

# IS GOING CIRCULAR JUST?

## ENVIRONMENTAL JUSTICE AND JUST TRANSITION – KEY ELEMENTS FOR AN INCLUSIVE CIRCULAR ECONOMY

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A successful circular economy transition relies on inclusiveness and social justice. Two main equity dimensions should be considered for the circular economy transition to be inclusive: rectifying existing injustices of mismanaged waste and pollution that affects hundreds of millions of people worldwide on the one hand, whilst anticipating and addressing the negative future impacts on workers and industries that the transition from a linear to circular economy will create, on the other hand. To do so, understanding the impacts of national transitions in Europe on workers and communities in developing countries will be key, notably how to improve economic diversification and retrain workers in producer countries, and how to increase stakeholder engagement.

## INTRODUCTION

Inclusiveness and social justice are key issues that need to be addressed for a successful circular economy transition to achieve positive social-ecological outcomes.

Without addressing the human and social dimensions of the transition, the circular economy will not deliver on important social goals such as improved health, decent working conditions, or reduced inequality. It might even prevent a transition from taking place, since unjust and unequal societies are unlikely to be stable in political terms.

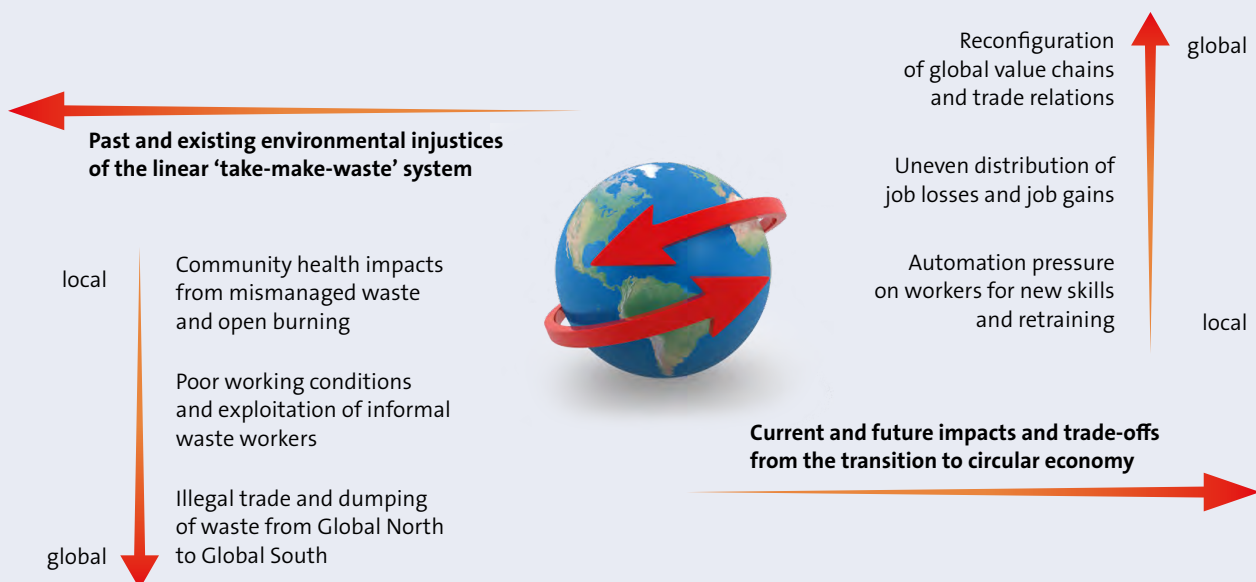
The good news is that the need to address social issues in circular economy transitions, alongside environmental concerns and building the circular business case, is receiving more attention in the mainstream approaches.



## Temporal and spatial justice dimensions of the circular economy transition

For the circular economy transition to be inclusive there are two main equity dimensions to be considered. These issues are connected, but still distinct from each other.

1. Rectifying existing injustices of mismanaged waste and pollution that affects hundreds of millions of people worldwide – this is the environmental justice dimension of the transition. Examples here are illegal dumping of waste into low-income communities or waste shipments to low- and middle-income countries which result in severe health impacts on communities, waste workers and their families.
2. Anticipating and addressing the negative future impacts on workers and industries that the transitions from a linear to a circular economy will create – this is the Just Transition dimension. An example here is the shift away from ‘fast fashion’ production and consumption patterns that will likely affect millions of small businesses and workers in developing Asian economies.



## ENVIRONMENTAL JUSTICE

Applying an environmental justice perspective or framework is an important first step to fill the social gap in the circular economy. The direct impacts of waste dumping and pollution on communities have been documented for decades in the United States, including cases of structural environmental racism.<sup>1</sup> Similarly, in Europe the available data dating back to the 1980s provide consistent indications that waste facilities are disproportionately located in areas with more deprived residents, or from ethnical minorities. The observed inequalities in exposure to waste and toxins, and the health impacts thereof, represent a case of environmental justice.<sup>2</sup>

<sup>1</sup> Pellow, D. (2004), "The Politics of Illegal Dumping: An Environmental Justice Framework", *Qualitative Sociology*. DOI: 10.1023/B:QUAS.0000049245.55208.4b.

<sup>2</sup> Martuzzi, M., Mitis, F., Forastiere, F. (2010), "Inequalities, inequities, environmental justice in waste management and health", *European Journal of Public Health*, Volume 20, Issue 1, February 2010, Pages 21–26. <https://doi.org/10.1093/eurpub/ckp216>.

## Global health impacts

In the 21st century, the environmental justice dimension of waste has taken a global dimension. Illegal trade and dumping of low-grade waste sharpen environmental inequality and exploitation along the lines of class and race on a global scale. Vulnerable communities who did not produce the waste are often the ones who suffer the negative impacts.<sup>3</sup> Waste and plastic pollution is creating a growing public health emergency in many towns and cities around the world. Research and analysis by the organization Tearfund suggest that between 400,000 and 1 million people die each year in developing countries because of diseases related to mismanaged municipal

<sup>3</sup> Dreau, A. (2022), "Why is the global waste crisis a social justice issue?" *Zero Waste Europe*. <https://zerowasteurope.eu/2022/02/why-is-the-global-waste-crisis-a-social-justice-issue/>.



waste.<sup>4</sup> Reducing the burden of pollution from the poorest in society, especially for communities affected by mismanaged waste and degraded environments in developing countries, is an urgent priority for the circular economy.

Hazardous waste exported to the Global South includes electronic waste which contains toxic materials. Formal recycling activities are not keeping pace with the global growth of e-waste – an estimated 53.6 million metric tons (Mt) of e-waste was generated in 2019, according to the UN Global E-waste Monitor.<sup>5</sup> Most of the e-waste generated, about 44.3 Mt, is managed outside the official collection system and in many cases is shipped to developing countries where it is mostly dismantled in substandard facilities by workers without any protective equipment, exposing workers through direct contact.

A recent Lancet Commission report confirms that still up to 9 million people die prematurely every year due to pollution.<sup>6</sup> Despite ongoing efforts by the UN and other actors, little progress has been made. Urgent attention is needed to control pollution and prevent pollution-related disease, with an emphasis on air pollution and lead poisoning from unsafe e-waste and battery recycling. Lead pollution disproportionately affects children living in developing countries.<sup>7</sup>

There is a clear role for international development cooperation programmes to promote circular economy approaches to reduce the environmental and social impacts of pollution. An example is the recently launched Sustainable Manufacturing and Environmental Pollution programme.<sup>8</sup> It is established by the UK's Foreign, Commonwealth and Development Office (FCDO) and is implemented in partnership with the United Nations Conference on Trade and Development (UNCTAD). The aim is to improve existing knowledge and address the environmental health and socio-economic impacts of selected manufacturing sectors across target countries in Sub-Saharan Africa and South Asia.

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## Waste picker inclusion and gender equality

Waste pickers and informal workers are already integral part of many existing circular systems. They recover and create value from waste – but their contributions are not valued by society. Waste pickers deal with many issues ranging from poor working conditions, poor health, poverty and social stigma. Despite their contributions waste pickers are often considered a social problem. Especially in low-income countries the number of waste pickers is very high, mostly driven by the lack of better economic opportunities and low human development levels.<sup>9</sup>

Women play a key role in informal waste picking sectors across many African, Asian and Latin American countries that are finding themselves flooded with plastic waste. The

plastic waste crisis is overwhelmingly affecting poor, socially marginalised people, and women residing in informal settlements where waste easily accumulates due to poor rubbish collection services. It's imperative to improve the situation for women by reducing their exposure to mismanaged waste and pollution, if we are to realise a truly fair and more equal circular economic system.<sup>10</sup> Although women are

disproportionately impacted by waste and pollution, gender continues to be a relatively marginal issue in environmental justice debates and the circular economy more generally, and yet it remains an important aspect of injustice. Women tend to experience inequitable environmental burdens (distributional injustice); and are less likely than men to have control over environmental decisions (procedural injustice), both of which impact their health (substantive injustice).<sup>11</sup>

Achieving inclusive circular economies requires re-conceptualization of solid waste management systems that integrate waste pickers as partners, as key to building just, inclusive, and liveable cities. There are many examples of how this has been achieved and of existing best practice models that can be applied.<sup>12</sup> It is important to have institutional mapping to identify NGOs and other groups already working on the ground in organizing and/or providing assistance to waste pickers. Trust building amongst workers themselves and amongst different cooperatives and associations requires time, especially if external organisations are involved. As trust-building and dialogues evolve, so do the methods of cooperation.

4 Williams, M. et al. (2019), *No Time To Waste: Tackling the plastic pollution crisis before it's too late*. Tearfund, Fauna & Flora International (FFI), WasteAid and The Institute of Development Studies (IDS).

5 Forti V., Baldé C.P., Kuehr R., Bel G. (2020), *The Global E-waste Monitor 2020: Quantities, flows and the circular economy potential*, United Nations University (UNU)/United Nations Institute for Training and Research (UNITAR) – co-hosted SCYCLE Programme, International Telecommunication Union (ITU) & International Solid Waste Association (ISWA), Bonn/Geneva/Rotterdam.

6 Fuller, R. et al. (2022) "Pollution and health: a progress update", *Lancet Planet Health* 6: e535–47. [https://doi.org/10.1016/S2542-5196\(22\)00090-0](https://doi.org/10.1016/S2542-5196(22)00090-0).

7 A recent study by UNICEF and Pure Earth estimates that more than 800 million children – nearly half of these in South Asia – are estimated to have blood lead concentrations that exceed 5.0 micrograms per deciliter (µg/dL), the level at which urgent action is required. UNICEF (2020), *The Toxic Truth: Children's Exposure to Lead Pollution Undermines a Generation of Future Potential*, UNICEF and Pure Earth. <https://www.unicef.org/media/109361/file/The%20toxic%20truth.pdf>.

8 Sustainable Manufacturing and Environmental Pollution Programme <https://smepprogramme.org/>.

9 Amorim de Oliveira, Í. (2021), "Environmental Justice and Circular Economy: Analyzing Justice for Waste Pickers in Upcoming Circular Economy in Fortaleza, Brazil". *Circ.Econ. Sust.* 1, 815–834 <https://doi.org/10.1007/s43615-021-00045-w>.

10 Wakunuma, K. (2021), <https://theconversation.com/plastic-waste-is-hurting-women-in-developing-countries-but-there-are-ways-to-stop-it-166596>.

11 Bell K. (2016), "Bread and Roses: A Gender Perspective on Environmental Justice and Public Health", *Int J Environ Res Public Health*. 2016 Oct 12;13(10):1005. doi:10.3390/ijerph13101005. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5086744/>.

12 Dias, S. (2016), "Waste pickers and cities", *Environment and Urbanization*, Volume: 28 issue: 2, page(s): 375-390.





## SWITCH TO CIRCULAR VALUE CHAINS PROGRAMME

For the circular economy transition to be just and inclusive, all actors along global value chains need to be engaged and empowered to participate, from the large multinationals down to local informal waste picker cooperatives. In recognition of the social justice and just transition challenges associated with the circular economy, the SWITCH to Circular Economy Value Chains programme<sup>1</sup> was recently launched, with the support from the European Union and the Government of Finland.

The programme supports suppliers in developing countries in the value chains of large EU manufacturers and buyers to jointly identify, adopt, and excel in circular economy practices in a way which is fair and inclusive. It seeks to do this through a combination of pilot projects and providing targeted policy development and capacity building support.

In Morocco, for example, the SWITCH pilot will work with a consortium of EU and Moroccan private sector partners and the Moroccan government to establish Morocco's first PET bottle-to-bottle recycling process. Apart from demonstrating the technical and commercial viability, key to the success of the pilot is empowering and integrating over 900 informal waste pickers into the value chain. The pilot will seek to address some of the key social justice issues facing informal workers including lack of formal legal recognition, lack of access to land to legally conduct collection and sorting facilities, and lack of traceability.

<sup>1</sup> [www.switchtocircular.eu](http://www.switchtocircular.eu).

## Going forward - Just Transitions

The second aspect of justice considerations for the circular economy transition is that of Just Transitions – a transition that ensures mitigating the industrial transition impact on workers and communities and ensure workers have the right skills for the future economy. It has started to penetrate political debates and research agenda on sustainability policy, particularly in the contexts of climate change and low-carbon energy transition. It is also necessary to connect the dots with the circular economy transition, as we first pointed out in a Chatham House report in 2020.<sup>13</sup>

Although the just transition guidelines published by the International Labour Organization (ILO) in 2015 do not explicitly mention the circular economy, the guidelines call on governments to “undertake steps and design measures to facilitate formalization and promote decent work, particularly in, but not limited to, the waste management and recycling sectors”.<sup>14</sup> It is also necessary to integrate provisions into national plans and policies for the achievement of the SDGs. One of the overarching objectives should be to support informal workers and MSMEs affected by the transition. This is particularly relevant in the context of post-pandemic economic recovery.

<sup>13</sup> Schröder, P. (2020), “Promoting a just transition to an inclusive circular economy”, Chatham House, London. <https://www.chathamhouse.org/2020/04/promoting-just-transition-inclusive-circular-economy>.

<sup>14</sup> ILO (2015), “Guidelines for a just transition towards environmentally sustainable economies and societies for all”. [https://www.ilo.org/wcmsp5/groups/public/@ed\\_emp/@emp\\_ent/documents/publication/wcms\\_432859.pdf](https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf).





An inclusive circular economy is one that acknowledges workers' rights in shaping policies directed at them. Social dialogue and participatory planning are key elements. There is need for social protection measures alongside policies to close material loops, provide support to develop national just transition plans, design and coordinate re-skilling programmes and promote measures to ensure decent work. Yet, as has been observed in the energy transition, there are potential tensions between the need for inclusiveness and the speed of transitions. Enhanced citizen and stakeholder engagement is a way of introducing justice and equity dimensions in circular economy transitions and increasing social legitimacy, while working with front runners in the industry may accelerate transitions but entrench injustices.<sup>15</sup>

This trade-off is particularly relevant in the case of digitalization and Industry 4.0 technologies in manufacturing. Organizations and countries with existing advantages and digital strategies will be able to advance faster to circular manufacturing. Factories will change. Circular production facilities and the wider value chains

will be relying on technologies like the IoT, automation and robotics, AI, and data analytics, which will be prominently featured in the circular economy of the future to save resources and reduce waste.<sup>16</sup>

New research projects are beginning to fill the gap in our understanding of economic, societal, gender and policy implications of the circular economy paradigm. An example is the EU-funded JUST2CE project<sup>17</sup> which aims to shed light on which stakeholder groups can be classified as winners and which one as losers. Other key questions include how to ensure inclusive and participatory mechanisms are applied when designing products and technologies and managing the transitions. The assumption underpinning the project is that the success of a transition towards a sustainable circular economy does not merely depend on the development of new technologies. It requires the reconfiguration of the governance of productive processes through more participatory mechanisms of designing and managing technology.

<sup>15</sup> Newell, P., Geels, F. Sovacool, B. (2022), "Navigating tensions between rapid and just low-carbon transitions", *Environmental Research Letters*, 17, 041006 [http://sro.sussex.ac.uk/id/eprint/105119/6/Newell\\_2022\\_Environ.\\_Res.\\_Lett.\\_17\\_041006.pdf](http://sro.sussex.ac.uk/id/eprint/105119/6/Newell_2022_Environ._Res._Lett._17_041006.pdf).

<sup>16</sup> Laskurain-Iturbe, I., Arana-Landín, G., Landeta-Manzano, B., Uriarte-Gallastegi, N. (2021), "Exploring the influence of industry 4.0 technologies on the circular economy", *Journal of Cleaner Production*, Volume 321, <https://doi.org/10.1016/j.jclepro.2021.128944>.

<sup>17</sup> European Commission (2021), *A just inclusive transition to circular economy – project description*. CORDIS <https://cordis.europa.eu/project/id/101003491>.



## Understanding impacts of national transitions in Europe on developing countries

The international impacts of the European transition are not yet an explicit consideration of current circular economy policies at EU level. But this is changing, too. The Netherlands Environmental Assessment Agency (PBL) looked into the future implications of the Dutch circular economy transition. The analysis shows that creating a circular economy with positive impact abroad will require building in safeguards for low- and middle-income countries from the outset.<sup>18</sup> It will also require enhanced coherence between national circular economy policies and international policies on trade and development cooperation. This can help to strengthen the Dutch circular economy transition as well as contribute to achieving the Sustainable Development Goals, in the Netherlands and abroad.

Furthermore, understanding the impact of changing consumption patterns in the Global North on producing countries in the Global South requires attention as the shift to sustainable lifestyles is underway with lowered material consumption, less waste, and lower carbon footprints. On the one hand, this should provide opportunities to address existing inequalities in environmental justice, including addressing inequalities in resource consumption and unequal access to essential goods and services. On the other hand, there will be impacts on workers and communities working in manufacturing. Many low- and middle-income countries that rely heavily on 'linear' sectors such as mining, manufacturing of non-repairable fast-moving consumer goods, textiles and agriculture, and the export of these commodities to higher-income countries, are likely to be negatively affected by the shift to circularity. These countries will need support from the international community through targeted assistance programmes if international trade in established commodities and manufactures declines in the medium to long term. For that reason, discussions about just transition need to move from the national to the international level to address and rectify existing and emerging inequities between countries.

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## CONCLUSIONS: DESIGN OUT WASTE, DESIGN IN SOCIAL JUSTICE

To avoid the circular economy transition to widen existing inequalities, it will be necessary not only to design out waste, but to design in social justice.

Addressing the environmental injustices of the existing linear system, especially illegal waste dumping, is a short-term priority. Bilateral and multilateral approaches to trade arrangements can help addressing these issues of illegal waste dumping. There is a potential role for the WTO to make trade in waste and secondary materials more transparent and environmentally sustainable, hold actors accountable, as well as to reduce social injustices associated with processing and recycling. Initiatives like the WTO's Aid for Trade are well positioned to mobilize resources for developing countries and addressing emerging trade-related impacts of the circular economy.

From a distributional perspective, the key issue is how to support economic diversification and retraining of workers in producing countries. Financial mechanisms to enable just transitions will be important to enable this type of industrial diversification. For example, in the context of multilateral development banks' work on climate and decarbonization, a set of just transition principles were developed and launched at COP26.

A next logical step could be to adapt these principles for the fast-evolving financing frameworks for circular economy transitions.

More International cooperation programmes to provide technical assistance and capacity building are needed.

Finally, the political economy and geopolitics of the circular economy transition are little understood. If and how the existing unequal power relations in global value chains can be reconfigured as we design circular systems needs more attention. In times of rising geopolitical tensions and risks, these considerations are becoming increasingly important to ensure both a just and accelerated transition.

<sup>18</sup> Lucas, P., Brink, H. and van Oorschot, M., (2022), *Addressing international impacts of the Dutch circular economy transition. Challenges and opportunities for low- and middle-income countries*. PBL Netherlands Environmental Assessment Agency. <https://www.pbl.nl/en/publications/addressing-international-impacts-of-the-dutch-circular-economy-transition>.

