



DIRTY FASHION: CRUNCH TIME

**WHERE DOES THE
INDUSTRY STAND
ON STAMPING OUT
DIRTY VISCOSE ?**

The purpose of this report is to shed light on industry-specific issues related to the environmental and social impacts of unsustainable viscose manufacturing.

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Published in December 2020

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www.changingmarkets.org



Executive summary

Almost three years since the first fashion brands and retailers signed up to our *Roadmap towards responsible viscose and modal fibre manufacturing*, this report evaluates where the global textile industry now stands in the transition towards responsible viscose. We have engaged with 100 brands and retailers, and most prominent viscose manufacturers' and initiatives, evaluating their responsible production plans, commitments and progress on transparency. In this report, we examine progress to date and find that, while the frontrunners of the industry have made great headway, legislation is needed to unlock a sector-wide transformation.

When our Dirty Fashion campaign launched in 2017, there was little knowledge of the environmental and social impacts of viscose production within the clothing industry. To the extent that brands and retailers were aware of sustainability problems in the viscose supply chain, they were mostly focused on the sourcing of timber for use in the production of wood-based dissolving pulp, which is the starting material for most viscose. In partnership with the NGO Canopy, many had pledged to stop sourcing pulp from ancient and endangered forests. Through 'Detox' commitments with Greenpeace, and initiatives like the Zero Discharge of Hazardous Chemicals (ZDHC) Foundation's Programme on hazardous chemicals, some had also taken action to curb pollution from wet processing by committing to phase out the use of toxic substances in textiles dyeing and finishing. However, almost without exception, brands and retailers had neglected to address viscose manufacturing - a key part of the supply chain that was causing significant pollution and taking a heavy toll on the health and livelihoods of communities living in the shadow of viscose factories.

Our own investigations into viscose factories across India, Indonesia and China in 2017 and 2018 - presented in our *Dirty Fashion*² and *Dirty Fashion revisited*³ reports - highlighted how inadequate chemical management and water treatment have been destroying marine life and agriculture, directly exposing workers and local people to harmful chemicals and leading to severe health problems. The reports also revealed many fashion giants were buying from these polluting viscose factories.

Following our investigations and initial engagement with clothing companies, which wanted to find a solution to polluting viscose manufacturing, we developed a *Roadmap towards responsible viscose and modal fibre manufacturing*.

The *Roadmap*, launched in February 2018, provides a blueprint for responsible viscose manufacturing. It outlines a set of principles for brands, retailers and producers to move towards a closed-loop manufacturing system, where emission controls and chemical recovery rates are in line with best practices - the so-called EU Best Available Techniques (BAT).

To date, the *Roadmap* has 14 signatories: ASOS, C&A, Esprit, George at Asda, H&M, Inditex, Levi's, Marks & Spencer (M&S), Morrison's, New Look, Next, Sainsbury's, Tesco, Puma and Reformation. These companies have

made a public pledge to improve viscose manufacturing by 2023-25, and have committed to publishing their *viscose suppliers*.

At the same time, some of the biggest viscose manufacturers accounting for over 50% of total viscose production - Aditya Birla Group, Asia Pacific Rayon (APR), Lenzing, Sateri and Tangshan Sanyou - have already aligned, or committed to align, their performance with EU BAT at all their facilities in the coming two to three years.

Key findings

Brands and retailers: US and luxury brands still lagging behind

- In 2020, we reached out to more brands and retailers than ever before - 100, in comparison to 91 in 2019 and 53 in 2018. Based on their responses and the information publicly available on each company's website, we categorized the companies in four groups - Frontrunners, Could Do Better, Trailing Behind and Red Zone - summarised in the brand league table given as an attachment to this report.
- Of the 100 brands we contacted, almost two-thirds (61%) provided some kind of response - a response rate slightly higher than in 2019 (59%) - showing that responsible viscose manufacturing is firmly on the agenda of fashion brands.
- Fourteen major brands and retailers have made a public commitment to clean up their viscose supply chains, sending a strong signal to viscose manufacturers that they expect the industry to move to more responsible viscose production by 2023-25.
- Several brands have shown marked improvement when it comes to transparency. Almost all signatory brands disclose some information about their viscose suppliers. Among the most transparent are ASOS, C&A, Esprit, M&S, Reformation and Tesco, which have published extensive lists of their viscose manufacturers on their corporate websites, including the names and, in some cases, full addresses of factories.
- Sadly, a big bulk of the industry is still dragging its feet; three-quarters of companies (75 out of 100) have made few or no commitments to stamp out dirty viscose.
- Among the lowest-ranked companies, luxury brands Armani, Dolce & Gabbana, Prada and Versace rub shoulders with sports giant Nike and low-cost retailers Costco, Forever 21, TJ/TK Maxx and Walmart, proving this problem is not confined to the cheaper end of the market. Interestingly, some luxury brands made significant public statements about sustainability in the media this year, following the Covid-19 pandemic. But their complete lack of engagement, commitments and even transparency clearly shows they are just paying lip service to this issue, and it is impossible to know whether they have made any real progress.
- There is a clear divide between US and European brands. Only two US companies signed up to the *Roadmap*, while the large majority (90%) landed in the bottom two categories, showing a lack of engagement and action to stamp out dirty viscose.
- After three years of engagement, some of the US companies - Aeropostale, Forever 21 and Michael Kors - have repeatedly landed in the Red Zone, indicating they are completely out of step with industry trends and consumer expectations.

Viscose manufacturers increasingly investing in cleaner production

- All of the viscose producers analysed - apart from the Chinese Collaboration for Sustainable Development of Viscose (CV) - have now made a public commitment to achieve EU BAT levels in the next two to three years: Aditya Birla and Lenzing by 2022, and Sateri and APR by 2023. For the first time this year, some of the Chinese viscose manufacturers broke ranks with CV to make clear commitments to the EU BAT.
- Some of the manufacturers' facilities have already aligned production with EU BAT: Aditya Birla Group's at the Chinese facility, Birla Jingwei Fibres Company Limited (BJFCL); Lenzing at Lenzing, Austria and Nanjing, China; Sateri at Sateri Fujian, Sateri Jiujiang and Sateri Jiangxi; and Tangshan Sanyou at Tangshan Sanyou Group Xingda Chemical Fibre Co. Ltd and Tangshan Sanyou Yuanda fibre.
- This means that viscose manufacturers accounting for over 50% of all global viscose production, have already aligned or committed to align their operations with EU BAT.
- The CV initiative^A - bringing together China's ten leading viscose producers, which collectively account for more than half of global viscose staple fibre production - has still not made concrete commitments to EU BAT. It is disappointing that two years after releasing *Dirty Fashion: Spotlight on China*,⁴ which analysed the initial CV *Roadmap*, the initiative is still deferring actions. This shows they are at odds with the transformation taking place in the rest of the industry.
- Viscose manufacturers still fall short of transparently reporting their progress towards EU BAT. Only ENKA and APR disclose on their websites how their facilities' performance matches the EU BAT or *EU BAT reference document (BREF) on polymers* values. Reporting on findings from third-party audits also remains opaque, and Higg FEM verification reports are made public by neither the Sustainable Apparel Coalition (SAC) nor manufacturers, which is a big barrier to accountability in the sector.
- Most of the producers analysed have established a grievance procedure in the past year to address concerns raised by workers, local inhabitants or other stakeholders. However, these are not accessible in local languages, and manufacturers fail to publicly share records, investigation notes and results linked to grievances.
- Two companies - APR and Sateri both owned by Royal Golden Eagle Group - are still associated with a high risk of sourcing from ancient and endangered forests, and have recently been found to source from cleared forested peatlands in Kalimantan. While both companies have made commitments to improve their fibre manufacturing in line with EU BAT, such problematic raw material-sourcing practices cast a shadow on their claims to sustainability.

Finally, while welcoming the commitments and actions taken by fashion brands, retailers and viscose manufacturers in stamping out dirty viscose, this report highlights the limitations of a voluntary approach in driving a sector-wide transformation. While sector frontrunners have now committed to tackling this problem, and are working with their suppliers to address it, the bulk of the fashion industry still lags behind and is hiding behind the sector's lack of transparency. The steps taken by the frontrunning fashion retailers, and viscose producers' investments to improve their manufacturing practices, are success stories - but legislation is needed to cement this progress and prevent backsliding.

This is where policymakers come into play. The European Commission has committed to developing a comprehensive textile strategy. It can take viscose as a case study on how EU standards (such as the EU BAT) can

^A Members of CV include: China Chemical Fibres Association, China Cotton Textile Association, Constant Day Dragon (Weifang), Funing Aoyang, Jilin Chemical Fibre, Sateri, Shandong Yamei, Shandong Yinying (Silver Hawk), Tangshan Sanyou, Xinxiang Baliu Chemical Fibre, Yibin Grace and Zhejiang Fulida, Alliance for a Green Development of Regenerated Cellulose

transcend borders and make them mandatory - not only for EU production but also for imports of viscose to the EU market. The EU has an opportunity to set mandatory human rights and environmental due-diligence legislation to require companies to identify, account for and mitigate negative human rights and environmental impacts in their supply chains, and be transparent about their supply chain. Through the upcoming legislation, the EU can ensure the fashion industry becomes circular, respects human rights, creates decent jobs and adheres to high environmental and responsible governance standards throughout its value chain, in the EU and beyond.

Governments worldwide should follow suit and commit to developing ambitious legislation for the textiles sector. With Covid-19 further exposing the unsustainable supply chains and practices in the textile industry, it is now crunch time to get fashion on the right track for the future.



1. Dirty fashion at a crossroads: Opportunity for systematic change in the viscose sector

This year (2020) has been marked by the Covid-19 health crisis, which led to lockdowns across the world and economic shutdowns for most sectors of the economy. For the fashion industry - one of the largest consumer-goods markets, with its \$2.5 trillion market size⁵ - it has been a year of unprecedented challenges. Since the onset of the novel coronavirus, brands have been faced with plummeting demand, ceased production, were left with unsold stock and had to resort to early discounting. The industry was largely unprepared for the crisis and, while its businesses have focused on surviving the pandemic and managing their short-term economic distress, they have failed to act responsibly. Concerns and actions around sustainability transformations were put on the backburner, and sustainability departments placed on furlough. At the same time, fashion companies dumped mountains of surplus stock on their suppliers and cut off companies and people in their supply chains that had, for so many years, enabled them to amass copious profits.

But Covid-19 has also given the fashion industry an unexpected opportunity for systemic change. While many companies are striving to bounce back to 'normal', business as usual - which thrives on overconsumption, fast fashion, unsustainable production and €154 worth of clothing ending up on landfill each year⁶ - worsened the crisis for the fashion industry. Forward-thinking fashion businesses realise change is not optional, and will hopefully put their creativity into rethinking their business models and embracing more ethical fashion. Consumers are also more conscious about their purchasing choices; since the start of pandemic, the majority (57%) of people who regularly buy fashion items have started to change their behaviour, with two-thirds of those surveyed believing it is now more important than ever to limit the impacts of climate change.⁷

One of the issues the industry needs to address is responsible production and the shift to the use of sustainable fibres. Viscose is a 'cellulose' or wood-pulp-based fibre, derived from trees such as eucalyptus, beech and pine, as well as plants such as bamboo. Along with other man-made cellulosic fibres (MMCFs), such as lyocell and modal, viscose is the third most-used fibre (after polyester and cotton). In 2019, viscose had a market share of about 5%

Challenges and opportunities in viscose manufacturing

As a biodegradable fibre made from trees and plants (bamboo), viscose has the potential to be a sustainable alternative to oil-derived synthetics and water-hungry cotton.



However, in addition to risks associated with deforestation for sourcing of the raw material, the manufacturing of viscose uses a number of toxic chemicals to transform plant cellulose into viscose fibres.



At the heart of viscose production is carbon disulphide (CS₂), a toxic and endocrine-disrupting chemical linked to kidney disease, parkinson's-like symptoms, heart attack and stroke.



If not properly managed, these chemicals can pollute the water, air and soil around the factories, which can be devastating for factory workers, local communities and the ecosystems.

The Solution

The technology to manufacture viscose responsibly already exists through a 'closed-loop system' where the toxic chemicals are captured and reused instead of being released into the environment.



THE ROADMAP SETS OUT A NUMBER OF PRINCIPLES THAT PROVIDE A BLUEPRINT FOR FASHION BRANDS AND RETAILERS TO ADOPT AND ENSURE THEIR SUPPLIERS MOVE TOWARDS BEST PRACTICES BY 2023-25.

- POSSESSION OF ALL REQUISITE ENVIRONMENTAL PERMITS
- COMPLIANCE WITH RELEVANT NATIONAL AND LOCAL ENVIRONMENTAL REGULATIONS
- IMPLEMENTATION OF PLANS FOR APPROPRIATE CHEMICAL-MANAGEMENT SYSTEMS
- COMMITMENT TO CLOSED-LOOP PRODUCTION IN LINE WITH EU BAT BY 2023-25 (SEE BOX 1.1)
- PROTECTION OF WORKERS AND LOCAL RESIDENTS FROM EXPOSURE TO DANGEROUS CHEMICALS
- SETTING OF ENERGY EFFICIENCY AND GHG EMISSIONS REDUCTION GOALS
- REMEDIATION OF DAMAGE TO THE ENVIRONMENT SURROUNDING FACTORIES

Several major fashion brands and retailers have already committed to responsible viscose manufacturing by signing up to Changing Markets' Roadmap towards responsible viscose and modal fibre manufacturing.



of the total fibre-production volume.⁸ The growth of the MMCF market more than doubled from 1990–2019,⁹ and is predicted to grow at a compound annual growth rate (CAGR) of 6–7% between 2017 and 2022. Lyocell, the only one of the three fibres not reliant on the use of toxic carbon disulphide, is witnessing an even more substantial growth on the global fibre market, with a CAGR of 15% expected between 2017 and 2022. Responsibly produced and sourced lyocell and viscose, designed for recyclability, could potentially provide one solution to the growing imperative for sustainable fashion – provided the industry remains on track to stamp out dirty viscose across the supply chain.

This report examines progress and efforts made by the industry – brands, retailers and viscose manufacturers – to clean up global viscose supply chain. While the tide is beginning to turn in favour of more responsible viscose production, much progress remains to be made to stamp out dirty viscose across the sector.

Source: iStock



BOX 11: Best practice in viscose fibre manufacturing: EU Best Available Techniques (BAT)

In February 2018, the Changing Markets Foundation launched a *Roadmap towards responsible viscose and modal fibre manufacturing* to address the environmental and social problems in viscose fibre manufacturing and provide a blueprint for responsible viscose production. The *Roadmap* is a complementary strategy to efforts many brands are undertaking on responsible viscose sourcing (e.g. the CanopyStyle initiative¹⁰) and responsible chemical management (e.g. through the Greenpeace Detox commitment¹¹ or membership of the Zero Discharge of Hazardous Chemicals (ZDHC) programme¹²).

The *Roadmap* provides guidance for brands, retailers and producers willing to move towards closed-loop viscose manufacturing. We define ‘closed-loop production’ as a process whereby chemical inputs are captured and reused instead of being released into the environment. More specifically, closed-loop production ensures emission controls and chemical recovery rates are in line with EU BAT.

The EU’s *BAT reference document (BREF) on polymers* was published in 2007 under the auspices of the European Commission. Among other things, it sets limits on chemicals usually discharged from the viscose-manufacturing process, and addresses pollution to both air and water.¹³ The EU BAT is a result of an exchange of information, carried out from 2003–05, between EU member states, the EU viscose industry and NGOs. It is based on operating data EU industry players supplied at the time, meaning the values and techniques set out in the BREF reflect what the best performers in the industry were already achieving over a decade ago. In the EU, conclusions on BAT are also used as the main reference when member-state authorities issue operating permits and grant licences.¹⁴

	Standard	Air pollution	Water pollution			Energy	Solid waste
Viscose staple fibre	EU BAT	Sulphur to air (kg/t) expressed as an annual average	Zinc to water (g/kg)	Chemical oxygen demand (g/t)	Sulphate (kg of SO ₄ ²⁻ /t)	Direct energy (GJ/t)	Hazardous waste (kg/t)
		12-20	0.01-0.05	3,000-5,000	200-300	20-30	0.2-2.0

Table 1: EU BAT emissions standards for viscose staple fibre production

Source: European Commission (2007) Reference Document on Best Available Techniques in the Production of Polymers. [ONLINE] Available at: http://eippcb.jrc.ec.europa.eu/reference/BREF/pol_bref_0807.pdf.

However, EU BAT have a wider international impact beyond the EU; according to the European Commission, BAT were developed ‘so that non-EU countries can also reap the benefits of this ambitious work’. Some of the world’s biggest viscose producers – Aditya Birla Group, Asia Pacific Rayon (APR), Lenzing, Sateri and Tangshan Sanyou, which together account for over 50% of global viscose production¹⁵ – have already aligned, or committed to align, their performance with EU BAT at all their facilities in the coming two to three years.^B Moreover, the recent *ZDHC MMCF Guidelines* set a timeline for global viscose manufacturers to achieve the EU BAT levels by 2023–25 (between the third and fifth year after the first assessment).

^B Aditya Birla and Lenzing by 2022, and Sateri and Asia Pacific Rayon (APR) by 2023. Since 2016, Austrian producer Lenzing has achieved EU BAT at two of its viscose fibre plants, one of which is based outside of the EU (Nanjing, China). Aditya Birla Group’s Chinese facility Birla Jingwei Fibres Company Limited (BJFCL), as well as viscose production facilities of the Chinese producers Sateri (Sateri Fujian, Sateri Jiujiang and Sateri Jiangxi) and Tangshan Sanyou (Tangshan Sanyou Group Xingda Chemical Fibre Co. Ltd & Tangshan Sanyou Yuanda fibre) are now EU-BAT compliant.

That means EU BAT serve as a benchmark for responsible viscose production worldwide, and that the European Commission should build on these examples and propose ambitious legislation that looks at manufacturing beyond the EU borders and pushes for ambition beyond the current EU BAT.

Since the current BREF on polymers is already over a decade old, and more than half of the global viscose industry is already on track to achieve it, the document is in need of significant update to reflect the latest technological advancements and best practices. Revision of the current BAT related to viscose fibre manufacturing will take place in a more fragmented manner by addressing air emissions through a Waste Gas from Chemicals (WGC) BREF. This is currently under revision, and consultations suggest the limits on sulphur emissions to air will be tightened. It is key that the European Commission records the latest best practices in viscose manufacturing and sets BAT on all chemicals discharged from the viscose-manufacturing process.

2. Where do brands stand on viscose?

Over the past three and a half years, the Changing Markets Foundation, in partnership with other international NGOs, has engaged with clothing brands to inform and encourage them to take action on their viscose supply chains.

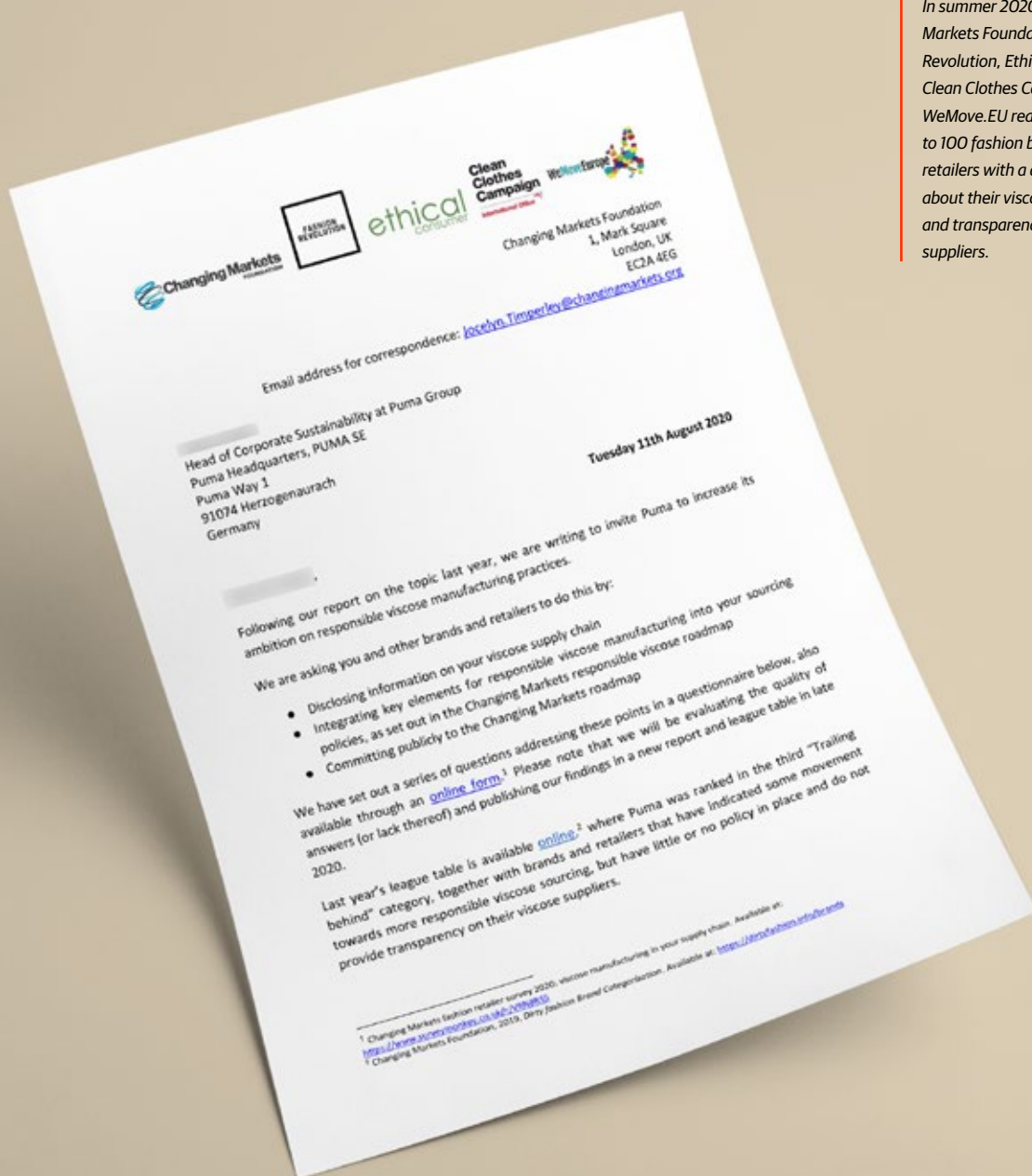
This year, we contacted 100 brands with a questionnaire about their sourcing practices. Their responses and the information publicly available on each company's website are summarised in the brand table *Where do brands stand on viscose?*, given as an attachment to this report. Companies are separated into four categories, depending on their progress on responsible viscose sourcing: Frontrunners, Could Do Better, Trailing Behind and Red Zone.

Overall, our categorisation looks relatively similar to last year. While some brands showed marked progress, and there is a welcome increase in how many are beginning to engage in concerns around viscose production, rigorous and transparent policies and practices remain too infrequent. This year, 14 companies have committed to our *Roadmap* (compared to 10 in 2019), which puts them in the Frontrunners category, while 11 ended up in the Could Do Better category (the same number as in 2019), which means they have a viscose policy but it is not as ambitious as those of the Frontrunners.

Some brands are setting clear examples of best practice. The 14 brands in the Frontrunners category have all outlined concrete commitments to move towards closed-loop manufacturing by 2023–25. Many of them this year disclosed comprehensive viscose-manufacturer supply-chain lists, including names and addresses of individual viscose factories.

However, many brands still have either no viscose-specific policy covering manufacturing or a policy that is too weak or too vague. For most brands, there also remains far too little transparency on who their viscose suppliers even are. These findings come despite the surge in sustainability claims and commitments from fashion brands over the past years. In total, three-quarters (75 brands) still landed in the bottom two categories (47 in Trailing Behind and 28 in the Red Zone), having taken few or no meaningful actions to clean up their viscose supply chains.

With each passing year, there is a more urgent need for companies to clearly lay out their viscose policies and increase their ambition, in line with the Changing Markets *Roadmap*. This year saw more brands engaging with us, but a large majority still have no clear viscose fibre-sourcing policy.



In summer 2020 Changing Markets Foundation, Fashion Revolution, Ethical Consumer, Clean Clothes Campaign and WeMove.EU reached out to 100 fashion brands and retailers with a questionnaire about their viscose policies and transparency about their suppliers.

2.1. How we categorised the brands

In August 2020, the Changing Markets Foundation – along with Fashion Revolution, Ethical Consumer, the Clean Clothes Campaign and WeMove.EU – contacted 100 global clothing brands by email and post with a series of questions about their viscose-manufacturing supply chains. These included nine companies not previously contacted by Changing Markets.

We asked brands to update us on their viscose-sourcing practices (how much viscose they use, and whether they have a policy that addresses the environmental impacts of their viscose supply chain) and transparency (the names and factories of their viscose suppliers, and any plans to disclose these suppliers publicly). We also invited them to commit to the *Roadmap's* principles.

Just under two-thirds (61 brands) responded – a response rate slightly higher than in 2019. In cases where parent groups clearly answered on behalf of their brands, we considered the individual brands to have responded. We did not count a response without answers to our questionnaire as an engagement.

These responses were reviewed, along with research into viscose policies and supply-chain disclosures available on each company's website. Companies were then assessed using the following criteria:

Transparency: A company was rated low on transparency if no information about where its viscose comes from was communicated to Changing Markets or is disclosed publicly. It was rated high if it provided a full supplier list, including names of viscose suppliers and locations of factories, on its website.

Viscose policy: A company was rated low on policy if no information about its suppliers' viscose-manufacturing practices was communicated to Changing Markets or is accessible on its website. Companies were rated high if they had strong policies with clear plans to improve viscose-manufacturing practices in their supply chains and to move away from unsustainable suppliers.

Engagement: A company was rated high on engagement if it meaningfully responded to Changing Market's questions on its viscose supply chain.

To rate highly overall, companies needed to demonstrate real and measurable signs of progress in line with the Changing Markets *Roadmap*. Where few signs of progress were seen compared to our 2019 analysis, this was taken into account. For example, if a company had made no progress on commitments set out last year, it was, in some cases, downgraded to a lower category.

Please note that this brand table is a categorisation of brands based on their responses to us and publicly available viscose-manufacturing policies and disclosures. It is not a ranking. Companies in the Frontrunners category are listed according to the level of transparency they provide on their viscose supply chain; in other categories, they are listed alphabetically.

2.2. Frontrunners

The Frontrunners category consists of the 14 brands that have signed up to the Changing Markets' *Roadmap*.

Four new companies – George at Asda, Levi Strauss & Co, Reformation and Sainsbury's – have signed up to the *Roadmap* this year. They join the ten other firms – ASOS, C&A, Esprit, H&M, Inditex, M&S, Next, Tesco, New Look and Morrisons – that previously signed up in 2018 and 2019. **All the *Roadmap* signatories now have clear policies to address the environmental impacts of viscose production in their supply chain, in line with the Changing Market's *Roadmap*, although at the time of writing, Asda has not made its policy public yet. See Box 2.1 for more on how the Frontrunners are implementing their policies on the ground.**

Several signatories have raised the bar on public disclosures this year. ASOS, C&A, Esprit, M&S, Reformation and Tesco have now published extensive lists of their viscose manufacturers on their corporate websites, including names and, in most cases (bar ASOS), addresses of factories. New signatory Reformation is the first US brand in our assessment to embrace such a high level of transparency.

Tesco has publicly disclosed the factories of over 80% of its viscose supply chain on its website for the first time, although last year it had disclosed the supplier names of what it said was 96% of its viscose on its website. Next disclosed its full supplier list to Changing Markets, including addresses, but has not yet published this on its website, where it discloses only the names of its largest three suppliers.

Source: iStock



Other signatories – namely H&M, Inditex, Morrisons and New Look – have become more transparent about who their viscose suppliers are, but are not yet publishing full factory lists. Of these, H&M, New Look and Morrisons indicated plans to disclose factory lists of all or most of their suppliers.

New signatory Sainsbury’s discloses the suppliers of 50% of its MMCF use, but again does not give factory names. Meanwhile, new signatories Asda and Levi Strauss communicated plans to disclose supplier information on their websites in November 2020 and before the end of 2021 respectively.

2.3. Could Do Better

This category consists of brands showing evidence of significant efforts to make their viscose supply chains more responsible, even if all elements of fully responsible policy or transparency are not yet in place.

In large part, this category consisted of the same brands as last year, with sports brands Puma and Under Armour as the only new additions.

Puma has publicly committed to sourcing all its viscose from ‘certified sources’ by 2025 at the latest, although it does not define what this means. Crucially, it already discloses its full supplier list, including factories, which supports its claim that it currently relies exclusively on Lenzing for viscose.

Under Armour told us it has a (non-public) synthetic cellulosic-fibres policy, which intentionally limits its synthetic cellulosic fibres to Modal and Tencel from Lenzing and Madeira rayon from Portugal, with no current planned use of viscose. While this move to ensure responsible suppliers of MMCFs pushed Under Armour up a category this year, the company still has serious work to do on transparency; neither its policy nor its suppliers are disclosed on its website.

Some brands in this category showed clear progress towards their goals. Notably, 85% of Lidl’s viscose now comes from Lenzing Ecovero, Tencel Lyocell or Tencel Modal, while Bonprix said it expects around one-third of its viscose to come from Lenzing Ecovero by the end of 2021, and for this proportion to increase thereafter. Meanwhile, Kering – parent company for a group of brands, including Saint Laurent and Gucci – set out the group’s viscose fibre-manufacturing policy, saying suppliers are expected to propose cellulosic fibres made from a closed-loop chemical-management system, although it is not indicated whether this is in line our *Roadmap*. Kering also published its main viscose suppliers for the first time.

But other brands in this category were in danger of dropping behind. Valentino lacks a firm commitment to responsibly sourcing viscose and lists no suppliers on its website, although it disclosed some to Changing Markets Foundation. And Victoria’s Secret, while credited with instructing its contracted manufacturers to only use viscose from Lenzing AG and Aditya Birla Group, gives little evidence of further engagement or monitoring its viscose suppliers.

Meanwhile, Ikea and Monsoon, previously in this category, were moved down to Trailing Behind. Despite outlining relatively good policies in 2019, neither brand responded to Changing Markets’ questionnaire this year, and neither had enough clear information on their websites to reassure us progress is being made.

2.4. Trailing Behind

Almost half (47) of the companies contacted indicated some efforts to move to responsible viscose manufacturing and/or transparency of suppliers, but they either largely failed to engage with concerns over viscose fibre manufacturing or had not yet developed clear public policies to address these concerns.

Several brands in this category showed movement towards establishing viscose policies but had, in many cases, failed to make their policies or commitments concrete and/or public. Bestseller, parent group of Vero Moda, told us it is currently creating a policy for viscose fibre and yarn suppliers as part of its commitment to source cellulosic raw material from responsible sources by 2022, while Hugo Boss communicated an internal responsible product policy for viscose for the first time, although this is not in the public domain.

Matalan similarly told us it has a (non-public) viscose policy – an initial step that led to it being moved up from the Red Zone. Several LVMH brands, including Dior and Fendi, were also moved up after informing us about LVMH’s (internal) responsible viscose-sourcing policy, which covered the industrial process, and disclosing several viscose manufacturers to Changing Markets Foundation for the first time. However, none of this information is shown on these brands’ websites.

Anthropologie and Urban Outfitters were also moved up due to a commitment for all direct-sourced viscose to come from ‘responsible and sustainable sources’ by 2023. However, their parent company Urbn fails to clearly define what it means by this commitment, or to report on current progress.

Mango, which uses a large amount of MMCF materials in its clothing, has yet to produce a viscose-manufacturing policy despite having been in communication with Changing Markets for two years. It has pledged to produce and publish a forest-fibre policy by the end of 2020; however, it is not clear whether this will cover viscose manufacturing.



Viscose makes up 20-30% of all fibres used by Mango, yet the brand has so far failed to commit to cleaning up its viscose supply chain.

Zalando, which earlier this year announced a commitment to distributing 'only brands that meet ethical and eco-responsible standards by 2023',¹⁶ has taken little meaningful action to develop a viscose policy. While it communicated that it is working to 'support the development of' innovative processing techniques and fibre sources that reduce environmental and social impacts, such as closed-loop technology, it gave no firm commitments on viscose-sourcing practices. The company did however communicate that it sources majority - 9% out of their 11% viscose - from Lenzing.

Missguided, which aims to complete a new viscose policy in 2020, mentioned the difficulties of combining its business model of buying surplus/roll ends from the marketplace with more responsible viscose sourcing. Ross Dress for Less, a brand in the Red Zone this year, made a similar argument about lacking direct control of the manufacturing process due to its purchasing model in its latest sustainability report. It's worth clarifying that companies that operate on global markets should operate in line with global standards. A model of purchasing that does not allow a company to be transparent or accountable for its supply chain is not sustainable, as it can never provide reassurance that its products are produced responsibly, under fair and decent working conditions, and without harm to the environment. Missguided itself acknowledged it could start to ask more about where materials come from and use this information to support purchasing decisions.

Luxury brands, together with fast fashion brands and low-cost retailers have landed in the Red Zone, showing no evidence of action to clean up their viscose supply chain.
source: iStock

2.5. Red Zone

The 28 worst-performing brands assigned to the bottom category this year are those with no credible viscose-specific policy or transparency of any kind. Over two-thirds of these brands (64%) are US-based.

Several brands in this category have few environmental policies of any kind, including Aeropostale, Carter's and Forever 21.

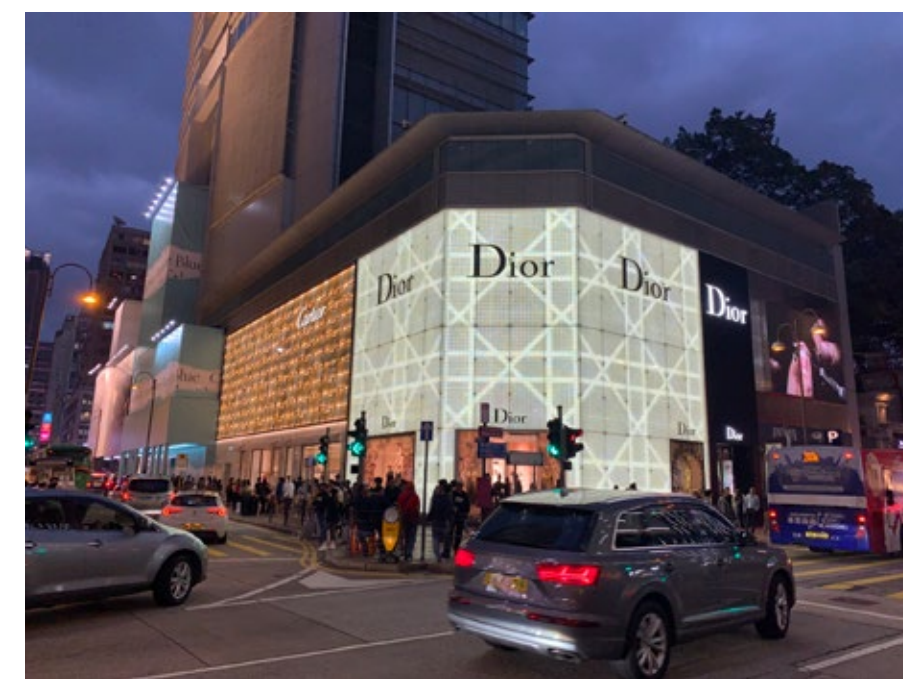
The majority of the brands contacted for the first time by Changing Markets this year landed in the Red Zone, including Macy's, Costco, Express, Hanesbrands, Kohls and Ross Dress for Less. Of these, only Macy's replied, stating it hopes to give more shape next year to strategies on responsible viscose sourcing, but giving no concrete plans to do so.

As in previous years, several luxury brands were placed in the Red Zone, including Dolce & Gabbana, Prada and Versace. Italian luxury brand Armani again failed to reply to us, and its website shows no evidence of action to clean up its viscose supply chain, despite its recent letter to the fashion industry declaring its 'redefinition of priorities' in light of the pandemic.¹⁷

Several brands were downgraded from a higher category last year due to a lack of progress on addressing viscose manufacturing. Some of these brands have previously said they are taking action on viscose sourcing, but still have no evidence of progress to show and nothing on their websites. Decathlon, for example, last year communicated a decision to use only lyocell like Lenzing Tencel - but it also uses viscose, failed to respond this year and made no mention of MMCF policies in its sustainability plan.

Meanwhile, we have engaged with John Lewis since 2017 and, while in 2019 the company communicated plans to make a new viscose policy and 'work towards an ambition' to use only Lenzing Ecovero fibres, in 2020 it provided no meaningful answers to our questionnaire, and its website still doesn't mention a viscose policy or commitment.

Source: iStock



BOX 2.1: How Roadmap signatories are verifying implementation on the ground

Signing up to the Changing Markets' *Roadmap* requires much more than simply a commitment statement on a brands' website. This year, we asked the signatory brands to detail how they are verifying implementation of the *Roadmap* on the ground (please note this section does not cover the four new signatories in 2020). The responses showed these brands are taking control of their viscose supply chains, putting an even bigger distance between themselves and the other three categories set out in the brand league table.

One important development is the MMCF Brand Roundtable, formed by ASOS, C&A, Esprit, H&M, Inditex, M&S, Next, Tesco and (more recently) Morrisons. Over the past two years, these brands have joined together to develop a self-assessment questionnaire (SAQ) to collate information on monitoring and verifying their supply chains and ensure suppliers are following the *Roadmap* requirements. The SAQ aims to avoid companies and viscose manufacturers filling in several similar forms by instead asking suppliers to fill in one comprehensive document accessible to all listed signatory brands. It covers all principles of the *Roadmap*, including chemical management, greenhouse gas emissions and protection of workers, according to several brands.

Our investigations in 2017 and 2018 uncovered rampant pollution around viscose production sites, which demonstrates the need for regular and transparent audits.

Brands forming this roundtable said the SAQ was sent out in early 2020 to brands' viscose producers, and that many viscose manufacturers had now completed it. The roundtable intends viscose suppliers to complete the SAQ annually, although Morrisons indicated that, if there are concerns about the supplier, assessment will be more frequent. However, none of the companies indicated they would publicly share the results of their verifications, which raises questions about the accountability of their supply chains and is at odds with our *Roadmap* principles.

Several brands have also visited producers on behalf of the roundtable, although this process has been held up by Covid-19. M&S' has audited five sites of its MMCF producers across India and China and plans to continue with these in-person audits, it said. H&M said its visits cover business practice (child labour,



transparency, business licence), social practice (recruitment and hiring policy, compensation, worker involvement and communication) and environment (wastewater, banned chemicals and chemical inventory list).

The roundtable has now taken the SAQ to the member-based non-profit group, Textile Exchange, to develop a reporting framework, several brands said. The MMCF Steering Group, convened by Textile Exchange and building on the work already done by the MMCF Brand Roundtable, aims to align the industry on a framework for assessing best practice of man-made cellulosic producers, according to M&S.

It is important to note that regardless of how brands decide to carry out monitoring and verification - individually, jointly or through a third party, such as Textile Exchange - the Roadmap stipulates that monitoring and verification should be regular, for example monthly, to provide periodic review on how suppliers' practices align with commitments. The brands also need to make audits results transparent or require their suppliers to make them public.

Several brands take additional measures to verify their viscose suppliers. M&S said its responsible sourcing policy already requires all approved suppliers to have completed the SAQ, and it will assess its approved suppliers annually based on their fulfilments of raw material and manufacturing requirements.

Inditex carries out EU BAT audits by third parties, it said, adding that it 'actively invites' its suppliers to pass the EU BAT audit and publish the results. Inditex also aims to establish additional yearly reporting by the supplier through the SAC Higg FEM Index and ZDHC MMCF, it said, and is working to conduct its own audits based on unannounced visits at least annually. C&A also communicated that it plans an average of three visits a year to its viscose suppliers by industry-approved third-party organisations: twice for testing, in line with the ZDHC MMCF Guidelines, and once for the Higg FEM verification. However, neither of the two initiatives make the audit results transparent. It is crucial that the ZDHC MMCF and Higg FEM make this a requirement and that, in the meantime, the companies disclose this information voluntarily.

Newer signatories are less far along in this process. New Look, which signed up to the Roadmap in 2019, noted it is still in the process of mapping its viscose supply chain and has not yet started the process of monitoring and verifying, but aims to do this biannually, with evaluations based on the Higg FEM.

Several signatories also showed progress in ensuring remediation of any damage caused to local inhabitants by viscose manufacturing in their supply chains. The SAQ includes a Corrective Action Plan and follow-up procedure, according to Esprit and several other brands. Inditex said it will address remediation through its diligence and assessment processes, and engage with its viscose suppliers to put in place or improve existing mechanisms. Meanwhile, M&S noted it only sources viscose from producers attaining a green shirt in the Canopy Hot Button Report, whose audit includes requirements for the MMCF producer to 'recognize, respect and uphold human rights and the rights of communities and workers affected by the operations of their supply chain and affiliated companies'. However, it is not clear whether this includes operations covering viscose fibre productions or only raw-material sourcing.

BOX 2.2: How department stores are addressing viscose sourcing by their vendors

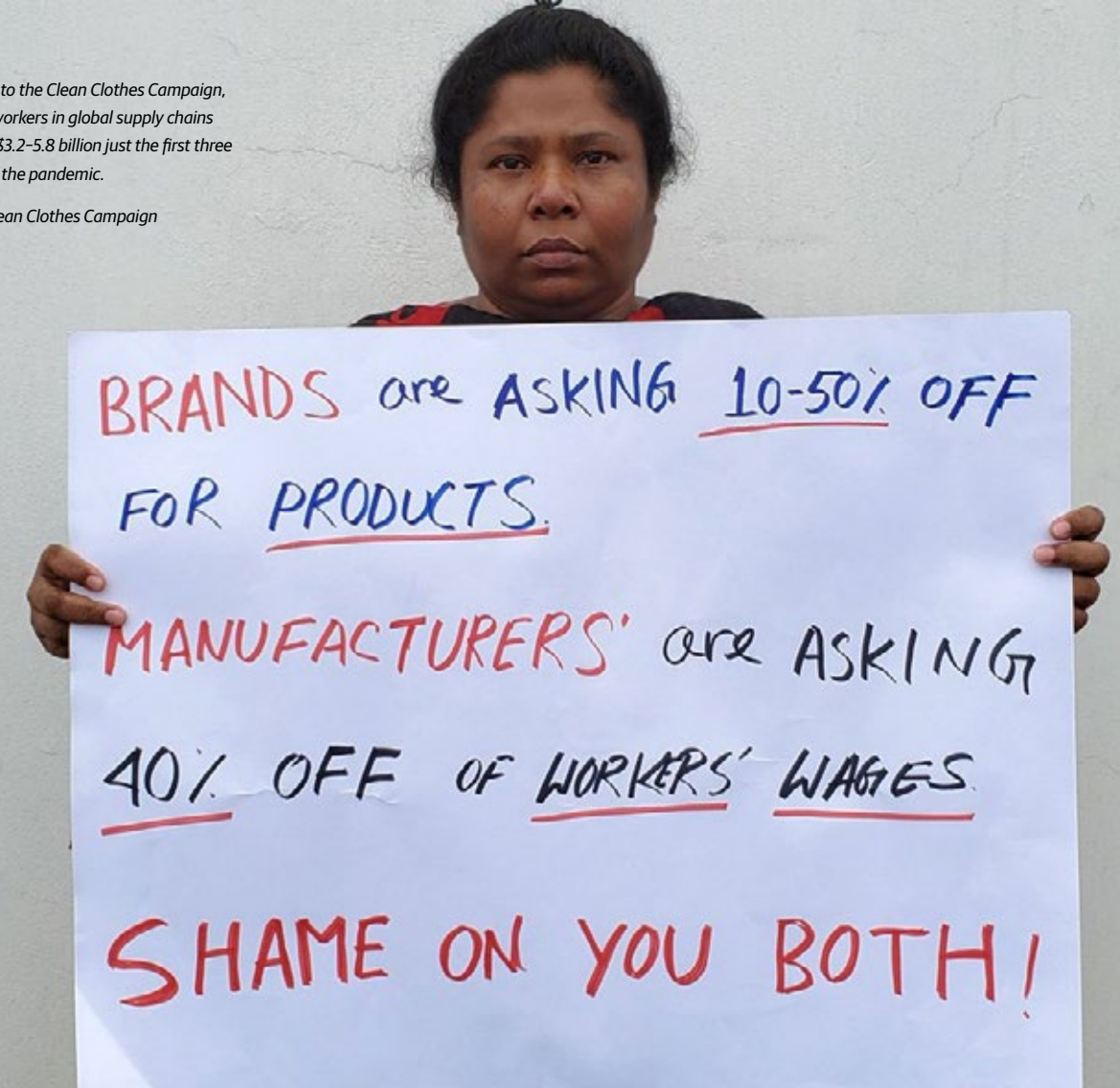
Changing Markets' three-year campaign has focused largely on how companies can engage directly in their own supply chains to clean up their viscose manufacturing. However, there is also a question to be asked about how multi-brand retailers can influence this process by setting standards for the brands they sell in their stores or on their websites.

This year, Changing Markets' signatory ASOS - a British online store that sells hundreds of brands, as well as its own clothing range - showed signs of leading the way on this. It is now asking the UK brands that sell on its platform to commit to transparency and identify risks within their UK supply chains, and to join a labour-auditing programme to identify and report indicators of forced labour and hidden worker exploitation.¹⁸ Selfridges has a forestry policy for its vendors, although it has not extended this to viscose manufacturing. The company communicated to us that it has added a question to its supplier SAQ to specify whether, where applicable, the brand has set closed-loop manufacturing targets for viscose.

Other multi-vendor brands are showing less progress. Nordstrom acknowledged in its response to us that it has a role to play in ensuring it buys things other companies source in a responsible way, although it does not currently have any policies to address this. And US department store Macy's, which did respond briefly to our email but did not provide any answers to our questionnaire, told us it hopes to give more shape to strategies helping it to address concerns around viscose.

According to the Clean Clothes Campaign, garment workers in global supply chains are owed \$3.2-5.8 billion just the first three months of the pandemic.

Source: Clean Clothes Campaign



Guest column:

Wage theft, unpaid bills and worker repression: the devastating effects of an unjust industry

Paul Roeland, Clean Clothes Campaign

Garment brands and retailers around the world have responded to the lockdowns and economic insecurity caused by the pandemic by cutting down on, or fully cancelling, their orders with suppliers. This means workers were left unpaid or with less than their full wages, or even lost their jobs. Because of their excessive power in global supply chains, brands and retailers can set the terms and prices in the factories they produce in, and basically function as principal employers. Their measures to save money and decrease business risks in the face of a pandemic have created a situation in which workers pay the price for this crisis.

In several countries, governments have officially allowed factories to pay their workers only 40-60% of the poverty wages they were receiving before the pandemic, while many other workers were left without wages or jobs. Worker protests against wage cuts and dismissals at factories have happened continuously since March.

In a report published in August 2020, the Clean Clothes Campaign calculated that garment workers in global supply chains are owed \$3.2-5.8 billion in unpaid wages, legally owed bonuses and compensation for just the first three months of the pandemic.



Source: Clean Clothes Campaign

Behind that number lies real hardship. Even before the pandemic hit, workers were paid poverty wages; as the Clean Clothes Campaign research shows, 93% of surveyed brands weren't paying garment workers a living wage.¹⁹ This means they already couldn't make ends meet, and any income loss immediately has a devastating effect on them and their families. An estimated 80% of garment workers are women, often providing for children or other relatives.

The apparel supply chain delivers staggering profits on the other end of the chain: Their combined revenue was estimated to be around \$525 billion in 2019, mainly concentrated in the top 30 brands, with net profits regularly over 10%.

For decades, these brands have built their wealth on the basis of poverty wages and outsourced responsibility, without contributing to any form of social protection in garment-producing countries.

Wage loss is not the only way in which garment workers are affected; in the first six months of the pandemic, the Clean Clothes Campaign recorded 193 cases of worker rights violations.²⁰ While 37% related to wage theft and 30% to mass dismissals, around 20% concerned union busting and harassment, and close to 10% of cases concerned unsafe working conditions.

After much public pressure, some brands have at least committed to pay in full for their outstanding orders, but many others (including Arcadia, Walmart, Matalan and Bestseller) still refuse to do so. A brand tracker from the Worker Rights Consortium²¹ provides the latest information.

Disturbing cases from the world's leading fashion companies keep coming in - from thousands of workers been laid off in H&M supplier factories in Bangladesh to union busting in an Indian factory that exclusively produced for H&M, to mass protests against Primark suppliers, underpayment and firings at Nike suppliers in Indonesia.²² Besides these three brands, others that are often reported on are Inditex (Zara), Bestseller, Mango, C&A and PVH.²³

The Clean Clothes Campaign urges apparel brands and retailers to commit to a wage assurance:²⁴ a public commitment to ensure, by the most efficient means, the workers in their supply chains are paid what they are owed, and to enter into negotiations to establish a fund that will make sure workers can no longer be left jobless without their legally owed severance. The "Pay Your Workers" campaign²⁵ focuses on H&M, Primark, and Nike - three of the brands that most frequently appeared in reports from workers about worker rights violations during the pandemic. At the same time Primark performed at the top end of its forecasts and now has a higher share of UK sales than before the pandemic.²⁶ But the call to take responsibility is directed at all garment brands and retailers with outsourced production. Over a dozen brands have already committed to ensuring their workers are paid in full during the pandemic. It is up to bigger companies to follow suit.

Brands have the moral - and increasingly legal - responsibility to make sure that human rights are respected throughout their supply chain. That means they should actively intervene and help the people that they have relied upon for decades to make their clothes, and who they have abandoned in this crisis that disproportionately affects the poor.



source: Andrew Tsaks

BOX 2.3: Fashion's new must have: Transparency

While increasingly taken on board by corporations, transparency still remains largely elusive throughout the apparel sector. Textile Exchange reported the majority of MMCF supply chains remain opaque, with only 13% of clothing companies included in their study having visibility to country of origin of more than 75% of feedstock. However, visibility - sometimes referred to as 'traceability' - is only the first stage, and too seldom translates to supply-chain transparency.²⁷ Fashion Revolution's most recent *Fashion transparency index* revealed only 7% of brands (18 out of 250) are publishing some of their raw-material suppliers (an increase of 2% from 2019). This usually includes only a handful of their viscose, recycled polyester, wool or cotton suppliers.²⁸ The prevailing lack of transparency in the sector has also been observed in our own engagement with the fashion brands; even some with partial or complete visibility of their viscose supply chain are still not willing to publicly disclose this information.

In recent years, consumers have started demanding more transparency and information to make conscious purchasing decisions. They want to buy from brands and manufacturers that are trustworthy and employ responsible practices. A survey conducted by McKinsey in April 2020 across more than 2,000 UK and German consumers shows increased desire for greater sustainability. Two-thirds of surveyed consumers state it has become even more important to limit the impacts of climate change. Many have already begun changing their behaviours accordingly, with 57% having made significant changes to their lifestyles to lessen their environmental impact. As a result of the Covid-19 crisis, 65% of respondents are planning purchase more durable fashion items.²⁹

While the decision to disclose companies' practices and supply chains has largely been in the hands of corporations, this might change in the future. In April 2020, European Commissioner for Justice, Didier Reynders, announced the Commission will introduce a legislative initiative next year on mandatory due diligence for companies.³⁰ One of the options could entail new regulation at the EU level requiring companies to report on the steps they have taken to identify, address, prevent and mitigate any adverse human rights and environmental impacts in their own operations, or in third-party business relationships, and demanding a certain level of transparency. Even some of the apparel companies - including Adidas, Armed Angels, H&M, Inditex and Tchibo - are calling on the European Commission for the mandatory human rights and environmental due-diligence legislation.³¹

A number of leading clothing companies have already voluntarily disclosed their commitments, practices and supply-chain information, indicating disclosure does not harm companies' competitive position. Instead, it can have an added value. The European Commission study indicates that increasing due diligence and transparency in the corporate supply chain has led to improvements related to credibility, risk management and internal culture.³² On the other hand, while brands and retailers reluctant to publicly disclose their supply chains and practices are less vulnerable to scrutiny, their secrecy could be negatively interpreted by consumers.



3. Where do producers stand on viscose?

Almost three years down the road from launching our *Roadmap towards responsible viscose and modal fibre manufacturing* (February 2018), global viscose producers stand at different stages of implementing environmental and social principles to bring their operations in line with best practices.

This section aims to analyse the commitments and actions implemented by some of the world's leading viscose producers in the transition to responsible viscose manufacturing - specifically, Aditya Birla Group, Asia Pacific Rayon (APR), ENKA, Lenzing, Sateri and members of the Chinese Collaboration for Sustainable Development of Viscose (CV). The analysis is based on responses to a questionnaire shared with manufacturers in August 2020 and on publicly available information. Although the CV shared with us the Sustainable textile Solutions (STS) reports on Tangshan Sanyou, indicating their compliance with EU BAT, despite repeated attempts we were unable to directly engage with Tangshan Sanyou, which is why we had to decide not to include them in our assessment.

The table *Viscose manufacturers' performance on responsible production* is not a ranking; the companies are listed according to when they made public commitments to EU BAT. Changing Markets Foundation does not have a preferred supplier list and does not vouch for any of the below listed viscose manufacturers' performance. It is the responsibility of the brands and retailers to conduct due diligence of their supply chain through independent audits (see our *Roadmap*).

The assessment in the table focuses only on key commitments and practices in the viscose fibre-manufacturing stage. Manufacturers must ensure responsible practices throughout the full viscose supply chain - notably, responsible raw-material sourcing - which is why we have included a column summarising key findings of the CanopyStyle assessment on responsible sourcing. The indicators demonstrate where different viscose manufacturers stand in terms of their commitments, current achievements and transparency. A more comprehensive analysis of manufacturers' commitments and achievements is available on our microsite: www.DirtyFashion.info.

Viscose manufacturers' performance on responsible production

● ON THE RIGHT TRACK
 ● COULD DO BETTER
 ● TRAILING BEHIND
 ● POOR EFFORT

VISCOSE FIBRE MANUFACTURER	COMMITMENT TO EU BAT (CLOSED-LOOP PRODUCTION)	PRODUCTION SITES OPERATING IN LINE WITH EU BAT	INVESTMENT TOWARDS EU BAT (CLOSED-LOOP) TECHNOLOGY	TRANSPARENT REPORTING ON PROGRESS TOWARDS MEETING EU BAT (CLOSED-LOOP PRODUCTION)	GRIEVANCE MECHANISM AND REMEDIATION PROCEDURES	CANOPY 2020 HOT BUTTON RANKING (RAW MATERIAL SOURCING PRACTICES)
 <p>Lenzing Innovative by nature</p>	<p>Lenzing requires all sites to comply with the Group Environmental Standard, which is aligned with EU BAT, by 2022.¹ Lenzing communicated that a delay is expected due to negative impacts by Covid19.</p>	<p>2 OUT OF 3 VISCOSE PRODUCING FACILITIES</p> <ul style="list-style-type: none"> ● Lenzing Austria and Nanjing, China. 	<p>Lenzing intends to invest over €100 mn in 'sustainable production technologies' by 2022. Throughout 2019 and 2020 it has attributed over €3.7 mn (US\$ 4.4 mn) in SPV;</p> <p>€40 mn to expand the production of the raw material sulfuric acid at the Lenzing, Austria site; and around €2 mn (18 Mio CNY) in Nanjing, China site to improve waste water treatment and Carbon disulfide Adsorption Plant (CAP).</p>	<p>Limited public disclosure, including information on reduction of certain emissions within a set timeframe on a group/facility level, but no systematic reporting of progress made by all facilities in relation to EU BAT parameters.</p>	<p>Lenzing has a BKMS® whistleblower system, publicly available for all facilities and to all employees of the Lenzing Group, to customers, suppliers and other third parties globally.</p> <p>Accessible publicly via website, but not available in local languages.⁶</p> <p>Incidents/complaints not publicly accessible. They are registered in Group's Safety, Health & Environment Action reporting system (SHEARs) followed by a root cause analysis and corresponding actions taken.</p>	<p> GREEN SHIRT: 30.5/35 BUTTONS</p> <p> Sourcing risk of sourcing from Ancient & Endangered Forests and other Controversial Sources has been resolved</p>
 <p>ADITYA BIRLA GROUP</p>	<p>ABG aims to achieve EU BAT norms at all its sites by 2022.² ABG communicated that despite Covid 19, it will still be able to meet the EU BAT by the end of 2022.</p>	<p>1 OUT OF 7 VISCOSE PRODUCING FACILITIES</p> <ul style="list-style-type: none"> ● Birla Jingwei Fibres Company Limited (BJFCL) in China 	<p>ABG committed a total of €145 mn (US \$170 mn) of investment to progress towards EU BAT technologies at all seven of its existing viscose fibre production plants, which are located in India, Indonesia, China and Thailand.</p>	<p>Limited public disclosure, including information on reduction of certain emissions within a set timeframe on a group/facility level, but no systematic reporting of progress made by all facilities in relation to EU BAT parameters.</p>	<p>ABG communicated that each of their site has a grievance management policy used to address the grievances of the community.</p> <p>The access to policy and grievance mechanism publicly available,⁷ but not available in local languages (only grievance forms in local languages). Incidents/complaints not publicly accessible, registered internally.</p>	<p> GREEN SHIRT: 33/35 BUTTONS</p> <p> Sourcing risk of sourcing from Ancient & Endangered Forests and other Controversial Sources has been resolved</p>
 <p>Sateri</p>	<p>Sateri has committed to achieve EU BAT norms at all its sites by 2023.³</p>	<p>3 OUT OF 5 VISCOSE PRODUCING FACILITIES</p> <ul style="list-style-type: none"> ● Sateri Fujian, Sateri Jiujiang and Sateri Jiangxi. 	<p>The company communicated that where relevant, it will make the necessary investments to meet the EU BAT by 2023 at the two new facilities - Sateri Jiangsu and Sateri China.</p>	<p>Limited public disclosure, including information on reduction of certain emissions within a set timeframe on a group/facility level, but no systematic reporting of progress made by all facilities in relation to EU BAT parameters.</p>	<p>Sateri communicated that it has a central grievance mechanism and an environmental complaints handling procedure at all operation sites. The access to designated email is accessible on the website in English and Chinese.⁸ According to Sateri, each mill has an official WeChat account where anyone can leave a message to raise complaints. Incidents/complaints not publicly accessible.</p>	<p> RED/YELLOW SHIRT: 13/35 BUTTONS</p> <p> Associated with High Risk of Sourcing from Ancient & Endangered Forests and other Controversial Sources. Risk is known and no action is taken. (See page 32zzz)</p>
 <p>APR</p>	<p>APR expects full compliance with EU BAT by 2023.⁴</p>	<p>0 OUT OF 1 VISCOSE PRODUCING FACILITIES,</p> <p>expected to be compliant in 2023.</p>	<p>APR communicated that they are investing €14.8 mn (USD 15.7 mn) for the installation of an additional CS2/H2S recovery system to improve CS2 recovery and €68.000 (USD 80.000) in an effluent reduction project. The projects are due for completion and commissioning in Q4 of 2021 and at the end of Q4 2020, respectively.</p>	<p>APR discloses performance against EU BAT parameters on their website.⁴</p>	<p>APR communicated that any grievances are handled in accordance to the procedure and internally documented.</p> <p>Available on the website in English and Bahasa.⁹ Incidents/complaints not publicly accessible.</p>	<p> RED/YELLOW : 5/35 BUTTONS</p> <p> Associated with High Risk of Sourcing from Ancient & Endangered Forests and other Controversial Sources. Risk is known and no action is taken. (See page 32)</p>
 <p>再生纤维素纤维行业绿色发展联盟 COLLABORATION FOR SUSTAINABLE DEVELOPMENT OF VISCOSE</p>	<p>No clear commitment to EU BAT. CV communicated that the CV Roadmap 2025 will be published in 2020, including basic-level requirements for members to achieve or go even beyond EU BAT by 2025.</p>	<p>N/A</p> <p>CV communicated that Sateri and Tangshan Sanyou are aligned with EU BAT, according to STS reports.</p>	<p> NOT DISCLOSED</p> <p>CV communicated that it will disclose members' general investment in the field of sustainability every year, however this is not specific to investments in closed-loop technologies.</p>	<p>Sustainability report provides very limited disclosure on performance of CV members in line with only one or two core EU BAT parameters, and only on seven CV members. No systematic reporting of progress made by each member in relation to EU BAT parameters. Reporting is at times misleading by referring to values as core EU BAT indicators, when this is not the case. CV communicated that it cannot publicly release or disclose data on their members.</p>	<p>There is no grievance mechanism in place on the CV level.</p>	<p> N/A</p>
 <p>ENKA THE ART OF VISCOSE</p>	<p>N/A⁵</p> <p>However, in exchanges with the Changing Markets Foundation, ENKA declared its commitment to closed-loop production of viscose and its facility is already operating in line with the BREF document.</p>	<p>N/A</p> <p>1 OUT OF 1 VISCOSE PRODUCING FACILITY</p> <p>ENKA's site in Germany operates in line with emission and consumption values set out in the BREF document.</p>	<p>N/A</p> <p>ENKA has one production site that is already operating in line with the BREF document.</p>	<p>ENKA discloses performance against BREF levels on their website. Data is updated annually.⁵</p>	<p>There is no grievance mechanism in place. Local complaints, inquiries and questions from individuals are directed to the regulatory authority and ENKA has to provide sufficient information and answer within a timeframe set by the authority ("Umweltinformationsgesetz").</p>	<p> GREEN SHIRT: 26/35 BUTTONS</p> <p> Sourcing risk of sourcing from Ancient & Endangered Forests and other Controversial Sources has been resolved</p>

*Members of CV include: China Chemical Fibres Association, China Cotton Textile Association, Constant day dragon (Weifang), Funing Aoyang, Jiin Chemical Fibre, Sateri, Shandong Yamei, Shandong Yinying (Silver Hawk), Tangshan Sanyou, Xinxiang Balu Chemical Fibre, Yibin Grace and Zhejiang Fulida, Alliance for a green development of regenerated cellulose.

1 Lenzing Group (2020) Sustainability Targets [ONLINE] Available at: <https://www.lenzing.com/sustainability/sustainability-strategy/sustainability-targets>
 2 Aditya Birla Group, Sustainability Report 2019 – Pulp and fibre Business [ONLINE] Available at: https://www.birlacellulose.com/policies_reports_files/policies_reports_pdf_16_1580906355.pdf
 3 Sateri (2020) Sateri's Fujian Mill Complies with EU-BAT Standard, Rest of the Mills to Complete Assessments and Comply by 2023 [ONLINE] Available at: https://www.sateri.com/news_events/sateris-fujian-mill-complies-with-eu-bat-standard-rest-of-the-mills-to-complete-assessments-and-comply-by-2023/
 4 Asia Pacific Rayon (2020) Sustainability dashboard [ONLINE] Available at: <https://www.aprayon.com/en/sustainability/sustainability-dashboard/responsible-operation/clean-manufacturing/>

5 ENKA is a viscose filament yarn manufacturer, therefore the limits set by the EU BAT are not applicable. ENKA (n.d.) Consumption and emission data [ONLINE] Available at: http://www.enka.de/nachhaltigkeit_7_en.php
 6 Lenzing, Compliance, Express your concerns [ONLINE] Available at: <https://www.lenzing.com/lenzing-group/compliance>
 7 Birla Cellulose (2020) Grievance Redressal Policy [ONLINE] Available at: https://www.birlacellulose.com/policies_reports_files/policies_reports_pdf_26_1600432701.pdf
 8 Sateri (2020) Grievance [ONLINE] Available at: <https://www.sateri.com/sustainability/grievance/>
 9 Asia Pacific Rayon (2020) Grievance process [ONLINE] Available at: <https://www.aprayon.com/en/sustainability/grievance-process/>

3.1. Viscose manufacturers' commitments and transparent reporting on progress towards EU BAT

Most of the companies analysed have made a clear public commitment to align all their operations with EU BAT in the coming two or three years: Aditya Birla and Lenzing by 2022, Sateri and APR by 2023. Since 2016, Austrian producer Lenzing has achieved EU BAT at two of its viscose fibre plants, one of which is based outside of the EU (Nanjing, China). Aditya Birla Group's Chinese facility, Birla Jingwei Fibres Company Limited (BJFCL), as well as viscose-production facilities of the Chinese producer Sateri (Sateri Fujian, Sateri Jiujiang and Sateri Jiangxi), are now EU BAT compliant. The CV initiative has not yet made a clear commitment, and communicated to us that it will publish a *CV Roadmap 2025* this year, with the basic-level requirements to achieve - or even go beyond - EU BAT by 2025. At the time of writing, this has not yet been published.

Very few companies transparently report on the progress they are making to implement best practices on a facility level; in fact, only ENKA and APR disclose on their websites how their facilities' performance matches the EU BAT or BREF values. Other producers disclose some progress on the company level but have no systematic reporting of progress made by their facilities in relation to EU BAT parameters.

CV's 2019 sustainability report outlines CV members' average performance level (arithmetic mean value), instead of company-specific data, against a few of the key parameters (e.g. sulphur to air), which is problematic because it hides the bad performance of the initiative's laggards. Moreover, the report only covers the performance of seven CV members, and is misleading in the way it compares the CV *Roadmap* to what it refers to as the EU BAT core performance indicators, despite two of the three indicators (energy consumption and fresh-water consumption) not being key EU BAT indicators. When comparing the average performance of CV members to what CV refers to as the EU BAT parameters, these are actually consumption data from the European Man-Made Fibres Association (CIRFS), not EU BAT. Neither does the sustainability report address many EU BAT values on water emission.

Transparent reporting on findings from third-party audits also remains inadequate. Some of the companies (Lenzing and APR) have told us that have completed the Higg FEM self-assessment or have already had third-party verification conducted (Aditya Birla and Sateri), with audit reports available on the Higg platform. However, the Higg platform is not publicly available; neither does Higg require manufacturers to transparently share these reports on their own websites. This is a major problem, and, if Higg wants to be a meaningful industry standard, it must make transparency a key requirement. In the meantime, we call on viscose manufacturers to share Higg FEM audit reports and any other third-party verification reports transparently on their websites.

3.2. Grievance mechanisms and remediation procedures

Viscose manufacturers need to ensure inhabitants of areas surrounding viscose factories are not exposed to dangerous chemicals or otherwise negatively impacted by their operations. To ensure this, they need to have effective, timebound and transparent grievance mechanisms in place that are available to raise complaints.

While most of the viscose manufacturers analysed had established a grievance mechanism in the past year and made it publicly accessible on their website, these still entail several pitfalls.

First in most cases, the grievance procedures are not accessible in local languages, which presents an access barrier. The OECD *Guidance for responsible supply chains for the garment and footwear sector*,³³ which provides best practices for operational-level grievance mechanisms, highlights that making a grievance procedure accessible in all the relevant languages is key, particularly in the garment and footwear sector, when migrant workers

are employed or workers representing minority groups speak a different language. The guidance also stresses that several points of access to the mechanism need to be provided, in addition to company representatives, because 'large power imbalances exist between workers and management'.

Second, transparency is key in grievance procedures, meaning all records, investigation notes and findings linked to grievances need to be reported transparently with full public disclosure. Currently, all of the viscose manufacturers analysed fail to do this.

3.3. Holistic approach to responsible viscose production

Many of the viscose manufacturers analysed are large, vertically integrated companies that cover different stages of viscose production - from raw material sourcing to fibre production and even textile and garment manufacturing. The companies must therefore have a holistic approach towards sustainability. For this reason, we have decided to integrate Canopy's Hot Button ranking into our assessment, to include a summary of companies' performance on wood-pulp sourcing.

According to the Canopy assessment, two companies - Sateri and APR, both owned by Royal Golden Eagle Group - are still associated with a high risk of sourcing from ancient and endangered forests and other controversial sources. In fact, recent reports show the two companies are linked to deforestation in Kalimantan, Indonesian Borneo, on an area of land equivalent to '10,000 football pitches', to source wood pulp for their viscose (see Guest column below).³⁴

While both companies have made commitments to improve their fibre manufacturing in line with EU BAT, they must ensure raw-material sourcing is done in an environmentally and socially responsible way. A piecemeal approach is not sufficient for any company to claim their sustainability in viscose production as a whole.

Our investigations in 2017 and 2018 found that concerns raised by locals living in vicinity of viscose factories are not sufficiently addressed



Guest column:

How sustainable is Sateri and APR's viscose staple fibre?

Clearance of forests and peatlands by wood suppliers undercut sustainability pledges for APRIL, Sateri and APR

Greenpeace, Rainforest Action Network, Environmental Paper Network, Koalisi Anti Mafia Hutan, Green of Borneo, Eyes on the Forest, Jikalauhari-WALHI Kalimantan Tengah, WALHI Kalimantan Timur, Hutan Kita Institute, Yayasan Auriga Nusantara, Woods & Wayside International, Pusaka, Pantau Gambut

Sateri and APR of the Royal Golden Eagle (RGE) Group - now the world's largest viscose staple fibre producer - and their dissolving wood-pulp supplier, Asia Pacific Resources International Limited (APRIL) have a long way to go before their claims about sustainability can be considered fulfilled. As a recent report documenting deforestation by one of APRIL's main wood suppliers in Indonesia shows, the RGE Group's raw-material supply should concern buyers and investors that have corporate commitments relating to sustainability, forests and carbon emissions.

APRIL supplies dissolving pulp to Sateri's viscose staple fibre (VSF) mills in China and APR's VSF mill in Indonesia. All three entities - APRIL, Sateri and APR - are under the RGE Group, a conglomerate owned by businessman Sukanto Tanoto and certain family members.

As a coalition of civil society organisations (CSOs), we published a report on 6 October 2020 documenting over 7,000 hectares of deforestation (equivalent to 10,000 football pitches), including clearance of forests on peatlands, between June 2015 and August 2020 in the concession area of PT Adindo Hutani Lestari (Adindo) in Kalimantan, the Indonesian part of Borneo island.³⁵ Adindo has been one of the largest suppliers to APRIL's Kerinci mill (located in Riau Province on the island of Sumatra) for several years. The report's findings represent significant violations of both APRIL's and RGE Group's commitments to stop new development on forested peatlands - and, more broadly, they challenge the integrity of the groups' 'no deforestation' pledge made in June 2015.

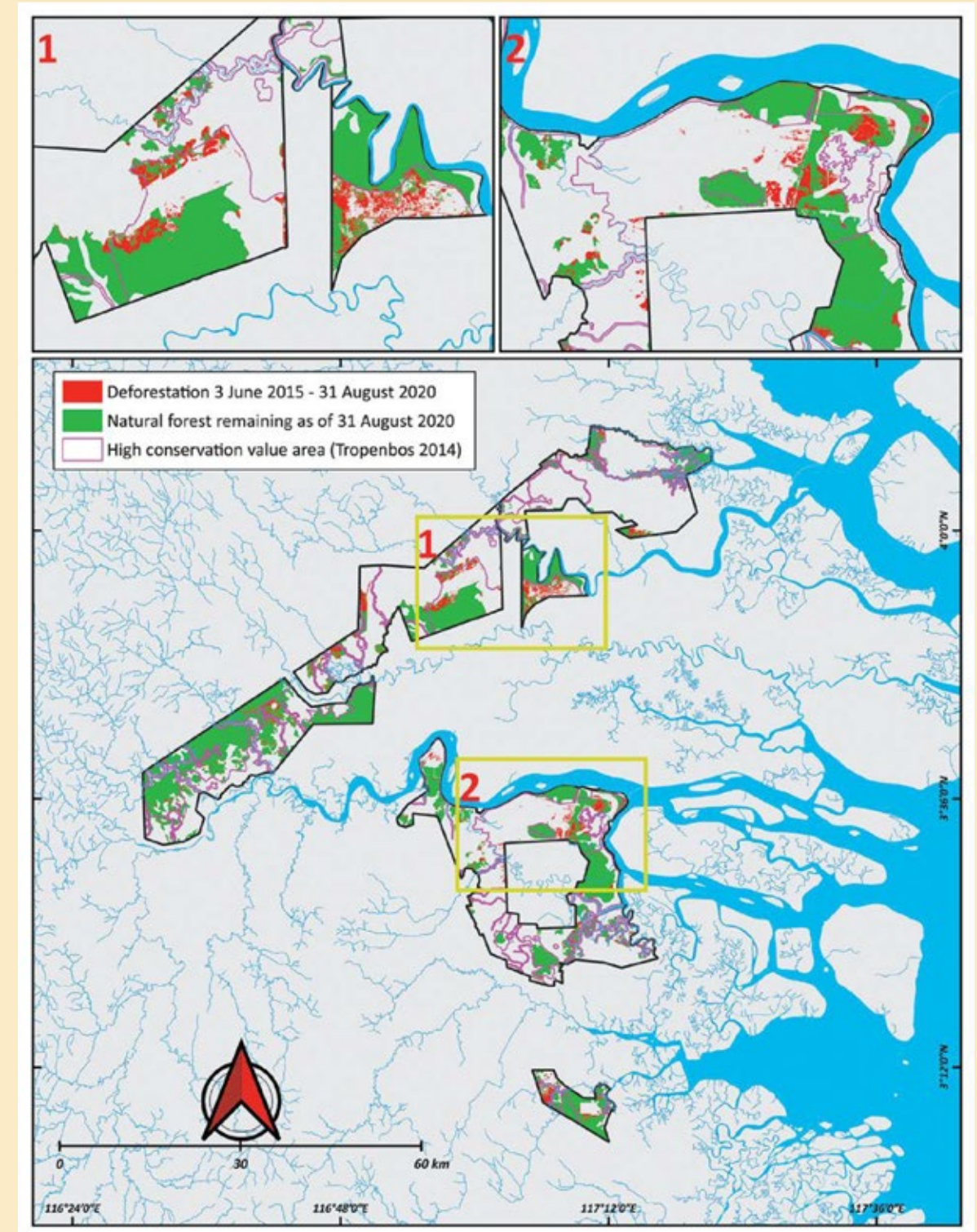
APRIL has denied most of these claims, either directly or by sharing a letter from Adindo.³⁶ APRIL claims all the areas developed inside Adindo's concession since APRIL's Sustainable Forest Management Policy (SFMP) 2.0 took effect were cleared prior to 15 May 2015. Figures 3 to 6 in our report,³⁷ which include high-resolution imagery, show this statement is inaccurate. The satellite imagery clearly detects natural forest loss and the development of pulpwood plantations on areas identified as peatlands and High Conservation Value areas. We encourage others to use deforestation-monitoring platforms Global Forest Watch and Borneo Deforestation Atlas to analyse Adindo's concession area and confirm our report's findings when considering whether APRIL's denial that any deforestation occurred holds weight.

APRIL has sought to assure stakeholders it is complying with SFMP 2.0 by commissioning KPMG Performance Registrar Inc. to produce 'limited assurance reports' since 2016. Yet neither the latest KPMG 'assurance report', published in July 2019, nor any of the previous ones, indicated that extensive deforestation has occurred within the Adindo concession, much of it on forested peatlands.³⁸ Data obtained from Indonesia's Ministry of Environment and Forestry, University of Maryland, and other data sources included in our report raise serious concerns about the rigour of KPMG's reports on APRIL. Why was the extensive deforestation that occurred in Adindo during the SFMP 2.0 not reported by KPMG? And why does it appear that KPMG is primarily relying on information from APRIL to determine if deforestation has occurred when independent sources of data are widely available?

Beyond Adindo, APRIL continued in 2018 and 2019 to accept wood from another concession in Kalimantan where large areas were deforested after SFMP 2.0 took effect.³⁹ APRIL's competitor, Asia Pulp & Paper, acknowledged that High Carbon Stock forests were cleared for plantation development by PT Fajar Surya Swadaya and cut the supplier. APRIL, by contrast, increased the amount of wood it sourced from the supplier in 2018 and continued sourcing from it in 2019. APRIL has not shown in this case, or with the Adindo case, that it has even conducted the High Carbon Stock assessments required under its sustainability policy.

Hundreds of conflicts with communities contesting land inside pulpwood-plantation concessions that supply wood to APRIL remain ongoing, according to a recent report by Indonesian CSOs and Environmental Paper Network.⁴⁰ It appears little progress has been made on APRIL's stated policy to resolve these conflicts.

We know that APRIL, Sateri and APR's sustainability claims can be very persuasive, but please take a look at the facts they leave out. Our main message to fashion brands, pulp and viscose buyers, and investors is to communicate to Sateri, APR, RGE and APRIL that these CSO reports documenting violations are a source of serious concern. We hope these stakeholders will strongly encourage APRIL and its suppliers to immediately and permanently stop deforestation and development on carbon-rich peatlands.



Deforestation in PT Adindo Hutani Lestari's concession during June 3, 2015 - August 31, 2020, and remaining forest as of August 31, 2020

Source: Hutan et al, 2020

Source: iStock



4. Green claims and voluntary initiatives

4.1. The pitfalls of labelling, certification and sustainability claims

The fashion industry is notorious for greenwashing and a piecemeal approach to sustainability, with nice-sounding and heavily marketed ‘conscious’ collections and projects that fall short of the systemic change needed in the sector. Public opinion surveys tellingly show a lack of trust in companies’ green claims. According to a Eurobarometer survey in March 2020:

- **4 out of 5 (81%)** EU citizens said that, while many clothing products claim to be environmentally friendly, they do not trust these claims;
- **87%** thought there should be stricter rules when calculating environmental impact and related claims;⁴¹ and
- **86%** thought clothes labels should provide information on their environmental impact and the working conditions under which they were made.⁴²

Similarly, a recent report from Compare Ethics, based on a survey of 1,250 UK-based participants, shows UK consumers are growing increasingly aware of greenwashing; 3 in 4 customers would seek third-party verification for reassurance on a product’s sustainability claims.⁴³

In recent decades, in the absence of legislation to regulate corporate green claims, the sector has released an avalanche of labels, certifications and initiatives asserting a certain product or service is more environmentally friendly than competing products or services. Over 100 ecolabels on textiles are listed in the Ecolabel Index.⁴⁴ Our report *The false promise of certification* (2018) found that, despite this proliferation, many labels and certification schemes fail to uphold the highest level of ambition, enforce greater transparency or take a holistic approach to sustainability, thereby providing cover for unsustainable companies and practices. Many labels and schemes are leading to confusion and ‘label shopping’, which waters down the ambition of certification in general.

Not Fit-for-Purpose,⁴⁵ a recent MSI Integrity report based on a decade of research into 40 standards-setting multi-stakeholder initiatives (MSIs), concludes that while 'MSIs can play important roles in building trust and generating dialogue, they are not fit-for-purpose to reliably detect abuses, hold corporations to account for harm, or provide access to remedy'. It also argues that consumers cannot rely on the claims made by many ethical labels, as not only are abuses continuing to occur but generic terms such as 'fair' and 'sustainable' can also be misleading.⁴⁶ These findings are reinforced by the European Commission's own study,⁴⁷ which provided an overview of current market practices and an assessment of different regulatory options going forward. The study confirmed that voluntary measures have not been effective in encouraging companies to identify, account for and mitigate negative human rights and environmental impacts in their supply chains, and highlighted a need for EU-wide, mandatory legislation.

While some initiatives can play a role in driving more sustainable practices, they cannot - and should not - replace governmental and international regulations. Indeed, the existence of multitude of initiatives should signal to legislators that there are governance gaps that need to be filled.⁴⁸

4.2. New voluntary initiatives on viscose

A number of voluntary initiatives address one or more challenges in the viscose supply chain, including the CanopyStyle commitment, which looks at wood-pulp sourcing; Greenpeace's Detox campaign, which challenged clothing brands on their use of chemicals; and Higg Index, which provides a number of self-assessment tools, to name just a few.

The false promise of certification and our previous *Dirty Fashion* reports critically assessed these initiatives.⁴⁹ This section looks at two new initiatives that arose in 2020 and focus on challenges and opportunities in viscose fibre production: the ZDHC Man-Made Cellulosic Fibre (MMCF) Guidelines, and Forum for the Future and Textile Exchange's MMCF 2030 vision (*MMCF 2030: Envisioning the future of man-made cellulosic fibres*).

Based on the pitfalls identified, we have also set guidelines for what a transformational voluntary initiative should look like (see Box 4.1).

4.2.1. The ZDHC MMCF Guidelines

Over the course of 2020, the ZDHC Roadmap to Zero programme - an industry-led initiative bringing together over 160 members, including brands, supply-chain players and viscose manufacturers⁵⁰ - developed guidelines for MMCF production, specifically for viscose and modal fibre production.

The guidelines cover wastewater management, sludge, air emissions and chemical recovery during the fibre production through a three-level approach: 'foundational', 'progressive' and 'aspirational'. As already communicated to the ZDHC, we find the term 'aspirational' misleading, as it suggests this level of ambition is beyond reach. We welcome the benchmark in the guidelines being set high by requiring members to achieve a 'progressive' level of ambition - aligned with the upper, less strict value of EU BAT - by 2023-25 (between the third and fifth year after the first assessment). Manufacturing facilities and suppliers are then expected to create a roadmap with a clear indication of the date by which they are planning to reach 'aspirational' level, aligned with a tighter value of the EU BAT.

However, this high level of ambition is watered down by the absence of stringent enforcement mechanism - specifically, a non-conformance mechanism - and a lack of transparency. Although the ZDHC encourages suppliers to publicly share the level they have reached and their progress, they do not require such transparency on the progress made. The ZDHC must ensure genuine transparency by making its platform (implementation-hub.

org) public and requiring facilities to share their performance.

Neither does the ZDHC set forth measures on what happens in the case of non-conformance. For example, if a member continuously fails to achieve the level of ambition within the set timeframe, and/or fails to submit a correction plan to address non-compliance with the *ZDHC MMCF Guidelines*, there seem to be no sanctions. External parties will probably not even know there is a problem, because it is unlikely that a non-compliant member will voluntarily publish their own result. In the absence of such measures, the members will have no incentive to reach higher levels, and some companies could remain at the foundational level and fail to make headway while still claiming to follow the *ZDHC Guidelines*. Furthermore, without setting strict requirements for the industry to achieve at minimum 'progressive' level, the MMCF Guidelines will fail to reflect the level of ambition currently adopted by viscose manufacturers already representing over half of global viscose production, and will risk standing in the way of the industry-wide transition to responsible viscose.

Furthermore, the ZDHC doesn't explicitly compel all their members to take action. It is vital that the initiative requires all members to commit to starting to implement the MMCF Guidelines within the coming year - not only the companies participating in the development of the guidelines.

While a step in the right direction, ZDHC should urgently fix these shortcomings. In the current system, without mandatory transparency, external scrutiny will be impossible and performance data is bound to stay hidden.

4.2.2. Forum for the Future and Textile Exchange's MMCF 2030 vision

In June 2020, Forum for the Future, in partnership with Textile Exchange and with input from industry players and other stakeholders, published a report called *MMCF 2030: Envisioning the future of man-made cellulosic fibres*.⁵¹ The aim of the paper is to provide a 'shared vision for the MMCF sector to make a Net positive contribution to society and the Environment'. The paper sets out five areas for collaborative action along the value chain: regenerating ecosystems, producing with zero harm, enabling circular systems, creating prosperity and upholding rights.

The report gathers together several existing best practices, including recommendations and measures by Canopy on forestry management, our own *Roadmap* towards responsible viscose and modal fibre manufacturing, the *ZDHC MMCF Guidelines* and several UN Sustainable Development Goals, to name a few. However, apart from listing existing or recommended goals, the report lacks a clear set of demands or milestones for the industry to implement the goals. While the paper talks about embedding the vision ambition into companies' own strategies and policies, it is unclear whether industry players need - or are encouraged - to achieve all the recommended goals listed, or if they can pick and choose.

Without clearly establishing the minimum required level of ambition and timeline for implementation (see Box 4.1), the 'shared vision' is only a platform providing an overview of best practices but no real added value. It could potentially even curtail the pace of transformation to responsible practices if the industry is expected to move together; the report suggests the vision 'must be achieved through both individual and collective action'.

The bottom line is that the viscose industry - and the textile industry as a whole - does not need a shared vision; it needs to be quicker and more effective in implementing proven solutions for responsible viscose sourcing and production.

BOX 4.1: What does a good voluntary initiative look like?

While there is limited use for voluntary initiatives, if an initiative wishes to be transformational, here are some essential guidelines on how to achieve this:

- **Adopt a high level of ambition:** By rule, any voluntary initiative must go beyond national regulatory requirements and international standards and credit the best industry players. The initiative must enforce voluntary commitments, set an implementation timeline and keep criteria for participation robust and ambitious, including by ranking companies on their performance. It should also ensure member companies apply the same ambitious policies across all markets in which they operate.
- **Ensure transparency and accountability:** Voluntary initiatives should adequately hold members accountable for their voluntary commitments, ensuring transparency of reporting on individual company baselines and progress with independently verified data. In the case of fashion, companies should also be transparent about their suppliers and supply chains.
- **Aim for continuous improvement:** Once approved, there should be a process in place to occasionally increase the initiative's level of ambition to reflect regulatory improvements and prevent backsliding.
- **Support progressive legislation:** Voluntary initiatives should call for progressive textile legislation to reward leaders in the sector and level the playing field across the industry (see Chapter 5). They should also prevent double actions by their members; for example, it is common for companies that are members of nice-sounding voluntary initiatives to also lobby against progressive legislation. If any company is found to be lobbying against progressive textile legislation or proposals, the initiative should revoke that company's membership.

5. The way forward: A strong EU textile strategy

In the framework of the EU's Green Deal, the textile industry has been highlighted as a key sector that needs to transition to a circular economy. According to the Green Deal plan (published in December 2019), the European Commission wants to extend the responsibility of textile companies and push them to offer reusable, durable and repairable products.⁵²

Several regulatory measures set on the national level - including the French Duty of Vigilance Law, the UK Modern Slavery Act, the Dutch Child Labour Due Diligence Law, the Dutch Agreement on Sustainable Garments and Textile, and the German Partnership for Sustainable Textiles - indicate that relying solely on national legislation is insufficient to regulate an industry with increasingly globalised supply chains. While it remains to be seen which specific regulation for the textile industry will be adopted, this is a key opportunity for the EU to promote an apparel sector that is circular, respects human rights, creates decent jobs, and adheres to high environmental and responsible governance standards throughout its value chain - in the EU and beyond.

Through the upcoming policy processes, the European Commission has an opportunity to:

- Set science-based and transparent ecodesign requirements for textiles to ensure textile products are responsibly produced (e.g. without hazardous chemicals), durable, reusable and fit for circularity.
- Set EU-wide targets on waste prevention, reduction, reuse and recycling.
- Set mandatory human rights and environmental due-diligence legislation to require companies to identify, account for and mitigate negative human rights and environmental impacts in their supply chains, and mandate transparency across the entire supply chain.
- Mandate extended producer responsibility to request producers to take operational or financial responsibility for the end-of-life phase (reuse, recycling or disposal) of their products, and also provide a meaningful incentive for better design and circular practices with high-quality recovered materials.

- Reduce greenwashing by setting strict rules on substantiating claims about the environmental footprint of textile products and services, including only allowing science-based green claims and only certifying above-average performance that is more ambitious than EU legislative requirements. In this context, it is also important to update the EU Ecolabel on viscose, which is lagging behind what most manufacturers have already committed to achieving.

BOX 5.1: What's next for viscose? The need to scale up circular technologies

Considering the heightened ambition for both recycling and use of recycled content, underpinned by upcoming EU legislation and consumer pressure, the viscose sector needs to scale up solutions for circular production. The sector requires a systemic change towards circularity to reduce the environmental impact of textile waste and potentially eliminate dependence on virgin materials.

Viscose manufacturers have told us they are employing different models of using pre- or post-consumer waste to produce viscose. For example:

- Lenzing produces lyocell fibres with a recycled content of 30%, branded as TENCEL™ x REFIBRA™, using pulp from pre- and post-consumer cotton waste.
- Aditya Birla's Liva Reviva uses pre-consumer cotton waste, in combination with pulp as raw material (20% of the feedstock is industrial waste), which is produced for commercial lines at a scale of 27 tonnes/day. Work is in progress to develop products with 50% recycled content by the end of 2020.
- Sateri's FINEX™ is made from bio-based natural fibres derived from a mix of recycled pre- and post-consumer textile waste.

However, these technologies and many other innovations in this space are still implemented at a scale far too low to lead to transformation, and some producers have told us that demand from fashion brands and retailers is lagging behind capacity.

At the same time, fibre-to-fibre recycling options still seem to be in their infancy. A recent Fashion Positive report highlighted that fibres need to be designed and developed to be recycled back into feedstock – and that, while viscose is *theoretically* recyclable right now, it is not *actually* recycled anywhere in the world. This puts the industry a long way from the technology available at scale for the fashion industry.⁵³ A lot of viscose products sold today come in a blend; for example, with cotton or synthetics. Fashion Positive stresses that, currently, it is not feasible to separate blended cellulose-based fibres with synthetic fabrications at scale.

This means the design stage of clothes is crucial – indeed, over 80% of products' impact is decided in the design phase.⁵⁴ Therefore, fashion brands should rapidly redesign garments that are currently not fit for recycling. Through their design and demand, brands have an important role to play in overcoming the barriers to scaling up these solutions and disruptive technologies, and moving closer to closing the loop on viscose.

A lot of viscose products sold today come in a blend, which makes recycling difficult.

Source: iStock



6. Conclusions

The apparel sector has witnessed great progress towards stamping out dirty viscose production. In the 3.5 years since the launch of our *Roadmap towards responsible viscose and modal fibre manufacturing*, 14 clothing companies have committed to sourcing responsibly manufactured viscose, and a further 11 have shown proof of meaningful efforts to make their viscose supply chains more responsible. At the same time, a critical mass of global viscose manufacturers, representing more than 50% of the market, has committed and is implementing plans to embrace technology for cleaner viscose production.

This report also reflects a slight improvement in engagement on the part of clothing brands and retailers. Of the 100 brands we contacted this year, 61% provided some kind of response to our questions, compared to 59% last year. Furthermore, several brands have shown marked improvement when it comes to transparency; almost all signatory brands disclose some information about their viscose suppliers. Among the most transparent are ASOS, C&A, Esprit, M&S, Reformation and Tesco, which have published extensive lists of their viscose manufacturers on their corporate websites, including names and, in some cases, full addresses of factories.

We welcome that the industry has voluntarily committed to responsible viscose supply chains and greater transparency. However, voluntary commitments have limited power in driving a sector-wide transition, which is reflected in the bulk of the fashion industry still lagging behind or being too slow in embracing genuinely sustainable practices. Three-quarters (75 out of 100) of brands and retailers analysed have made few or no commitments to take action on polluting supply chains. Among the worst are a combination of luxury brands and low-cost retailers, including Armani, Costco, Dolce & Gabbana, Forever 21, Prada, TJ/TK Maxx, Versace and Walmart.

At the manufacturer level, the Chinese viscose industry - represented by the CV - still needs to make concrete commitments to best practices; it is disappointing to see that, two years on from our report *Dirty Fashion: Spotlight on China*⁵⁵ (which analysed the initial CV *Roadmap*), the initiative is still deferring this. Indeed, two of the initiative's members - Sateri and Tangshan Sanyou - broke ranks and announced that, as individual companies, they are already EU BAT compliant in some factories and will be so across the board by 2023. This casts doubt over the seriousness of the initiative and whether the rest of its members are planning to invest in better production technologies.

While many viscose manufacturers have made ambitious commitments - and some have revealed they are investing significantly in upscaling their factories - this report reveals that most of the sector still has some way to go on:

- transparently reporting on their progress;
- publishing third-party verification reports; and
- developing watertight grievance procedures.



These examples go to show that, in an increasingly globalised fashion industry, only ambitious legislation can level the playing field. The European Commission can provide leadership in its upcoming comprehensive textile strategy. It can take viscose as a case study of how EU standards - such as the EU BAT - can transcend borders, and make them mandatory for not only EU production but also imports of viscose to the EU market. Furthermore, the Commission should make transparency and respect for human rights and environmental standards across the supply chain mandatory via comprehensive due-diligence legislation. It should regulate green claims - only allowing science-based claims and only certifying above-average performance that is more ambitious than EU legislative requirements - to wipe out greenwashing and ensure consumers are not being fooled. Governments worldwide should follow this example and put in place ambitious textile legislation.

Covid-19 is also a critical opportunity for the industry to rethink its business model, assume responsibility for its supply chains and build back better, more sustainable, more resilient fashion. Shifting away from fast fashion, embracing sustainable fibres - such as responsibly produced lyocell and viscose, designed for circularity - and ensuring due diligence and transparency throughout supply chains is the only way to build trustworthy and resilient businesses that remain competitive and environmentally viable in the long term. It is crunch time for companies to embed sustainability as a central driving force in their business.

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