

# PLASTIC OCEAN

192 COUNTRIES BORDERING THE ATLANTIC, PACIFIC, INDIAN OCEANS AND MEDITERRANEAN AND BLACK SEAS PRODUCED **2.5 BILLION METRIC TONS OF SOLID WASTE IN 2010**.  
AN ESTIMATED **8 MILLION METRIC TONS** OF PLASTIC ENTERED THE OCEAN THAT SAME YEAR.



Ocean Conservancy

## 2.5 BILLION

METRIC TONS OF SOLID WASTE IS PRODUCED ALL AROUND THE WORLD

AND WITHIN THAT

## 275M

METRIC TONS IS PLASTIC WASTE

2 BILLION PEOPLE WITHIN 30 MILES OF THE COAST CREATE

## 100M

METRIC TONS OF COASTAL PLASTIC WASTE

AND EVERY YEAR,

## 8 MILLION

METRIC TONS OF PLASTIC GOES INTO THE OCEAN

WHAT WE CAN DO

REDUCE PLASTIC IN WASTE STREAM

IMPROVE SOLID WASTE MANAGEMENT

INCREASE CAPTURE & REUSE

HEALTHY OCEANS



JAMBECK ET AL., SCIENCE 2015  
\*PLASTICS EUROPE. "PLASTICS—THE FACTS 2013" (2010 DATA)  
\*\*COZAR ET AL., 2014; ERIKSEN ET AL., 2014

# Plastic Pollution

- ❑ Plastic pollution is having a negative impact on our oceans and wildlife health
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- ❑ High-income countries generate more plastic waste per person
- ❑ But, most of the plastic that ends up in the ocean comes from rivers in low-to-middle income countries.
- ❑ This makes the improvement of waste management systems across the world critical to reducing plastic pollution.

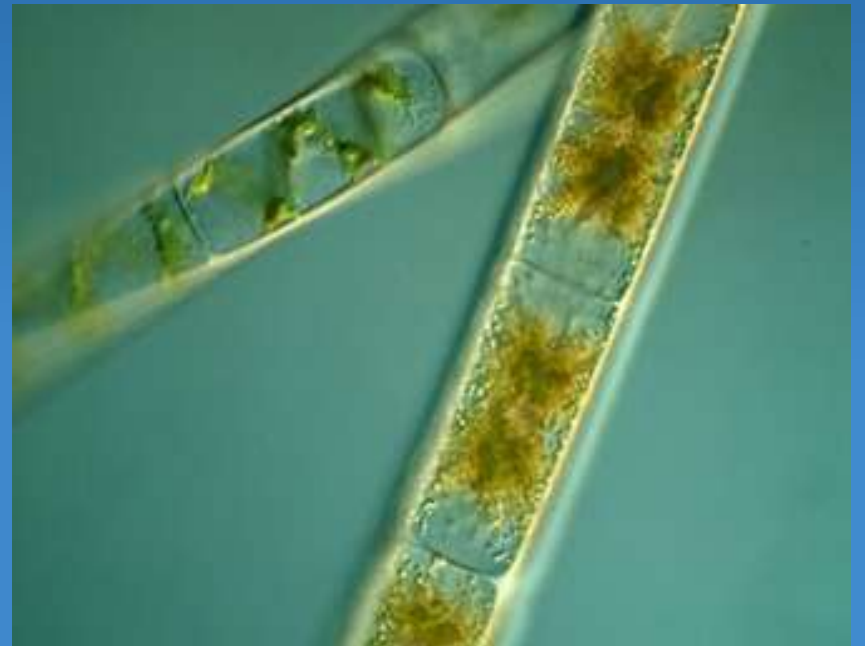
# Natural Alternatives To Plastic: Algae

- ❑ The main ingredient is the polymer which is **agar**, a jelly-like polysaccharide substance that is extracted from red algae by boiling. The plasticizer is water, and an additive is a natural dye.



# Natural Alternatives To Plastic: Algae

- Talep boils the agar mixture to around 80° Celsius (176°F) to make a material that bears a close resemblance to thin plastic.



# Natural Alternatives To Plastic: Mycelium

- ❑ One such alternative is mycelium. Fungi produce a mesh-like material beneath the surface that serves a similar function that roots do to plants. This mesh can be harvested, sterilised and processed to create materials with very similar properties to styrofoam, rubber or even leather.





# Natural Alternatives To Plastic: Mycelium

- ❑ Mycelium plastic alternatives are designed to have a “lifespan” that only exceeds its actual use by a few years. It can be discarded in composting bins or simply sent to landfill where it will eventually biodegrade.

