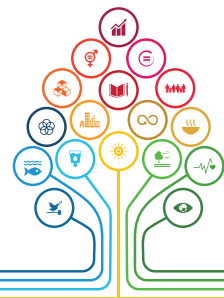




UNEA

United Nations Environment Assembly  
of the United Nations Environment Programme  
Delivering on the 2030 Agenda



## UNEA-2 FACT SHEET:

# ENVIRONMENTALLY SOUND TECHNOLOGY AND WASTE

## Why environmentally sound technology in relation to waste matters

Waste is a global issue linked to the way society produces and consumes. The amount of global waste generated is growing every year as populations rise, migration to cities continues and economies develop. If managed improperly, waste can spread disease, drive climate change, pollute groundwater, reduce biodiversity, damage economies and increase the risk of flooding, impacting the health and livelihood of humans. The uncontrolled burning of waste creates persistent organic pollutants (POPs) that damage human health and the environment. Managing waste in an environmentally sound manner can bring immense health, environmental and economic benefits.

## The state of play

- Urban waste generation, including municipal solid waste, commercial and industrial waste, and construction and demolition waste is estimated at about **7 to 10 billion tonnes per annum** globally.
- **At least two billion** people lack access to solid waste collection, **and three billion people** lack access to controlled waste disposal facilities.
- Lower income cities in Africa and Asia will **double** their municipal solid waste generation **within 15-20 years**.
- In a middle or low-income city the costs to society and the economy from uncontrolled waste are perhaps **5-10 times** greater than what sound solid waste management would cost per capita. It is dramatically cheaper to manage waste now in an environmentally sound manner than to clean up the 'sins of the past'.
- The world's top fifty largest waste dumpsites affect the daily lives of **64 million** people.
- About **41.8 million tonnes** of e-waste was generated in 2014, almost **25 per cent** more than the 2010. This is the fastest-growing waste stream in the world and is expected to reach **50 million tonnes** in 2018.
- According to 2013 FAO estimates, approximately **1.3 billion tonnes** of food – one third of the total produced for human consumption worldwide – is lost or wasted annually.
- The IPCC estimates that solid waste management accounted for around **3 per cent** of global greenhouse gas (GHG) emissions in 2010, with most of that attributable to methane emissions from landfill sites.
- Drains blocked with solid waste caused flooding in Ghana that destroyed the homes of **17,000 people**. Incidents of cholera were identified a week after the flooding occurred.
- In 1994, heavy monsoon rains and waste that clogged drains in the Indian city of the city of Surat triggered massive flooding that displaced 300,000 people and caused economic losses of as much as **\$2 billion**. The flooding caused a pneumonic plague outbreak that killed 52 people.
- In Kenya, an average of **3,000 tonnes** of computers, monitors, printers, mobile phones, batteries and other kinds of e-waste is generated annually.

## The benefits of action

- The business benefits of improved resource efficiency and waste prevention are believed to be more than **\$1 trillion** globally per year. Waste prevention avoids end of pipe waste management costs and saves much larger raw material, energy and labour costs embedded in wasted products.
- It is estimated that waste management has the potential to contribute a **10 to 15 per cent** reduction in global greenhouse gas emissions.
- Reducing waste saves municipalities anywhere between **\$35 to \$400 per tonne** of waste, depending on the technology used to handle the waste.
- Environmentally sound waste management, recycling dry and organic materials and recovering energy from waste represent potential for substantial “green” job creation.
- Transforming a city’s informal waste management sector is a win-win situation: recyclers can work under cleaner conditions and earn a better livelihood. City recycling rates can increase while reducing littering and the dumping of residual waste.
- The financial loss from food wastage is about **\$750 billion** based on producer prices alone. This food, if turned into meals, would be sufficient to provide nutrition for more than two billion people – more than double the estimated number of undernourished persons in the world.
- UK employment in the waste management sector increased by **50 per cent between 1993 and 2013**. EU employment doubled between 2000 and 2010 to **two million**, alongside an increase in municipal solid waste recycling from **20 per cent to 35 per cent**.
- Effective and environmentally sound waste management contributes to clean cities and a healthy living environment, which is attractive to residents, tourists and visitors, and to businesses and investors.
- Cities and communities that work together to segregate waste and reduce littering tend to also reduce crime, vandalism and social deprivation and enhance community cohesion.
- After a century of steady decline, resource prices in real terms **doubled** between 2000 and 2010. So, despite continued price volatility, developing indigenous supplies of raw materials from recycling makes good sense, particularly in rapidly industrializing countries. E-waste comprises a richer ‘ore’ for many scarce and critical metals than the natural ores mined for the virgin raw materials.
- Transforming a city’s informal sector to a more formalized part of the mainstream waste and resource management system means recyclers can work under cleaner conditions and earn a better livelihood. City recycling rates can potentially increase and the transition can reduce littering and dumping of residual waste while bringing the ‘informal’ sector inside the legal and tax systems.

## Change across the globe

- Trinidad and Tobago avoided an estimated **\$23 million** in damages to public health after implementing a solid waste management system.
- Greenhouse gas emissions have been reduced by **116,000 tonnes** of CO<sub>2</sub> since the city of Quezon in the Philippines converted a dumpsite into a controlled waste disposal facility and eco-park.
- In the small town of Versalles, Colombia, an integrated municipal solid waste management system has reduced by **83 per cent** the amount of waste sent to landfill. **27 tonnes** of organic matter and **7 tonnes** of recycled materials are recovered and transformed.
- The campaign Love Food Hate Waste, which launched in 2007, has reduced avoidable food waste across the UK by **21 per cent**, saving households money while cutting carbon emissions and water consumption.