

## **A Solution for an Unsafe Ferry Crossing at the Kalu Ganga: A Case Study at Galpatha**

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People travelling between Galpatha, Bolossagama and its surrounding area face a challenge in crossing the Kalu Ganga using a privately operated ferry. Every year, it has been recorded that a significant number of accidents take place because of this unsafe ferry. It is particularly dangerous to use in the rainy season. This paper proposes a solution to issues faced by people who use this ferry. The issues were captured using a survey done among the users of the ferry and by interviews done with the authorized persons in the area including the Grama Niladaris. Around 50 users were interviewed while 44% of them were travelling for working purposes. The busiest times of the ferry were from 6 am - 9 am and in the evening it was 3 pm - 6 pm. In the dry season, the ferry operate smoothly. In the rainy season ferry ports are flooded and the waves are much stronger. Therefore, during such times the ferry service is unavailable. In an emergency or when the ferry is unavailable, these people have to travel an additional 22.4 km to reach the destination. There are no other ferries operating nearby. Using descriptive analysis, waiting time for the ferry, safety, and difficulties in goods transport were identified as main issues. The best solution was found to be building a bridge over the river at this point. This is one of the narrowest points along the river and is suitable for the construction of a bridge. Results derived from the gravity model showed that if a bridge is built, the volume of travel between the two villages would increase by 411.28%. There is high demand for a bridge than the ferry. If a bridge is built, for a person travelling by motorcycle, the generalized cost will reduce by 98.98% and for a person getting across by foot, the generalized cost will reduce by 92.25%. Financial Feasibility of constructing a bridge has been discussed and estimated using the Oddamavadi Bridge as the sample case. This would save the time and resources of many. It will also provide the best range of choices to users because their mobility and safety will increase.

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