

# Waste burning in cement kilns

## Issues and concerns

“Co-processing” or “co-incineration” is a common practice in the cement industry; the use of waste (including tires, plastics, paints, and other petrochemical waste) as a source of energy with the purpose of lowering the costs of cement processing. In many cases, waste is processed into alternative fuels –such as [refuse derived fuels \(RDF\)](#)– which are then burnt with coal or oil in multi-fuel boilers or cement kilns. In some countries, such as the Philippines, municipal waste, including low-value flexible plastic packaging which is unrecyclable, is used as fuel in cement kilns.

Burning plastic in cement kilns results in toxic emissions such as persistent organic pollutants like dioxins, furans and bromines, and heavy metals and acid gases, threatening the health of workers, communities and the environment, especially in low-income countries in the Global South without the capacity to monitor and enforce pollution controls.

Widespread burning of waste in cement kilns would also worsen the already devastating carbon footprint of the cement industry – [one of the top GHG emitters globally](#), responsible for [8% of the world’s carbon dioxide](#). Despite the [carbon-intensive nature of waste incineration](#), the poorly-regulated, highly-polluting industry [aims to use alternative fuels to cover 22% of global cement kiln energy usage by 2030](#). Alarmingly, both waste incineration and co-incineration in cement kilns were included as a climate solution in [39 of 99 recently submitted Nationally Determined Contributions \(NDCs\) under the Paris Agreement](#).

It has increasingly been [used as a greenwashing tactic](#) by the plastic and consumer-facing industries under the guise of “recycling.” One of the largest plastic manufacturers, Dow Chemical, created a program in parts of the United States to collect “hard-to-recycle” plastics for “advanced recycling,” which ended up [primarily being sent to a cement kiln](#). Multiple big consumer brands like Unilever, Coca-Cola, and Nestle were [funding projects to burn their plastic waste \(including sachets\) in cement kilns](#), primarily in developing countries. Some plastic waste is exported to be intentionally burned in cement kilns, further exacerbating [waste colonialism](#). [Plastic offsetting credits schemes](#) risk further fueling these practices by issuing credits for plastic waste that is burned in cement kilns as well as other types of incinerators.

## Recommendations

The global plastics treaty must:

- Require a phase out of burning plastic waste in cement kilns.
- Exclude co-incineration from financial and regulatory support (i.e. technical assistance, subsidies, tax credits or other financial support).
- Ban the international trade in plastic waste, especially if destined to be burned.

## Pitfalls to avoid

- Investing in co-incineration projects as part of official development assistance, in the form of loans, bonds, grants, technical assistance, and other financing mechanisms.
- Greenwashing of plastic co-incineration through plastic credit programs.

## Further reading

- Zero Waste Europe. "Burning waste in cement kilns: the case of Lafarge Trbovlje". 2018. <https://zerowasteurope.eu/library/burning-waste-in-cement-kilns-the-case-of-lafarge-trbovlje>
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- IPEN. "Malaysia: Repackaged Waste Imports". 2022. <https://ipen.org/documents/malaysia-repackaged-waste-imports>
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