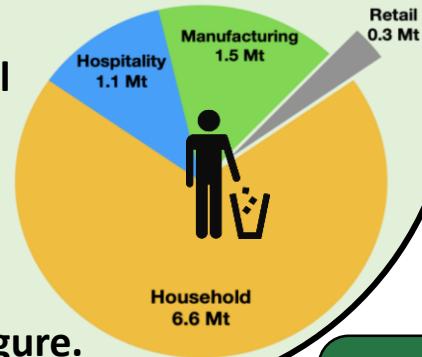


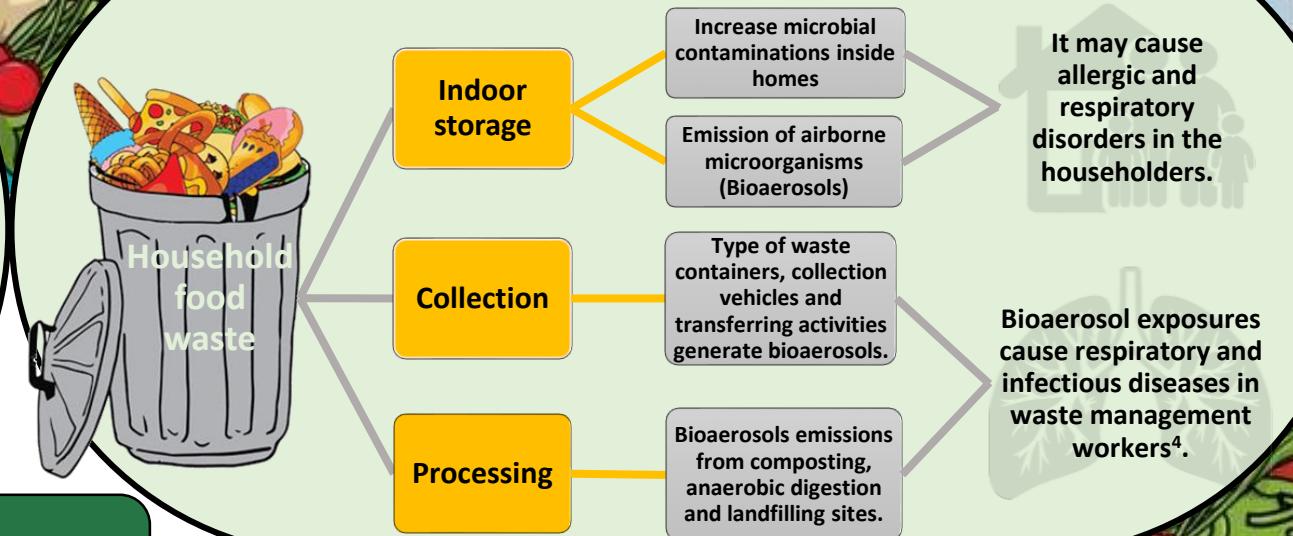
Is the household food waste bin a source of potential health impacts?

1. Food waste – The problem

- Food waste refers to any food and inedible part of food which is discarded or intended to be discarded.
- Globally, **1/3** of total food production made for human consumption is wasted yearly¹.
- Food waste is responsible for **6%** of global **greenhouse gas** emissions².
- In UK, almost **10 million tonnes** of food is wasted with a value of over **£30 Billion**.
- UK households alone generated **6.6 Mt** of food waste in 2018³ as shown in figure.



2. The Impacts of food waste



3. Project objectives

- Microbiological characterisation of food waste materials in the laboratory including identification of pathogens.
- Understanding the role of microorganisms in the breakdown of the food waste materials.
- Identification and measurement of biological agents arising from household food waste that can cause health problems in key-populations (householders, waste handlers).
- Determination of potential exposure routes of bioaerosols for the householders and waste handlers.
- Provision of information regarding risk and health issues for the waste industry in terms of separate storage, collection and processing of food wastes.

Microbial composition?

Bioaerosol emissions?

Health hazards?



References

1. FAO 2019. The state of food security and nutrition in the world.
2. POORE, J. and NEMECEK, T., 2018. Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), pp.987-992.
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4. WOUTERS, I. M., SPAAN, S., DOUWES, J., DOEKES, G. & HEEDERIK, D. 2006. Overview of personal occupational exposure levels to inhalable dust, endotoxin, β (1 \rightarrow 3)-glucan and fungal extracellular polysaccharides in the waste management chain. *Annals of Occupational Hygiene*, 50, 39-53.

4. Methodology

