



HOW PLASTIC CONTRIBUTES TO CLIMATE CHANGE

- Open burning of waste is common in many parts of the world and is a major source of air pollution. Burning plastics releases a cocktail of poisonous chemicals that damage the health of the planet and the people exposed to the polluted air. Black carbon is one such serious pollutant it has a global warming potential up to 5,000 times greater than carbon dioxide.
- •Much of the plastic that doesn't make it to the recycling plant ends up in our rivers and ocean. Not only is this a danger to the animals and plants whose habitats have become aquatic garbage patches, but it also poses a threat to the climate, as plastic releases greenhouse gases as it slowly breaks down. Sunlight and heat cause it to release methane and ethylene and at increasing rate as the <u>plastic breaks down</u> into ever smaller pieces.
- •On top of this, research suggests that microplastics affect the ability of marine microorganisms to absorb carbon dioxide and release oxygen. At least half of Earth's oxygen comes from the ocean, mostly produced by plankton. These tiny organisms also capture carbon through photosynthesis, making our ocean a vitally important carbon sink. Microplastics affect the ability of these organisms to grow, reproduce and capture carbon. And by grazing on microplastics, these plankton could further accelerate the loss of ocean oxygen.



