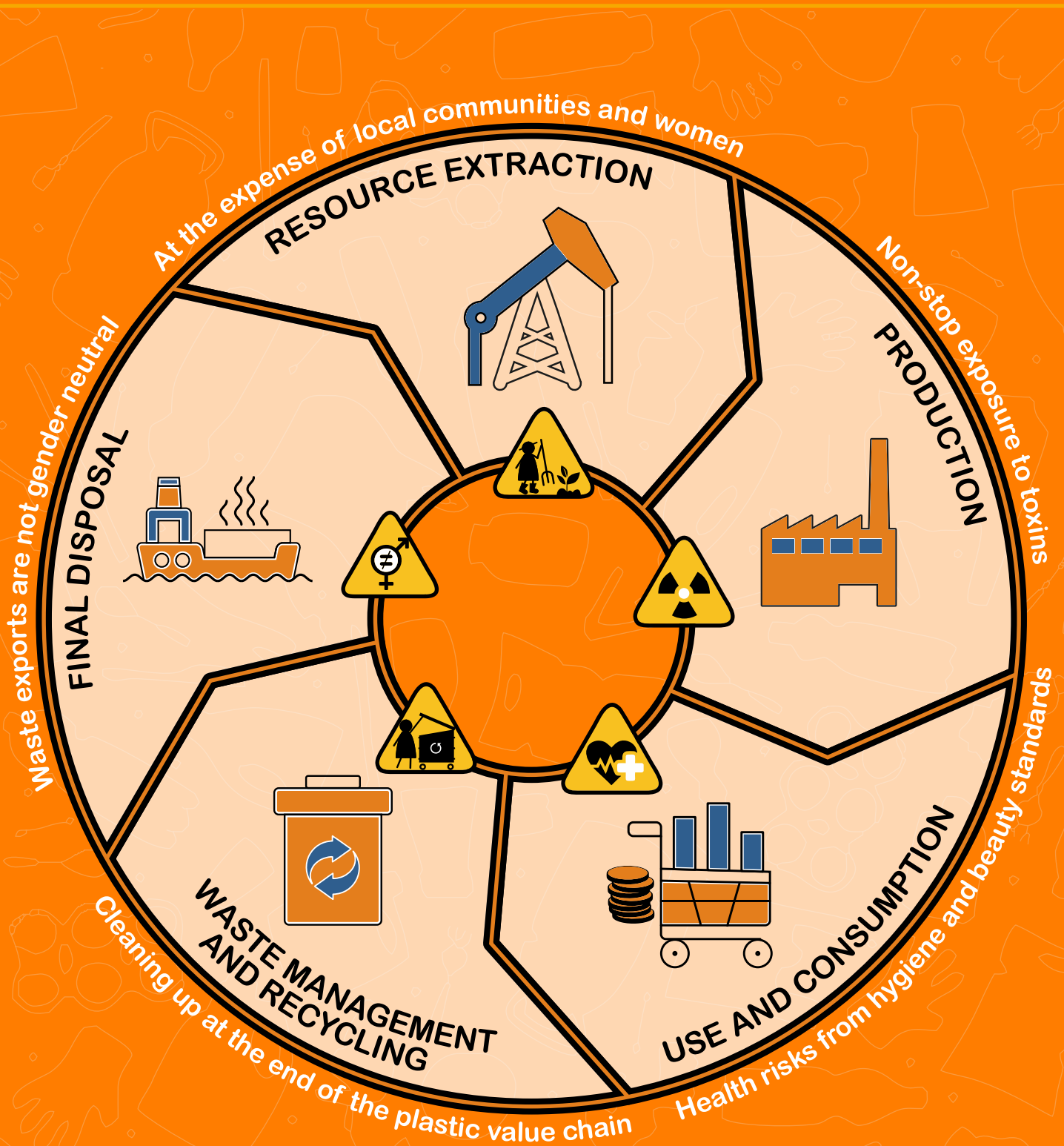


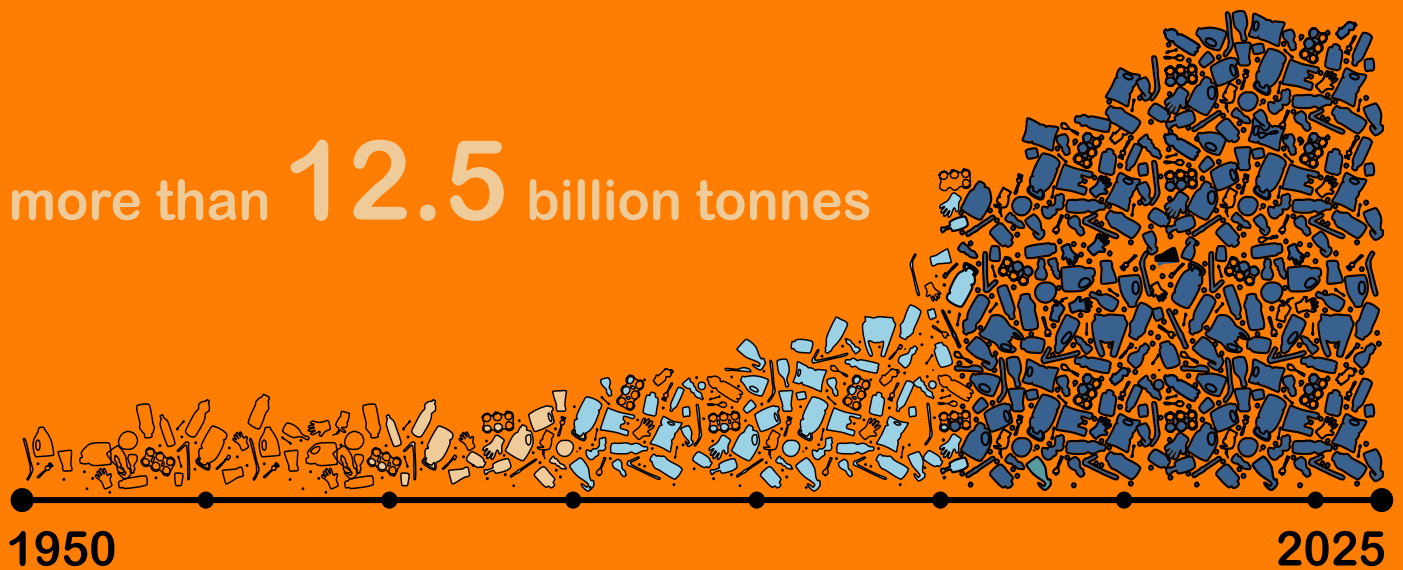
# COMBATTING GLOBAL PLASTIC POLLUTION — FEMINIST PERSPECTIVES FOR A GENDER-JUST APPROACH



# FOCUS

## The global plastic crisis

more than **12.5** billion tonnes



Plastic pollution is a global problem. Every minute, a volume equivalent to a lorry load is dumped into our oceans. The vast majority of plastic ever produced now accumulates in landfills, ecosystems, and the wider environment, as less than 10% is effectively recycled.<sup>1</sup> Each year, an estimated 19–23 million tonnes of plastic waste enter aquatic ecosystems, severely affecting biodiversity, human health, and livelihoods. Given this magnitude, negotiations were launched in November 2022 on a binding global agreement to stem the enormous tide of plastic waste. As of today, negotiations on a global plastics treaty are ongoing, reflecting both the urgency of the crisis and continued disagreement over mandatory limits on plastic production. The United Nations Environment Programme (UNEP) warns that the environmental, social, economic and health risks of plastics are now as extensive and severe as those of climate change, the loss of ecosystems and the exploitation of natural resources.

Many people, including policy makers, are becoming increasingly aware of the destructive consequences of plastic waste. But what

does this have to do with gender inequality? To what extent do plastic hazards affect the sexes and genders differently? And why can the plastic problem worsen existing disadvantages and discrimination?

Plastic pollution changes our living spaces and reduces the ability of ecosystems to adapt to climate change. But not only that – it also directly affects the ability of millions of people to secure their livelihoods. That means we have to look at the division of labour, in particular between women and men. Around the world, women are responsible to a far higher degree than men for ensuring the survival of their households. At the same time, their access to resources like land, water and loans has been greatly reduced. That impacts their work not only in farming and fishing but also in industry, retail and the informal sector. Women are affected directly and existentially by the loss of arable land and the contamination of water and coastal areas.

Numbers alone, however, do not convey the extent of the plastic crisis and the magnitude of global destruction creeping up on us. We are seeing only the tip of the proverbial iceberg of rubbish. Plastics cause problems throughout their entire “lifecycle”.

BY 2025, ABOUT **12.5** BILLION TONNES OF PLASTIC HAD ALREADY BEEN **PRODUCED** WORLDWIDE – AND THIS FIGURE CONTINUES TO RISE. THIS IS EQUIVALENT TO **1.5** TONNES OF PLASTIC **FOR EVERY PERSON** ON THE EARTH. OVER **1/2** OF THIS AMOUNT WAS PRODUCED IN THE **LAST 25 YEARS**.

THIS GROWTH IS DRIVEN PRIMARILY BY VIRGIN (**FOSSIL-BASED**) PLASTICS, WHILE SECONDARY (**RECYCLED**) PLASTICS CONTINUE TO REPRESENT ONLY A **MARGINAL** SHARE OF TOTAL PRODUCTION.

**Note:** The Heinrich Böll Foundation conceives of gender as diverse and shaped by intersecting power relations. “Women” is used in this framework as an inclusive social category. This paper draws primarily upon binary data, while recognising that individuals with diverse and fluid gender identities face specific, often heightened, forms of exclusion and risks that remain underrepresented in research.

<sup>1</sup> All figures beyond 2020 are projections, as the historical data ends in 2020 (see R. Geyer et al., 2024: <https://www.science.org/doi/10.1126/science.adr3837>).

# especially affects women and disadvantaged groups

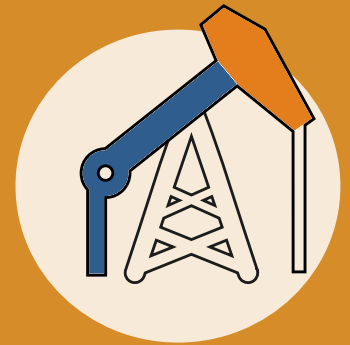
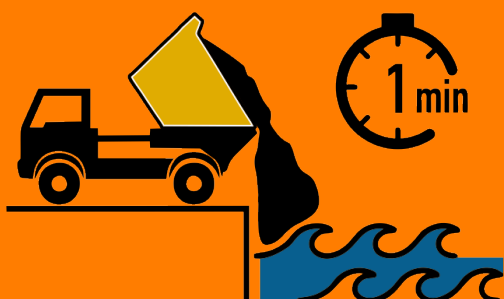
**GLOBAL PLASTIC PRODUCTION AND CONSUMPTION** SHOW **NO SIGNS OF SLOWING**. ANNUAL OUTPUT TOTALLED OVER **500 MILLION TONNES** IN RECENT YEARS AND IS PROJECTED TO INCREASE EVEN FURTHER.

Environmental organisations and the global movement Break Free From Plastic (BFFP) have long been urging us to name and ban the dangers plastics pose to people and the environment in every stage of their cycle, including petroleum-based resource extraction, production, use, consumption, and disposal. Taking a critical look at the stages raw materials go through to become plastics, and at the growing production of plastics as such, activists from civil society have succeeded in revealing the responsibilities of the plastics industry. For its part, however, the industry seeks to divert attention to what are often small-scale and secondary waste management and recycling efforts.

A critical look at the entire plastics cycle is also of crucial importance from a feminist perspective, because the plastic problem cannot simply be reduced to consumer use patterns or to harmful microplastics in cosmetic products. On the contrary, every stage of the plastics cycle reflects different gender-specific experiences and exposures. From petrochemicals and microplastics to waste export and management, the plastics lifecycle has different and gender-specific consequences.

As plastic production continues to expand rapidly and global negotiations remain unresolved, addressing this crisis requires recognising how structural social and gender inequalities shape both vulnerability to harm and access to solutions. The only way to develop just and sustainable responses to environmental destruction is to start acknowledging how discriminatory structures and gender inequality fuel the plastic crisis – and, conversely, how the crisis itself exacerbates gender power imbalances.

**EVERY MINUTE, A VOLUME OF PLASTIC WASTE** EQUIVALENT TO A **LORRY LOAD** IS DUMPED INTO **OUR OCEANS**.



## RESOURCE EXTRACTION:

AT THE EXPENSE OF LOCAL COMMUNITIES AND WOMEN



Plastics and synthetic fibres are made from oil and gas. The high levels of greenhouse gas emissions from extracting petroleum, fracking for gas, and refining and processing these fossil resources are very harmful for the climate. Today, around 99% of the raw materials needed to produce plastics are fossil-fuel based.

In addition, the development of oil and gas deposits and the construction of refineries have profound effects on the environment and social structures of local and usually Black, Indigenous and People of Colour (BIPoC) communities. Abrupt industrialisation deepens gender power gaps and further marginalises especially women and ethnic and gender minorities who do not have a voice in these decisions. Current discourse increasingly frames these dynamics as part of a broader backlash, where a dependence on fossil fuels is intertwined with authoritarian, exclusionary forms of gendered power – a phenomenon often critically described as “petro-masculinity”.

Not infrequently, installation of these plants and facilities is associated with sexual exploitation and violence. Soil contamination from oil spills eliminates sources of revenue primarily for women and marginalised groups engaged in small-scale farming, fishing and trade. Health problems arise from methane and carbon dioxide gas emissions as well as carcinogenic soot particles. Comparative studies show that women are disproportionately affected by these changes, whether that means loss of their previous sources of income, migration or greater levels of care work, whereas at least some men can find new jobs in the fossil fuel industry.

Globally, women hold only about 23% of jobs in the oil and gas industry. In contrast, they represent 32% of the workforce across the renewable energy sector and 40% in solar photovoltaics, showing that more equitable alternatives are possible – though far from guaranteed. From a feminist perspective, extractivism is not merely an environmental concern but a fundamental issue of power, responsibility, and extraterritorial obligations, as the social and ecological costs of resource extraction continue to be externalised to communities in the Global South.

# FOCUS

## The global plastic crisis

### PRODUCTION:

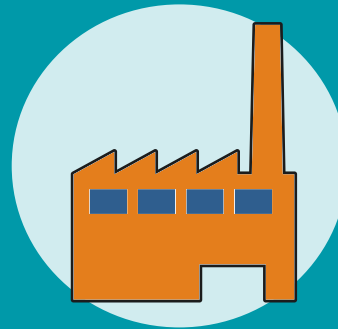
#### NON-STOP EXPOSURE TO TOXINS



We can no longer imagine a world without plastics. And people who do care work, especially those who provide intensive care for one or more people, are essentially dependent on the convenient properties of plastics – whether in their own homes or in institutional care settings. All the more overburdened and understaffed at present, hospitals and care homes could not function at all without plastic-based single-use products like gloves, liners, needles, tubes, infusion bags and more.

Hard and break-resistant, soft and flexible, waterproof and washable, suitable for sterilisation and vacuum packaging – depending on the properties desired, plastics can be based on a wide range of chemical compounds. Many use-specific properties, however, are the result of chemical additives. And many of these additives, such as plasticisers or resins with hardening qualities, are health hazards. Chemicals that behave in similar ways to hormones are especially problematic. Known as endocrine disruptors, they pose invisible dangers to everyone, in particular at workplaces. Recent studies increasingly link plastic-related chemicals and particles to reproductive disorders, cancers, neurological impacts and other long-term health risks.

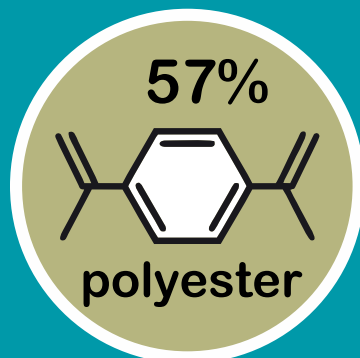
A closer look at gender patterns on the global labour market, however, shows that women are at greater risk due to the interaction of physiological factors and gendered labour patterns. Above all, socially constructed gender hierarchies and gender-specific labour markets channel women and



people facing multiple forms of discrimination into poorly paid and dangerous types of work in industrial mass production with high levels of chemical exposure.

### Biological factors and gender

- Women generally have a higher percentage of body fat and therefore take on greater proportions of bio-accumulative and fat-soluble chemicals such as phthalate plasticisers.
- Many female bodies metabolise toxins differently, with different effects on their respective nervous, cardiac and/or circulatory systems. Only recently taken into account, these gender-specific divergences have not been sufficiently studied.
- Female bodies are generally especially sensitive to toxins in hormonally active phases like puberty, menstruation, pregnancy, lactation and menopause. Chemicals with hormonal (endocrinological) effects can be especially disruptive to development processes.
- Risks multiply during pregnancy and lactation because harmful chemicals reach the foetus or infant via the placenta or breast milk. Microplastics have been detected in human placental tissue, blood, lungs, breast milk and other organs: exposure is no longer solely an environmental concern but a severe human health issue.



The extent to which gender inequality heightens women's exposure to toxic substances in plastic production is especially evident in sectors where plastics are hardly suspected. Women remain heavily overrepresented in global garment production; widely used ILO-based estimates still put their share at around 80% of the workforce. Their jobs are largely precarious, low-wage, and without social benefits. The association of textiles with cotton is a fallacy. Synthetic fibres dominate global textile production, and polyester alone accounted for 57% of total fibre production in 2023. Workers at textile plants are continually exposed to synthetic substances like acrylic, nylon and highly toxic dyes, usually without adequate protective equipment. Women in this sector are disproportionately concentrated in low-paid and hazardous roles during their reproductive years, heightening the risks associated with toxic exposure.<sup>2</sup>

<sup>2</sup> Estimate is based on data from the International Labour Organization: <https://tinyurl.com/4mkmvhd9>.

# especially affects women and disadvantaged groups

## USE AND CONSUMPTION:

### HEALTH RISKS OF HYGIENE AND BEAUTY STANDARDS



Unequal gender power relations and the societal norms behind gender roles are also reasons for the unequal distribution of health risks in how plastics are used. Around the world, women continue to do the majority of unpaid care work and housework for their families. As a result, they are exposed considerably more than men to harmful cleaning agents, among other things. Moreover, most of the approximately 75 million domestic workers globally are women and many are migrants. They have highly precarious working conditions without any type of labour protection, and therefore face especially high exposure levels to toxins such as phthalates, formaldehyde and “forever chemicals” like PFAs and PFCs.<sup>3</sup>

Socially constructed and industry promoted standards of beauty fuel the use of cosmetics and personal care products. In many markets, women continue to use personal care and cosmetic products more intensively than men, resulting in their disproportionate exposure to endocrine-disrupting chemicals (EDCs) and microplastics. Despite growing regulatory scrutiny, many hygiene and beauty products – including shower gels, lipsticks and hairsprays – still contain harmful substances such as formaldehyde, parabens and various EDCs. However, this gendered exposure gap is shifting as the cosmetics industry aggressively pursues new demographics to increase profits. Driven by targeted marketing campaigns and evolving conceptions of gender, men and individuals across diverse gender identities in the Global North are now using significantly more personal care products.<sup>4</sup> While this might be seen as a positive sign of social change, it also signals increased personal and environmental exposure to harmful products and the resulting risks.

ACCORDING TO A EUROPEAN STUDY IN 2017, MORE THAN **49 BILLION UNITS** OF SINGLE-USE MENSTRUAL PRODUCTS WERE USED IN THE **28 EU MEMBER STATES**, GENERATING A TOTAL OF **590,000 TONNES OF WASTE**. THIS WASTE ENDS UP IN **LANDFILLS (87%)** OR **INCINERATORS (13%)**, WHICH WASTES RESOURCES AND GENERATES NEGATIVE IMPACTS ON THE ENVIRONMENT (LAND RESOURCE CONSUMPTION, AIR, SOIL AND GROUNDWATER POLLUTION, HIGHER CO<sub>2</sub> EMISSIONS).<sup>5</sup>



CONVENTIONAL SINGLE-USE **MENSTRUAL PADS** ARE USUALLY **MADE OUT OF 90% PLASTIC** AND CONTAIN HUNDREDS OF CHEMICALS IN THEIR COMPOSITION, WHICH AFFECT NOT ONLY THE ENVIRONMENT BUT ALSO **CONSUMERS' HEALTH**. THESE ITEMS OFTEN CONTAIN FRAGRANCES AND SYNTHETIC AROMATICS THAT MAY INCLUDE UP TO **3,900 CHEMICALS**, MANY OF WHICH ARE **CARCINOGENS** AND **NEUROTOXINS**. EXPOSURE TO THESE SUBSTANCES CAN CAUSE **SKIN IRRITATION**, DISRUPT THE HORMONAL AND REPRODUCTIVE SYSTEMS, DESTROY THE HUMAN ENDOCRINE SYSTEM AND CAUSE **HEART DISEASES, INFERTILITY, AND CANCER**.



### Menstruation and hygiene products

Feminist environmental activists from the anti-plastic movement have been raising the alarm in recent years about the enormous levels of toxins in single-use hygiene products. Plastics are especially prevalent in mass-produced items such as sanitary pads, which can consist of up to 90% plastic. Endocrine disruptors in these petroleum-based plastics can accelerate hormonally triggered and other forms of cancer. In wealthy countries of the Global North, women are estimated to use an average of more than 12,000 menstrual products. The harmful effects on both health and the environment are colossal.

<sup>3</sup> PFA: polyfluoroalkyl substances; PFC: per- and polyfluorinated chemicals.

<sup>4</sup> <https://www.cnn.com/2019/05/17/men-are-a-multibillion-dollar-growth-opportunity-for-the-beauty-industry.html>.

<sup>5</sup> These European reference figures remain the most widely cited today. The menstrual product data used in this paper are still valid, as no clearly superior updated EU-wide aggregate data have been identified (see: <https://zerowasteurope.eu/2021/02/why-we-need-a-bloody-manifesto-in-europe/>).



### WASTE MANAGEMENT AND RECYCLING:

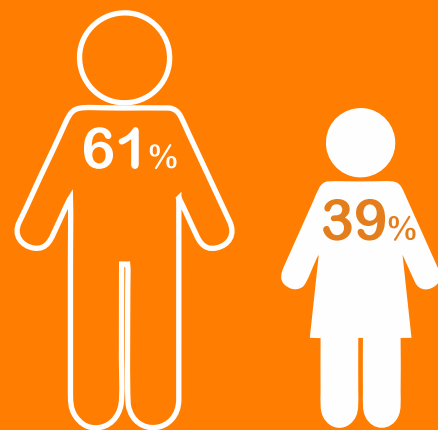
#### CLEANING UP AT THE END OF THE PLASTIC VALUE CHAIN



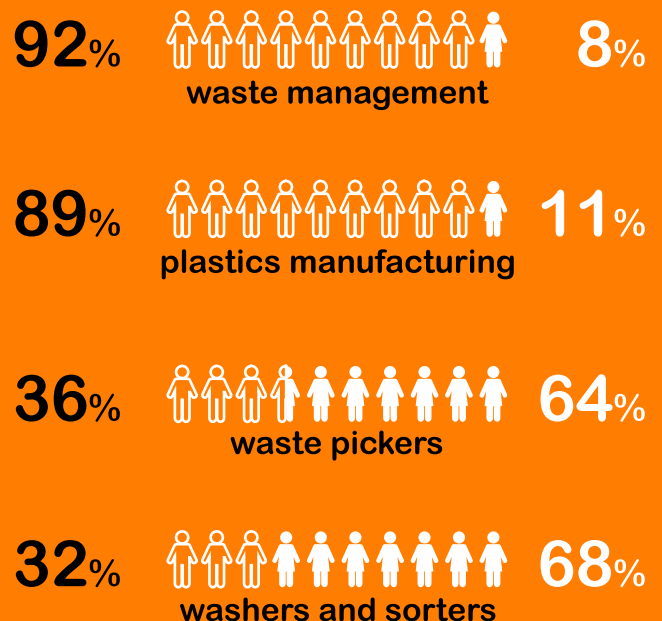
The plastic problem is closely related to social inequalities in the final stages of its cycle as well. A global perspective is especially important when looking at waste management, recycling – and final disposal:

Multinational corporations in the petrochemical industry are happy to promote “recycling”, or the sorting and re-using of plastic waste, as a solution to the plastic problem. This focus prevents a decline in profits and shifts responsibility to end consumers. However, recycling itself figures prominently in the global plastic crisis because less than 10% of the world’s plastic is actually recycled. Moreover, waste picking and recycling have been a source of income primarily for low-income people in poorer countries – which reinforces existing social and economic gender disparities. Collecting, sorting, and selling rubbish are informal labour activities nearly everywhere, but men have better access than women to the sector’s few formalised or higher-status jobs. In addition, studies from individual countries show that poor women continue to have little access to higher-grade plastics such as PET and PE.<sup>6</sup>

In Ghana, for example, little data is available on labour force participation within the plastics value chain, of which men constitute about 61% and women about 39%. However their respective roles are not equal. Women work predominantly in the informal economy as itinerant waste pickers (64%) and in recycling companies as washers and sorters (68%). The formal economy within the value chain, with greater protections, social security and higher status (i.e. waste management firms, plastic sourcing, production and manufacturing companies), had the lowest representation of female workforce (12%); men constitute 89% of plastics manufacturing and 92% of waste management workforce.<sup>7</sup>



Labour force participation within the plastics value chain



<sup>6</sup> PE: polyethylen; PET: polyethylenterephthalat.

<sup>7</sup> This example serves as an illustrative country case study (see: <https://www.weforum.org/agenda/2021/05/gender-women-plastics-ghana/>). More recent globally comparable, gender-disaggregated data across the plastics value chain remain scarce, particularly concerning informal labour and differentiated roles within the recycling and waste management sectors. This also reflects a broader gap in gender-disaggregated data on plastics, especially in informal sectors.

# especially affects women and disadvantaged groups

## FINAL DISPOSAL:

WASTE EXPORTS ARE NOT GENDER NEUTRAL



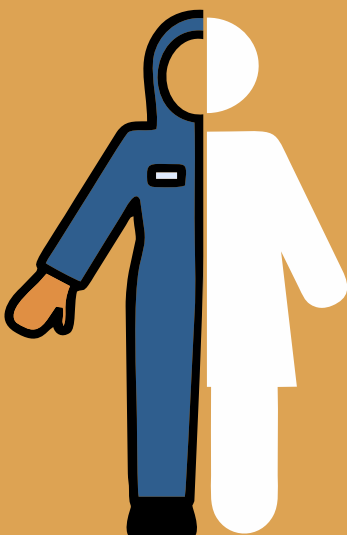
Countries of the Global South and of moderate per capita income continue to produce and dispose of lower levels of plastic waste on average than wealthy countries of the Global North. Communities in poorer countries, however, account for higher levels of plastic pollution in water and soil due to unregulated disposal processes and open landfill sites. Often overlooked in such comparisons is the fact that Global North countries continue to export significant volumes of plastic waste abroad. Although the global plastic waste trade has declined since tighter controls took effect in 2021, OECD countries were still exporting plastic waste to non-OECD nations in 2023, with these exports increasing by 15% between 2022 and 2023.

Women and children often earn their livelihoods at the lower end of global plastic waste flows, for example at unofficial landfills or illegal dumps. Their activities, such as burning plastic products to recover metal components, are gruelling as well as extremely dangerous over the long term. The gases and toxins thereby released, including carbon monoxide, particulates and dioxins, lead to severe respiratory and neurological diseases. Personal protective equipment for the plastics production industry and formalised areas of waste management is made primarily with men's sizes and needs in mind, and can therefore be useless for the majority of female workers. In the informal sector, women and children frequently lack even gloves or other simple protective apparel. Here it should be noted that informal waste pickers in large cities like Cairo, Lima, Lusaka or São Paulo often perform the equivalent of municipal services in handling the growing volumes of rubbish. Recognising the

expertise involved, civil society organisations have begun commissioning these workers to conduct brand audits, namely studies that identify and classify environmentally harmful waste. However, only a few NGOs such as WIEGO (Women in Informal Employment: Globalizing and Organizing) support women subject to multiple forms of discrimination who routinely face egregious racist, sexist and social pressures – and who are far from seeing anything approaching effective anti-discrimination policies.

And finally – to return full circle – the people responsible for sustaining households and communities are often the very ones who bear the heaviest consequences of the environmental degradation caused when unregulated plastic disposal contaminates water, soil, air and biodiversity, releasing billions of tons of microplastics and toxins.

Ending on a positive note, the EU has now further tightened its rules: a complete ban on plastic waste exports to non-OECD countries goes into effect on 21 November 2026. Despite its shortcomings, the EU Packaging Regulation represents an important first step towards reducing packaging waste and protecting public health, natural resources and the climate. Success now depends on EU member states implementing these rules consistently; only then can the profound social and environmental consequences of the plastic crisis be effectively tackled.



PERSONAL **PROTECTIVE EQUIPMENT** FOR THE

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# INSIGHT

## How activists around the globe are combining environmental and human rights work

As part of the global Green political movement, the Heinrich Böll Foundation (hbs) was confronting the plastic crisis alongside its European and international partners long before the COVID-19 pandemic – a period during which plastic production and plastic waste rose dramatically. Guided by the vision of a socially and gender-just world free from plastic pollution, hbs offices focus their ecopolitical education efforts on conveying the big picture and overall repercussions of the plastic crisis. Changing attitudes on this scale requires a comprehensive understanding of root causes and structures, as well as the participation of all the diverse communities affected. Through its projects to combat environmental destruction caused by plastic waste, the hbs does more than just address the responsibilities of plastic-producing companies; it also works to reveal intersectional discrimination against women and LGBTQI+ people, who are disproportionately impacted by the plastic crisis.



### KENYA: WHO IS INCLUDED – AND WHO IS HEARD – IN CIRCULAR ECONOMY REFORMS?

Kenya's transition towards a circular plastics economy is being shaped by policy instruments like Extended Producer Responsibility (EPR). While EPR aims to hold producers accountable for waste management and create more regulated systems, these reforms also fundamentally reshape who has access to resources and economic opportunity.

Waste pickers – many of them women – sustain a significant share of Kenya's recycling sector, often working under hazardous and precarious conditions, yet they remain largely excluded from formal policy frameworks. If EPR regulations are not designed with inclusivity at their core, they risk centralising control in the hands of a few, restricting access to materials, and undermining the very livelihoods that currently keep the system running.

To counter this, civil society coalitions – supported by the hbs office in Nairobi – are elevating grassroots perspectives within national and global policy arenas. By bringing local realities into the UN Environment Assembly (UNEA) and negotiations for a global plastics treaty, these advocates are bridging the gap between local labour and international debate. This work directly challenges the status quo by asking whose voices should shape policy priorities and solutions. From a feminist perspective, this raises an even broader question: Can circular economy reforms move beyond merely including workers to being truly shaped by those whose labour sustains them?

<https://ke.boell.org/en/2024/04/03/gender-equitable-employment-amidst-kenyas-plastic-predicament>

<https://cejadkenya.org/sites/default/files/Press%20release/31st%20JULY%20PRESS%20STATEMENT.pdf>



### PLASTIC POLLUTION IS A HUMAN RIGHTS ISSUE: INTERSECTIONALITY WEBINARS HEIGHTEN AWARENESS OF DISCRIMINATION

Do we realise that bans on disposable plastic products can also have negative effects? Many items – from hygiene materials to drinking straws – are essential for the care of seniors and people with specific health needs, often making such care possible in the first place. Similarly, low-cost menstrual pads, which contain plastic contaminants, enable girls in disadvantaged areas to attend school during their periods. Furthermore, single-use plastic bottles are frequently a necessity rather than a “convenience” for households lacking access to clean, safe drinking water.

To ensure that environmental protection measures do not complicate life for people with disabilities, and to guarantee that environmental information and education reach all social groups without discrimination, the Break Free From Plastic (BFFP) alliance asserts that plastic pollution is not just an environmental issue, but also a social justice issue intertwined with inequalities based on gender, race, class and geographic locations. In response, BFFP has developed a series of online workshops for anti-plastic activists to discuss discriminatory experiences related to plastic pollution. This initiative serves as a vital example of gender- and discrimination-sensitive policy advocacy. As the alliance emphasises: “Only by acknowledging all intersections can we create and advocate for equitable and sustainable solutions that make a truly positive impact.”

<https://www.breakfreefromplastic.org/intersectionality/>



### NIGERIA: WHO BENEFITS FROM THE TRANSITION TO A CIRCULAR PLASTICS ECONOMY?

Nigeria's shift towards a circular plastics economy is driven by new policies, market incentives and rising investment in sustainable packaging. Yet this transition is far from neutral: it redistributes resources, opportunities and risks across different actors.

While the informal sector forms the backbone of Nigeria's waste collection and recycling efforts, it is a space where women are disproportionately represented and often work under hazardous, precarious conditions. Despite their essential role, these workers remain largely excluded from financial support, formal policy processes and economic recognition. In contrast, emerging green enterprises and formal producers – the majority of which are led by men – are better positioned to capitalise on new regulatory incentives and institutional backing.

To address these disparities, the environmental programme of the hbs office in Abuja and its NGO partners is mapping sustainable alternatives and engaging stakeholders across the sector. In doing so, it is making these systemic imbalances visible and creating vital platforms where women's groups, informal workers and small-scale entrepreneurs can articulate their needs and directly influence policy design.

This shifts the focus from “including women” to questioning how value, labour and innovation are defined within the circular economy – and who has the power to shape its future.

<https://ng.boell.org/en/2026/03/31/policy-brief-inclusive-waste-governance-nigeria>



### EL SALVADOR: ENVIRONMENTAL JOURNALISTS AT RISK

Since the COVID-19 pandemic, plastic waste flowing from the USA to El Salvador has surged, fuelled by weak regulations and a lack of municipal oversight. This became obvious when staggering amounts of hard-to-recycle materials washed up on El Salvador's Pacific coast a few years ago. In response, the hbs office in Central America supported a group of female environmental journalist-activists to investigate the various stages of plastic pollution as well as the policy failures behind this destructive phenomenon. As part of their investigation, they followed a recycling specialist who lives on her waste-picking work and now advises an NGO on a brand audit to hold corporations accountable. These journalist-activists identified both legal loopholes and the specific decision makers failing to take action. Their gripping report shows that women possess deep ecological expertise and are politically active at all levels of waste management. Beyond making environmental harm visible, their work connects actors across borders and strengthens accountability. However, environmental journalists in Latin America face significant threats, especially when uncovering illegal practices linked to major corporations. Gender-sensitive journalism regarding waste exports and the lack of state control is therefore more vital than ever.

These dynamics are closely linked to regional efforts to protect shared ecosystems, including the Río Lempa basin and the adjacent coastal waters in El Salvador and Guatemala. Civil society actors – with strong participation of women's organisations – play a key role in advancing cross-border cooperation, shaping public debate and increasing pressure on decision makers.

<https://sv.boell.org/es/2022/05/16/el-salvador-sin-controles-para-los-plasticos>

# From recycling to rights: environmental justice, anti-discrimination and the fight against plastic



## BERLIN: UNPACKING THE PROBLEM – PLASTIC WASTE DIVIDES GENERATIONS

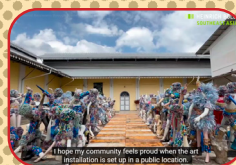
“Nothing’s going to change until people understand that plastic is absolutely everywhere! But we haven’t even covered the plastic problem in school yet.” What kind of outreach best empowers young people to take action against the flood of plastic? What do they need and want to know about the crisis to stay informed without feeling overwhelmed by its sheer scale? How can abstract facts about plastic types and their composition be made more accessible so we can all keep closer tabs on the industry? To address these challenges, the hbs headquarters released a special youth publication entitled Unpacked! Plastic, Waste, and Me. Using engaging graphics and stories, it answers 70 key questions about the plastic crisis. The booklet itself is a plastic-free product of international dialogue, shaped by a youth advisory board that steered the development process. Its discussions tackled very personal topics, such as how chemical substances can affect physical development and long-term health. The figures and data are still relevant today, and Unpacked! remains a unique teaching and learning resource.

<https://www.boell.de/en/unpacked-plastic-waste-me>

## BERLIN: THE PLASTIC ATLAS

The Plastic Atlas is hbs’s most successful atlas on environmental challenges. Since its debut in 2019, the publication has reached its sixth edition and is currently available in 22 local versions, with translations including Arabic, Greek, Korean and many more. The Plastic Atlas provides hard facts and figures about the huge risks that plastics pose to human health – from their production and use to their disposal. Notably, the atlas highlights a stark gender imbalance: due to physiological factors and the social division of labour, toxic chemicals in plastics affect women and LGBTIQ+ people far more severely than men. The booklet’s figures make this clear in striking ways. For example, users of disposable menstrual products experience decades of direct bodily contact with petroleum-based and hormonally active plastics. This market is currently dominated by corporations that prioritise profits from items like disposable sanitary pads and diapers over public health. This is an urgent topic of feminist discussion that has now entered mainstream awareness in the anti-plastic movement.

<https://www.boell.de/en/plastikatlanten>



## THAILAND: WHO SHAPES KNOWLEDGE AND THE RESPONSE TO THE PLASTIC CRISIS?

The plastic crisis is not only a matter of waste management, but of whose knowledge, experiences and solutions are recognised. The hbs office in Bangkok contributes to this debate by amplifying perspectives that are often marginalised in dominant environmental narratives. Through research and outreach – including an online dossier and interview series – the programme highlights how women, particularly those in precarious and informal sectors, are disproportionately exposed to the impacts of plastic production and waste. Crucially, the initiative also showcases how these women develop everyday practices of reuse, repair and reduction.

At the same time, voices such as Thai artist and social activist Wishulada Panthanuvong point to alternative ways of engaging with plastic waste: transforming discarded materials into regenerative art and design, and linking environmental awareness with cultural practices and collective action. This shifts the focus from women as affected groups to women as producers of knowledge and agents of change. In doing so, it makes visible how structural inequalities determine whose labour is valued, whose experiences are heard, and whose solutions shape policy and public debate.

<https://th.boell.org/en/2022/03/18/plastic-crisis-must-be-feminist-agenda>

<https://www.youtube.com/watch?v=x0z07qprVIU&t=3s>



## SOUTHEAST ASIA: WHO BEARS THE COSTS OF THE GLOBAL PLASTIC ECONOMY?

Across Southeast Asia, plastic pollution is closely tied to global production and consumption patterns. Multinational corporations flood low-income markets with single-use packaging, making basic goods accessible while externalising environmental and social costs to local communities. These costs are borne unevenly by low-income households, waste workers, and communities living with pollution, where gendered roles shape exposure, labour and responsibility.

Local initiatives – from waste picker organising to zero-waste movements and feminist knowledge production – make these dynamics visible and develop alternative practices grounded in care, reuse and collective action. The Southeast Asian hbs offices in Bangkok and Phnom Penh have long critically examined the interconnection between gender (as a social construct shaping our norms, behaviours and roles) and waste, particularly through the lens of local grassroots initiatives. Their locally rooted approaches shift the focus from individual consumption to structural accountability, while also raising the question of who gets to define solutions in a system shaped by global inequalities.

<https://th.boell.org/en/2024/10/21/sachets-plastics-ocean>

<https://kh.boell.org/en/2025/01/09/nexus-gender-waste>

# OUTLOOK

## Combating

**S**tereotypical gender roles are slowly changing in large urban centres. From a global perspective, however, there is hardly any sign of change in the unjust division of labour overall between genders. On the household level, women continue to bear the main responsibility for waste separation and disposal. They also make most purchases of everyday goods. Yet how much power do they actually have – especially in countries of the Global North – to reduce the consumption of raw materials and the waste thereby produced, by exercising choice in the items they buy? Given that per capita material consumption in OECD countries is still 60% higher on average than global levels and that waste production lies at an average of 1.5 kg per person per day, gender can in fact be a key factor in changing consumer behaviour.



**WOMEN ARE MORE KNOWLEDGEABLE ABOUT LABELS WITH ENVIRONMENTAL INFORMATION, AND MEN MORE KNOWLEDGEABLE ABOUT LABELS WITH ENERGY-SAVING INFORMATION.**<sup>8</sup>

Spurred by the fact that women and people socialised as women use many cosmetic and hygiene products contaminated with microplastics and endocrine disruptors, feminist environmental organisations are calling for greater transparency to give consumers more power. As a first step, the NGO Women Engage for a Common Future (WECF) is demanding comprehensive and easily understandable labelling on the toxicity levels of plastics used in workplaces and households. Consumers “must be empowered to make informed purchasing decisions” (WECF/WEN, 2021).

Better informational policies, however, are not nearly enough to counter the plastic crisis and its social and gender-specific effects. Although information and education can encourage more critical consumer behaviour, which in turn can increase pressure on producers, sellers and policy makers, the greatest need is for clear and strict national and international regulations that not only prohibit the production of toxins but also penalise foreseeable violations.

### **POLICY DEMANDS OF FEMINIST ENVIRONMENTALISTS**

The anti-plastic movement in civil society, led by the global Break Free From Plastic alliance, has already achieved considerable results with policy makers and also exerted pressure on manufacturers. Various governments have taken numerous initiatives to lower the volume of single-use plastic waste. Yet far too little has been done in the production stage to reduce the use of microplastics and other toxins in the first place. And everyone involved in this issue – not only companies but also governments, researchers and civil society – must face the fact that they have paid little or no attention to gender-specific or gender-responsive aspects of the damage to health and the environment.

The feminist organisation WECF is therefore demanding that the most vulnerable groups, namely children and pregnant people, be taken as the norm for assessing risks and determining guidelines. It is also calling for strict application of the precautionary principle. Consistent use of this principle, which prevents or largely reduces potential harm in advance, would require far-reaching bans on toxic plastics along the entire plastic production chain.

WECF and other feminist environmental organisations further emphasise that a meaningful global plastics treaty must include concrete targets to significantly reduce plastic production, phase out hazardous chemicals across the entire lifecycle, ensure transparency about chemical content, and support a just transition for affected workers – especially those in informal and precarious sectors.

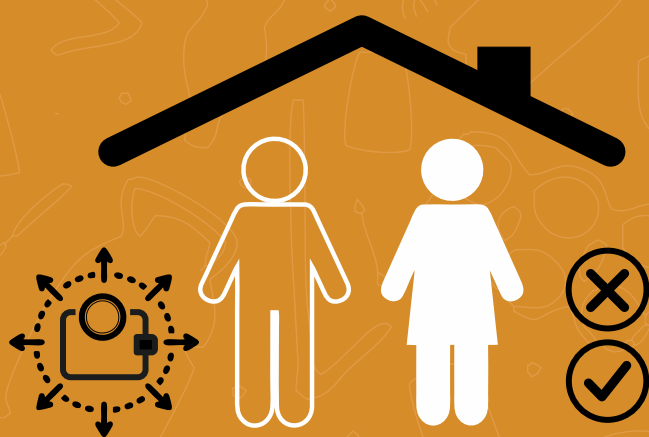
Here it should be noted that all attempts thus far to stem the flow of plastic waste into waterways or to other countries via exports – whether they be banning plastic bags in many African and Asian countries, regulating single-use utensils as the EU now does, limiting microplastics in cosmetics as in the USA, or continuing the half-hearted decades-old “green dot dual system” in Germany – do nothing about the underlying problem but instead focus on disposal and thereby place the burden almost exclusively on consumers. These measures tackle the wrong end of the problem. In short, they place hardly any pressure on manufacturers to limit their production. Moreover, these end-of-pipe policies reinforce the unjust division of labour between genders. To some extent they even target women as primary consumers, as unpaid cleaning personnel, and as low-wage workers at the contaminated facilities of industries with plastic-based production.

A feminist response, therefore, cannot stop at consumer information or downstream waste measures. It must address production, toxic

**WOMEN TEND TO SHOW MORE SUSTAINABLE CONSUMPTION PATTERNS AND GREATER AWARENESS OF ENVIRONMENT AND HEALTH-RELATED MATTERS.**<sup>8</sup>

<sup>8</sup> OECD (2014): *Greening Household Behaviour: Overview from the 2011 Survey — Revised edition, OECD Studies on Environmental Policy and Household Behaviour, Paris* (<https://doi.org/10.1787/9789264214651-en>)

# plastic pollution requires gender-responsive action



WOMEN MAKE MORE THAN 80% OF HOUSEHOLD PURCHASING **DECISIONS**, BUT MEN **SPEND** MORE THAN 80% OF HOUSEHOLD INCOME.<sup>8</sup>

exposure, labour conditions and corporate accountability across the full plastic lifecycle. Gender mainstreaming must move beyond mere participation to ensure real influence, representation and protection.

At the same time, there is a growing risk that so-called “solutions” remain superficial: greenwashing strategies, techno-fixes, and recycling-based approaches often leave production levels and toxic chemical use largely untouched. Promises of circularity that do not reduce fossil-based plastic production risk entrenching the problem rather than solving it.

The plastic problem is one of the greatest environmental challenges of our time. It has to be addressed systematically and without delay. However, any solution that does not combine environmental with gender considerations will fall short. Gender analyses and feminist demands reveal the enormous damage to the health of many disadvantaged people and those subject to multiple and intersectional forms of discrimination. They show very close connections between the gender-hierarchical division of labour worldwide on the one hand and mass plastics production and plastic industry profits on the other. Women’s unequal rights, their lack of decisional and other power over resources, their shortage of time due to disproportionate cleaning and related tasks in households and communities as well as their double and triple burdens of unpaid care work, and the consequent hurdles they face in acquiring education and participating in public life – all these issues are also part of the plastic crisis.

As a result, feminist and women’s human rights organisations continue to call attention to the health and environmental damage caused by hazardous chemicals throughout the plastic lifecycle – risks that are often downplayed, obscured, or actively defended by profit-driven industries. From a feminist perspective, chemical safety is not a secondary issue, but lies at the very heart of the plastic crisis.

And precisely that is what is missing: comprehensive and gender-sensitive analyses and approaches to all stages of the plastic cycle – from raw material extraction and processing, production, and consumption to recycling and final disposal. Business interests are not alone in neglecting the role of gender. Research on waste reduction and recycling that ignores the expertise of the main users of plastics does essentially the same thing. Policy makers are also gender-blind, for example when they base regulations intended to protect people against the dangers of plastics on stereotypical gender norms.

Even anti-plastic activists from civil society have thus far not formulated their demands or designed their actions in ways that are sufficiently gender-responsive and sensitive to people facing multiple forms of discrimination.

High hopes continue to be placed on a legally binding global treaty on plastic pollution. However, as of early 2026, negotiations have yet to produce an agreement. Following INC-5.2 in Geneva in August 2025, which ended without consensus, and a short-resumed session (INC-5.3) in February 2026 limited to organisational matters, substantive negotiations remain stalled.

At the centre of this deadlock are unresolved conflicts over production reduction targets and the regulation of hazardous chemicals – issues that are particularly critical from a feminist perspective. There is also growing concern about declining transparency and shrinking access to the negotiation process. In particular, representatives of Indigenous communities and women’s groups face increasing barriers to participation, undermining meaningful stakeholder engagement and the inclusion of those most affected by plastic pollution.

Every stage of the plastic lifecycle must be addressed. Crucially, all groups affected and harmed throughout these stages require equal representation and participation in these international negotiations. From a feminist and human rights perspective, this necessitates safeguarding transparent and inclusive negotiation processes, ensuring that BIPOC, BIWoC and other marginalised groups are not sidelined. It also requires strengthening links to UN human rights mechanisms, including CEDAW, to hold states accountable.

Without gender-disaggregated data, many of the specific risks faced by women – especially in care work, in informal labour and in low-paid industrial sectors – remain underestimated. Consequently, policies fail to direct necessary protection and resources to those most affected.

And finally, above and beyond all the official preparations and intergovernmental negotiations for this UN treaty, the rights of women, LGBTIQ+ people and all minorities to help shape policy decisions regarding petrochemical production and the use and disposal of plastics and their components must be upheld and strengthened.

What is required now is not only the continuation of negotiations, but a more ambitious, gender-responsive and rights-based agreement, one that resists dilution, avoids symbolic or weak compromises, and addresses the full lifecycle of plastics – including production, chemical safety, and global social and gender inequalities.

WOMEN BUY PRIMARILY **SHORT-LIVED CONSUMER GOODS**, MEN PRIMARILY **LONG-LASTING (LUXURY) ITEMS**.<sup>8</sup>



# SOURCES AND FURTHER MATERIALS

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- Dossier: *Feminist perspectives on global environmental justice*, 2022: <https://www.boell.de/en/feminist-perspectives-on-global-environmental-justice>
- hbs Info Hub on Plastic: <https://infohub-plastic.org/en>
- Global Unit for Feminism and Gender Democracy of the hbs: [https://www.instagram.com/reel/C2ehZTstHLb/?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/reel/C2ehZTstHLb/?utm_source=ig_web_copy_link)

## Non-governmental organisations (studies, investigations, projects)

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- Health and Environment Justice Support (HEJSupport): <https://hej-support.org/women-and-chemicals/>
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Unless otherwise stated, this paper is based in large part on data and findings from the sources listed here and in the footnotes, as well as policy briefings from Germany's Exit Plastic Alliance. For this updated version, additional reference was made to recent materials on global plastics production, trade, gendered exposure, chemicals governance, treaty negotiations and human-rights-based approaches – specifically publications by UNEP, OECD, IRENA, ILO, Textile Exchange, WECF and related institutions. We would particularly like to thank Roland Geyer (independent researcher) and Alex Caterbow (HEJSupport) for their contributions.

## IMPRINT

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