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New Report & Supplement Reveal the Hidden Costs of Top-Selling PLA Bioplastic

Life cycle analysis of PLA bioplastic challenges common sustainability claims; reveals ecological and social damage and misconceptions around the material's actual compostability

Eunomia Research & Consulting, in collaboration with Plastic Pollution Coalition (PPC), this week released a comprehensive report on Polylactic Acid (PLA), a popular bioplastic often touted as a sustainable alternative to conventional plastics. The report, titled "Bioplastics Are Trash: The Unforeseen Environmental Consequences of PLA from Production to Disposal" provides an in-depth analysis of PLA's environmental and social impacts, challenging prevailing perceptions of its sustainability.

Additionally, Plastic Pollution Coalition has published a supplemental report, The Environmental Injustices of PLA Bioplastic Production, which addresses the environmental injustices of PLA production. The supplement further describes the serious social consequences of producing PLA, and emphasizes how replacing one toxic single-use material—conventional plastic—with another—PLA—only perpetuates pollution and environmental injustices.

Key findings of the report and supplement include:

- PLA is an industrial bioplastic. It is made from corn or sugarcane grown with intensive agricultural practices, which contribute to ecological issues such as deforestation, water pollution, soil degradation, and loss of biodiversity.

- PLA is produced industrially in large facilities and with transportation networks that pollute air, lands, and waters and drive environmental injustices.

- For PLA and other industrially made bioplastics to decompose and biodegrade, they must be collected and composted in one of the limited number of carefully controlled, high-temperature industrial composting facilities in the U.S. that accept them.

- Such composting facilities are few and far between, and in the absence of appropriate recycling infrastructure, PLA products in the U.S. largely follow the same waste streams as regular plastics, accumulating in landfills and contributing to plastic pollution.

- PLA and other industrial bioplastics have been found to contain as many as 20,000 chemical features, indicating a broad range of chemical additives, many of which are identical to those added to conventional plastics.
- PLA does not biodegrade at the same speed as other organic materials in composting facilities, which can lead to contamination of the final compost product.
- When PLA is landfilled, it may fragment into chemical-laced microplastics that pervade our environment and contaminate food and water sources.

  Read the full report here and find the supplement to the report here.

"To address plastic pollution we must move our efforts beyond single-use materials like PLA to judicious use of plastic-free, reusable, and refillable materials that are effectively and infinitely recyclable, unlike PLA and plastics. Reducing single-use plastics and prioritizing infinitely reusable and recyclable materials is crucial for protecting human health, especially for people who live in vulnerable communities that are disproportionately impacted by our current single-use culture. By moving our focus from substitution to overall waste reduction, we can address the root of the plastic pollution problem and move towards a more sustainable and healthy planet." –Julia Cohen, Managing Director, Plastic Pollution Coalition

PLA is almost always treated as a single-use material, which perpetuates wastefulness, just like conventional plastics. Plastic-free, nontoxic reusable materials that can be endlessly recycled when they are no longer usable (like aluminum and glass), reuse systems, and safer and more efficient recycling practices and infrastructure are the best solutions to end pollution and injustices. This new report and supplement underscore how the failure to adopt these solutions leaves marginalized and underserved groups to bear the brunt of the burden from current waste practices.

The findings of the report highlight a risk business owners who adopt PLA products face: the discrepancy between PLA's marketed and actual environmental footprint may expose businesses to claims of greenwashing. At a time when the expectations of eco-conscious consumers continue to rise, the failure to critically assess and transparently communicate the environmental drawbacks of PLA products may undermine a business's credibility with key customer bases.

"Our research shows that PLA is not the panacea for the planet's plastic problems. Whilst PLA is derived from renewable resources, so the need for fossil fuel feedstocks is negated, its

production and end-of-life disposal pose environmental issues which should not be overlooked. Bioplastics do have their part to play but our report shows that significant investment, supported by policy, would be required for PLA products to enter the recycling system fully." – Sarah Edwards, Head of North America, Eunomia

About Plastic Pollution Coalition

Plastic Pollution Coalition is a non-profit communications and advocacy organization that collaborates with an extensive global alliance of organizations, businesses, and individuals to create a more just, equitable, regenerative worldfree of plastic pollution and its toxic impacts.

http://www.plasticpollutioncoalition.org

About Eunomia

At Eunomia, we are driven by the power of unwasted. We're social-environmental problem-solvers and researchers with a difference. Combining real world consulting experience and deep knowledge with an active role in policy, empowers us to provide pragmatic, science-led solutions that reduce human impact on the planet. As the leading experts in our field for nearly 25 years, our role is to challenge the status quo. We get to the heart of the real issues impacting our clients' businesses and impacting society. Then, we provide the evidence and practical solutions to solve the world's most pressing societal and environmental problems. We are a certified B-Corp business, globally. With 150+ employees across 5 offices, spanning three continents.

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