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## 4 TURNING WASTE INTO WEALTH

### IMPORTANCE

Rapid urbanization in Africa and Asia is increasing the number of poor people living in the margins of cities, and putting pressure on already strained water and land resources. Resource Recovery and Reuse (RRR) diverts and converts waste into a resource that benefits farmers, create jobs and generates business opportunities.

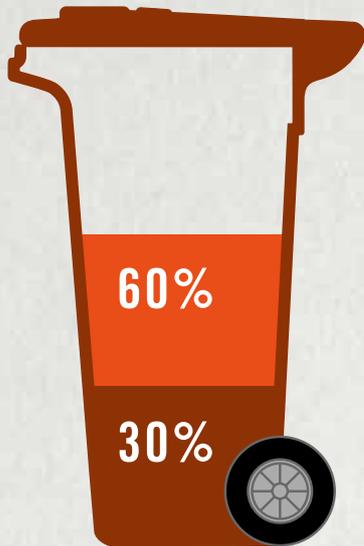
### PROBLEM

People in cities generate millions of tons of solid and liquid waste every day. This 'waste' is filled with water, nutrients and organic compounds vital for plant growth. Instead of managing waste for reuse, it accumulates in urban centers and leads to severe sanitation problems. Meanwhile, peri-urban farmers struggle with depleted soils and polluted water.

“ An enormous development opportunity exists to convert human waste into a resource that can benefit millions of poor farmers while providing incentives for reducing the world’s most pressing sanitation problem. ”

PAY DRECHSEL, LEADER OF WLE'S RESOURCE RECOVERY AND REUSE PROGRAM

Municipalities in developing countries spend 30–50% of their budget on solid waste management, although **30–60% of the waste remains uncollected**



By 2050, about **two-thirds** of the world's population is expected to live in urban areas



## WHAT WLE IS DOING

The objective of RRR is to reduce the negative urban footprint on ecosystems and human health through market driven incentives which promote investments in water and energy recovery and reuse. Researchers develop scalable business models that bridge the sanitation and agricultural sectors. RRR also supports public and private entities through the creation of innovative technologies and the development of guidelines and policies for safe reuse. For example, WLE developed 20 promising business models for the safe reuse of human waste based on 200 case studies across Asia, Africa and Latin America. The economic feasibility of these models is being studied in 10 cities across the world, with follow-up plans ranging from pilot tests to large scale private-public partnerships.

## Expected Outcomes

### By 2017

- ◆ Verify the feasibility of RRR business models in 10 urban areas across Asia, Africa and Latin America.
- ◆ Influence global guidelines, investment plans and initiatives on safe wastewater and excreta management and reuse.

### By 2025

- ◆ One hundred municipalities globally have started implementing RRR programs based on WLE value propositions and business models.
- ◆ WLE has contributed to monitoring and safety guidelines for the proposed Sustainable Development Goals on safe wastewater use, benefiting up to 20 million farmers in South Asia and sub-Saharan Africa.
- ◆ Safe wastewater reuse capacity in 70 countries is improved in collaboration with U.N. agencies such as WHO, FAO, United Nations University and UNEP.

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