



The growth of greenhouse gas emissions in our atmosphere is one of the biggest environmental imperatives we face today. Traditional plastics are made using fossil fuels that further contribute greenhouse gas emissions to our ecosystem.

Plant-based alternatives can help reduce greenhouse gas emissions because they come from a renewable source of carbon and can avoid contributing to landfill emissions when properly disposed of.

The carbon used to create plant-based materials comes directly from the atmosphere in the form of CO₂, the primary greenhouse gas emitted by human activities

- Unlike materials derived from fossil fuels, **feedstocks from plant-based materials remove CO₂ from the atmosphere** during their growing phase
- The CO₂ taken up by plants during their growing phase is **used to build these plant-based products** and sequestered in their materials during their time as a useful consumer product.

By 2030,

if two-thirds of conventional plastics around the globe were replaced by plant-based alternatives, the reduction of emissions would be equivalent to removing from the atmosphere the annual energy use of over 80 million homes

Plant-based materials used in food service applications can significantly reduce landfill emissions by diverting food and plastic waste from landfills.

- Landfills are the **third-largest source of methane emissions.**
- Food waste, **which is 22% of landfilled municipal waste**, is a large contributor to landfill methane emissions.
- Unlike traditional plastics, when many plant-based materials are done with their useful life, they can be **sent to composting facilities along with associated food waste**, where facilities then **produce soil-enriching compost instead of harmful methane emissions from landfills.**

Through plant-based products – made from renewable sources like bamboo, corn, hemp, potato, sugarcane, soy, and more – we can help lower greenhouse gas emissions.

PBPC is working to guide the global economy toward more sustainable and responsible consumer products and packaging through greater use of plant-based materials.