STUDY OF INCREASING LANDFILL AREA CAPACITY OF TANAH GROGOT LANDFILL AREA AND SOLID WASTE RECOVERY AT TANAH GROGOT DISTRICT IN PASER REGENCY EAST BORNEO PROVINCE

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ABSTRACT

Integrated of solid waste management at landfill area Tanah Grogot, landfill area is very limited area which is ± 63,000 m². The capacity will full after 10 years. Based in the result at intergrated of solid waste management is necessary to manage solid waste based on recovery of material in order to reduce amount of solid waste dump at landfill area. The aimed of the study is analizing capacity of landfill area an design of material recovery facility and solid waste recovery of Tanah Grogot District.

The experimental research are site observation, studying literature, data collecting from related institution and conduct interview/questioner to related institution, society/waste picker at landfill area. That are use to analysis based on technical aspect, financial aspect dan environmental aspect.

Research of the study result, that implementing material recovery facility at Tanah Grogot landfill will increased the capacity of landfill area can be use of to September 2024 or 15,9 years. On the other hand, landfill area without material recovery facility only have the capacity of 9,3 years or can be use of March 2018. Tanah Grogot district solid waste economic potential consist of 59,74 % garbage which is 77 % can be use as compost material for composting. Plastic waste about 6,57 % and 92,32 % can be use recycled into plastics ore. The other material solid waste, such as metal, papers and glass which is can not be recycled can be packed and sold. Based on financial and environmental analysis result, implementing Material Recovery Facility at landfill is feasible that is indicated by values of NPV (+); IRR = 28,55 % > 14 % and BCR = 1,73 > 1. Based on environmental analysis result stating the activity in landfill area has a medium risk to the environmental of landfill area.

Keywords : Economic potential, Solid waste, Landfill, Capacity.
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