be feasible for all discount rates and return periods. Scheme E3, E5 and E8 are found also to have very high B/C ratio.

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The objective of this study was to assess the feasibility of sixteen flood control projects in Bangkok and Vicinity. The flood control projects were evaluated by B/C ratio technique.

Results for the base case indicate that schemes W1, W3, W4 and W5 are found to be infeasible because of negative benefit-cost ratio.

Schemes E8 and W2 are found to be feasible for all discount rates for cases where return periods are 5 and 10 years.

Schemes E3 and E5 are found to be feasible for all discount rates for cases where return periods are 5 and 10 years.

Schemes E2, E4, E7 and E6 are found to be feasible for all discount rates and return periods. Scheme E2, E4 and E6 are found also to have very high B/C ratio.

Schemes W7 and W8 are found to be infeasible for all discount rates and return periods.

Results for the sensitivity analysis (in terms of feasibility of various schemes) are similar to the base case. For pessimism scenario, schemes E3 and E5 (5 year return period for all discount rates and scheme E8 (10 year return period, 8% discount rate) were found to be no longer feasible for all cases. For optimism scenario, scheme W7 (5 year return period, 12% and 14% discount rates) were also found to be feasible from being infeasible previously under base case.