



**Hungarian University of Agriculture and Life Science
Szent István Campus**

**Institute of Environmental science
M.Sc. Environmental Engineering**

**TREATMENT OF CONTAMINATED PACKAGING AND ENERGY
RECOVERY FROM CROP WASTE**

Primary supervisor: Dr. Tibor László Csegődi
Position: Assistant Lecturer
Institute/ Department: Agriculture and Food Economics

Author: Abdulkareem Bisola Bashirat
Neptune ID: VMZ7RJ

GÖDÖLLŐ

2023

SUMMARY

Agricultural crop waste and pesticide plastic waste is a major environmental concern due to their potential to release pollutants, greenhouse gases and pathogens to the environment. The management of these wastes has drawn attention recently in many parts of the world in effort to lessen their negative effect on the environment.

This research aimed to investigate the level of awareness and opinions of individuals in Nigeria regarding the treatment of pesticide packaging waste and energy recovery from crop waste, and to examine agricultural waste management (e.g. pesticide plastic waste and energy recovery from crop waste) practices in Hungary. A mixed-methods approach was used, involving an online survey of 203 participants in Nigeria and online interviews with two companies in Hungary. The survey data was analyzed using IBM SPSS statistics version 27, with descriptive statistics used to analyze the responses.

The findings of the study showed that respondents in Nigeria had a high level of awareness regarding the environmental impact of agricultural waste and energy recovery from crop waste, and expressed strong support for converting crop waste to energy in reducing the country's energy crisis. However, the study also identified several barriers to proper waste management in Nigeria, including inadequate disposal facilities, weak law enforcement, and a lack of environmental education. In contrast, the study also found that Hungary has made significant progress in managing pesticide packaging waste and producing biogas from waste.

Overall, this study highlights the need for improved environmental awareness and education in Nigeria, particularly among less-educated individuals, in order to promote more sustainable waste management practices. The study also underscores the importance of policy implementation, law enforcement, and investment in waste infrastructure to protect the environment and promote sustainable agricultural practices