



Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

Making Science and Technology Education relevant to all through strategic collaborations

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Managing Plastic Waste in Ghana: ***The contribution of the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana***





- ❑ Waste Generation per day = 40-43 tons
- ❑ Collection per day = 35-37 tons (increased from avg of 28 tons in 2022)
- ❑ Recovered for recycling and other purposes = 8-10 tons (increased from 6 tons in 2022)

Waste Segregation (weighted average):

- Organic waste Campus = **46%**
 - Halls of residence = 54%
 - Staff and other residential areas = 58%
 - Faculty = 36%
- Plastic Waste Campus = **22%**
 - Halls of residence = 21%
 - Staff and other residential areas = 12%
 - Faculty = 36%
- Paper Waste Campus = **11%**

Recyclable Plastics on Campus (PET, PP and HDPE) = 78%
Non-recyclable Plastics (LDPE, PVC and PS) = 22%





Funding to enroll Masters and PhD students to study Plastic Waste Management in Ghana under the following thematic areas:

- Effect of plastic waste on peri-urban agriculture;
- How coastal plastic waste affect marine life and aquaculture;
- Plastic waste and flooding;
- Effective collection (use of GPS) to prevent pollution of rivers and water bodies;
- Waste plastic to fuel;
- Plastic to innovative materials (e.g. reflectors, jerseys, rain coats etc.); and
- Municipal waste management.



Recommendations for effective plastic Waste Management



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- Public Private Partnership (PPP);
- Effective collection of waste plastics;
- Public education for attitudinal changes in homes – misuse of “yellow” labeled bins;
- Basic school pupils should be educated to ensure compliance;
- School pupils to educate their parents about the proper disposal of plastic waste;



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Fig. 1: Pictures showing the misapplication of some of the yellow bins on campus



Fig. 2: Pictures showing the misapplication of some of the yellow bins on campus





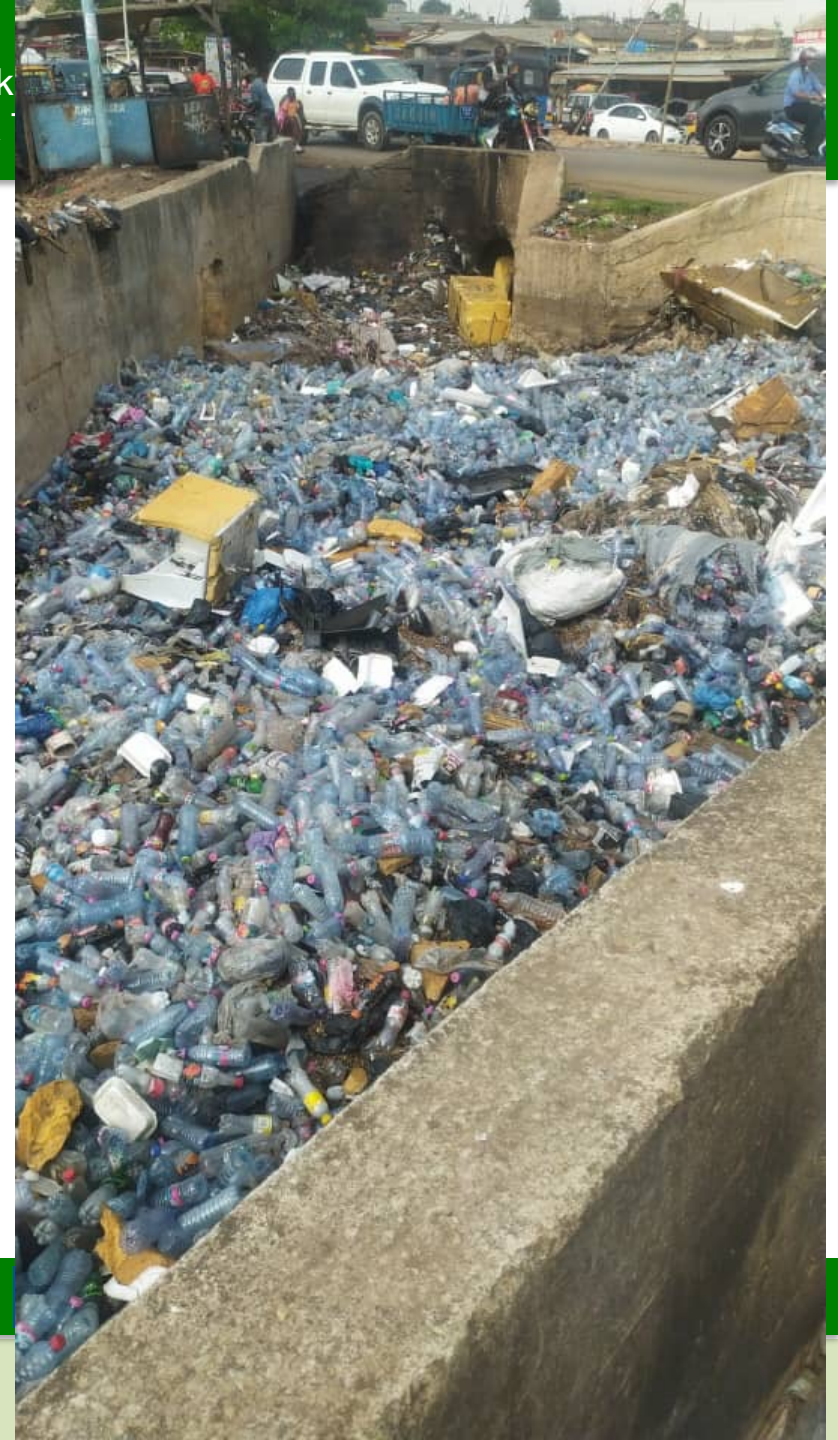
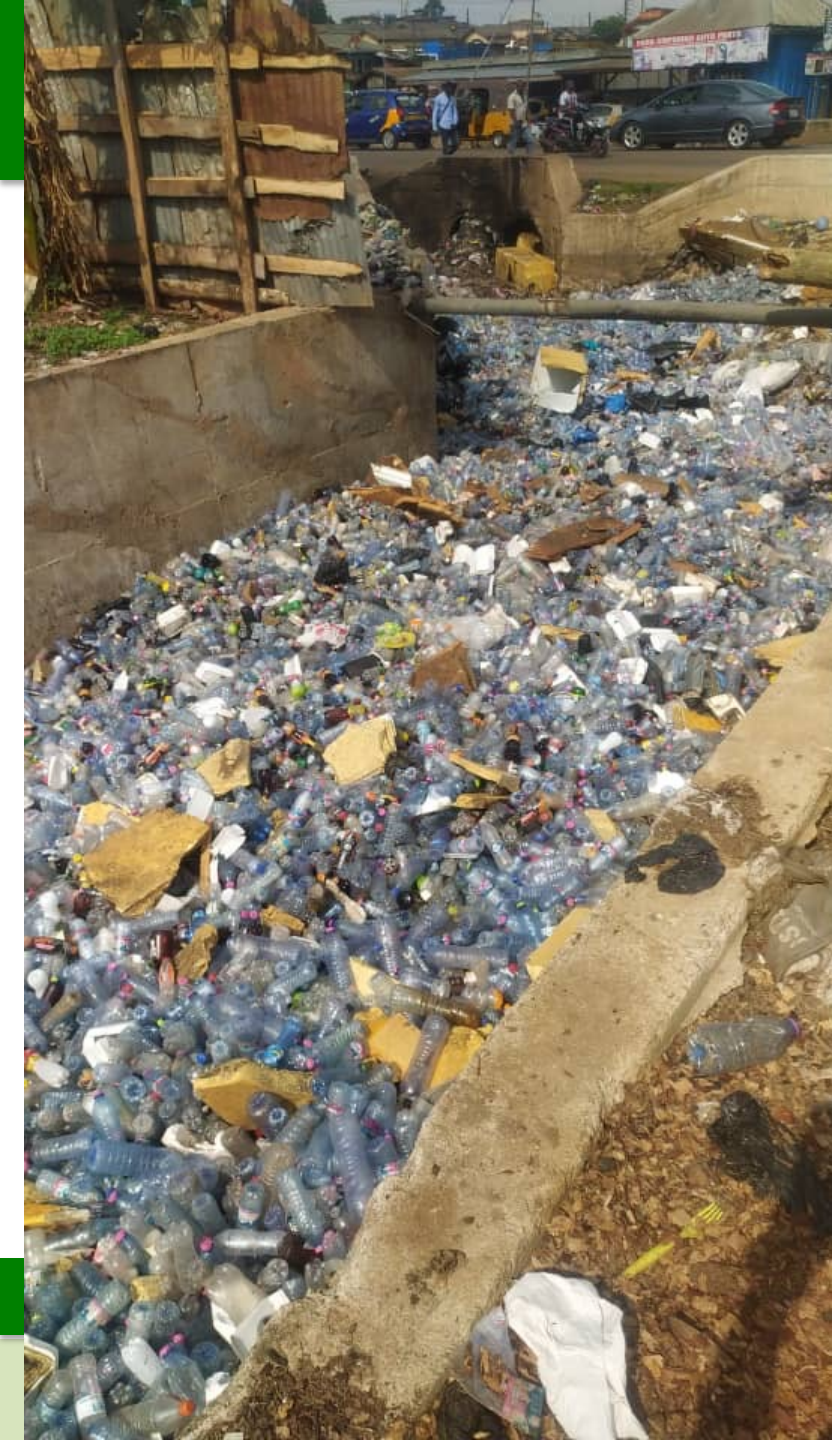
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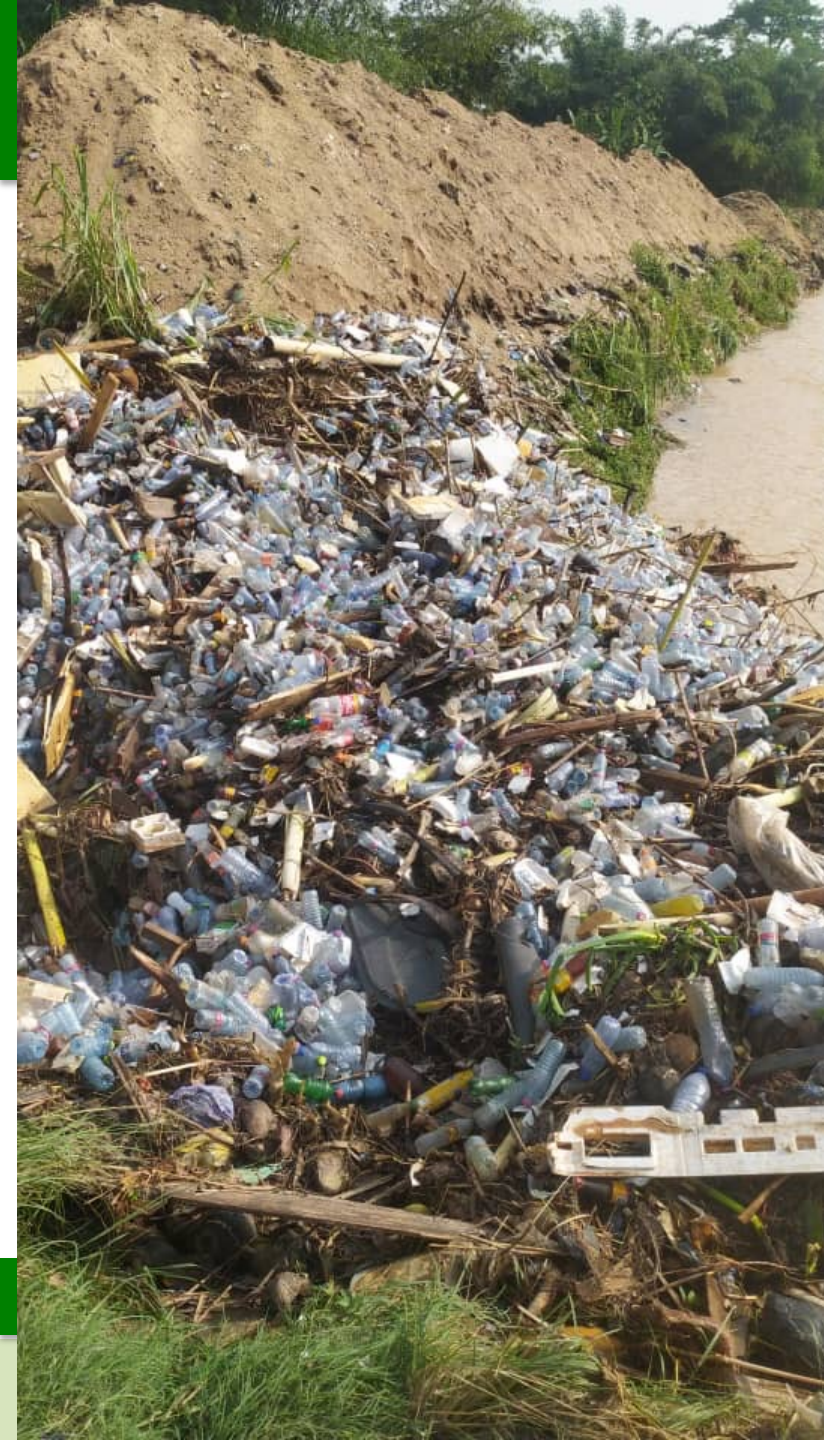




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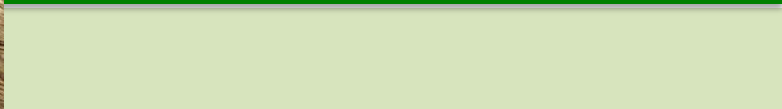
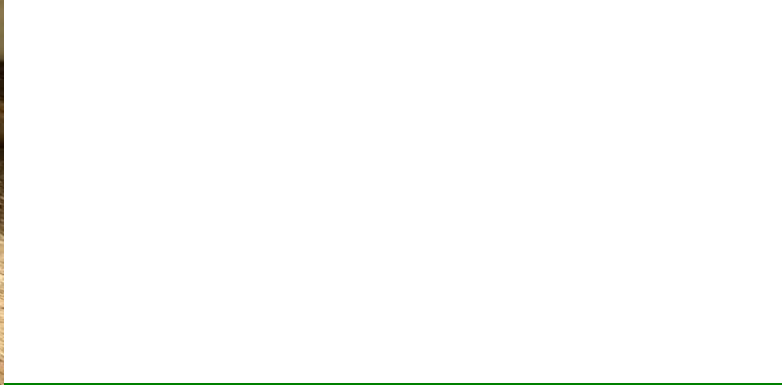










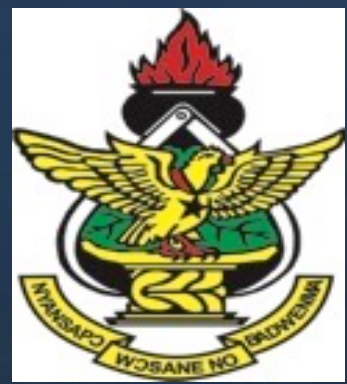




CONCLUSION

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THANK YOU

