

Waste Management Projects in Pakistan

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About IGES and CCET

【IGES】 Institute for Global Environmental Strategies

- Environmental research institute established in 1998
- Steer innovative policy development and strategic research to champion sustainable development across the Asia-Pacific region and beyond

【CCET】 IGES Centre Collaborating with UNEP on Environmental Technologies

- Support development of national, regional and city waste management strategies and action plans in Asia and Pacific region with a focus on resource efficiency and circular economy, and facilitates the implementation of pilot projects.
- Global network with variety of stakeholders
- Secretariat of Japan Platform for Circular Economy (J4CE)



IGES's Strategic Support in Pakistan

Waste Management Strategy (**Division level**) (Urban Unit)

- Promote environmental sustainability, climate funding opportunities, Rs + recovery



Estimation of Climate Impact (**district level**)

- Emission Quantification Tool (EQT)
- Integration into Nationally Determined Contributions (NDC)



Pilot Implementation (**community level**) (Akhter Hameed Khan Foundation: AHKF)

- formalization of informal waste pickers into registered entity
- Optimize the use of MRF to enhance recycling business



National Circular Economy Policy (**national level**) (Sustainable Development Policy Institute: SDPI)

- It addresses the integrated SWM with a focus on 3Rs, and fosters circular economy across various sectors such as textiles, construction, water and energy
- Coordination with MoCC&EC and Living Indus

Waste Management Challenges in Pakistan

Municipal Waste

- Over **49.6 million tonnes** of municipal solid waste annually, with poor collection rates and heavy reliance on informal sectors.
- Approximately **2 million tonnes of plastic waste**, mismanaged.
- Organic waste, nearly half of MSW, is largely landfilled or burned, causing significant methane emissions.
- Rising **e-waste (433 kilotons annually)**, mostly handled through informal, unsafe methods.

Industrial Waste

- A **textile sector** with limited recycling and traceability, despite a thriving second-hand market.
- A booming **construction industry** generating 20–30% of urban solid waste.
- Severe **water scarcity**, aggravated by inefficient agriculture and untreated industrial effluents.
- The **energy sector**, producing growing volumes of waste from conventional and renewable sources.

Circular Economy Policy (draft)

Anticipated Outcomes by 2048

- **Economy:** 4–7% GDP increase, 500,000 green jobs, \$1–2 billion in circular exports.
- **Environment:** 60% reduction of landfilling, significant CO₂ cuts, and freshwater savings.
- **Social:** Inclusion of informal workers, gender-responsive policies, and consumer education.
- **Global Positioning:** Pakistan's leadership in regional and global circularity, climate, and plastic treaty negotiations.

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Climate Alignment (**city level**)

- Emission Quantification Tool (EQT)
- Integration into Nationally Determined Contributions (NDC)



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