WASTE TO RESOURCES: MOVING TOWARD THE 2030 SUSTAINABLE DEVELOPMENT GOALS

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Abstract

The United Nation's Sustainable Development Goals (SDGs) set an ambitious umbrella framework for regional and national governments around the world; addressing a breadth of areas such as providing for economic growth, reducing harmful pollution, improving resource efficiency and waste management, eradicating poverty, and enabling access to necessary infrastructure, housing and services. In working toward these goals, nations need to reconcile the potential of inter-goal conflicts arising from policy and steering mechanisms that only work toward specific goals.

In reviewing the development of European waste policy, action has concentrated on achieving the broad societal goals of improving sanitation and reducing negative environmental and health consequences. Moving forward, many regions and nations have also begun to address waste considering multiple goals that strive for triple bottom line improvements via promotion of, for example, the circular economy. This raises the question, are the tools and political objects of past waste management regimes fit for the new functions and goals that are expected of future systems?

This article investigates the policies and calculative tools that are a product of historic developments and assesses whether they are still relevant in their current state in light of our collective SDGs. Waste management principles (e.g. the waste hierarchy, the proximity principle, and the polluter pays principle) are evaluated in the context of the SDGs. Similarly, key calculative tools, such as resource efficiency indicators (e.g. GDP/domestic material consumption), are evaluated in the context of the multiple SDGs. We argue that many of these principles and tools need to be reconsidered to support action toward the SDGs and to prevent inter-goal conflicts. Suggestions for adaptations of principles and tools are outlined and discussed. Such evaluation can benefit both European countries and emerging countries looking to "leapfrog" toward modern and balanced sustainable development and waste management.

Keywords

Circular Economy; Policy Principles; Resource Efficiency; Waste Hierarchy; Resource Transition