

## **Circular Economy in Pakistan – The Untapped Potential of Waste to Resource**

In nature, waste is a misnomer; while many global nations harness refuse to generate energy, recycle materials, and enrich agriculture, the Global South, despite its vast young workforce and significant waste output, struggles to transform this potential resource into economic opportunity.

Pakistan generates around 48.5 million tonnes of solid waste annually. This grows by [2.4% annually](#) due to high population growth and urbanisation. However, most of the cities in Pakistan lack the financial and institutional capacity to sustainably manage the growing amount of waste generated. According to estimates, currently, the waste collection rates in cities range from 60 to 70%. The collected waste is often dumped in unscientific landfill sites that lack formal treatment facilities. Dumping of waste in unscientific landfill sites leads to unmanaged emission of Greenhouse Gases (GHGs) from the rotting waste and also negatively impacts the soil and underground water quality due to uncontrolled release of leachate in nature. Whereas the remaining uncollected garbage is either incinerated or left to rot in dumps in streets, open spaces, and/or water bodies. This adds to the burden of pollution (land, water, and air), environmental degradation, and carbon emissions in urban areas. It also impacts the health of city dwellers. It is estimated that more than [5 million people](#) die annually because of waste-related illnesses.

Lack of segregation of waste at source and low recycling rates are major waste management challenges in Pakistan that negatively impact urban livability. They lead to an over-extraction of natural resources and hinder the transition towards zero waste and zero emissions. They also prevent the utilisation of waste as a resource in Pakistan, e.g., waste-to-energy projects, production of organic fertilizers from wet kitchen waste, etc., slowing the shift from the linear paradigm of production and consumption to a circular model of economy.

With over 64% of the population below the age of 30, Pakistan has a major demographic advantage that can be capitalised for transitioning towards zero-waste cities. Building the capacity of this sizeable segment on sustainable practices and leveraging their potential for eco-innovation can contribute towards tackling the issue and at the same time engage youth in productive activities.

This session will explore the following:

1. What are the policy and practice issues in Pakistan that hamper the use of waste as resource?
2. Given Pakistan's low economic growth indicators and its significant demographic transition, why has the country not capitalised on the potential dividends from its waste industry? What are the challenges and opportunities for Pakistan to turn waste management into an economically beneficial sector?
3. What can be learnt from the neighbouring countries and how can Pakistan invest in young people to utilise waste as resource?

### **Panel Organiser**

Institute of Urbanism, Islamabad, Pakistan