COLLECTION AND TRANSPORT SYSTEM OF MUNICIPAL SOLID WASTE IN BANDA RAYA, JAYA BARU AND MEURAXA REGENCY BANDA ACEH CITY

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ABSTRACT

Waste generation in Banda Aceh city approximately reached 2.8 liter/person.day means about 616.20 m³/day wastes generated by the citizens in 2009. But the volume of transported waste in Banda Raya, Jaya Baru and Meuraxa regency is about 79.6 m³. In year 2008, it is recorded that only 284 units of 12.345 units of municipal solid waste fee objects in Banda Raya, Jaya Baru and Meuraxa regency whose have their fee paid. Therefore, an evaluation of the efficiency of collection and transport system in Banda Raya, Jaya Baru and Meuraxa is needed.

Technical aspect was done by observing time used by 8 units of transporting vehicles to transport the wastes. Questionnaires were distributed to know how people handled and collected their waste. Financial aspect was done according to the operational and maintenance cost and the potential revenue from the municipal solid waste fee. Interviewing staffs and workers in related institution was done to get institutional aspect analysed. Furthermore, data was analyzed and evaluated by using theory and standart of municipal solid waste management.

Technical aspect analysis showed that the collection and transport system has not been satisfying so that institute manageing municipal solid waste should have done actions such as adding 62 units of 1 m³ communal bin, increasing dump truck transporting trip to 14 trips a day and arm roll truck transporting to 23 trips a day. Increased transporting trip could also increase operational and maintenance cost to Rp. 1.547.327.575. Potential revenue from the municipal solid waste fee in Banda Raya, Jaya Baru and Meuraxa regency was about Rp. 1.725.600.000. Method of collecting solid waste fee that covered all the fee objects was by doing cooperation with local citizens called RT/RW. Related institution should be considering to have replacement of 6 units dump truck and 2 units arm roll truck that have been ended their 5 years usable period as mentioned in SNI 19-3242-1994.

keywords : municipal solid waste, collect, transport, opartional and maintenance cost, retribution