

OCEANIC GLOBAL COVID-19 FACT SHEET

Information about COVID-19 is highly variable and still being uncovered. Here, we share a literature review of knowledge from leading global authorities, research institutes, and experts.

THE CURRENT SITUATION

In the wake of COVID-19, we have seen an **increased demand in plastic**, rollbacks of legislation banning plastics, and **disturbing statements from the plastic industry**. Plastic lobbyists are taking advantage of the fear induced by the COVID-19 pandemic to push their plastics agenda even when single-use plastic items are not necessarily the most hygienic choice.

Consumer demand for plastics is increasing. The International Solid Waste Association (ISWA) has estimated that **single-use plastics have increased between 250-300 percent since COVID-19 pandemic began** ([The Economist](#)). In response to COVID-19, there is monthly global consumption of **129 billion face masks and 65 billion gloves** ([Prata et al., 2020](#)). All of the masks manufactured to-date combined with those projected to be produced, would cover the entire landmass of Switzerland ([Scientific American](#)). From PPE, packaging, and single-use items used for food delivery and distribution, 2020 is on track to see a **40% increase in waste production from 2019** ([Prata et al., 2020](#)).

In addition to plastic consumption, COVID-19 is a reminder that **human health and environmental health are interlinked**, and marginalized communities are disproportionately bearing the brunt of the impacts. **Studies have now shown** that long-term exposure to air pollution increases risk of mortality from COVID-19 which is an example of how human health is reliant on environmental health.

UNCTAD estimates that COVID-19 lockdowns have led to a **5% drop in global greenhouse gas emissions**; however, not all industry shifts in the pandemic have had a positive impact on the environment. Globally the production of plastic has quadrupled over the years and scientists predict that if growth continues at this rate, the plastic production industry will account for up to 15 percent of total global GHG emissions by 2050 ([IPS](#)).

Medical waste consumption reported around the globe has drastically increased, including in Catalonia, Spain, and in China, with an **increase of 350% and 370%**, respectively ([Klemeš J.J. et al., 2020](#)).

Waste management especially the recycling industry have been significantly impacted by COVID-19 as **big oil is investing hundreds of billions of dollars in new plastic production**, which far exceeds investment in the industry's spending on efforts to tackle plastic waste ([Reuters](#)).

Even in the face of a global recession and pandemic, consumer demand for businesses to demonstrate sustainable practices and planetary stewardship has only increased. People want to support businesses that embody their beliefs and are willing to pay more.

- In a recent study surveying 7,000 adults across Australia, France, Mexico, Singapore, Spain, the United Kingdom and the United States, Brandwatch found that **57% of respondents want businesses to focus on sustainability and the environment more in 2021** ([Sourcing Journal](#)).
- A recent Morgan Stanley meta-analysis shows that **88% of studies found that companies abiding by social or environmental standards showed higher operational performance** ([Morgan Stanley](#)).
- Three in four Millennials (74%) and Generation Z consumers (72%) are **willing to pay more for sustainable products and services** ([Nielsen](#)).
- A 2017 Unilever study shows that a third of consumers prefer sustainable brands, an estimated **\$1.1 trillion opportunity exists for brands** that make their sustainability credentials clear, and these numbers have only increased ([Unilever](#)).
- 60% of youth under age 30 say the **priority for the post-pandemic recovery** should be restructuring society to deal with challenges including **inequality and climate change** ([Sustainable Brands](#)).
- Gen Z will soon make up **30 percent of the US workforce** ([Wespire](#)).
- Gen Z is well aware of the social and environmental challenges the world currently faces. According to a recent Cone Communications study, **92 percent say they care about these issues and express concern for the future**, and 89 percent indicate that they're worried about the health of our planet ([Sustainable Brands](#)).

Job opportunities in the zero waste industry:

- There is opportunity to take this moment as pivotal transition towards reusable and recoverable alternatives to single-use plastics. Developing countries are key suppliers of many plastic substitutes, so increased global demand could create new, greener trade and investment opportunities for them. For example, 92% of the world's jute comes from developing countries, with the main suppliers being Bangladesh (74%) and India (9%), likewise 94% of global natural rubber exports in 2019 came from Thailand (31.5%), Indonesia (30%) and Côte d'Ivoire (8.5%) ([UNCTAD](#)).
- That said, developing countries have a big stake in the global plastics economy: their share of global plastics production jumped from 43.5% in 2009 to 58% in 2018, and two out of three plastic manufacturing jobs are in the global south ([UNCTAD](#)). As such this is a key moment to shift momentum from a fossil-fuel based economy to a regenerative model.

HOW DOES COVID-19 SPREAD? ARE REUSABLES SAFE?

- A [statement](#) signed by over 125 virologists, epidemiologists, and health experts from 18 different countries endorses that reusables are safe.
 - “Based on the best available science and guidance from public health professionals, it is clear that reusable systems can be used safely by employing basic hygiene.”
 - “Single-use plastic is not inherently safer than reusables, and causes additional public health concerns once it is discarded.”
 - “Dishwashers and washing machines should be effective if operated according to manufacturers’ instructions and, in the case of laundry, using the warmest appropriate water setting for the items and drying”
- Revised [CDC guidelines](#) show that, “The virus is thought to spread mainly from person-to-person...between people who are in close contact with one another, through respiratory droplets produced when an infected person coughs, sneezes, or talks.”
 - The transmission of these droplets occurs when a person is within 1-1.5 meters from a contagious individual and is at risk that their mouth or nose could be exposed to the droplets ([Martellucci et al., 2020](#)).
- The [CDC](#) states that transmission of the virus from surface contact has never been documented.
- [WHO Guidance for Food Businesses](#) & [WHO Guidance for the Accommodation Sector](#) makes no recommendation to use disposable items other than cleaning products.
- [FDA Best Practices for Food Retail Stores, Restaurants](#) include guidelines on ware-washing machines and cleaning protocols for reusable dishware.
- A [UK Food Standards Agency](#) study shows that there is currently no evidence that food or food packaging is a source or vehicle of transmission for the COVID-19 virus.
- Additional information on the safety of reusables [HERE](#) (Source: Upstream), [HERE](#) (Source: Surfrider), [HERE](#) (Source: Post-Landfill Action Network), [HERE](#) (Source: Greenpeace), [HERE](#) (Source: BFFP), [HERE](#) (Source: Mother Jones), and [HERE](#) (Source: Grist).
- According to current evidence, the virus is mainly transmitted through respiratory droplets from infected people. The transmission of these droplets occurs when a person is within 1-1.5 meters from a contagious individual and is at risk that their mouth or nose could be exposed to the droplets. ([Martellucci et al., 2020](#))

HOW LONG DOES COVID-19 LIVE ON VARIOUS SURFACES?

- **Tissue Paper:** 3 hours ([Chin et al., 2020](#))
- **Copper:** 4-5 hours ([Doremalen et al., 2020](#)), ([Warnes et al., 2015](#))
- **Cardboard:** 24 hours ([Doremalen et al., 2020](#))
- **Wood:** 2-4 days ([Carraturo et al., 2020](#)), ([Chin et al., 2020](#))
- **Glass:** 2-5 days ([Carraturo et al., 2020](#)), ([Chin et al., 2020](#))
- **Paper:** 5 days ([Carraturo et al., 2020](#))
- **Ceramic:** 5 days ([Carraturo et al., 2020](#))
- **Metal:** 2-7 days ([Doremalen et al., 2020](#)), ([Carraturo et al., 2020](#)), ([Chin et al., 2020](#))
- **Plastic:** 3-7 days ([Doremalen et al., 2020](#)), ([Carraturo et al., 2020](#)), ([Chin et al., 2020](#))

WHAT WILL PREVENT THE SPREAD OF COVID-19?

- Coronaviruses can be effectively inactivated on a surface within 1 minute, with the use of standard disinfectant procedures. ([Chin et al., 2020](#))

Food-contact approved disinfectants containing 62-71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite have been shown to work ([Kampf et al., 2020](#)).

- UV radiation treatments deactivate coronaviruses ([Penn State, June 2020](#)).
- Much food safety guidance advises that **reusable face masks can be used** instead of disposable ones. The CDC recommends cloth masks for the hospitality industry stating, "In the current COVID-19 pandemic, use of PPE such as surgical masks or N95 respirators is being prioritized for healthcare workers and other medical first responders, as recommended by current [CDC guidance](#), unless they were required for your job before the pandemic." A fabric covering the face that is washable, multi-layered, well secured, and covers the nose and mouth works well.

Dishwashing Guidance

Instead of switching to single-use or disposable options, choose reusables, which are actually a cleaner and safer choice. Below is guidance on authorized cleaning protocols to kill the COVID-19 virus.

- [WHO](#): World Health Organization data shows that temperatures of **140°F - 150°F / 60°C - 66°C** will kill most viruses. [Accommodation Guidelines](#) recommend that linens should be machine washed in hot water (60-90°C) with laundry detergent.
- [FDA](#): Warewasher should be clean, functioning, equipped with detergent and sanitizer. A single temperature machine should be at **165°F / 74°C**, others should reach a high rinse temperature of **180°F / 82°C**.

Country Examples:

- ★ [Switzerland](#): Dishes and utensils (even unused) are washed in the dishwasher if possible (and not by hand). The washing programs are carried out at a temperature above 140°F / 60°C.
- ★ [Germany](#): Dishes and utensils used by guests must be washed with a suitable cleaning agent at a temperature of at least 140°F / 60°C. If it is not possible to clean glasses in a dishwasher at 140°F / 60°C or higher, hot water with a temperature of at least 113°F / 45°C and detergent should be used in manual washing processes.
- ★ **Coronaviruses are susceptible to traditional heat treatments, such as cooking at 158°F / 70°C** ([Carraturo et al., 2020](#)).

GLOBAL REGULATIONS IN RESPONSE TO COVID-19

*Oceanic Global's compiled select sample of global regulations is available [HERE](#).

*Tracker on U.S. State regulations [HERE](#) (Source: Post-Landfill Action Network).

Summary:

- Globally, there is a focus on hygiene practices, including increased sanitation of high-touch areas, and a recommendation to avoid buffets or self-service.
- There is rarely strict guidance on using disposable dishware instead of reusables, and the [WHO Accommodation Sector](#) guidance makes no reference to disposable foodservice items.

The [CDC](#) is the only major institution we came across that suggested using single-use foodservice items at any point. While the CDC recommends disposable foodservice items, **it does not require disposables** stating, "If disposable items are not feasible or **desirable**, ensure that used or dirty non-disposable food service items are handled with gloves and washed, rinsed, and sanitized to meet food safety requirements."

Key Findings:

- ★ The [Singapore Government](#) strongly encourages consumers to bring their own clean and reusable containers when buying food. "As more customers are expected to order takeaways during this period, we strongly encourage everyone to bring their own clean and reusable containers when buying food. This will not only help to reduce the amount of waste generated, but will also ease the demand on disposable food containers. Establishments should allow customers to do so when ordering takeaways."
- ★ In Australia, the [Victorian Government](#) shares, "There is currently no evidence to suggest there is any benefit in switching to disposables. It is important that the measures we take to minimize transmission are effective. The most effective measures you can take are practicing good hand hygiene and cleaning, with particular focus on shared, frequently touched surfaces."
 - ★ Their Summer Guidelines (updated on Dec. 6th, 2020) allow for reusable foodservice items and also accepts customer-brought reusable beverage cups as well as reusable takeaway schemes (with proper sanitation)!
- ★ [Food Standards Scotland](#) reopening guidance for foodservice states that "there is currently no evidence that food or food packaging is a source or vehicle of transmission for the COVID-19 virus."
- ★ The [Irish Food Safety Authority](#) has updated their website to indicate there is "no ban" on reusables, does not require disposables for food service, and allows for BYO beverage cup schemes.
- ★ States across the U.S. are allowing the use of reusable bags again and bag bans that had been overturned or delayed are now mostly back in effect.

FURTHER INFORMATION

- WHO - www.who.int/health-topics/coronavirus
- WHO Myth Busters - www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters
- CDC - www.cdc.gov/coronavirus/index.html
- NIH - <https://www.nih.gov/coronavirus>
- Springer Nature Free COVID-19 Library - <https://www.springernature.com/gp/librarians/landing/covid19-library-resources>

5. SOURCES CITED

Carraturo, Federica, et al. "Persistence of SARS-CoV-2 in the Environment and COVID-19 Transmission Risk from Environmental Matrices and Surfaces." *Environmental Pollution*, vol. 265, no. Part B, Oct. 2020, p. 115010., doi:10.1016/j.envpol.2020.115010.

Chin, Alex W H, et al. "Stability of SARS-CoV-2 in Different Environmental Conditions." *The Lancet Microbe*, vol. 1, no. 1, 2 Apr. 2020, doi:10.1016/s2666-5247(20)30003-3.

Doremalen, Neeltje Van, et al. "Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1." *New England Journal of Medicine*, vol. 382, no. 16, 16 Apr. 2020, pp. 1564–1567., doi:10.1056/nejmc2004973.

Kampf, G., et al. "Persistence of Coronaviruses on Inanimate Surfaces and Their Inactivation with Biocidal Agents." *Journal of Hospital Infection*, vol. 104, no. 3, 6 Feb. 2020, pp. 246–251., doi:10.1016/j.jhin.2020.01.022.

Kassam, Ashifa. "More Masks than Jellyfish': Coronavirus Waste Ends up in Ocean." *The Guardian*, The David & Lucille Packard Foundation, 8 June 2020, www.theguardian.com/environment/2020/jun/08/more-masks-than-jellyfish-coronavirus-waste-ends-up-in-ocean.

Maiden, Todd O., et al. "Novel Coronavirus – How Employers Should Dispose of Personal Protective Equipment." *EHS Law Insights*, Reed Smith, 7 Apr. 2020, www.ehslawinsights.com/2020/04/novel-coronavirus-how-employers-should-dispose-of-personal-protective-equipment/.

Martellucci, Cecilia Acuti, et al. "SARS-CoV-2 Pandemic: An Overview." *Advances in Biological Regulation*, vol. 77, no. 100736, Aug. 2020, doi:10.1016/j.jbior.2020.100736.

Prata, Joana C., et al. "COVID-19 Pandemic Repercussions on the Use and Management of Plastics." *Environmental Science & Technology*, vol. 54, no. 13, Jun. 2020, doi: 10.1021/acs.est.0c02178

Radoszewski, Tony. "Plastics Industry Association Letter to the US Department of Health and Human Services." Received by The Honorable Alex Azar, Secretary of the US Department of Health and Human Services, 1425 K Street NW, Suite 500, 18 Mar. 2020, Washington, DC , 20005.

State, Penn. "Killing Coronavirus with Handheld Ultraviolet Light Device May Be Feasible." *ScienceDaily*, ScienceDaily, 1 June 2020, www.sciencedaily.com/releases/2020/06/200601194140.htm.

Warnes, Sarah L., et al. "Human Coronavirus 229E Remains Infectious on Common Touch Surface Materials." *MBio*, vol. 6, no. 6, 10 Nov. 2015, doi:10.1128/mbio.01697-15.

Wood, Laura. "The 2020 Plastics Industry - COVID-19 Pandemic Has Changed the Conversation Around Single Use Plastics - ResearchAndMarkets.com." *Business Wire*, ResearchAndMarkets.com, 7 May 2020, www.businesswire.com/news/home/20200507005569/en/2020-Plastics-Industry---COVID-19-Pandemic-Changed.