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Resource Recovery From Waste

Business Models for Energy, Nutrients and Water Reuse

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About this Book

Humans generate millions of tons of waste every day. This waste is rich in water, nutrients, energy and organic compounds. Yet waste is not being managed in a way that permits us to derive value from its reuse, whilst millions of farmers struggle with depleted soils and lack of water. This book shows how resource recovery and reuse (RRR) could create livelihoods, enhance food security, support green economies, reduce waste and contribute to cost recovery in the sanitation chain.

While many RRR projects depend on subsidies and hardly survive their pilot phase, hopeful signs of viable approaches to RRR are emerging around the globe including low-and middle-income countries. Many of these new commercial pathways are being charted in the informal sector, delivering innovative approaches for cost-recovery. These enterprises or projects are tapping into entrepreneurial initiatives and public-private partnerships, leveraging private capital to help realize commercial or social value, shifting the focus from treatment for waste disposal to treatment of waste as a valuable resource for safe reuse.

The book provides a compendium of these success stories of resource recovery and reuse. It presents for energy, nutrient and water recovery innovative business models based on approximately 70 empirical cases from around the world, each described and evaluated in a systematic way. The focus is on municipal or agro-industrial waste and models with potential for large-scale out-and up-scaling. For each model, safety concerns and risk mitigation measures are highlighted. This is the first book on business models and their enabling environment for the reuse-oriented sanitation sector.

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