



Overview

Household and personal care products:

Priority actions towards a nature-positive future

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Introduction

The household and personal care products sector is central to our daily lives. Its products — from shampoos and beauty products to detergents and disinfectants — have significantly enhanced our well-being and living standards by promoting hygiene, convenience and aesthetic appeal in our daily routines and environments.

The sector generates approximately USD \$700 billion in annual revenue,ⁱ although this sometimes comes at the expense of nature. For example, the cosmetics industry alone produces 120 billion packaging units annually and palm oil – a common ingredient in many cosmetics and detergents – accounted for 7% of global deforestation from 2000 to 2018.^{2,3,4} Thus, it is imperative for the household and personal care products sector to ensure it operates within the safe and just Earth system boundaries and contributes to a nature-positive and net-zero future.ⁱ

Many businesses in the sector have already made commitments on nature and climate.ⁱⁱ However, more needs to be done. The sector's supply chain still contributes to nature loss through land conversion and deforestation connected with the harvesting of plant-based feedstocks and raw materials, such as palm oil and rapeseed. The manufacturing and downstream use of household and personal care products also consume significant volumes of water, and when improperly managed, may lead to pollution, specifically plastic pollution, in soil, water, and oceans.

Like most other sectors, household and personal care products companies also depend on nature to function and grow. For example, beauty and cosmetic companies heavily rely on biodiversity, including crops from wild and cultivated flora, which can include rare or uncommercial species. Thus, nature loss is a key risk for the sector. Moreover, regulators will soon begin to seek nature-related disclosure from companies.

To complement ongoing sustainability initiatives, all businesses need to **Assess, Commit, Transform, and Disclose** ([ACT-D high-level business actions on nature](#)). They should acknowledge the value of nature to their business; assess and measure their impacts and dependencies on nature; set transparent, time-bound, science-based targets; take actions to address their key impacts and dependencies; and publicly disclose performance and other relevant nature-related information.

This overview provides a sector-level summary of potential key impacts and dependencies on nature.ⁱⁱⁱ Importantly, it also sets out the priority actions that all businesses should take now to transform and ensure the household and personal products sector plays its role in halting and reversing nature loss by 2030 – the mission at the heart of the [Kunming-Montreal Global Biodiversity Framework](#).

Scope of this overview

The household and personal care products sector ([SICS code: CG-HP](#)) comprises companies that manufacture a wide range of goods for personal and commercial consumption, including cosmetics, household and industrial cleaning supplies, soaps and detergents, sanitary paper products, household batteries, razors and kitchen utensils.

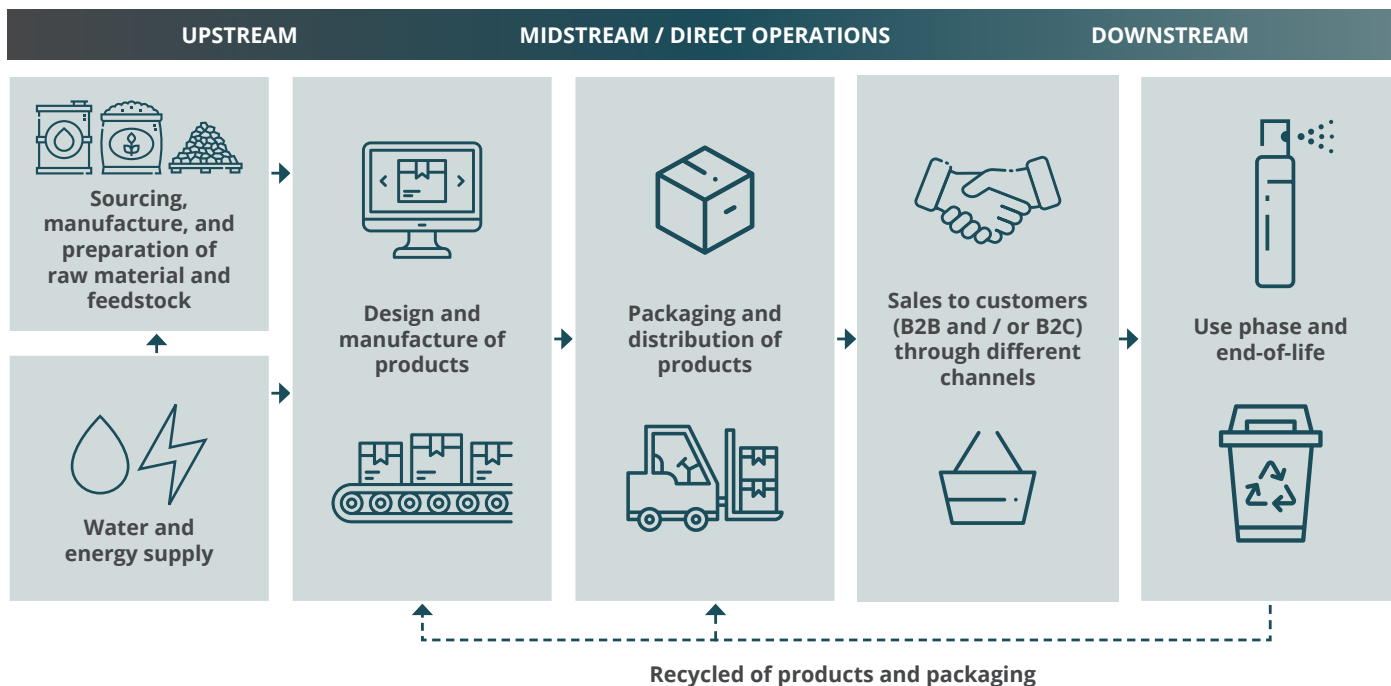


ⁱ In May 2023, the Earth Commission published the first quantification of safe and just Earth system boundaries, developed by more than 40 researchers across the globe. See [Safe and just Earth system boundaries](#) (Nature, 2023).

ⁱⁱ Companies that have defined net-zero targets and made commitments on biodiversity include P&G, L'Oréal, Unilever, Estée Lauder, among others. For more details, see the full WEF report on the transition of the household and personal care products sector.

ⁱⁱⁱ Analysis is mainly based on ENCORE and the SBTN Sectoral Materiality Tool. Other sources include CDP Water Watch, WWF Water Risk Filter and Biodiversity Risk Filter, extensive desk research, academic reviews, company-specific insights and assessments, analysis by Oliver Wyman and Oliver Wyman 3D Carbon Accounting, analysis by the World Economic Forum, and the World Economic Forum into the processes and sectors, and industry expert interviews. The terminology on impacts and dependencies is aligned with [TNFD impact driver and dependencies categories](#).

Household and personal care products value chain (as covered in this overview)



Nature-related impacts

To protect and enhance the ecosystems on which they depend, businesses in the household and personal care products sector should direct their efforts towards addressing the most significant impacts on nature in their operations and value chains, namely:^{iv}

• **Water use and other resource use** – The sector withdraws and consumes huge volumes of water across its entire value chain – such that the sector has a CDP Water Watch impact rating of “Critical” (highest category).⁵ In particular, water is used in the upstream production and processing of feedstocks, the extraction of raw materials and in midstream manufacturing activities to process and dilute waste streams. Water is also used as an ingredient in products and for their downstream use. When water is returned to water supplies, it is sometimes at a lower quality than it was when extracted.

The sector also consumes fossil fuels and plants for the upstream production of inputs. The harvesting of plants used for beauty and cosmetic products might have a direct impact on the biodiversity of flora, depending on the ecological sustainability and practices used in the resource collection.

• **Land use change** – The production of renewable and non-renewable feedstock and raw materials may lead to land conversion, deforestation and soil degradation as a result of mining and agricultural activities. This disrupts habitats and ecosystems, drives biodiversity loss, decreases soil fertility and adversely affects local communities and Indigenous Peoples.

• **Pollution** – Pollution occurs at all stages of the sector’s value chain. Upstream feedstock production and midstream manufacturing activities often pollute the atmosphere, land and water with harmful or toxic chemicals, such as surfactants, excess nutrients and solid particulate matter like microplastics. In the downstream use of products, plastic pollution from packaging and microplastics enters waste streams and eventually oceans, harming land-based and aquatic species.

• **Greenhouse gas (GHG) emissions** – The sector contributes to GHG emissions across its value chain; for example, scope 3 emissions account for around 80% of total emission intensity in the consumer staples sector.^{vi,vii} Plastic production alone generates 3.4% of GHG emissions globally,⁶ which is higher than aviation’s carbon footprint (2% of GHG emissions).⁷ The downstream use phase is another source of GHG emissions. For instance, Unilever reports that two-thirds of its emissions occur “when they leave the shelves and go home with our consumers.”⁸

^{iv} Over 90% of the sector’s impacts on nature are embedded in its supply chains. See *Starting at the source: Sustainability in supply chains* (McKinsey, 2016).

^v Scope 3 emissions refer to indirect greenhouse gas emissions that occur in a company’s supply chain but are outside the direct control of the organization. These emissions are generated as a result of activities associated with the company’s products, services, or operations, including the activities of suppliers, customers, and other stakeholders.

^{vi} Metric tons of CO₂ equivalent / million USD revenues.

^{vii} Consumer staples sector include both the agribusiness and household products sector. See *What Investors Need to Know About Scope 1, 2 and 3 Emissions* (Man Institute, 2022).

Nature-related dependencies

Like many sectors, the household and personal care products sector relies on environmental assets and ecosystem services to function and grow. In particular, household and personal care products businesses rely heavily on:

- **Freshwater** – The sector depends on freshwater as an important resource. Water scarcity could become a critical concern for the sector, with the true cost of water estimated to be three to five times greater than that reported by businesses.
- **Biomass provisioning** – The sector relies on commodities such as palm oil, rapeseed oil and natural ingredients like plant extracts. For example, Firmenich, a multinational manufacturer of flavors, fragrances and active cosmetic ingredients, relies on more than 430 different species from across the globe.⁹ The sector is also highly dependent on land to cultivate and collect crops and plants used for feedstocks.

These dependencies strengthen the business case to invest in the protection and restoration of nature.



Priority actions and opportunities

To reduce the sector's negative impacts on nature while mitigating risks to their operations and unlocking commercial opportunities, household and personal care products companies should prioritize five key actions:

1. Improve water stewardship throughout the value chain

– Reduce water consumption and pollution to protect nature and minimize vulnerability to increasing risks stemming from reduced water availability and quality. Key levers to improve stewardship of both surface and groundwater include assessing and prioritizing material water-related risks, completing a full water audit, upgrading direct manufacturing operations, recycling wastewater, engaging with customers to reduce downstream water use and pollution and restoring water basins. Tools, such as the [World Resource Institute's \(WRI\) Aqueduct™](#), [World Wildlife Fund's Water Risk Filter](#), and the [Science-Based Targets Network methodologies on freshwater target setting](#) are useful in helping companies assess, prioritize and address water-related material risks.

2. Source responsibly and replace feedstocks with sustainable bio-based or other renewable materials

(following careful evaluation of trade-offs) – Work with current suppliers to change production techniques to avoid unnecessary water use, protect against deforestation and preserve habitats. Incorporate nature-related considerations (for example, deforestation-free commitments, using certified raw materials, favoring non-endangered and non-overexploited raw materials) into procurement criteria and supplier assessments.^{viii} Support suppliers and farmers and work with local communities to promote sustainable and [regenerative agriculture](#) and other biodiversity-supportive practices. Better transparency on and traceability of product ingredients will allow better data on impacts and dependencies, which in turn will improve how the nature footprint of each end product is measured.

Additionally, explore shifting to bio-based or other renewable feedstocks to help reduce dependencies on fossil fuels, ecotoxicity and (potentially) synthetic allergens.¹⁰ However, this shift must take into account factors such as competition for land use and the impacts on nature, biodiversity and local communities. An assessment of the overall environmental impact of bio-based versus petrochemical feedstocks is needed, along with a balanced approach towards net-zero and nature positive, to address trade-offs.¹¹

3. Change customer behavior on product use and disposal through education and transparency

– The [Union for Ethical BioTrade \(UEBT\) Biodiversity Barometer](#) shows that the biodiversity crisis has become a high priority for consumers, with most wanting companies to take action to protect

nature.¹² Stepping up will allow companies to take advantage of the growing consumer interest in nature-positive. Key levers include delivering greater transparency to allow consumers to make informed decisions, producing educational information on the most sustainable use of a product (for example, the volume of water or size of dose required), contributing to shift behaviors and beliefs to reduce unnecessary consumption and downstream pollution and working with downstream retail partners in the B2B market.

4. Support nature conservation and restoration through investment in responsible business practices and Nature-based Solutions (NbS)

– Contribute to place-based nature conservation and restoration efforts by improving supply chain practices, launching initiatives within operations or beyond value chains, joining global initiatives (such as clean-up efforts or tree-planting) or supporting innovative nature financing mechanisms (such as payment for ecosystem services or nature restoration funds). Collaborate with environmental NGOs, governmental agencies and local communities to put environmental and social safeguards in place and ensure the effectiveness of such initiatives.

5. Expand circularity, offer sustainable products and packaging and engage in collective action and policy advocacy

– Where possible, shift towards circularity by recycling water and energy in manufacturing processes, introducing innovative packaging design and refillable products and facilitating efficient recycling and waste management. Invest in the research and development of nature-conscious products (such as waterless formulations or no-rinse products) to tap into new markets.

Engage with policymakers to support progressive policies that reinforce circularity, such as supporting the ongoing negotiations towards a United Nations treaty on plastic pollution. Reducing plastic pollution is already at the forefront of many businesses' agendas – for example, by eliminating microbeads and microplastics, reducing packaging, rolling out refillable business models, expanding recycling and exploring innovative alternative packaging materials.^{ix} It is estimated that up to half of annual plastic waste that makes its way to oceans can be prevented by reusing just 10% to 20% of plastic packaging.¹³

Importantly, efforts to deliver these priority actions and transform the sector must be delivered in alignment with a just and equitable transition, including meaningful dialogue with affected groups, such as employees, local communities, Indigenous Peoples and marginalized communities.

Adopting the priority actions can help businesses contribute to societal and environmental objectives, including the Global Biodiversity Framework (GBF) and the Sustainable Development Goals (SDGs). [Read the GBF-SDG mapping to see how the priority actions can contribute to these objectives.](#)

^{viii} For guidance, refer to [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\) Compliance, Access and Benefit Sharing \(ABS\) Compliance, UEBT sourcing with respect certificate, Roundtable on Sustainable Palm Oil \(RSPO\) certificate, NDPE \(No Deforestation, No Peat, No Exploitation\) commitment](#).

^{ix} For further details on biobased biodegradable plastics see [WWF Position: Biobased and Biodegradable Plastic](#) (WWF, 2021).

Resources

This overview was derived from the World Economic Forum's report [Nature Positive: Role of the Household and Personal Care Products Sector](#) (2023).

The following **sector-specific analysis, guidance, and tools** are currently available to companies in the household and personal care products sector:

- [Net Zero Playbook for Consumer Industries](#) (The Consumer Goods Forum, 2022)
- [Designing out plastic pollution](#) (Ellen MacArthur Foundation)
- [Fact Sheet: Biodiversity in the Cosmetics Sector](#) (European Business and Biodiversity Campaign, 2020)

- [Sourcing Botanicals with Respect for People and Biodiversity](#) (UEBT, 2022)
- [The Courage to Change](#) (British Beauty Council, 2020)
- [Biodiversity in the Cosmetic Industry](#) (Beauty Care/Fédération des Entreprises de la Beauté, 2022)
- [Future of Reusable Consumption Models](#), (World Economic Forum, 2021)
- [Integration of Biodiversity, Spice Sector in the Western Ghats](#) (India Business & Biodiversity Initiative, 2019)

For additional **sector-agnostic resources**, please refer to Business for Nature's [High-level Business Actions on Nature](#).

Contributors and credits

Written by (in alphabetical order):

- Акanksha Khatri**, Head, Nature Action Agenda, World Economic Forum
- Jennifer Tsim**, Partner, Oliver Wyman
- Katie Mawdsley**, Associate, Oliver Wyman
- Robert Bailey**, Partner, Oliver Wyman
- Sebastian Gerlach**, Engagement Manager, Oliver Wyman
- Xinqing Lu**, Lead, Champions for Nature, World Economic Forum

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- ² According to the recycling company TerraCycle (quoted in [The Guardian](#)).
- ³ [Palm Oil overview](#) (WWF).
- ⁴ [FRA 2020 Remote Sensing Survey](#) (Food and Agriculture Organization of the United Nations, 2022).
- ⁵ [CDP Water Watch](#).
- ⁶ [Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options](#) (Organisation for Economic Co-operation and Development – OECD, 2022).

⁷ [Aviation overview](#) (IEA).

⁸ [Unilever company data](#).

⁹ [Firmenich company data](#).

¹⁰ [Biocosmetics: technological advances and future outlook](#) (Environmental Science and Pollution Research, 2021).

¹¹ [Recommendation of the Council on Assessing the Sustainability of Bio-Based Products](#) (OECD, 2022).

¹² [UEBT Biodiversity Barometer: The Biodiversity Reckoning 2022](#) (UEBT, 2022).

¹³ [Future of Reusable Consumption Models](#) (WEF, 2021).

