

INTERNATIONAL JOURNAL OF ENVIRONMENT

Volume-8, Issue-3, 2019

ISSN 2091-2854

GUEST EDITORIAL



CIRCULAR ECONOMY - A PATHWAY TO ACHIEVE SUSTAINABLE DEVELOPMENT

On a planet with finite material resources, a **circular economy** is a necessity to sustain human life and well-being. Climate change, global warming and natural resources depletion linked to anthropic root causes are no longer questioned. With the heightening risk of the impact of climate change and resource scarcity to meet the increasing world population is needed to transition to a more sustainable development model is urgent.

To support both economic growth and sustainable resource management, the circular economy paradigm seems to be a great opportunity due to the increasing concern on sustainability and can help to achieve Sustainable Development Goals set by United Nations under the Agenda 2030. The **circular economy** is being presented in the literature as potential strategies for future sustainable societies and presents a direct response to growing concerns about resource scarcity and associated environmental impacts from wasteful resource utilization and energy consumption especially from transportation sector.

Circular economy consists in keeping materials and products 'circulating' in the technosphere, it avoids the extraction and production of raw materials, and, to a certain extent, processing and manufacturing steps. Its facilitates cutting down on greenhouse gas emissions (GHG), by reducing the amount of energy needed by logistics and transportation of goods, by industrial production processes to transform primary raw materials into usable products. A response to the contemporary threats to the natural environment is the circular economy model, which is a system solution that aims to mitigate the adverse environmental impact

of production and consumption in key sectors, especially in the context of the reduction of GHG and waste generation.

A more sustainable pathway is possible with policy measures, investments, technological innovation, and behavior change. Different levels of policies can help to avoid waste producing, unnecessary motorized trips, shift transport trips to more efficient modes, and improve transport vehicles and energy sources.

Andrea Souza Santos

Professor of Transport Engineering Program

Transport Engineering Program/COPPE, Federal University of Rio de Janeiro/Brazil

Email: andrea.painel@pbmc.coppe.ufrj.br

December 05, 2019

DOI: http://dx.doi.org/10.3126/ije.v8i3.26611

Copyright ©2019 IJE

This work is licensed under a CC BY-NC which permits use, distribution and reproduction in any medium provided the original work is properly cited and is not for commercial purposes