

Policy Brief

Circular Economy:

Turning Waste into
Wealth in Bhutan

August 2025



Executive Summary

Bhutan's waste management sector, guided by the principles of the Waste Prevention and Management Act 2012 and its supporting regulations, places significant emphasis on environmental protection, good governance, and private sector participation. Provisions exist for fiscal incentives, public-private partnerships, and even the promotion of waste entrepreneurship (Waste Prevention and Management Regulation 2012, p. 12). However, feedback from stakeholders across all Dzongkhags—ranging from informal waste pickers to municipal officials—makes clear that these policy intentions are falling short in practice.

The current waste ecosystem remains extractive: almost all recyclable waste is exported to India through intermediaries, with little value addition occurring within Bhutan. Local entrepreneurs attempting to establish circular enterprises—such as the now-relocated egg tray manufacturing unit from Gelephu—struggle due to poor coordination with municipalities, logistical constraints, and weak market integration.

This policy brief proposes a four-part strategy to empower waste entrepreneurs, increase domestic value retention, and better align local governance with national waste ambitions. These include: 1) identifying and capacitating gewog-level "waste champions," 2) incentivising Material Recovery Facilities (MRFs) at critical southern nodes, 3) introducing procurement incentives for recycled materials, and 4) creating municipal coordination groups and a national digital waste platform. These steps are both feasible and aligned with Bhutan's GNH values, aiming to create sustainable livelihoods while addressing environmental concerns.

Problem Statement: From Policy to Practice

Bhutan's waste management framework is guided by two central principles: the polluter pays principle and the Gross National Happiness (GNH) philosophy, which prioritises environmental conservation, good governance, cultural preservation, and socioeconomic development. These ideals are reflected in key legislation, including the Waste Prevention and Management Act 2012 and the Waste Prevention and Management Regulation 2012. The latter mandates that municipalities provide land, subsidies, and joint projects to support

recycling businesses (Regulation 2012, p. 12), and offers generous fiscal incentives—such as 20-year tax exemptions and low-cost land leases—to licensed waste entrepreneurs (Regulation 2012, p. 16).



Efforts to localise recycling, such as the egg tray manufacturing unit initially established in Gelephu, demonstrate the potential of a domestic circular economy. However, such enterprises struggle to scale due to logistical challenges, lack of government support, and weak market integration. As reported in the National Waste Inventory and Survey 2019, private waste companies cite barriers like inconsistent policy support, lack of manpower, and poor coordination (Inventory 2019, p. 23). While the policy mentions "entrepreneurship" and promotes extended producer responsibility (EPR), practical implementation has lagged, especially given Bhutan's dependence on imported goods (Inventory 2019, p. 25).

Three critical challenges currently limit the development of a circular waste economy in Bhutan:

1. Logistical and Geographic Constraints: Bhutan's mountainous terrain and scattered settlements make nationwide waste collection unprofitable for most businesses. Waste from remote gewogs often goes uncollected or is burned, while recyclables from other regions are sold to India due to lower transportation costs.

2. Fragmented Ecosystem and Poor Coordination: Waste businesses across districts operate in silos, with no national platform or network linking collectors, processors, and municipalities. Informal waste workers report being given minimal notice—sometimes just a day—for public clean-up assignments, only to be labelled unprofessional when unable to meet expectations. This undermines their credibility and discourages long-term engagement.

3. Lack of Market Incentives and Value Retention:

Without a guaranteed market or government-backed procurement policies, waste-based products face high R&D and setup costs, limited scalability, and declining viability once donor support ends.

Bhutan stands at a crossroads. It can continue to export waste and import finished goods, reinforcing a linear, extractive system, or it can invest in the infrastructure, networks, and policies needed to build a **domestic circular economy**. Doing so would not only reduce waste leakage and imports, but also **create jobs, build green enterprises**, and align Bhutan's waste economy with its GNH pursuance.

Policy Recommendations for Bhutan

To transform Bhutan's waste economy from an extractive, export-reliant system into a regenerative, job-creating circular economy, we propose a four-part strategy. These recommendations directly respond to challenges raised by stakeholders during nationwide consultations and build upon existing policy provisions under the *Waste Prevention and Management Act 2009* and *Regulation 2012*, while aligning with successful global practices.

A. Capacitate Gewog-Level Waste Champions

Rationale: Bhutan's dispersed settlements and difficult terrain make nationwide collection unfeasible for most businesses. However, local gewogs often have individuals informally managing waste flows. Legal recognition and training would help formalise and optimise their role.

Action Points:

- Identify and register one "waste champion" per gewog.
- Provide training in waste segregation, local composting, and supply chain integration.
- Offer small grants, starter kits, or partnership opportunities with district-level waste businesses.

Comparative Reference: Colombia's waste policy legally recognises informal waste pickers and includes them in public contracting frameworks.

B. Establish Material Recovery Facilities (MRFs) at Strategic Southern Nodes

Rationale: Most recyclable waste is exported to India due to better prices and transport logistics. To retain value within Bhutan, the government should support domestic recycling infrastructure, beginning in southern districts like Samtse, Gelephu, and Samdrup Jongkhar.

Action Points:

- Identify key districts for MRF establishment based on waste flow patterns.
- Offer co-financing, fiscal incentives, and low-cost land leasing (as per Regulation 2012, p. 16).
- Require MRFs to report data on waste volumes processed and exported, enabling better national planning.

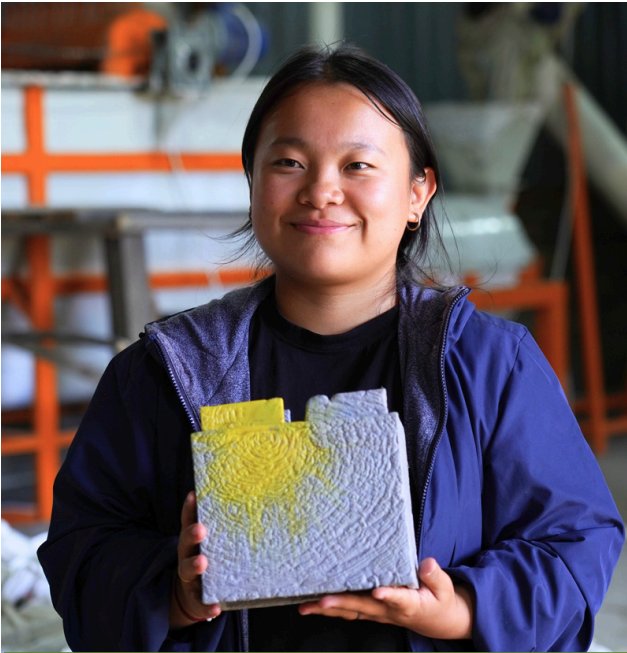
Comparative Reference: Rwanda supports decentralised waste processing centers and public-private MRF partnerships as part of its green jobs initiative (UNDP Rwanda, 2021).

C. Incentivise Public Procurement of Locally Recycled Products

Rationale: Waste-based products often struggle due to high costs and lack of market access. Preferential procurement will create stable demand for Bhutanese recyclers and upcyclers, helping waste businesses transition from donor-dependence to commercial viability.

Action Points:

- Add a scoring bonus (e.g., +5–10%) in public tenders for contractors using verified local waste-based materials.
- Apply this clause in all central and local government procurement templates, with thresholds determined by each procuring agency.
- Highlight use cases, such as Green Road's plastic-infused asphalt and Gross International Nature's recycled plastic bricks, to promote adoption.



Tshering Lhamo, founder of Gross International Nature (GIN), with UR (Useful Recycled) Bricks; made from 100% recycled plastic, designed for one-storied temporary structures, easy to assemble and disassemble, and offering an eco-friendly alternative.

Comparative Reference: The Netherlands includes circular economy bonuses in public procurement and facilitates government-market linkages (Government of the Netherlands, 2021).

D. Launch a National Digital Platform for Waste Entrepreneurship

Rationale: Waste businesses, collectors, and government agencies operate in isolation, resulting in duplication and missed opportunities. A unified digital platform can support coordination, transparency, and growth.

Action Points:

- Develop a government-managed platform (hosted by the Department of Energy and Climate Change) to:
List registered waste entrepreneurs and their products.
Map recognised gewog-level waste champions.
Post upcoming government waste contracts and clean-up events.
- Ensure data privacy and offer optional geo-tagging for waste materials and service areas.

Comparative Reference: South Korea's KECO platform facilitates connection between recyclers, producers, and SMEs, including financing and EPR linkages.

E. Mandate that all imported packaging materials display the material identification code.

Rationale:

Mandate that all imported and domestically produced goods carry clear material identification labels. Such labeling ensures transparency on waste types, enabling effective segregation, safe handling, and efficient recycling or recovery. It empowers waste managers to direct materials into appropriate treatment streams, reducing contamination, costs, and environmental impacts. It also allows consumers to make informed choices, discouraging products with low recyclability. This simple, low-cost intervention strengthens Bhutan's overall waste management system and supports the country's transition to a circular economy.

Action Points:

- **Regulatory Requirement:** Enact a rule mandating that all importers and distributors ensure packaging materials carry standardized identification codes before entry into the Bhutanese market.
- **Enforcement & Monitoring:** Establish customs-level checks and penalties for non-compliant packaging, coupled with random market inspections to ensure compliance.
- **Capacity & Awareness:** Train customs officials and waste handlers on resin codes, while running consumer awareness campaigns to encourage responsible use and segregation of plastics.

Conclusion: Building Bhutan's Circular Waste Future

Bhutan has laid a strong foundation for sustainable waste management through its progressive legislation, guided by the principles of environmental conservation and Gross National Happiness. However, despite the legal mandates and fiscal incentives outlined in the Waste Prevention and Management Act 2012 and Regulation 2012, Bhutan's waste entrepreneurs remain under-supported and under-utilised.

The current system primarily exports recyclable waste to India, missing the opportunity to generate jobs, innovation, and domestic value from what is too often treated as refuse. Consultations with stakeholders across all Dzongkhags reveal a consistent demand: waste workers and entrepreneurs want to contribute more—but face systemic obstacles in infrastructure, coordination, and market access.

This policy brief proposes a practical and locally grounded roadmap: capacitating gewog-level waste champions, incentivising material recovery facilities in strategic nodes, reforming procurement policies to support local recyclers, and launching a digital platform to connect the ecosystem. These steps are not only feasible—they are necessary if Bhutan is to transform its waste sector from a source of burden into a driver of opportunity.

By empowering waste entrepreneurs, Bhutan can keep more value within its borders, reduce reliance on external markets, and fulfil the GNH vision of balanced development, inclusive livelihoods, and environmental stewardship



Discussion during the nationwide sense-making workshops.

Acknowledgment

This Policy Brief was developed as part of the Plastic Free Rivers and Seas for South Asia (PLEASE) Project, with the objective of strengthening Bhutan's waste policy landscape through consultations with waste workers, entrepreneurs, and key stakeholders across the country.

We gratefully acknowledge the support of the South Asia Co-operative Environment Programme (SACEP), and our donors; the World Bank and the United Nations Office for Project Services (UNOPS), whose commitment made this initiative possible.

References

1. Waste Prevention and Management Act of Bhutan 2012.
2. Waste Prevention and Management Regulation 2012.
 - a. Notable pages: p. 12 (municipal support for recycling businesses), p. 16 (fiscal incentives for waste businesses).
3. National Waste Inventory and Survey 2019.
 - a. Notable pages: p. 23 (barriers for private waste companies), p. 25 (industry willingness for EPR models).
4. Colombia Waste Picker Inclusion Policies – <https://platform.coop/blog/waste-pickers-in-colombia-organization-rights-and-digitization/#:~:text=The%20Colombian%20Constitutional%20Court%20issued,social%20solutions%20to%20our%20ban%20waste.>
5. Rwanda Green Jobs and E-Waste Strategy - <https://www.scout.org/innovating-plastic-waste-solutions-in-rwanda>
6. Netherlands Circular Economy Programme – Government of the Netherlands. <https://www.government.nl/topics/circular-economy>
7. EU Circular Economy Action Plan (2020) – European Commission. <https://ec.europa.eu/environment/circular-economy/>
8. South Korea EPR System & SME Support - <http://www.kora.or.kr/eng/coreBusiness/eprPolicies.do>