



**wasteaid<sup>UK</sup>**

# **Plastics – A Global Problem**

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## Plastic generation

Convenience is now a crisis  
12 billions tonnes by 2050  
60% landfilled

Cheaper, Faster, Easier





Plastic waste is now so prevalent in the environment that it has been suggested as a geological indicator of the proposed Anthropocene era



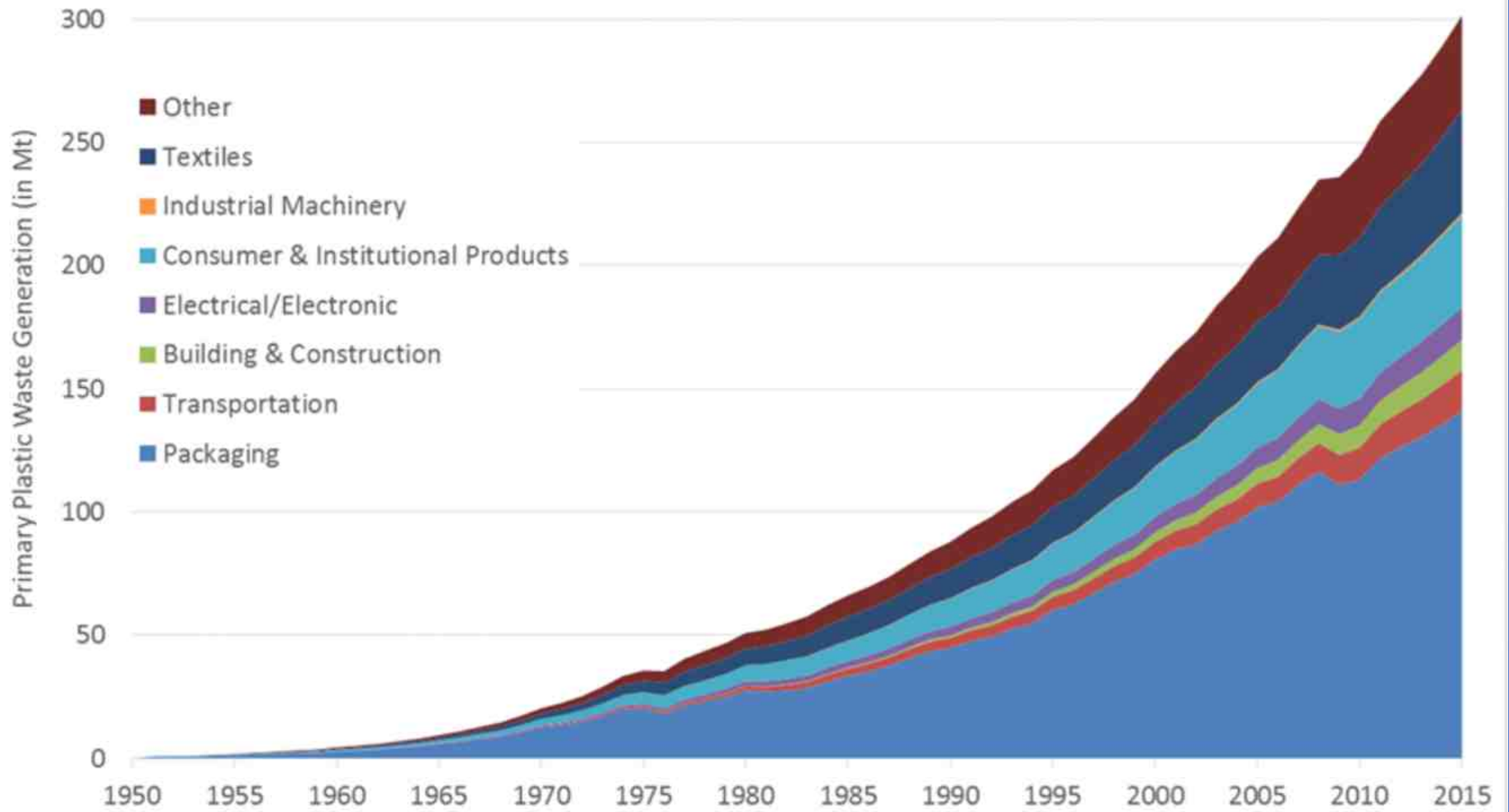


Image: Geyer, Jambeck, Law, Science Advances, 2017



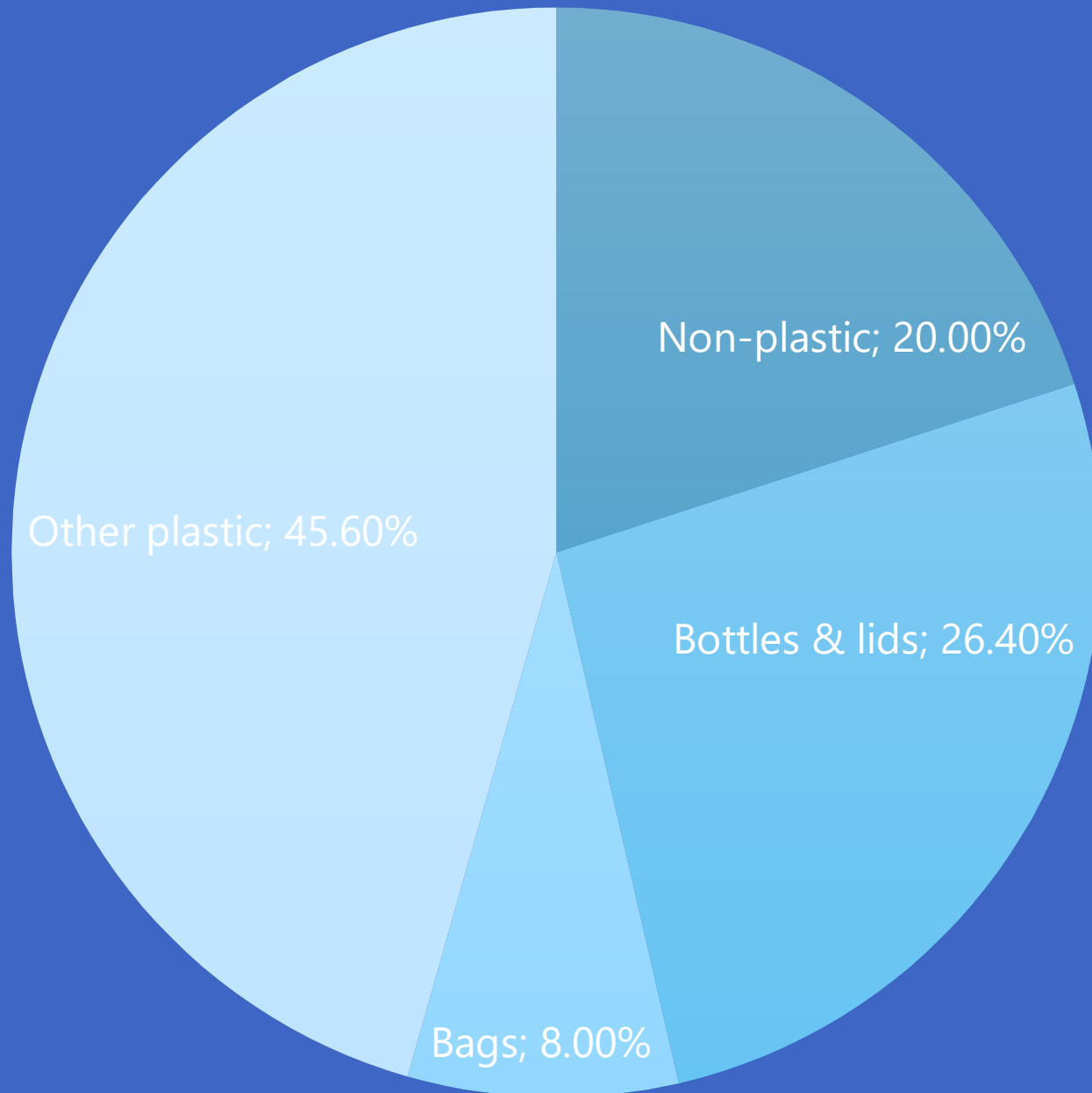
# Marine plastics

**8 million tonnes/yr**



Image: Labadi Beach, Accra. Heather Troutman, 2017.

## Marine waste by type







## Sources of marine plastics

**Up to 70% plastics in the ocean is from mismanaged municipal solid waste in low-income countries**





## Where are the world's largest dumpsites?

Projection: Peter's

Data: Redrawn from ISWA Roadmap to Closing Dumpsites





**9% of plastic  
produced globally  
between 1950 to  
2015 was recycled**

# DIRECT IMPACTS



**Beach litter**



**Damage to fishing**



**Ecosystem  
disruption**



**Wildlife impacts**





# WIDER ISSUES

# PLASTIC WASTE SOLUTIONS









132,000



# Making Waste Work: A Toolkit

Community Waste Management  
in Low and Middle Income Countries



Zoë Lenkiewicz and Mike Webster

Illustrations by Susan Hatfield

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[wasteaid.org.uk/toolkit](http://wasteaid.org.uk/toolkit)

This toolkit has been produced by WasteAid UK  
with funding from the Chartered Institution of Wastes Management

## 6. Making and mixing your binder

To bind the carbonised powder into a briquette, you will need to mix it with a binding agent. The best binder is starch and the approach is similar for all types of plant starch – just boil a plant or material containing starch in a small amount of water until a thick sticky paste forms, like porridge. Different types of starch include:

- Cassava starch: this is cheap and effective and can be found widely in West Africa
- Corn or maize starch or maize flour: this is more widely used in East and Southern Africa
- Wheat starch or wheat flour, potato starch or rice flour
- Other alternatives include gum Arabic or acacia gum which is harvested from acacia trees. This is very common in semi-arid areas especially in Africa Sahel and in particular Senegal, Sudan and Somalia. You can even use newspaper or mud from termite mounds mixed with water to create a binder paste.



Figure 2-8: Prepare your binder by mixing it with water and heating it until it turns into a sticky paste.

Use enough binder to hold the mixture together, but not too much that your briquettes fall apart.



Figure 2-10: Make a mound of powdered charcoal, scoop out a hollow and mix in the binder (like making bread).

# MAKING WASTE WORK TOOLKIT



100,000 bottles





## ***One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia***



<https://www.bbc.com/news/av/45358683/gambian-social-entrepreneur-isatou-ceesay-makes-fashion-from-plastic>

- **Range of techniques and solutions**
- **Sustainable and low cost techniques in developing countries**
- **Innovative techniques**
- **Alternatives to plastic (bio-degradable/bioplastics)**



- **Move to a Circular Economy**
- **Joined up system**
- **Sharing good practice (Scandinavian deposit return scheme)**
- **Lessons learnt**



## CELEBRATING OUR SUCCESSES



Trained **363** recycling entrepreneurs

Impacted **124,000** lives

Supported communities in **9** countries

Developed **34** community recycling facilities

Toolkit inspiring another **30,000** people

in **190** countries



# Supporting WasteAid

**Professionally:** producer responsibility, CSR, creating shared value

**Financially:** sponsor, fundraise, donate, payroll giving

**In-kind:** advocate, volunteer, partner

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Together, we can make lasting change.



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