

## **Circularity: Toward a sustainable, desirable future**

As we confront the daunting challenge of sustaining humanity within the capacity of Earth's natural systems, there is increasing urgency for creating a "circular economy."

Circularity refers to the crucial necessity of capturing useful materials from the vast volume of waste generated by the ravenous processes serving our reckless, technologically empowered global economy. It's been estimated that sustaining the world's 8 billion people at the living standard of "economically advanced" countries – using existing methods – would require three or four times Earth's resources and pollution-assimilation capacity.

Depletion of essential natural resources and degradation of vital life-support systems – contaminating land, air and water – must cease. This imperative is made even more urgent by collateral climate disruption, which threatens irreversibly catastrophic consequences unless quickly curtailed.

A circular economy must be achieved as soon as possible, pursuing these general approaches:

- Amply finance research and implementation of methods that rapidly reduce carbon emissions, resource extraction, and waste-stream disposal as a means to curtail the dangerously degrading effects of current production and consumption practices.
- Mandate transition to fully applying these methods so that, to the greatest extent possible, materials are sustainably removed from industrial, commercial, and consumer waste, using clean sources of energy.
- Establish national standards – and rapidly develop enforceable global international-trade mandates – to ensure widespread adoption of responsible manufacturing and commercial practices to achieve sustainable use of resources.

To avoid disastrous environmental consequences, circular economy policies must be widely implemented by mid-century. This must begin immediately with the elimination of trillions in self-destructive fossil-fuel subsidies.

~ David Kyler, Co-Director  
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