INSTABRIGHT e-GAZETTE
ISSN: 2704-3010
Volume VI, Issue IV
March 2025
Available online at https://www.instabrightgazette.com

****

PALM-POWERED PURITY: FIBROUS PAPER FILTERS FROM COCOS NUCIFERA (COCONUT) HUSKS FOR WASTEWATER PURIFICATION

JADE S. MULINGBAYAN
ELAIZA KATRICE M. ALILING
KERSHEY LEELAINE R. ATIENZA
Tuy Senior High School

ABSTRACT

Freshwater resources are essential for human and environmental needs, yet many families rely on unsafe water sources, leading to sanitation concerns and disease transmission (Flores, 2023). In Tuy, Batangas, where coconuts are widely cultivated, water contamination is a growing issue. This study explores coconut husks as a sustainable and cost-effective filtration material for water treatment. Cocos nucifera husks contain fibers and compounds that enable physical filtration and chemical adsorption, making them a viable alternative for improving water quality. With seventy billion coconuts grown annually, repurposing husks helps address waste management while promoting economic and environmental benefits. This innovative approach presents an affordable, eco-friendly solution for water purification, contributing to sustainability efforts both in the Philippines and worldwide.