ABSTRACT

Inhabitant in Semarang Timur, a district that located in north-sea Semarang - Indonesia, has been facing flood and inundation events which are increasing in frequency and severity. Inundation happened during rainy season. Flood caused by the high water level comes from Java Sea through canal Kali Banger. In the next 10 until 20 year, Semarang Timur will be permanently flooded and the assets within the flooded area will be lost. Witteveen+Bos designed a polder system for suitable solution to protect the existing asset. The construction will improve living conditions, health safety and welfare in the Semarang Timur. The polder system called Banger Polder Project.

The first objective of this research was made socio-economical cost benefit analysis (SCBA) to know the feasibility of Banger Polder Project. SCBA is an assessment method that encompasses a trade off between all present and future advantages and disadvantages of a project by expressing them in monetary terms. SCBA is not common analysis in Indonesia, therefore the second objective was to know the applicability of SCBA in Indonesia.

In practice, a SCBA consists of several steps to be taken by the analyst (Nieuwkamer et. al, 2008), the steps are describing autonomous development, describing project alternatives, cost calculation of every alternative, identification and assessment of physical impacts for every alternative, identification, quantification and monetarisation of welfare impacts for every alternative; discounting and making up the balance; sensitivity analysis; Conclusions and recommendations.

Conclusion that comes out from this objective is Banger Polder project show much more benefits in the future. After researchers calculated, the benefit for inhabitant for next 23 years (projects lifetime) are IDR 760,000 or IDR 9 million per year or around EUR 760 per year. So, it can be concluded that NPV>0 and it means the Banger Polder Project is feasible. Sensitivity analysis has been done the test whether the outcome of the calculation still benefit or not. The analysis was done by changed the periods of average discount rate and changed cost saving of material loss due to considering the income level. The result showed that the project still benefits than the autonomous development, which means researchers result of SCBA Banger Polder is relevant.

The second objective was done by interviewing important people in government and academic and analysis it with SWOT (strengths, Weakness, Opportunities and Threats). Researchers were used four criteria which we were thought important tool for making SCBA applicable. They are accessibility of data, sufficient fund, acceptable period of time, level of influence in decision making. Therefore, the criteria were cohered into strengths, weakness, opportunities and threats. The outcome of SWOT analysis was answered the objective that Indonesia is capable to do SCBA if government legalised SCBA as one of decision maker instrument.

KEYWORDS:
Socio-economic, cost, benefit, analysis, feasibility, applicability, banger, polder, Semarang, Indonesia.