TERM OF REFERENCE (TOR)

Title	:	Transitioning towards green growth & circular economy: the role of investment and institutions
Research Team	:	External researchers
Output/outcome	:	Research Grant Bank Indonesia 2022

I. Introduction

1.1 Background

Climate change strategy implies a shift to a low-carbon economy which requires investments to adopt technology to lower greenhouse gas emissions. To achieve green growth, the circular economy paradigm provides a way that pushes the limits of environmental sustainability by inducing the idea of product transformation and partnership so that ecological systems can be sustained along with economic growth (Genovese, Acquaye, Figueroa, & Koh, 2017b). The adoption of the circular economy concept pursues to optimise the system as a whole, where the residual flows are considered. It is a resource-intensive concept that emphasises the importance of minimum pressure on the environment, nature, and climate by increasing system productivity (Borrello, Lombardi, Pascucci, & Cembalo, 2016; Wageningen, 2018; Zhu, Jia, & Lin, 2019). The benefits of a circular economy encompass meeting climate targets and other goals such as creating more liveable cities, distributing value more widely in the economy, and spurring innovation. These attributes make the circular economy a potent contributor to achieving zero-carbon prosperity.

However, green projects tend to be expensive, where the financial barrier is one of the main barriers and could lead to losses for companies using renewable resources (Punzi, 2018). Two significant barriers associated with green projects are a lower rate of return compared to non-green projects and a higher risk of investment compared to non-green projects (Yoshino and Taghizadeh-Hesary, 2018). These financial constraints are worse for the green sector, as the private sector is reluctant to invest due to environmental risk. On top of that, because of the associated risk and Basel capital requirements, many banks are not interested in lending to the green sector. The investment in green sectors is essential to develop a green transformation in the production sector (Punzi, 2018).

Moreover, previous research found that a well-structured demand-driven approach and a clear governance structure would drive an acceleration of green technology adoption (Chen et al., 2022; C.E. Hoicka et al., 2021; M.G. Maswabi et al., 2021). This requires coordination and participation of all economic actors, which will require appropriate leadership that will guide effective monitoring and evaluation of the transition process. To accelerate the transition towards green growth, non-price elements of policy interventions are effective (Chen et al., 2022). The non-price factors include interventions that promote education in rural areas and smooth circulation of information on wages and job opportunities, public transport system and health care. These non-price elements reflect the demand-driven approach to creating sustainable production and consumption ecosystem. It is thus imperative to understand the role of green investments and institutions and to identify the implementable strategy for transitioning towards and accelerating green growth and circular economy (sustainable production and consumption).

1.2. Research Objectives

The research proposed should address <u>at least one of the research objectives as follows</u>:

1. To understand the role of green investments and institutions and to identify the implementable strategy for transitioning towards green growth and circular economy (sustainable production and consumption), and its policy implications.
2. To understand the role of green investments for transitioning towards green growth, and its policy implications.
3. To understand the role of institutions for transitioning towards green growth and circular economy (sustainable production and consumption).
4. To identify the implementable strategy for transitioning towards green growth and circular economy.
5. To identify the strategy for nudging the firms and consumer behavior of sustainable production and consumption.

1.3 Significance of Research

1. The findings of this study can be used as a reference for Bank Indonesia and other institutions in providing policy recommendations on how to identify the implementable strategy for transitioning towards and accelerate the green growth and circular economy (sustainable production and consumption);

2. The findings of this study can be used as an additional reference source for academics, practitioners and regulators in economic sectors in understanding the role of green investments and institutions for transitioning towards green growth and circular economy and to identify the strategy for nudging the firms and consumer behavior of sustainable production and consumption.

1.4. Final Research Product

The final product of this research is in the form of a Research Result Report/Laporan Hasil Penelitian (LHP) and a paper through the Research Grant scheme.

II. Research Data and Methodology

This study employs data and information sources in the form of secondary data and primary data from various publications in which the main sources. The econometrics, mathematical approach, SEM, DELPHI, AHP, ANP, qualitative methods may be used as the main analysis tools in this study.