

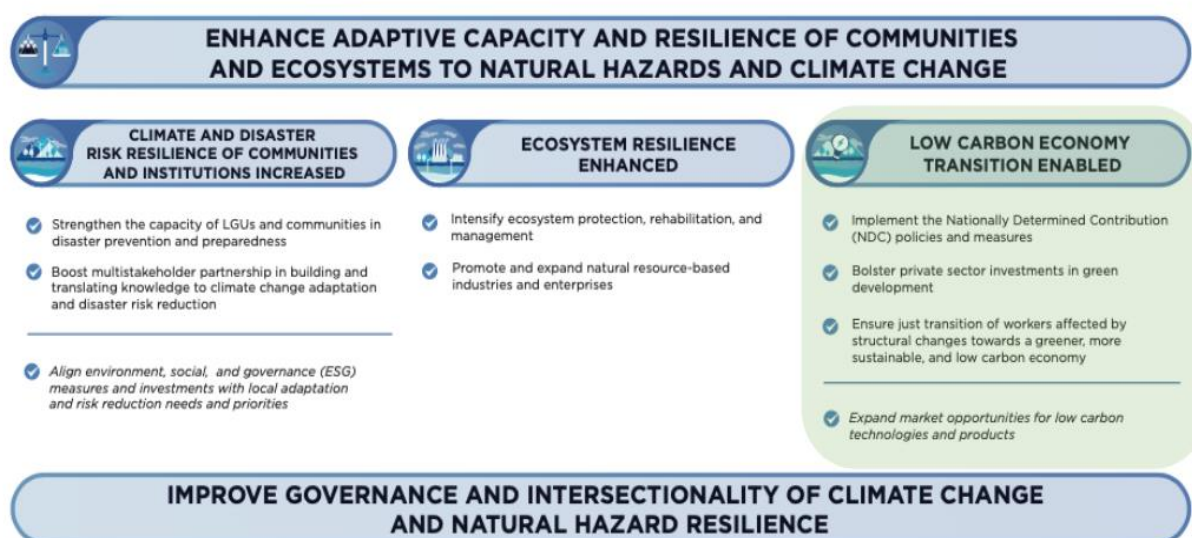
## PROJECT BRIEFER

### How Will Waste Workers Benefit? Examining Just Transitions and Circular Economy Paradigms in the Waste Sector

1. **Overview.** Dubbed the fourth largest global GHG emitter, **the waste sector holds a significant potential to decarbonize.** The entire process of waste management—from waste storage, collection, and transport to recycling, treatment, and disposal—generates GHG (Friedrich & Vigna, 2020; Kristanto & Koven, 2019). Across the globe, the sector is already a significant employer, with an estimated four million workers employed in the formal sector and 15 to 20 million working as informal waste pickers in developing countries. Hughes & Rescalvo (2021) argue that a just transition in the waste management sector can be reached through the transformation of the current economic model from linear to circular, in which resources are considered finite and are being reused, repaired, remanufactured, shared, and recycled instead of merely being discarded upon its extraction and production.

To further strengthen the country's resilience and decarbonization efforts, Chapter 15 of the newly crafted PDP 2023-2028 explicitly mentions the transition to a low-carbon economy to improve the country's adaptive capacity and resilience to environmental hazards and climate change. Specifically, the government committed to implementing the NDC policies and measures and ensuring a just transition for workers affected by policies and initiatives toward a greener economy. The figure below reflects the PDP's strategic framework to increase climate resilience and transition targets toward a low-carbon economy.

Figure 1. Strategic Framework and Results Matrix to Accelerate Climate Action and Strengthen Disaster Resilience



As the waste sector shifts from GHG emission-heavy operations, including landfilling, to more sustainable practices, such as recycling, jobs are expected to be eliminated, substituted, transformed, and redefined—creating green jobs.

2. **Waste management and just transition.** As cited by Gunsilius (2011), the United Nations Environment Programme Green Economy Report highlighted **solid waste management as a critical sector on the way to a low-carbon economy**; thus, adapting a circular waste management system will foster resource efficiency and help developing countries meet their resilience targets. Although the just transition guidelines published by ILO (2015) do not explicitly mention the circular economy, it calls on governments to "undertake steps and design measures to facilitate the promotion of decent work, particularly in, but not limited to the waste management and recycling sector."

This highlights the need to integrate such provisions into national plans and policies to support workers affected by the transition. According to the C40 Cities Climate Leadership Group (2020), the shift to greening initiatives and zero-waste models will require workers to make the same shifts, and new skills will be necessary to adapt to the changing demands of the sector. In terms of employment, Schroder (2020) mentioned that a just transition in the waste sector would have to ensure that the impact on workers is mitigated, especially since the more vulnerable informal workers in local waste collection, sorting, and recycling tend to dominate underdeveloped waste chains, which may entail significant initiatives and support mechanisms to ensure decent work in the sector.

3. **Waste workers' role.** Despite the significant contribution and social, economic, and environmental benefits waste workers bring to meet circular economy goals in the waste supply chain, their role needs to be significantly recognized on the legislative and development agenda (Morais et al., 2022). The implementation of RA 9003 further showed the extensive contribution of the informal waste sector<sup>1</sup> (IWS) in increasing the recycling rate in the country, filling the gaps in waste systems that otherwise cannot be provided by the formal sector, while at the same time serving as a source of income for vulnerable communities (Wilson et al., 2006; Chiu, 2010).

In the Philippines, the formal sector workers in the waste management supply chain refer to LGUs, eco-aides, and relevant workers involved in collecting waste

---

<sup>1</sup> Individuals, families, groups, or small enterprises engaged in the recovery of waste materials with revenue generation as the motivation, either on full-time or part-time basis.

employed by the government or other entities. In contrast, the IWS refers to scavengers extracting recyclable and reusable materials from mixed waste on the streets, landfills, and disposal sites (Gunsilius, 2011; Chiu, 2010). The IWS are the backbone of solid waste management for the essential service they provide to cities—without their work, the recycling sector would not have sufficient materials for manufacturing, especially in the face of a global plastic waste problem (Enano, 2022). In this context, the study aims to fill the gap in understanding the decent work implications of the circular economy paradigm, focusing on employment and social protection and primarily using ILO's just transition guidelines to examine the challenges and opportunities for the workers amid the waste management sector's decarbonization.

4. **Objectives.** The study generally aims to provide policy-relevant information and a proof of concept of just transitions in the waste management sector amid the shift from a linear to circular economy, and consequently, propose recommendations to facilitate worker inclusion and decent work within the waste value chain. Specifically, this research will: 1) assess the status of jobs in the waste management sector (formal and informal), including the types of jobs, working conditions, and wages, 2) apply ILO's just transition guidelines on chosen sites that have either undergone or are in the process of undergoing the transition mandated by RA No. 9003, 3) depict the decent work outcomes from ongoing circular economy shifts and zero waste initiatives in select regions, and 4) provide recommendations and interventions to help the Department of Labor and Employment facilitate the just transition framework and promote decent work in the waste management sector.
5. **Methodology and data gathering.** The study will use a mixed-methods approach, combining both quantitative and qualitative methods to meet the specified objectives.
  - a. **Quantitative data gathering:** The quantitative data gathering will involve a **survey of workers** in the waste management sector in the Philippines, cascaded through the identified waste management companies, waste worker groups/associations, and LGUs in the identified fieldwork sites. Convenience sampling will be used to target waste workers that are accessible and meet certain practical criteria set by the researchers. The survey will gather data on workers' working conditions, wages, benefits, and safety. Workers involved in the formal sector and informal waste collection, transport, recovery, and recycling will be involved in the survey.
  - b. **Qualitative data gathering:** The qualitative research will involve **key informant interviews (KIIs) and focus group discussions (FGDs)** among local solid waste management advisory and decision-making bodies, implementers, and representatives from the City Solid Waste Management Board (CSWMB), City Environment and Natural Resources

Offices (CENROs), and waste groups or coalitions to document the decent work implications of various transition experiences caused by circular economy initiatives and RA 9003 directives.

## References:

- C40 Cities Climate Leadership Group. (2020, June). *Reducing climate change impacts on waste systems*. C40 Knowledge Community. <https://www.c40knowledgehub.org/s/article/Reducing-climate-change-impacts-on-waste-systems>
- Chiu, A. S. (2010). The 3Rs and poverty reduction in developing countries. *Asia Resource Circulation Policy Research Working Paper Series*. Hayama, Kanagawa: Institute for Global Environmental Strategies (IGES).
- Enano, J. O. (2022, September 30). *In informal waste work, women are twice as vulnerable, invisible*. Rappler. <https://www.rappler.com/environment/informal-waste-work-women-twice-vulnerable-invisible/>
- Friedrich, J., Ge, M., Pickens, A., & Vigna, L. (2020). This interactive chart shows changes in the world's top 10 emitters.
- Gunsilius, E. (2011). *Recovering resources, creating opportunities: Integrating the informal sector into solid waste management*. Dt. Gesellschaft für Intern. Zusammenarbeit (GIZ).
- Hughes, K., & Rescalvo, M. (2021). Just transition beyond the energy sector.
- International Labour Organization. (2015). "Guidelines for a just transition towards environmentally sustainable economies and societies for all". <https://www.ilo.org/wcmsp5/groups/public/>
- Kristanto, G. A., & Koven, W. (2019). Estimating greenhouse gas emissions from municipal solid waste management in Depok, Indonesia. *City and environment interactions*, 4, 100027.
- Morais, J., Corder, G., Golev, A., Lawson, L., & Ali, S. (2022). Global review of human waste-picking and its contribution to poverty alleviation and a circular economy. *Environmental Research Letters*.
- National Economic Development Authority (2023). Philippine Development Plan 2023-2028
- Schröder, P. (2020). *Promoting a just transition to an inclusive circular economy*. Royal Institute of International Affairs.
- Wilson, D. C., Velis, C., & Cheeseman, C. (2006). Role of informal sector recycling in waste management in developing countries. *Habitat international*, 30(4), 797-808.