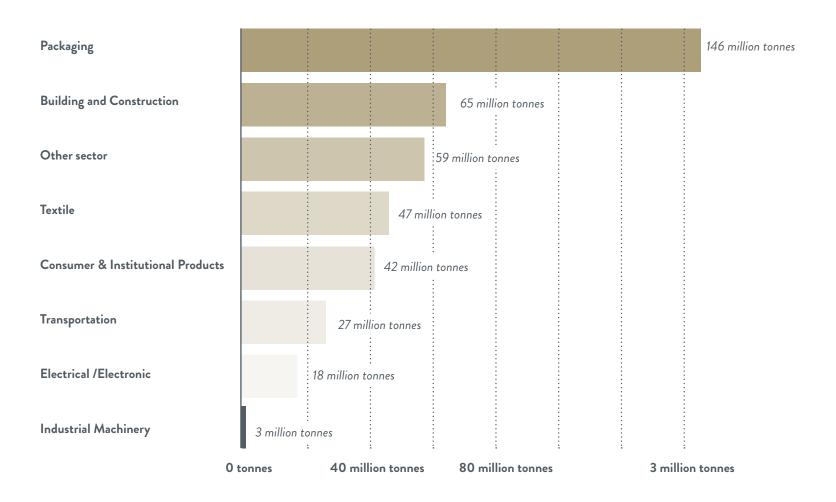


# PRIMARY PLASTIC PRODUCTION BY INDUSTRIAL SECTOR, 2015

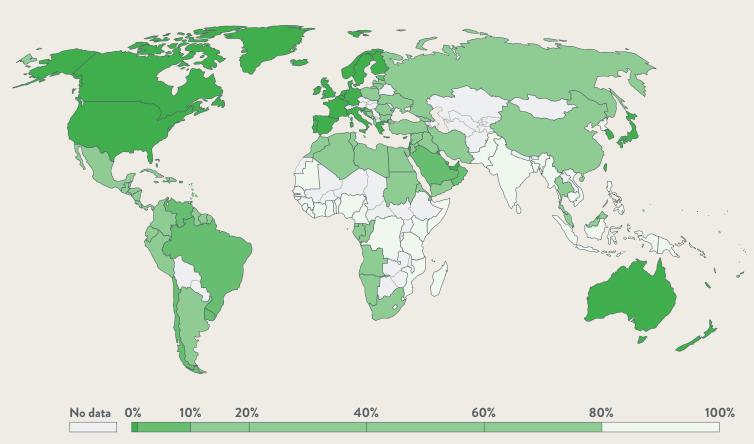


Source: Geyer et al. (2017)



# SHARE OF PLASTIC WASTE THAT IS INADEQUATELY MANAGED, 2010

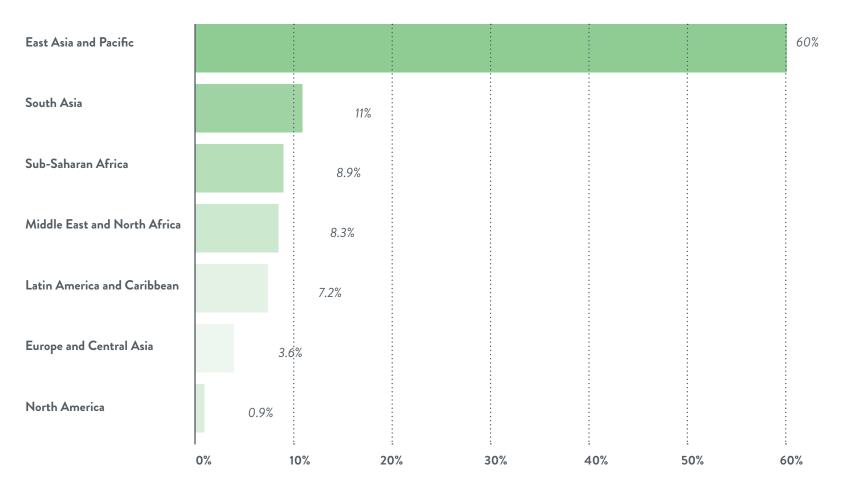
Inadequately managed waste has a high risk of polluting rivers and ocean.



Source: Jambeck et al. (2015)

## GLOBAL MISMANAGED PLASTIC BY REGION, 2010

This is measured as the total mismanaged waste by population within 50 km of the coastline.

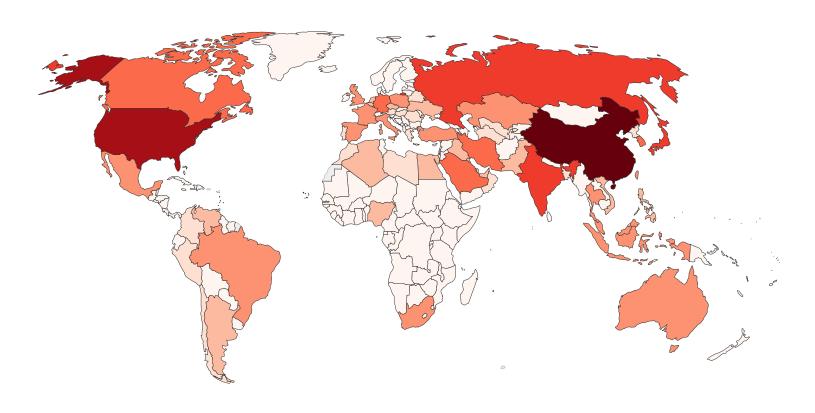


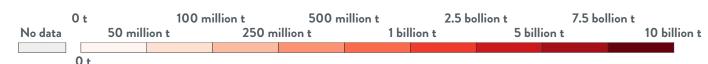
Source: OWID based on Jambeck et al. (2015)



## ANNUAL CARBON DIOXIDE (CO2) EMISSIONS.

(2017 Measured in tonnes per year)





Source: Global Carbon Project: Carbon Dioxine Information Analysis Centre (CDIAC)



### PLASTIC'S ROLE IN CLIMATE PROTECTION.

The use of plastics decreases greenhouse gas emissions

#### CO2 emission is the cause of global warning.

High-income countries do not manage CO2 very well and it remains the most serious problem to solve.

A recent article on Environmental Leader argues the PET is environmentally superior to glass or aluminum as a food/beverage packaging material. Our recent studies confirm that PET has significantly lower life-cycle GHG emissions compared to glass or virgin aluminum.

For a typical 12 oz container, here are some examples: GHG emissions figures based on materials and fabrication (assuming container weights of 365 g for glass, 54 g for PET, 40 g for aluminum):

- Glass (Virgin): 256 g of CO2-EQ
- Glass (80% Recycled Content): 217 g of CO2-EQ
- PET (Virgin): 139 g of CO2-EQ
- Aluminum (Virgin): 521 g of CO2-EQ
- Aluminum (100% Recycled Content): 37 g of CO2-EQ

PET would be the best choice from a carbon footprint perspective, glass becomes even less attractive because of its weight. Both aluminum and glass production require very high temperatures and are therefore very energy intensive.



Ensure sustainable consumption and production patterns.

# Thanks

FROM PRESENT AND NEXT GENERATIONS

