

**Minderoo Monaco Commission on Plastics and Human Health**  
**Social and Environmental Justice Findings and Recommendations**

**Introduction**

The convenience and the benefits of plastic have come at a cost. Current plastic production, use, and disposal practices are responsible for significant harm to human health, the environment, and the economy—and drive deep societal injustices. Global plastic production has increased 230-fold since 1950 and is expected to triple by 2060. More than half of all plastic ever produced has been manufactured since 2002 and negatively impacts human health and the global environment.

A social and environmental justice (SEJ) lens is needed to take effective and equitable action against plastic pollution and climate change. In order to achieve meaningful progress, we must address unequal access to information and decision-making, and unequal distribution of burdens on vulnerable groups and people.

**Key Takeaways**

**#1 Production, use, and disposal of plastic and chemical pollution drive social and environmental injustices.**

Plastic and chemical pollution are exacerbating inequitable impacts from climate change, toxic air and water pollution, loss of biodiversity, and ecosystem decline. Disproportionate harms from plastic and chemical pollution occur at every stage of the process.

Vulnerable people, such as workers and residents of fenceline communities adjacent to plastic production and waste disposal sites, experience increased risks including: premature birth, low birth weight, neurodevelopmental disorders, asthma, childhood leukemia, cardiovascular disease, chronic obstructive pulmonary disease, and lung cancer. **The following table demonstrates various exposure pathways to fenceline communities:**

| Plastic Stage | Activities   | Top Impacts  |
|---------------|--|--|
| Production    | <ol style="list-style-type: none"> <li>1. Fossil fuel extraction</li> <li>2. Petrochemical refining</li> <li>3. Chemical transport</li> </ol>  | <ol style="list-style-type: none"> <li>1. Unsafe work conditions, toxic exposure</li> <li>2. Prenatal exposure and compounded social inequities</li> <li>3. Land, air, and water pollution</li> <li>4. Loss of ecosystem services</li> </ol> |
| Use           | <ol style="list-style-type: none"> <li>1. Plastic bottles for drinking water</li> <li>2. Plastic food and drink packaging</li> <li>3. Over-reliance on cheap plastic products in poor areas, food deserts</li> </ol> | <ol style="list-style-type: none"> <li>1. Toxic exposure (incl microplastics)</li> <li>2. Hormonal and reproductive harm</li> <li>3. Harms to women from chemicals in gender-linked products (ex: household cleaning, hygiene)</li> </ol>    |
| Disposal      | <ol style="list-style-type: none"> <li>1. Waste picking</li> <li>2. Plastic waste export</li> <li>3. Recycling</li> <li>4. Incineration/pit burning</li> </ol>   | <ol style="list-style-type: none"> <li>1. Toxic exposure</li> <li>2. Loss of ecosystem services</li> <li>3. Land, air and water pollution</li> <li>4. Contaminated subsistence seafood</li> </ol>  |

## #2 Social and environmental injustices are happening around the globe.

Risks from pollution are particularly high in the Global South, small island states, and disenfranchised areas in the Global North. In countries with a lower cost of doing business, where regulation is often minimal to nonexistent, residents who lack political power bear the most burden. “Hotspot” or “sacrificial” zones where production and disposal occurs are also locations associated with high exposure risk.

## #3 A range of groups are disproportionately affected by social and environmental injustices.

Among them:

- Indigenous populations
- Coastal communities (including Small Island States)
- Children
- Women
- People of African descent
- Fossil fuel extraction workers
- Chemical and plastic production workers
- Informal waste and recovery workers
- Residents of “fenceline” communities (also called “sacrifice zones”) near fossil fuel extraction, plastic production, and plastic waste facilities
- Future generations

## #4 Solutions to restore social and environmental justice.

Social and environmental justice solutions are needed to reverse plastics burdens among the groups least responsible for the pollution, and who lack the political power to drive remedial action.

The report proposes solutions which need to be implemented locally, nationally, and at a global level.

Pre-eminent among all solutions are actions to:

- 1. Reduce plastic production**
- 2. Set health-protective standards**
- 3. Assign fiscal and legal responsibility to plastic and product producers**

The remaining solutions listed here are consistent with a human rights based approach, promote procedural justice, and encourage immediate action:

- Ensure participation access, rights and roles for those affected.
- Ensure the right and access to information. This includes having safety measures in place to decrease both environmental and health risks.
- Promote benign alternatives that are both affordable and accessible.
- Advocate for restricting toxic plastic imports to low and middle income countries and ban open burning.
- Conduct an assessment of funding allocation within the research community so that countries bearing the highest burden also have priority access to funds.

## **Conclusion**

Decision makers at all levels must acknowledge and address how societal roles contribute to inequitable and unjust distribution of the cost of plastic pollution. People of greater privilege and lower risk need to speak up for people, communities, and countries that bear disproportionate costs of plastic pollution, and encourage governments to take action.

Evidence from the Minderoo-Monaco Report shows that the risk of rising plastic pollution poses an unacceptable threat to human health. Leaders from around the globe must take effective policy action, reduce the amount of plastic produced and repair the current waste management systems.

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