JIPM

ISSN: 2599-1086 | e-ISSN: 2656-1778 | Vol. 5 | No. 1

Aligning Sustainability Integration, Digitalization and Inclusivity for Green, Sustainable Recovery

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ABSTRACT

This article provides a roadmap for sustainable recovery that can aid policymakers in implementing sustainable recovery and improving the well-being of people. The roadmap will prioritize three areas of action: sustainability, digitalization, and inclusivity. This article emphasizes the involvement of the private sector and innovative financing solutions (including Islamic finance) in meeting the financing gap for investment in relevant infrastructure for all three pillars. This articles demonstrates that financial innovation, investment in green and social projects, market awareness, and synergies among the various sustainable finance segments will form the foundation for long-term recovery and create a vibrant and resilient economy.

Keywords: roadmap for sustainable recovery, financial innovation, sustainability, digitalization, inclusivity

SARI PATI

Artikel ini membahas peta jalan yang dapat digunakan pembuat kebijakan untuk melaksanakan pemulihan berkelanjutan dan meningkatkan kesejahteraan masyarakat. Peta jalan ini berfokus pada tiga pilar, yaitu keberlajutan, digitalisasi, dan inklusivitas. Artikel ini juga menekankan keterlibatan sektor swasta dan solusi pembiayaan inovatif, termasuk keuangan syariah, dalam mengisi kesenjangan pembiayaan untuk investasi di bidang infrastruktur yang releval di ketiga pilar tersebut. Artikel ini memperlihatkan bahwa inovasi keuangan, investasi dalam proyek hijau dan sosial, kesadaran pasar, dan sinergi di antara berbagai segmen keuangan berkelanjutan bukan hanya akan membentuk fondasi bagi pemulihan jangka panjang, melainkan juga menciptakan perekonomian yang dinamis dan tangguh.

Kata Kunci: peta jalan untuk pemulihan berkelanjutan, inovasi finansial, keberlanjutan, digitalisasi, inklusivitas

CHALLENGES

The recent COVID-19 pandemic has significant implications for national economies and the global financial system. This is in addition to the growing threat to the world's macroeconomic and financial stability due to climate risks and growing inequality. Furthermore, an estimated 77 million more people were living in extreme poverty in 2021, undoing some of the achievements in eradicating the problem (UN Report, 2022). Thus, many more countries are integrating sustainability objectives and green finance roadmaps into their national strategies, aiming to increase resiliency and shared prosperity.

Notwithstanding the top-down approach, whereby green and sustainable finance frameworks and taxonomies are harmonised at the country level or via market-led collaborative actions, these measures are short of considering the development challenges resulting from the pandemic for a sustainable and inclusive recovery. Moreover, in many countries, these measures lack participation from the private sectors limiting their impact and negatively affecting financial and economic stability. Most governments, especially in developing nations, have narrow fiscal space and lack domestic liquidity to undertake the massive investments required.

Furthermore, the ongoing nature of this crisis necessitates deliberate policy approaches to long-term recovery, focusing on tackling economic inequality and environmental degradation. As a result, striking a balance between economic growth, sustainability, and inclusivity appears to be a critical requirement.

With the rising sustainability awareness, several new asset classes classified under sustainable finance have been developed. Activities labelled under this category take into account environmental and social considerations. Innovations include green, social and sustainability bonds/Sukuk, sustainable banking products, sustainable investment funds, etc. On the other hand, fintech innovations disrupt the financial industry with competitive and inclusive solutions that provide better access to capital. Blockchain, Artificial intelligence (AI), advanced data analytics, digital assets, and distributed ledger technologies (DLT) have the potential to accelerate sustainability recovery while promoting financial stability. Nevertheless, there is a need to ensure that any innovation and shift in policy must mutually reinforce all three pillars. Due to the limitation in fiscal space, integration in strategies and initiatives is imperative for creating balanced growth and increasing prosperity for everyone.

Therefore, massive investment is required, and governments alone will not be able to meet the financing gap. Thus, recovery initiatives need effective and innovative resource mobilization systems to attract private sector investments. Perhaps, more innovative solutions such as blended finance or debt swap could be considered viable options. The main concern is creating a framework with increased private sector participation, more creative solutions, and, more importantly, being aligned with financial stability objectives.

To do so, policymakers play a vital role in developing and executing integrated recovery plans that align the goals of sustainability, digitalization and inclusivity to promote financial stability. This brief will demonstrate that encouraging a sustainable recovery necessitates the creation of an enabling ecosystem for financial mobilization towards investment in relevant infrastructure aligned with sustainability, inclusivity and digitalization initiatives.

PROPOSAL

The German development agency (GIZ) defines a green recovery as the ''measures that combat the coronavirus crisis' social, economic and environmental impacts, which facilitates sustainable, resilient and climate-neutral change [1]''. A green, resilient and inclusive development requires the establishment of a multi-dimension roadmap to promote the mobilization of private-sector investment in green and sustainable infrastructure. The recent COVID-19 pandemic has significant implications for achieving the sustainable development goals agenda. Therefore, recovery initiatives should prioritize green and sustainable projects to accelerate the transition to green economies and a better post-pandemic lifestyle. This should be included in the countries' national development plans and regional agendas and promote the use of sustainable finance instruments as viable tools to bridge the green and sustainable infrastructure financing gap.

The United Nations Environmental Program (UNEP) distinguishes five approaches to align the financial system to promote greater sustainability. These include enhancing market practice, harnessing public balance sheets, transforming culture, upgrading governance standards and directing finance through policy. Therefore, the financial industry can be critical in building a stable and prosperous economy when managed with accountability. This requires redirecting investments into economic activities and relevant infrastructure that deliver a good balance between economic, environmental and social objectives to promote human well-being and mitigate global challenges such as climate change, biodiversity loss, or inequalities.

In a sustainable economy, environmental and social factors are considered alongside economic objectives. The European Environment Agency (EEA) defines the green economy as an economy that generates increasing prosperity while maintaining the natural systems that sustain us. According to the UNEP, the green economy is an economic initiative aiming to improve human well-being and social equity while significantly reducing environmental risks and ecological scarcity[2]. Underlying the green economy concept is the desire to achieve solid economic performance through sound environmental stewardship. This economic system is organized in a way that considers the adverse effects of business activities on the environment and ecosystem and includes internal remedial measures to stop or reduce these effects while engaging in economic activities (Mutanga et al., 2013). On the other hand, a greater emphasis should also be given to creating more opportunities for underserved segments of society. For instance, empowering the youth and women must be one of the key priorities to ensure that every human is given a chance to experience social mobility.

The ultimate goal is to promote economic growth while also achieving sustainability objectives. According to EEA, the interpretation of the green and blue economy system is that it recognizes the linkage among ecosystems, economy, and human well-being (EEA 2016). Thus, an enabling ecosystem for sustainable recovery should align the goals of sustainability, digitalization and inclusivity, as depicted in Figure 1.

SUSTAINABILITY

Sustainable finance has gained popularity globally with more innovations in the banking and capital markets segments. According to Refinitiv, Sustainable financing totalled USD79.1 billion during the first half of 2020, with European borrowers accounting for 63% of

1 https://www.giz.de/en/ourservices/99580.html.
2 https://www.unep.org/pt-br/node/23750

Figure 1. An Enabling Ecosystem for Sustainable Recovery

overall sustainable lending. A growing number of financial institutions globally have voluntarily adopted and implemented a broad range of sustainability practices in response to emerging challenges and stakeholders' expectations regarding social and environmental impact. This growing awareness about the materiality of sustainability issues can also be noticed among regulators and policymakers globally with the issuance of various principles on sustainable and responsible banking and investments. These include Bellagio Sustainability Assessment and Measurement Principles (BellagioSTAMP), the Principles of Value-based Banking, the Principles of Responsible Banking, Value-Based Intermediation (VBI), and the Principles for Responsible Investment (PRI), etc.

DIGITALIZATION

Digital Financial Services (DFS) are financial services (e.g., payments, remittances, and credit) accessed and delivered through digital channels, including via mobile devices (IMF, 2020). Digital Transformation has been a critical focus area to most financial institutions globally, with expected benefits of improved customer engagement and satisfaction, cost efficiencies, better resource utilization, and more automation. Key digital transformation technologies include Artificial Intelligence (AI), Near Field Communication (NFC), Video Chat, and Augmented and Virtual Reality.

The recent COVID-19 pandemic has significant implications for national economies and the global financial system, in addition to hindering the achievement of the sustainable development goals (SDG) agenda. The spread of COVID- 19 and related government lockdowns led to a sizeable increase in the rate of finance app downloads (Fu and Mishra, 2021), accelerating digital transformation by many institutions globally.

The potential and risks of digital finance to enhance sustainable finance are increasingly recognized both internationally and nationally (UNEP Inquiry, 2018). The G20 Green Finance Study Group (GFSG) identified various barriers to scaling and deploying sustainable finance throughout its work. These include information asymmetries, limited analytical capabilities and maturity mismatches. Digitalization can accelerate sustainable finance in three ways: First, fund mobilization for sustainable development. Second, improvement of the use of funds for social and environmental impact. Third, financial inclusion which directly affects financial stability (Banna and Alam, 2021).

INCLUSIVITY

The recent pandemic has revealed the vulnerability of society's disadvantaged groups. Many people struggled to cope with the pandemic's negative consequences. In many emerging nations, a substantial workforce is employed in the informal sector and gig economy. Furthermore, many were paid daily. As a result, a considerable portion of the population lacks access to social safety. There is no social security to compensate for job loss or access to unemployment benefits. This problem is exacerbated in rural regions due to a lack of essential facilities such as banking, healthcare, and digital connectivity.

On the other hand, high levels of inequality, particularly inequality of opportunity, can have significant societal consequences. The entrenched disparity of results can significantly hamper individual choices. Initiatives that provide chances for rural and minority socioeconomic groups should be prioritized. Adopting diversity and equality principles is critical for uniting a varied collection of individuals into a common narrative. Everyone should have equal access to high-quality education, healthcare, financial resources, and, most crucially, social mobility and protection.

POLICY RECOMMENDATION

Aligning sustainability, inclusivity and digitalization for a green and sustainable recovery requires a clear roadmap at the national and regional levels, with its key pillars being integration, innovation, awareness, impact assessment and collaboration, as shown in Figure 2.

INTEGRATION

Promoting a green and sustainable recovery requires the integration of the goals of sustainability, digitalization and inclusivity in the country's national visions and development strategies. A strategic step in this approach would be to prioritize sectors that support green and sustainable recovery in the short term while promoting a more holistic approach targeting the broader economy in the medium and long term. Once the strategic sectors are identified, sustainability actions and related investment plans must be identified, assessed, and implemented. For example, sustainable and digital finance roadmaps should be implemented at the country level to support financing the net-zero and energy-security targets identified in the sectoral analysis. Furthermore, infrastructure investment must be increased to bridge the gap between urban and rural regions. Also, urban-mobility living designs incorporating all three aspects should be taken into account when designing new cities.

On the other hand, supporting regulatory environments and transition through various incentive structures can promote redirecting private-sector investments to sustainable

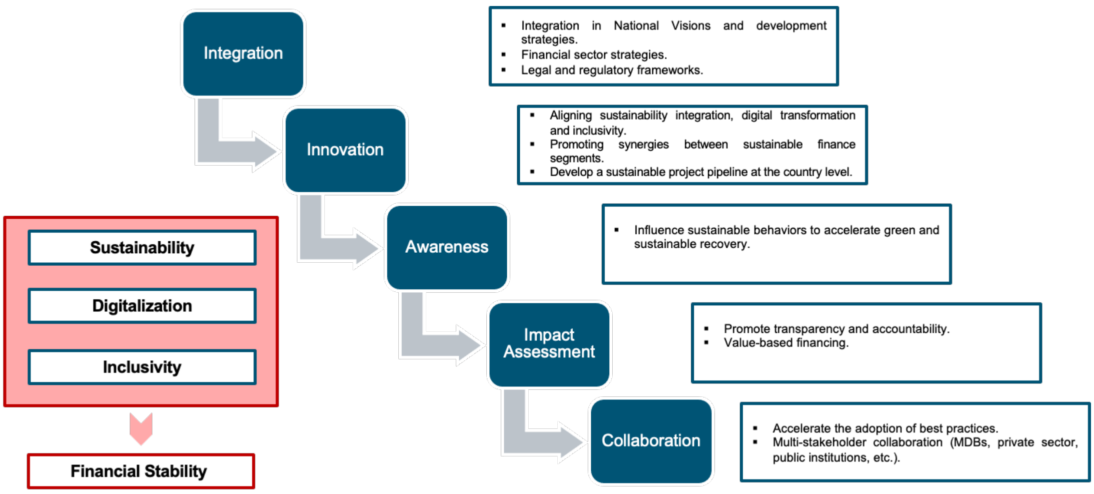

Figure 2. A Roadmap for Green and Sustainable Recovery

projects, including green infrastructure. In this regard, several governments have implemented enabling policies to support the expansion of impact investing. These include considering ESG factors in investment practices[1], sustainable reporting guidelines, responsible investing principles, etc.

INNOVATION

Financing the post-covid 19 green recoveries requires significant infrastructure investment at the global level, which necessitates innovative and integrated approaches to mobilizing financing. The Organization for Economic Co-operation and Development (OECD) estimates that the public resources committed by governments to support a green recovery amount to at least USD 312 billion[3]. Financial innovation requires to develop dedicated financing mechanisms for various green and sustainable assets. Innovations in digital sustainable finance products can accelerate the flow of capital to a more sustainable digital economy and help meet global policy objectives regarding climate change mitigation and achieving the sustainable development agenda for the overall societal good.

Capital markets can play a crucial role in mobilizing the resources needed to finance green projects and activities by connecting investors and issuers, whether private, public or semi-public. One of the instruments that have the potential to attract both Islamic and impact investors is the green and blue Sukuk. Although the green Sukuk market has developed significantly since its inception in 2017, most of the green assets financed consist of renewable energy, energy efficiency, clean transportation and green buildings. Thus, diversification is needed to address the funding needs of other green investments such as water, land use and marine resources, waste management, agriculture and different categories of clean energy.

On the other hand, developing green and blue Sukuk would also require integrating social and environmental considerations into financing and investment decisions and developing appropriate risk management tools, improving the risk perception of low-carbon and societal empowering projects, particularly in emerging economies. Mobilizing funds through social finance should be stepped up further to create community-based empowerment projects.

Another critical action area of the roadmap is the development of a pipeline of bankable green and blue projects highlighting the scale and scope of green and social investment opportunities. In emerging developing countries, infrastructure project pipeline lacks quantity and quality, leading to the lack of bankable projects G24 (2015). Micro-level projects must be institutionalized nationally to ensure scalability and efficiency.

The OECD defines a low-carbon and climate-aligned project pipeline as "a set of infrastructure projects and assets (accounting for the existing stock of assets), and future assets in early development and construction stages before project commissioning, typically presented as a sequence of proposed investment opportunities over time that aligns with and is supportive of long-term climate and development objectives."

Robust green and sustainable infrastructure project pipelines aligned with countries' long-term climate objectives can help mobilize private finance by identifying bankable and investment-ready projects. The OECD identifies six policy and institutional factors for effective government efforts in developing robust pipelines: Leadership, transparency,

3 https://www.oecd.org/coronavirus/policy-responses/making-the-green-recovery-work-for-jobs-income-and-growth-a505f3e7/

prioritizing, project support, eligibility criteria and dynamic adaptability OECD (2018). When developing project pipelines, governments should consider sector diversification, investor expectations and appetite, and their nationally determined contributions (NDCs).

AWARENESS

Aligning sustainability, digitalization, and inclusivity requires dedicated communication strategies to promote awareness and societal accountability and accelerate the adoption of digital and sustainable behaviors by engaging investors, financial institutions, public institutions, donors and civil society on green and sustainable recovery issues.

Market awareness facilitates the mobilization of institutional savings and redirecting private-sector investments to green and sustainable infrastructure projects. Developing sustainability-linked instruments such as green Sukuk would also require integrating social and environmental considerations into financing and investment decisions and developing appropriate risk management tools, which will improve the risk perception of green and blue projects, particularly in emerging economies. Additionally, fostering literacy and instilling the value of sustainability should be promoted at all levels.

IMPACT ASSESSMENT

Impact refers to long-term changes in people's lives that result from policymakers' resources and efforts, whether direct or indirect, planned or unforeseen. Economic, sociological, ecological, cultural, and political changes are possible. As a result, sustainable development tries to ensure that economic progress generates long-term prosperity for everybody.

Since there is little budgetary room to make all of the necessary expenditures simultaneously, selecting initiatives that are important to stakeholders is essential. Green and social concerns most essential to policymakers' stakeholders should be prioritized. Next, they must construct a framework that articulates the nation's vision and path to driving environmental and socioeconomic reforms based on the materiality analysis. A balanced impact scorecard and harmonized taxonomies must be used to advise policymakers in monitoring green and social-impact performance and ensuring goal alignment. A consistent reporting standard should also be created to promote consistency in information sharing and improve transparency with stakeholders.

COLLABORATION

Public-private sector collaboration can promote the development of innovative solutions to support financial stability while accelerating post-Covid 19 green and sustainable recovery. Innovations in new technologies such as blockchain have the potential to unlock green and sustainable finance to help meet global policy objectives. On the other hand, promoting synergies between the various sustainable finance segments such as Islamic finance and impact investing can accelerate private-sector fund mobilization.

Finally, proper monitoring by the regulatory authorities is crucial to avoid greenwashing and cybersecurity and data privacy concerns.

To illustrate the proposed roadmap, Table 1 provides examples of the key actions that can be considered under each pillar.

INFRASTRUCTURE INVESTMENT AS THE CATALYST FOR SUSTAINABLE DEVELOPMENT

As society evolves and becomes more urbanized. The necessary infrastructure must establish a regenerative and distributive economy. As we live in the Anthropocene epoch, we must strive to invest in infrastructure that is economically productive, socially inclusive, and ecologically sustainable. This is no longer an option; we

Table 1. Examples of Key Actions for the Roadmap Implementation

Roadmap Steps	**Examples of Key Actions**
Integration	• Integrate Net Zero targets in the development strategies of the identified sectors • Enhance transport infrastructure • Promote the development of climate-smart technologies • Integrate sustainable finance instruments in the financial-sector development strategies.
Innovation	• Promote the development of Green and sustainable sukuk. • Implement a sustainable infrastructure project pipeline at the country level to attract private-sector investments. • Support fintech innovations to promote inclusivity, transparency and traceability.
Awareness	• Design a sustainability literacy strategy targeting the key stakeholders in the identified sectors in pillar 1. • Digital transformation education to promote efficiency and inclusion. • Climate-awareness campaigns targeting small farmers, entrepreneurs, etc. • Investor-awareness campaigns to support redirecting private-sector investments to sustainable infrastructure projects. • Empower communities through specialized trainings such as agripreneur programs.
Impact Assessment	• Implement a balanced-impact scorecard to monitor green and social-impact performance of sustainable infrastructure projects. • Scale up digitalization to better monitor and report on the impact of projects financed. • Implement sector-specific frameworks and taxonomies to promote harmonization.
Collaboration	• Collaboration with Multilateral and National Development Banks to support initiatives targeting at-risk groups such as small farmers with green agriculture practices, SMEs sustainable entrepreneurship, etc. • Public-private sector collaboration to promote the transition to a green economy. • Banks-Microfinance institutions (MFIs) collaboration to promote innovation, better outreach and inclusion.

must reverse the current trend by lowering our «ecological footprints» and becoming more robust to shifting social and environmental circumstances. Investment in highways, ports, trains, fibre-optic systems, water-treatment facilities, and electricity grid plants should be coordinated with a sustainable agenda at the macro level. We must be adaptable to any available technology to increase efficiency and reduce waste. . At the micro-level, city planning should encourage residents to use public transportations, offer safe open areas for cycling, produce power using renewable energy, and implement a smart waste management system. To ensure that we can invest sufficiently, we need the cooperation of financial partners to channel money into long-term initiatives that promote a sustainable agenda while also providing a fair financial return.

Recommendations to the G20

The suggested roadmap could assist policymakers in strengthening their green and sustainable recovery measures while scaling up sustainable infrastructure projects' development and preventing pandemics' negative implications. Successful roadmap implementation requires political will, clear national commitments, and public-private partnerships.

This brief identifies seven areas that require policymakers' attention. These include:

- amalgamate the three pillars of sustainable recovery and focus on enhancing the well-being of underprivileged people and small businesses;
- integrate sustainable recovery targets in the national development plans and post-Covid 19 recovery strategies;
- leverage on synergies between Islamic and sustainable finance to mitigate the sustainable recovery financing gap;
- adopt blended financing strategies to attract private-sector investments;
- invest in the proper infrastructure to ensure social mobility and access to quality education and health care;
- harness the potential of social finance to create micro solutions for empowering communities; and
- Implement sustainable finance frameworks to promote the development of sustainable finance instruments such as green Sukuk.

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