

Brady Veltien
HASS 200: Environmental Science
01/23/2023

Key Idea #1: Climate change with an emphasis on managing plastic waste.

“The impacts of mismanaged plastic waste on the climate, as well as on livelihoods and ecosystems are an urgent development challenge. To solve this problem, **targeted**, innovative circular economy approaches are needed. A circular economy approach **starts** at the stage of product design and selection of raw **materials** with an aim to develop products that are optimized for **reuse**, creating ‘renewable resources’ and minimizing the need for both the final **disposal** of waste and mining of virgin materials.”

My key idea focuses on the need to evaluate and morph our economic structure to better manage plastic waste. This is a key idea because:

- 1) Plastic production is extremely fossil fuel reliant. Infact, 6 percent of global oil consumption is dedicated towards the creation of plastics. This figure is predicted to climb to 20 percent by 2050 (Tsydenova et al). Because of this, a **targeted** effort needs to be placed on plastic production to minimize this growth.
- 2) We are aware of the downstream effects of plastic waste, but our solution **starts** upstream. By not beginning the manufacturing process with environmentally friendly **materials**, it's impossible to make the end product that doesn't harm the environment in some way.
- 3) The most well known danger of plastic waste comes from improper **disposal**. Mismanagement of plastic at the end of its life generates GHG emissions in the form of methane and ethylene, which can pollute the air and water (Tsydenova et al).
- 4) We need to focus on creating plastics that can be **reused** or recycled such that the plastic-creation loop can begin again with eco-friendly raw materials. The AIR (avoid, intercept, redesign) circular economy principle can be applied to the plastic lifecycle to drastically cut emissions (Tsydenova et al).

The overall key idea is that our economic structure needs to pay attention to the whole lifecycle of plastic and other potentially harmful materials. By establishing a greenloop, there is hope that we can limit the harmful emissions and pollutants to help slow climate change as a whole.

Bibliography

Tsydenova, Nina, and Pawan Patil. "6 Reasons to Blame Plastic Pollution for Climate Change." *World Bank Blogs*, 2021,
<https://blogs.worldbank.org/endpovertyinsouthasia/6-reasons-blame-plastic-pollution-climate-change>.