



Sustainable Finance Implementation on Institutional Aspects in Indonesia and the European Union

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Abstract

Realizing sustainable finance practices towards a zero-carbon emission economy requires support and participation from all stakeholders, especially regulators from an institutional perspective. Sustainable finance is crucial in driving transformative economic growth towards sustainability. This study aims to scrutinize the appropriate institutional elements that can bolster sustainable finance initiatives within Indonesia and the European Union (EU). Using the content analysis method, this research delves into various written media, regulations, laws, and documents. The study reveals that, from an institutional perspective, both the EU and Indonesia align their sustainable finance implementation with regulators' work plans, characterized by shared goals and objectives. However, technical complexities and evolving regulatory aspects pose challenges, stemming from the need to reconcile diverse political views and adapt to changing circumstances. The results indicate that while strong institutional frameworks and regulatory plans exist, practical implementation of sustainable finance faces hurdles. These include the need for clearer guidelines, enhanced inter-agency coordination, and more robust mechanisms to monitor and enforce compliance. Although sustainable finance initiatives in both regions show promise, continuous improvement and adaptation are essential to effectively contribute to a zero-carbon emission economy.

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1. Introduction

Sustainable finance plays a critical role in driving transformative increases in economic growth, steering it firmly towards a sustainable trajectory (Migliorelli, 2021). Developed countries have accumulated decades of invaluable expertise in building institutional frameworks related to green finance, in addition to designing financial instruments that include loans, private equity, bonds, insurance, stock exchanges, and a diversified range of financial facilities. The path to operationalizing sustainable finance involves adopting a green taxonomy system (Bond & Dusik, 2022). This taxonomic system provides many suitable tools for underpinning the financing of economic shifts directed at well-defined environmental goals. This taxonomy operates as a mechanism for organizing and assessing progress in economic transitions aligned with environmental aspirations.

The green taxonomy assumes a very important role in advancing sustainable finance in the country. In essence, this green taxonomy serves as an instrument of transparency that goes far beyond mere regulatory compliance (Hazarika & Zhang, 2019; Hepburn & Stern, 2019; World Bank Group, 2020). It is also important to consider different user needs and different usage scenarios, all within the boundaries outlined by the definition of 'green'. Drawing on the insights of several countries involved in formulating a green taxonomy, it is evident that many countries have adopted this framework, while others remain involved in its development phase. Figure 1 illustrates national jurisdictions that have been equipped with a green taxonomy or are active in the cultivation process.



Figure 1. Availability of Green Taxonomy

Based on Figure 1, it can be seen that the green taxonomy has developed a lot in Europe, Asia, and South America. The European Union (EU), a supranational entity whose members are mostly developed countries, played a pioneering role in developing the Green Taxonomy. However, outside of the EU region, no other developed country has fully adopted the Green Taxonomy initiative. In contrast, several developed countries are in the process of developing their own Green Taxonomy or transitional taxonomy, such as the UK, Singapore, Canada, and Japan.

The development of sustainable finance in Indonesia has been marked by significant regulatory advancements, including the introduction of Green Taxonomy 1.0 (Financial Services Authority, 2022) and the Law on the Development and Strengthening of the Financial Sector. Indonesia is considered to have made substantial progress in sustainable finance regulations, with the implementation of sustainability banking serving as a testament to this progress. However, a gap persists between regulation and practice in the field. Despite the robust regulatory framework, many financial institutions in Indonesia still face challenges in fully integrating sustainable practices into

their operations. Issues such as limited awareness, insufficient expertise, and the high costs associated with sustainable investments are significant barriers that need to be addressed to bridge this gap.

Moreover, from an institutional economics perspective, achieving sustainable finance requires a fundamental cultural shift. This shift involves not only introducing new governance frameworks for markets and companies but also making significant changes to the overall institutional landscape, including legal structures. The current institutional setup often lacks the necessary mechanisms to support and enforce sustainable practices effectively. In both Indonesia and the EU, there is a need for a more comprehensive approach that includes better coordination among regulatory bodies, increased capacity-building efforts, and incentives for companies to adopt sustainable finance practices. Addressing these issues is crucial for creating a conducive environment for sustainable finance and ensuring that regulatory advancements translate into tangible, on-the-ground practices.

This study aims to scrutinize the appropriate institutional elements that can bolster sustainable finance initiatives within both Indonesia and the EU. By examining the existing gaps and challenges, it seeks to provide recommendations for enhancing the effectiveness of sustainable finance frameworks in these regions. Through a detailed analysis of regulatory and institutional landscapes, stakeholder engagement, and the development of actionable policy recommendations, this study aspires to contribute to the creation of a robust and effective sustainable finance ecosystem that drives transformative economic growth and supports global environmental goals.

2. Literature Review

Sustainability has become one of the main considerations in any financial sectors' financing/investment ([Ferrua Rotaru, 2019](#)). However, a convergence of understanding on terminologies is needed for the market players and a wider range of stakeholders. One of the objectives of sustainable finance policies is to ensure that all Financial System Stability (FSS) and stakeholders are using a common vocabulary regarding sustainable finance. This also serves as a contribution to other ongoing efforts within the FSS in developing key terms and definitions in sustainable finance.

Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects ([Ari & Koc, 2021](#)). Sustainable finance refers to environmental, social and governance, corporate, government and macroprudential authority initiatives to finance renewable energy projects and eco-friendly motives as these projects play an important role in adjusting financial structures and accelerating sustainable economic growth ([Babon-Ayeng et al., 2022](#)).

Environmental considerations might include climate change mitigation and adaptation, as well as the environment more broadly, for instance the preservation of biodiversity, pollution prevention and the circular economy ([Hepburn & Stern, 2019](#)). Social considerations could refer to issues of inequality, inclusiveness, labour relations, investment in human capital and communities, as well as human rights issues. The governance of public and private institutions – including management structures, employee relations and executive remuneration – plays a fundamental role in ensuring the inclusion of social and environmental considerations in the decision-making process.

Incorporating Islamic economics into the discussion of sustainable finance provides a holistic framework that aligns with sustainable principles. Islamic finance, guided by Shariah law, emphasizes

justice, equity, and community welfare. Key principles include the prohibition of interest (*riba*), promoting profit-and-loss sharing arrangements ([Iqbal & Mirakhor, 2017](#)), which encourage sustainable and socially responsible investments. Risk sharing, through equity-based financing like *Mudarabah* and *Musharakah*, supports a resilient financial system ([Balala, 2011](#); [El-Gamal, 2006](#)). Ethical investments prohibit industries harmful to society, such as alcohol, gambling, and tobacco ([Anca, 2010](#)), while social welfare through zakat ensures wealth redistribution and poverty alleviation.

Numerous studies highlight the potential of Islamic finance in sustainable economic development. [Kammer et al. \(2015\)](#) discuss Islamic finance's alternative mechanisms supporting sustainable development goals, emphasizing risk-sharing and ethical investment principles enhancing financial stability and inclusive growth. [Siregar et al. \(2023\)](#) explore Islamic finance's role in environmental sustainability, showing successful cases where it funds green projects and renewable energy initiatives.

3. Methodology

This study uses the content analysis method which is an in-depth discussion of the contents of written or printed information in various written media, regulations, laws, and various other documents. The content analysis method is a research approach that aims to reveal ideas that are expressed explicitly or implied by the author. Therefore, in practice, this method can be applied for various purposes, such as linking the content of communications across countries, comparing different media or levels of communication, identifying propaganda, explaining trends in communication content, and the like.

The stages of content analysis research are: 1) collecting the right data with research interests which include text, images, sound, and other data that can be further observed related to sustainable finance and green taxonomy; 2) simplifying research by limiting observations that summarize all existing types of units, this study limits the object of observation, namely sustainable finance in Indonesia and the EU; 3) simplifying and analyzing the data further, namely by looking for the meaning of the data from existing sources of information; and 4) create narratives to answer research questions to understand or further make decisions based on existing research results.

Researchers identified the sustainable finance implementation on institutional aspects in Indonesia and the European Union. To analyze the institutional stages of implementing sustainable finance in Indonesia and the European Union, interviews and FGDs will be conducted with the FSA and the European Commission regarding the institutional stages of implementing sustainable finance. This research was conducted from March to July 2023. An interview with the FSA was held on March 9, 2023, to discuss the institutional stages of implementing sustainable finance in Indonesia. Subsequently, an FGD was conducted on May 4, 2023, to discuss the institutional stages of implementing sustainable finance in the EU.

4. Results And Discussion

Sustainable Finance Implementation in Indonesia

The FSA considers that sustainable finance has an important role in accelerating structural reforms and transforming the Indonesian economy to achieve the vision of becoming a developed country in 2045. Sustainable finance initiatives play an important role in supporting the commitment to create economic growth that is inclusive, resilient, friendly environment and in line with the

Sustainable Development Goals (SDGs). In the financial sector, climate change can bring physical risks that can damage infrastructure, increase credit risk, and trigger instability if not mitigated carefully.

Encouraging more responsible economic growth has become an integral part of the goals of sustainable development. Therefore, FSA has designed the First Phase of the Sustainable Finance Roadmap (2015 – 2019) as a first step to increase awareness and capacity of the Financial Services Industry (FSI) in implementing environmental, social, and governance (ESG) elements, as well as adapting with climate change to achieve a low carbon economy. The concept of Sustainable Finance involves holistic support from the financial services sector to encourage sustainable economic growth by adjusting the balance between economic, social, and environmental aspects ([Ferrua Rotaru, 2019](#); [Glémoin, 2011](#); [Thistlethwaite, 2014](#)). One of the biggest challenges in implementing sustainable finance principles is convincing business people and the public that efforts to achieve profitability can be better and more sustainable if natural resources and social impacts on society are considered ([Nedopil Wang et al., 2022](#); [Setyowati, 2020](#)). This concept is known as the principle of profit (profit), community welfare (people), and environmental preservation (planet) - which is often abbreviated as 3P. Therefore, an initiative is needed that can change the mindset of business people so they do not only focus on short-term profits, but also on long-term prosperity.

The First Phase of the Sustainable Finance Roadmap has produced several initial steps which will become the basis for changing the views and attitudes of business people. First, FSA introduces eight fundamental principles in the context of Sustainable Finance. These eight principles are the main guidelines for actors in the financial sector in directing the development of their activities. Second, FSA applies requirements for players in the financial services industry to detail the implementation of ESG principles in their business plans, and they are also required to present a report discussing the application of these ESG principles to the public. Third, FSA has developed a sustainable business activity category which will result in a grouping of sectors that support sustainability in the financial industry, thereby enriching various services related to the development of sustainable finance. In order to attract the attention of industry players, FSA has also issued regulations and incentives that encourage the issuance of green bonds or sukuk. Through this regulation, green bonds worth USD3.72 billion have been successfully issued. In addition, FSA is also encouraging the development of battery-based electric motorized vehicles by providing incentives. Furthermore, FSA has implemented a series of outreach programs to increase industry understanding of responsible and sustainable economic practices.

To develop a sustainable financial system, FSA has released Second Phase of the Sustainable Finance Roadmap and launched a Green Taxonomy in early 2022. In line with that, FSA has also focused its attention on two main priorities in efforts to advance sustainable finance. A series of strategic plans for sustainable finance in Indonesia, namely: 1) increasing the supply of environmentally friendly funding; 2) increasing demand for sustainable financial products; and 3) strengthening supervision and coordination of sustainable finance implementation.

In the Second Phase of the Sustainable Finance Roadmap (2021-2025), the main focus of activities is focused on combining risk management, corporate governance, assessing bank health, and building an integrated information system for sustainable finance ([Financial Services Authority, 2021](#)). FSA hopes that FSI have integrated environmental and social factors into risk management and corporate governance, and regularly report progress on the implementation of sustainable finance to the public. An integrated information system with related institutions has been established and

operates properly to support the implementation of sustainable finance. In addition, it is hoped that the sustainable finance program will make a greater contribution to the national strategic target of reducing greenhouse gas emissions.

Table 1. Sustainable Finance Plans and Goals in Indonesia

The strategic plan	Goals for 2021-2025
Increase the supply of environmentally friendly funding	<ul style="list-style-type: none"> • Sustainable Finance Award • Development of green finance products, green bonds, green index • Research and development
Increasing demand for sustainable financial products	<ul style="list-style-type: none"> • Campaign program for potential investors
Strengthen supervision and coordination of sustainable finance implementation	<ul style="list-style-type: none"> • Environmental and social risk management policies • National and regional level sustainable finance coordination forum

The crucial factor for achieving success and effectiveness in implementing the intended work plan is the importance of giving clear priorities to the various work programs and elements contained in the second phase roadmap, including:

1. Development of a green taxonomy framework that aims to classify sustainable funding and investment activities in Indonesia. This grouping will become the basis for all stakeholders in Indonesia in carrying out sustainable economic activities. The process of developing this green taxonomy framework will be carried out through the formation of a national task group consisting of various ministries/agencies and related parties. The developed taxonomic framework will incorporate all existing guidelines regarding sustainable sectors ([Financial Services Authority, 2022](#)).
2. Implementation of ESG dimensions in risk management is carried out to increase resilience and reduce environmental and social risks that can affect business operations in the financial sector. This is done through a reporting process on environmental, social and governance aspects, development of key performance indicators, and comprehensive improvement of human resource competencies.
3. Creating a concrete program aims to present real examples of success in creating sustainable innovative schemes, with the aim of strengthening the role of the financial industry in supporting sustainable financing. The execution of this concrete program is carried out in collaboration with relevant ministries/agencies and parties with similar interests. This effort is in line with the government's efforts to develop leading economic sectors and forms the basis for the development of sustainable financing schemes.
4. Efforts to accelerate the transition of the financial industry towards sustainability involve creating innovations in financial products and services. This is achieved through the development of innovative sustainable project financing and financing schemes. Important aspects in designing this innovative scheme involve information transparency, inclusivity, support from experts, long-term orientation, and a high degree of credibility.
5. The national initiative for education on sustainable finance aims to increase understanding of the importance of considering environmental, social and governance dimensions in financial activities. This effort is carried out through the design of a communication strategy as well as various educational programs and outreach efforts.

The introduction of sustainable finance practices in Indonesia faces several obstacles, including:

1. Limited level of understanding and involvement in the financial industry. The financial industry often perceives that adopting sustainable practices has the potential to increase costs. In addition, business people generally still tend to focus on achieving profits in the short term.
2. Increased awareness and demand regarding the implementation of ESG opens business opportunities for business actors. These opportunities require adequate infrastructure, which requires support not only from regulations, but also involvement and cooperation from companies and various related government agencies.
3. Improved coordination and closer cooperation with other ministries and agencies are needed.
4. Expertise and technology for sustainable projects are still limited in most of the cases.

Based on the history of the implementation of Sustainable Finance above, it can be identified the institutional stages of implementing sustainable finance in Indonesia as depicted in Figure 2.

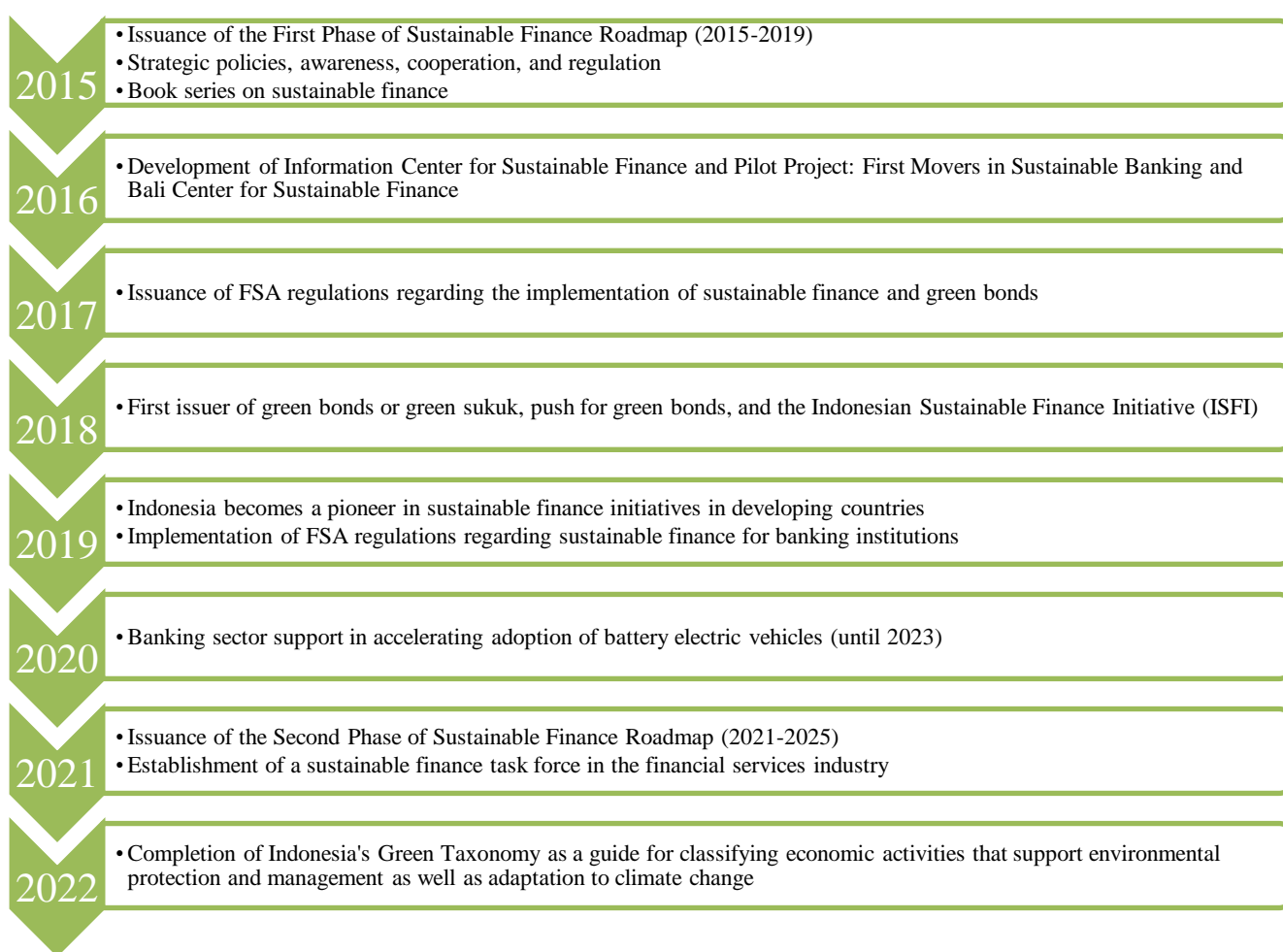


Figure 2. The Institutional Stages of Sustainable Finance Implementation in Indonesia

Incorporating Islamic economic theory into the analysis of these sustainable finance initiatives reveals a harmonious alignment with public welfare (*Maslahah*), a core principle in Islamic finance that prioritizes the well-being of society and the environment over mere profit maximization. Islamic economics emphasizes the importance of economic activities that not only generate financial returns but also contribute positively to societal and environmental well-being. This perspective supports the principle of monotheism (*Tawhid*), which underscores that all economic actions should be in harmony with divine commands and the natural order.

The First Phase of the Sustainable Finance Roadmap in Indonesia, which introduced fundamental principles and guidelines for ESG integration, aligns with the Islamic concept of objectives of Islamic law (*Maqasid al-Shariah*). This includes the protection and preservation of wealth (*Hifz al-Mal*), life (*Hifz al-Nafs*), and environment (*Hifz al-Bi'ah*). By promoting sustainable practices and green finance, OJK is effectively fostering practices that protect and enhance public welfare, which is a central tenet of Islamic economic principles.

The introduction of the Green Taxonomy and the emphasis on integrating ESG factors into risk management and corporate governance also resonate with revitalizing neglected lands (*Ihya al-Mawat*), which reflects the Islamic imperative to utilize resources responsibly and sustainably. The development of green bonds and incentives for electric vehicles mirrors the Islamic concept of stewardship (*Khilafah*), highlighting the role of humans as stewards of the Earth who must manage natural resources wisely and equitably.

Sustainable Finance Implementation in the European Union

The pressure to achieve the goal of zero carbon emissions by 2050 is pushing EU to accelerate the adjustment of strategies, frameworks and policies related to funding accordingly. The aim is to facilitate the transformation of industrial management to be more focused on sustainability in a limited time. European financial regulators have included the Sustainable Development Goals (SDGs) metric in their banking regulations. This ensures that efforts to achieve the SDGs in the banking sector are measured accurately and objectively. This approach is seen in industrialization programs in Europe, where regulators are taking advantage of the fight against Covid-19 as part of their long-term industrialization strategy.

For example, efforts to deal with Covid-19 are in line with promoting environmentally friendly industrialization, such as the development of the electric vehicle sector and renewable energy based on solar, wind and water. European banking regulators design the banking sector as an important element in development financing that supports climate change mitigation. This includes steps from the operation of the financial institution itself to the financing of green power producers and the allocation of credit that supports these goals. Efforts to support the implementation of sustainable finance have not been spared from regulators who have built sustainable finance growth institutionally in the EU.

In March 2018, the EU adopted a plan for sustainable finance measures as part of a strategy to incorporate environmental, social and governance considerations into its financial policy framework and mobilize financial resources to support sustainable growth. In May 2018, the EU passed the first set of laws under the action plan. The four proposals included in the series of laws cover: 1) a unified EU taxonomy system; 2) responsibility and disclosure for investors; 3) low carbon emission standards; and 4) better guidance for clients on sustainability factors.

In July 2018, the Commission also established a technical expert group (TEG) in the field of sustainable finance to provide insights for action plans, especially in developing a classification system for sustainable economic activities, the EU green bond standard, methods for measuring low carbon indexes, and metrics for disclosing information related to climate change. The Regulation on Taxonomy was published in the EU Official Publication on 22 June 2020 and became effective on 12 July 2020. Article 9 of the regulation outlines six goals in terms of environment and climate change (Figure 3). Each objective in Figure 2 involves a number of different economic activities. The section focused on mitigating the impact of climate change involves 90 initiatives, and each has "technical

evaluation criteria" that are used to assess whether the revenue or capital expenditure of each of these initiatives can be considered environmentally friendly.



Figure 3. Climate and Environmental Objectives

"Taxonomy" might sound like a mundane, technical term referring to a system of categorization, but when adopted by the EU as a pivotal component of its endeavors to attain net-zero emissions by 2050, it becomes a term that has ignited fervent discussions. In essence, the EU Taxonomy establishes the criteria and categorization for determining which economic activities can be deemed environmentally sustainable (EU Technical Expert Group on Sustainable Finance, 2020), making them eligible for EU funding. Following its initial proposition in March 2019, the discourse surrounding the scope of this classification system rapidly evolved into a dialogue centered around the individual national interests of EU member states. The principles covered in the EU Green Taxonomy include 1) making a significant contribution to at least one of the six environmental objectives (figure 3); 2) does not have a significant impact on the fulfillment of other environmental goals; 3) adhere to minimum social protection; and 4) comply with the testing technical criteria. Each goal in Figure 3 involves a number of diverse economic activities.

Figure 4 shows the EU sustainable finance action plan outlining ten reforms in three areas.



Figure 4. The Action Plan Outlines in EU

During the development phase of the Taxonomy Regulation, the then-existing Technical Expert Group on Sustainable Finance did not propose the incorporation of economic activities in the nuclear energy sector (EU Technical Expert Group on Sustainable Finance, 2020; Gallagher et al., 2021). This was due to the absence of definitive guidance that could be drawn from available scientific evidence. Following the regulation's adoption, the Commission tasked the Joint Research Centre (JRC) with evaluating DNSH-related (Do No Significant Harm) aspects concerning nuclear energy. The subsequent JRC report determined that nuclear energy could play a significant role in mitigating climate change while not causing substantial harm to other environmental objectives. While other EU bodies generally showed support for the report, they also expressed reservations about its conclusions.

Throughout the policy formulation process, experts extensively debated the issue of nuclear energy in terms of DNSH considerations, but a unanimous agreement was not reached. The Commission faced criticism from stakeholders and MEPs for seemingly basing the inclusion of gas and nuclear energy on "political criteria". Environmental non-governmental organizations (NGOs) voiced concerns that the Complementary Act might encourage the directing of investments into gas and nuclear energy, potentially undermining the environmental goals of the Taxonomy. Additionally, relying on gas posed geopolitical risks. These concerns were mirrored by critiques from financial stakeholders. For example, the Principles of Responsible Investment (PRI), supported by over 1,000 institutional investors in collaboration with the UN, stated that if the Complementary Act was approved, the Taxonomy would no longer be considered the premier standard for assessing sustainability performance. Both NGOs and financial stakeholders held the opinion that incorporating gas and nuclear energy in the Complementary Act could jeopardize the Taxonomy's credibility. This risk could be further exacerbated by potential legal challenges presented before the Court.

Nevertheless, given the lack of scientific consensus, it remains challenging to envision a decision that does not have political underpinnings. This holds true whether the Commission makes this decision through a delegated act or if it arises from a potential legislative revision of the Taxonomy by the European Parliament and Council. From the explanation above, it can be seen that this process has been undertaken in a very comprehensive and detailed approach. Overall, the institutional framework for implementing sustainable finance in Europe, if viewed simply, can be described as shown in Figure 5.



Figure 5. The Institutional Stages of Sustainable Finance Implementation in EU

However, in this action plan there are elements that become focus points and are urgent. The work plan included in the series of initiatives is also an important part of the action plan. In addition, a TEG was also formed in the context of sustainable finance to provide guidance in the implementation of this action plan. They identify standards for green bonding, methodologies for low-carbon indexes, and metrics for disclosure of climate change-related information. The group calls on other stakeholders, including Member States, 39 regulatory agencies, the private sector and key non-EU countries, to take bold steps to promote and lead change in their respective fields. They have set a deadline of 2028 for the implementation of the sustainable finance disclosure regulation. For example, by 2024, implementation requirements of the corporate sustainability reporting directive (CSRD) will apply to companies currently subject to the non-financial reporting directive (NFRD). Then in 2025, CSRD will be applied to large companies that were not previously covered by NFRD. 2026 is of particular interest because this year CSRD will be applied to registered small and medium enterprises (SMEs), and companies from third countries will follow suit in 2028. This shows that the EU has formulated a concrete and detailed plan of action.

From an Islamic economic perspective, the EU's approach aligns with the principle of juridical preference (*Istihsan*), which involves selecting solutions that lead to better social and economic outcomes. The EU's comprehensive taxonomy and disclosure requirements emphasize transparency and accountability, reflecting the Islamic principle of trustworthiness (*Amanah*). Ensuring that investments contribute positively to environmental and social outcomes aligns with Islamic values of ethical conduct and social responsibility.

The EU's focus on reducing greenhouse gas emissions and promoting green finance can be seen as a practical implementation of the Islamic concept of trust in divine provision (*Tawakkul*), which encourages reliance on ethical and sustainable means to achieve economic goals while maintaining trust in the ultimate provision of resources. The challenges and debates surrounding the inclusion of nuclear energy in the EU Taxonomy, and the need for alignment with environmental goals, reflect the ongoing negotiation between analogy (*Qiyas*) and consensus (*Ijma*), as the EU strives to balance various interests and scientific evidence in its regulatory framework.

When viewed from an Islamic financial perspective, both Indonesia and the European Union's sustainable finance frameworks demonstrate a significant alignment with Islamic economic principles. By integrating ESG factors, promoting green finance, and ensuring transparency and accountability, these initiatives not only contribute to global sustainability goals but also reflect the ethical and welfare-oriented values central to Islamic economics.

Meanwhile, when viewed from an institutional perspective, the implementation of sustainable finance in the EU has been more advanced than in Indonesia. The EU has published Green Taxonomy earlier, followed by Indonesia in a relatively short time. Execution of Regulations The taxonomy illustrates how the level of technical and regulatory complexity increases with the adoption of each delegated act. Part of the explanation is that to accommodate diverse political views, technical specifications may need to be adjusted. This phenomenon, as happened in the Climate Delegated Act and the Complementary Act, has the potential to create inconsistencies in legal aspects. This discrepancy is a challenge for implementation at the national and private sector levels, and risks undermining the credibility of the Taxonomy. Projections show that this challenge will increase due to two factors.

First, the current Taxonomy is not yet able to classify the entire range of economic activities, so it needs to be expanded in order to fully advance the sustainability agenda in all economic sectors. This calls for the development of a more accurate classification of economic activities. However, at this stage, there appears to be limited willingness on the part of policy makers to make fundamental changes to the basics of the Taxonomy Regulation. Second, there has been a surge in sustainable finance initiatives around the world, including those aligned with EU frameworks, such as in Indonesia. With a variety of approaches, including binding frameworks and voluntary and market-based instruments, there is a risk of regulatory breakdown among global financial markets. Therefore, the application of the Taxonomy and specification of DNSH principles is likely to remain a controversial issue, while the level of substantive and regulatory complexity will continue to increase. Building capacity to address challenges of this nature should be a priority for actors in the public and private sectors, as an essential element for ensuring the success of more sustainable growth in the future.

5. Conclusion

The implementation of sustainable finance in both the EU and Indonesia has been marked by significant regulatory efforts and a clear alignment with strategic work plans. However, technical complexities and evolving regulatory aspects influenced by diverse political views pose substantial challenges. These challenges manifest as inconsistencies in law and policy, which can hinder the effective implementation of sustainable finance across government sectors, national industries, and private enterprises. Such inconsistencies threaten the integrity of the sustainable finance system, undermining the progress made thus far.

From the perspective of Islamic finance, the integration of sustainable finance principles aligns well with core Islamic economic values, such as public welfare (*Maslahah*), objectives of Islamic law (*Maqasid al-Shariah*), and stewardship (*Khilafah*). Both Indonesia and the EU's efforts in promoting green finance and integrating ESG factors into their financial systems reflect these values. Islamic finance principles advocate for a balance between economic, social, and environmental considerations, emphasizing ethical conduct and responsibility towards society and the environment.

To address the challenges associated with sustainable finance regulations, both regions need to develop "transitional" regulations that offer clear guidance and practical examples for implementing sustainable finance principles. These regulations should bridge the gap between regulatory frameworks and real-world application, providing actionable pathways for stakeholders. By fostering a culture of sustainability and enhancing coordination among regulatory bodies, financial institutions, and industries, it is possible to create a more cohesive and effective sustainable finance system. This approach will not only support long-term sustainable development goals but also align with the ethical imperatives of Islamic finance, contributing to a more resilient and responsible financial system globally.

Author contribution statement

The authors confirm contribution to the paper as follows: study conception and design: Atih Rohaeti Dariah; data collection: Asni Mustika Rani; analysis and interpretation of results: Asni Mustika Rani, Popon Srisusilawati; draft manuscript preparation: Asni Mustika Rani. All authors reviewed the results and approved the final version of the manuscript.

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