



WORLD TRADE CENTER®
MUMBAI



White Paper on Circular Economy

By MVIRDC World Trade Center Mumbai





Bharat Ratna Sir M. Visvesvaraya
(15 September, 1860 - 14 April, 1962)

FIFTY YEARS AND COUNTING

M. Visvesvaraya Industrial Research and Development Centre (MVIRDC) is a non-profit company registered and licensed under Section 25 of the Companies Act, 1956 (currently Section 8 of the Companies Act, 2013). On 26 June, 2020 MVIRDC completed 50 years of continuous service to the promotion of trade and industry.

MVIRDC became a member of the World Trade Centers Association, New York, in 1971 and established the World Trade Center Mumbai, which is the first World Trade Center in India. MVIRDC, having spearheaded the movement of World Trade Centers in India with the establishment of WTCs at Bhubaneswar, Goa and Jaipur, is assisting MSMEs in these regions through various Trade Research, Trade Promotion, Trade Infrastructure including Commercial Offices, Business Center, Trade Facilitation Services and Trade Education Programmes.

White Paper on Circular Economy

By MVIRDC World Trade Center Mumbai

Contents

▪ Executive Summary	4
▪ Interactive Session on “Promoting Circular Economy for a Sustainable Planet”	5
▪ Key Highlights of White Paper	8
▪ Background	9
▪ Impact of circular economy on India’s Economy	11
▪ Waste management	15
▪ Electronic Waste in India	15
▪ Plastic Waste Management	16
▪ Effective implementation using Blockchain and IoT	17
▪ Trade in Environmental Goods	21

Disclaimer:

MVIRDC World Trade Centre Mumbai has taken utmost care in the preparation of this document in terms of validity or authenticity of the information included. However, we hereby declare that we can in no way be held responsible for the legitimacy of the information. The information has been sourced from relevant stakeholders and publicly available secondary data.



Executive Summary

Circular approach is the future of our economic growth model and the sense of urgency to embrace circularity is no less compelling. The unpredictable weather pattern unfolding across the globe in recent years is a grim reminder of the imperative to transition to an economic model that regenerates and restores our natural ecosystem rather than destroy it. Our effort to create an eco-friendly planet cannot be complete without adopting circular economy practices as renewable energy and energy-efficiency measures can mitigate only 55% of global emissions. The remaining 45% global emission can be addressed only by the circular economy strategies of reduce, reuse, refurbish, repair, re-manufacture and recycle.



The linear growth model practiced so far has led to indiscriminate use of limited natural resources and generation of unmanageable waste that pollutes air, soil and water bodies. The humongous amount of waste piling on our landfill represents the collective failure of our economic system to use our limited natural resources optimally. The world is in need of a truly circular economy that eliminates waste by designing products whose life cycle can be extended through refurbishing, repairing or re-manufacturing with less use of energy and labour. In a truly circular economy, recycling is also the last option as it takes fairly huge amount of energy and labour to recycle products, rather than refurbish or repair it.

There is huge scope for disruption in the circular economy as is evident from the success of several start-up companies in waste management, precision farming, sustainable fashion, electric vehicle, renewable energy, resale marketplace, ride sharing and other sectors. These young start-ups are torchbearers in our journey towards a sustainable planet and it is hoped that other entrepreneurs will also follow their model in pursuing business success while preserving environment. Transition to a circular approach can give rise to new business opportunities, create more jobs and promote economic growth. However, the current pace of transition is painstakingly slow as it is not possible for established businesses to transition to a circular model overnight. But it is time we make the beginning with the collaborative efforts of policymakers, regulatory agencies, academia, research bodies, financial institutions and industry stakeholders.

MVIRDC World Trade Center Mumbai has come out with this white paper to highlight the emerging business opportunity for start-ups and MSMEs as we transition to a circular economy. This white paper contains insightful case study from start-ups that rolled out blockchain technology for recycling of used products to eliminate waste. The white paper also includes valuable inputs from consultancy organizations and policy suggestion from successful start-ups to facilitate this transition towards a circular economy.

I thank entrepreneurs and industry professionals who contributed their views for this paper for the benefit of our readers from government, industry and academia.

This White Paper also carries a snapshot of the discussions held at the Interactive Panel Session on "Promoting Circular Economy for a Sustainable Planet" held at WTC Mumbai on November 11, 2022. The panel session brought together distinguished experts from academic institution, corporate house, start-up sector and consultancy organisation to discuss India's transition to a circular economy model and the opportunities for MSMEs in this transition.

I am confident that the articles and data presented in this white paper will be a useful source of reference for policymakers to make informed decision and I believe it will also generate more public discussion on the imperative to adopt circularity practices.

A handwritten signature in blue ink that reads "Rupa Naik".

Rupa Naik

Executive Director

(To download the full report contact us - research@wtcmumbai.org)