

Apinun Japandung 2011: Assessment of Result-Based Performances in the Inundation-Type Irrigation Project. Master of Engineering (Irrigation Engineering), Major Field: Irrigation Engineering, Department of Irrigation Engineering. Thesis Advisor: Associate Professor Jesda Kaewkulaya, Ph.D. 172 pages.

The purpose of this study was to select the Key Performance Indicators (KPIs) of the Royal Irrigation Department Service Agreement B.E. 2550, developed from the Balance Scorecard Principle. It composes of 4 dimensions which are Mission Outcome, Service Quality, Service Capability and Organization Development; 20 goals and 69 KPIs. The questionnaires containing of all dimensions, goals and KPIs including the weighting of them; were sent to 14 Inundation-Type Irrigation Project around the country for the project engineers to select ones which were proper on their projects. The questionnaires were collected and statistical analyzed. The results indicated that the appropriate ones were composed of KPIs: dimensions: goals were as 23:4:12, 22:4:11 and 17:4:10 for 25%, 50% and 75% criterion, respectively.

The results from the 14 projects were tested in Kamphaeng Phet irrigation project which composes of 3 sub-projects as; Thor Thong Dang, Wang Bua and Wang Yang-Nhong Kwan project. The results of assessment indicated that the overall performances in percentage were 80.5 (good), 79.7 (fair) and 78.8 (fair) for Thor Thong Dang, Wang Bua and Wang Yang-Nhong Kwan project, respectively. The assessment results of 3 criterions were indicated in the same direction. So, It could conclude that the criterion of 75% which composed of 4 dimensions, 10 goals and 17 KPIs with the weights of dimension 1, 2, 3 and 4 were 45%, 25%, 10% and 20%, respectively; could reflect the real situation of the project. Therefore, the outputs of this study would recommend as a guidance for improvement of the strategic map of Inundation-Type Irrigation Project of RID further on.

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