STUDY OF SOLID WASTE REDUCTION EFFORTS AT SUBDISTRICT OF KUTA, BALI

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ABSTRACT

One of the areas which has succeeded in implementing 3R (reduce, reuse, and recycle) program is Seminyak Village at Subdistrict of Kuta, Bali. The program was implemented with involving traditional community institution on waste management. But, there has been no study yet about the successful and sustainability of community-based waste management in Seminyak Village. Therefore, it is necessary to evaluate the achievement of integrated solid waste management program in Seminyak to be applied in the other area at Subdistrict of Kuta.

The aim of this study was to assess: the sources of solid waste, waste composition and generation, potential reduction of solid waste in each waste source, the achievement of community participation in waste management, and linkages between traditional community institutions to waste management in Seminyak Village and Kuta Village. Waste composition and generation were measured for 8 days continuously using Indonesian National Standards 19-3964-1994 method. Data on community and institutional participation were collected by interviewing public figures. The results were used to improve the quality of waste management services in Subdistrict of Kuta by implementing a pattern of waste management in Seminyak Village.

This study revealed that the sources of waste in Subdistrict of Kuta were originated from households, temples, trades and services, and trash from the beach. The main solid waste components were garbage (42.4 % in Seminyak Village and 63.5 % in Tuban Village) and plastic waste (18.3 % in Seminyak Village and 14.1 % in Tuban Village). Waste generation in the Seminyak Village was 3.26 L/person.day or about 0.66 kg/person.day, in Kuta Village 2.61 L/person.day or 0.54 kg/person.day, and in Tuban Village 1.26 L/person.day or 0.26 kg/person.day. Waste reduction in Seminyak Integrated MRF has reached 76.63 % of the total solid waste volume, while the potential waste reduction in Tuban Integrated MRF reached 72.67 %. The sustainability of community-based waste management program in the Seminyak Village was supported by: adequacy of waste infrastructure, the community empowerment program by NGO’s, and the traditional community institution supervision. However, it did not work in Kuta Village. Therefore the community institution participation in waste reduction should be strengthened by: improving the quality of traditional community institution, being active in waste reduction campaign, arranging regulations to make the community to become more diocline in implementing waste management activities, and in optimizing the used of solid waste treatment facilities.
Keywords: Subdistrict of Kuta, traditional community institution, community participation, solid waste reduction.