

**WASTE ANALYSIS AND CHARACTERIZATION STUDY (WACS) OF SOLID
WASTE MATERIALS IN CENTRAL LUZON STATE UNIVERSITY**

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BIOGRAPHICAL SKETCH

The researcher, Hosannah R. Sabio was born on December 31, 1996. She is the third children among her brothers, Paolo R. Sabio, Timothy R. Sabio and April Chan R. Sabio, on her parents, Gloria R. Sabio and Efren E. Sabio. Together with her relatives and family, she is living at Brgy. Malasin, San Jose City, province of Nueva Ecija. Ever since childhood, her parents have been away working abroad because of this she and her brothers have grown up living in the care of her grandparents Elizabeth G. Reyes and Severino S. Reyes.

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Throughout her college years, she was able to become one of the founding members of an organization called CAFES or the CLSU Association of Future Environmental Scientists.

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ABSTRACT

SABIO, HOSANNAH R., Department of Environmental Science, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **June 2019, WASTE ANALYSIS AND CHARACTERIZATION STUDY (WACS) OF SOLID WASTE MATERIALS IN CENTRAL LUZON STATE UNIVERSITY**

Adviser: CESAR V. ORTINERO, Ph.D.

Solid waste is one problem consistent in the environment, its capability of long term life have resulted various implications in human and ecological health. Therefore, management of this waste demand awareness especially in HEIs (Higher Educational Institutions) wherein integration of environmental and social welfare is expected. On this matter, conducting Waste Analysis and Characterization Study (WACS) uphold the vision of conforming effective Solid Waste Management Program (SWMP). Hence, this study conducted at Central Luzon State University, Science City of Muñoz, Nueva Ecija assessed the solid waste output by the institutions (office, mixed office and laboratory, school and church) within the university. Wastes were segregated and determined in weight, volume, bulk density and per capita waste generation rate collected within five (5) consecutive days. Waste sources were divided into small, medium and large. Result for office showed recyclable as the highest waste composition with 69% paper and carton; for mixed office and laboratory, biodegradable has the highest waste type with 74% rice hull; for church, recyclable waste was the highest with 47% paper and carton; and for school, recyclable was the highest with 48% PET bottles. In conclusion, paper waste was largely common in office, mixed office and laboratory, church and lower educational institutions followed by plastic waste. However when it comes to colleges PET bottles are the most common waste,

prompting high recycling potential resource for monetary return. Moreover, per capita waste generation rate of the university was at 0.026kg/day, with a highest of 0.0627 kg/day generated at mixed office and laboratory.

Keywords: waste analysis and characterization study; per capita waste generation rate; solid waste management program

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