

‘Circular Economy’ in India: Scope and Opportunities

ISED Monograph Series



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ISED Small Enterprise Observatory
Jointly with
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About ISED Monograph Series

The purpose of ISED Monograph Series, brought out by the ISED Small Enterprise Observatory, is to present the output of primary research and original scholarship ascertaining reliable credibility to the required recipient. ISED publications seek to provide evidence and analysis that matters for entrepreneurial people and the planet.

Preface

Recent studies and evidences indicate that, a pandemic such as Covid-19 has to be understood in close relation with the larger framework of climate change, and of the dominant paradigm of global development. The critiques of the 'linear economy', have contributed to laying down the basic building blocks of the 'circular economy'. A scoping of this new paradigm is important in the Indian context today.

Under the India MSME Communication Programme(IMCP), the Observatory, in co operation with the various Knowledge Centres of the Institute, makes a rigorous analysis of the latest currents in the MSME constituency, leading to a unique 'Development Report'. This study is a spill-over of this exercise of Development Reporting on micro, small and medium enterprises (MSMEs) at the ISED.

While the team of the Observatory did a meticulous job under the guidance and support of the Project Leaders, individual members of the Team, including the editors and the Associates, have made their special contribution in specific thematic areas. While this title is significant in the present context of the Indian economy , and of the MSME developments in specific, I hope it will contribute to wider discussions in the subject area.

As this title come out as a joint output of the Observatory and the ISED Centre for Enterprise Development, the Institute wishes to thank, without fail, the pains and efforts of the authors, and all who have supported it through inputs and suggestions. ISED has taken best efforts to ensure the quality and reliability of this paper. However, for the findings and views, the authors alone are responsible.



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November 15, 2020

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Abstract

Recent studies and evidences indicate that, a pandemic such as Covid-19 has to be understood in close relation with the larger framework of climate change, and of the dominant paradigm of global development. The critiques of the 'linear economy', have contributed to laying down the basic building blocks of the 'circular economy'. A scoping of this new paradigm is important in the Indian context today.

Key Words: India, circular economy, opportunities, ME, climate change, linear economy.

1.0. Introduction

The experience of Covid-19 brings to the forefront, the wider issues of development, as it has been repeatedly pointed out by the United Nations. Climate change is the major theme which has close relationship with the frequent occurrence of natural disasters. More recent evidences also indicate that, a pandemic such as Covid-19 has to be understood in close relation with the larger framework of climate change, and the series of other disasters. The indication given by all these developments is that, the dominant paradigm of global development itself has to be looked afresh. It is, therefore, important to raise these larger questions while shaping a new enterprise development agenda. The critics of the 'linear economy', as also the advocacy for a 'circular economy', have to be understood against this background.

2.0. Objective Background

It has been estimated that, by 2050, the world's population will touch 9.7 billion, and the per capita resource need will be up by 71 per cent.; it is a threat to India as well. The increasing demand for resources, such as materials, energy, water and land, is a critical problem, as the physical quality of life of the people increases. On the one hand, it will impact adversely, the availability of these resources, with implications on production systems, economic growth, environmental sustainability and ultimately, human well-being. The second impact would be that climate change and its dire consequences are likely to remain perennial. The recent mega floods and hurricanes in the country prove that.

From a linear-economy model, where natural resources are used to make products and, after their life cycle, get discarded, the world is now looking at an unfolding 'circular economy'. The United Nations Agenda 2030 has rightly underscored the importance of this subject.

In a circular economy, the focus is on reusing and regenerating resources as much and as long as possible so as to make them sustainable. This, again, is dependent on various factors, such as size of population, income levels of the people, and the cultural milieu etc. The circular economy concept has deep-rooted origins and cannot be traced back to one single date or author. Its practical applications to modern economic systems and industrial processes, however, have gained momentum since the late 1970s, led by a small number of academics, thought-leaders and businesses.

3.0. Meaning and Scope

Man is one among the living organisms on earth. It is, therefore, important that, in order to maintain the balance of nature, man's intervention on it need to be within some limits. The 'ecological footprint' measures human demand on nature, i.e., the quantity of nature it takes to support the needs of an economy. This trade-off can be tracked by an ecological accounting system. The accounts contrast the biologically productive area people use for their consumption to the total area available within a region or the world (bio capacity, the productive area that can regenerate what people demand from nature). Since 2003, Global Footprint Network has calculated the ecological footprint from UN data sources for the world as a whole and for over 200 nations (known as the 'National Footprint Accounts'). This is a measure of human impact on Earth's ecosystem. It reveals the dependence of the productive system on natural capital.

'Footprint' and 'bio capacity', as indicated above, are two key concepts. They can be compared at the individual, regional, national or global scale. Both footprint and bio-capacity change every year with the number of people, per person consumption, efficiency of production, and productivity of ecosystems. Footprint assessments, at the global level, show a relative picture of humanity's demand, compared to what planet Earth can renew.

Significance of Ecological Foot print

Box No: 1

'Ecological footprint analysis' is a powerful tool for sustainability assessments. It enables people to measure and manage the use of resources. The 'ecological footprint' measures human demand on nature, i.e., the quantity of nature it takes to support the needs of an economy. This trade-off can be tracked by an ecological accounting system. The accounts contrast the biologically productive area people use for their consumption to the total area available within a region or the world (bio capacity, the productive area that can regenerate what people demand from nature). Since 2003, Global Footprint Network has calculated the ecological footprint from UN data sources for the world as a whole and for over 200 nations (known as the 'National Footprint Accounts'). This is a measure of human impact on Earth's ecosystem. It reveals the dependence of the productive system on natural capital.

'Ecological footprint analysis' is a powerful tool for sustainability assessments. It enables people to measure and manage the use of resources. It can be done at the subsectoral and spatial levels, as also for specific outputs. Since 2006, the first set of ecological footprint standards with its communication and calculation procedures exist. Global Footprint Network estimated that, as in 2014, humanity has used natural capital 1.7 times as fast as Earth can renew it. This means humanity's ecological footprint corresponds to 1.7 planets Earth.

4.0. Circular Economy and SMEs

Beyond the popular perception and emerging interest in the circular economy, there are two major imperatives today. These imperatives arise against the background of the current crisis in the global economy in relation to the pandemic, COVID-19. The first imperative is to introduce the principles of 'circular economy', based on a scientific understanding of the magnitude of damage that has brought in by the 'linear economy'. Secondly, in the specific case of SMEs, there are several best practices that are often based on indigenous knowledge, and have vanished over time against the constraints created by a linear economy. It is important that such indigenous knowledge and best practices are brought back. Moreover, they need to be reinterpreted in a new context, making use of the best advantages offered by new technologies and cultural practices.

Unleashing the entrepreneurial potential of the human being is a means to achieve the goal of sustainable development. The 'sustainability foot print model' is a new framework and model that can be used to accommodate various stakeholder entities in their effort to meet these goals. Though priorities and constraints, and schedules at various stages of development, may vary temporally and spatially, the model seeks to accommodate such differences against the larger goal of sustainable development.

There are several SME dominant subsectors where the circular economy model can work as a best fit.

This arises because of the fast changes in the objective environment, which often gets reflected in the form of natural disasters and pandemics. The urge for a transition from linear to circular value chains is given by the changes in the demand structure itself. Millions of people today are changing their consumption habits demanding more sustainable, environment friendly and healthier products. Such changes emerge out of the dire experience of the past and the clamour for reforms, which get translated into public policy over a period of time. The movements for a ban on plastics, and for ethical trading, are examples. The changes in consumption habits demand more sustainable, environment- friendly and healthier products, which, by logic, demand an alternative 'production- to consumption system ' model.

Climate change, environmental pollution, finite fossil resources, as well as food security, are at the top of the political agenda in many countries today. Such a move towards sustainability principles will create attractive business and enhance investment opportunities. Such a new opportunity would, naturally, have its implications at two levels: 1) identification of a growing number of subsectors, where the principles of circular economy can be practiced; and 2) the introduction of new financial products that can offer new investment opportunities and markets.

There are some studies and follow up initiatives in identified subsectors, where innovations have come up. Some of them are as follows:

4.1. Circular Bio Economy

'Circular bio economy' is a new area, where significant initiatives have come up globally, both in terms of research, institutional development and development of financial products. The case of the European bio economy fund (ECBF) stands out. It is an initiative of the European Investment Bank and the European Commission. The objective of ECBF is to fund and partner with ambitious and visionary entrepreneurs and investors to accelerate late-stage companies with first recurring revenues and strong market traction in the European circular bio-economy. The targeted