

Waste Analysis and Classification Study (WACS) in Ecotourism Sites of Samal Island, Philippines Towards a Circular Economy Perspective

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Abstract : Ecotourism activities, though geared towards conservation efforts, still put pressures against the natural state of the environment. Influx of visitors that goes beyond carrying capacity of the ecotourism site, the wastes generated, greenhouse gas emissions, are just few of the potential negative impacts of a not well-managed ecotourism activities. According to Girard and Nocca (2017) tourism produces many negative impacts because it is configured according to the model of linear economy, operating on a linear model of take, make and dispose (Ellen MacArthur Foundation 2015). With the influx of tourists in an ecotourism area, more wastes are generated, and if unregulated, natural state of the environment will be at risk. It is in this light that a study on waste analysis and classification study in five different ecotourism sites of Samal Island, Philippines was conducted. The major objective of the study was to analyze the amount and content of wastes generated from ecotourism sites in Samal Island, Philippines and make recommendations based on the circular economy perspective. Five ecotourism sites in Samal Island, Philippines was identified such as Hagimit Falls, Sanipaan Vanishing Shoal, Taklobo Giant Clams, Monfort Bat Cave, and Tagbaobo Community Based Ecotourism. Ocular inspection of each ecotourism site was conducted. Likewise, key informant interview of ecotourism operators and staff was done. Wastes generated from these ecotourism sites were analyzed and characterized to come up with recommendations that are based on the concept of circular economy. Wastes generated were classified into biodegradables, recyclables, residuals and special wastes. Regression analysis was conducted to determine if increase in number of visitors would equate to increase in the amount of wastes generated. Ocular inspection indicated that all of the five ecotourism sites have their own system of waste collection. All of the sites inspected were found to be conducting waste separation at source since there are different types of garbage bins for all of the four classification of wastes such as biodegradables, recyclables, residuals and special wastes. Furthermore, all five ecotourism sites practice composting of biodegradable wastes and recycling of recyclables. Therefore, only residuals are being collected by the municipal waste collectors. Key informant interview revealed that all five ecotourism sites offer mostly nature based activities such as swimming, diving, site seeing, bat watching, rice farming experiences and community living. Among the five ecotourism sites, Sanipaan Vanishing Shoal has the highest average number of visitors in a weekly basis. At the same time, in the wastes assessment study conducted, Sanipaan has the highest amount of wastes generated. Further results of wastes analysis revealed that biodegradables constitute majority of the wastes generated in all of the five selected ecotourism sites. Meanwhile, special wastes proved to be the least generated as there was no amount of this type was observed during the three consecutive weeks WACS was conducted.

Keywords : Circular economy, ecotourism, sustainable development, WACS

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