

Abstract

## **International Challenges in a Global Circular Economy**

We now live in the anthroposphere, a world where there is human presence in all the Earth's systems, a presence that is recognized as not always benign. Ecosystems have been degraded and there are valid concerns about the availability of adequate materials and resources to support the sustainable development of societies. Dealing with these issues will necessitate increased resource efficiency, decreased waste, and avoidance of pollution, a decoupling of economic growth from negative environmental and social impacts. The circular economy concept provides a framework for addressing these problems with a systems perspective. However, since material and resource flows are also global, solutions will not be found without innovation coupled with international cooperation and collaboration. In this paper we will describe ongoing activities within the United Nations, the OECD, the European Union as teams of nations set out data needs and provide information to support progress toward a circular global economy.