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SINGAPORE'S EXPERIENCE IN SUSTAINABLE FINANCE PRACTICING: LESSON LEARNED FOR INDONESIA

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ABSTRACT

Singapore stands out among ASEAN countries for its notable accomplishments in sustainable finance. Singapore is the sole ASEAN country featured in the top 15 rankings of the thirteenth edition of the Global Green Finance Index. Therefore, this research aims to compare the initiatives taken by Indonesia and Singapore in implementing sustainable finance and figure out what lessons could potentially be taken by Indonesia from Singapore. This research uses qualitative methods and descriptive comparative approaches. Upon examining the reports and official websites from the Financial Services Authority (OJK) (Indonesia) and the Monetary Authority of Singapore (MAS) (Singapore), it is evident that Singapore has implemented similar initiatives as Indonesia in addressing its three key issues; lack of knowledge and involvement in the financial sector, standardization of green categorization, and support and collaboration for business opportunities. Both countries have implemented national campaigns, published green taxonomies, and fostered public-private partnership to address these issues. In this study, a new finding was revealed in terms of financial understanding. Unlike Indonesia, Singapore lacks particular rules pertaining to the promotion of financial literacy. However, Singapore boasts a far greater financial literacy rate compared to Indonesia. The high level of financial literacy certainly has positive influences on the implementation of sustainable finance.

Keywords: sustainable finance; Indonesia; Singapore.

ABSTRAK

Singapura menjadi negara ASEAN terbaik karena prestasinya dalam hal keuangan berkelanjutan. Singapur adalah satu-satunya negara ASEAN yang masuk ke dalam peringkat 15 besar berdasarkan Global Green Finance Index edisi ketiga belas. Penelitian ini bertujuan untuk membandingkan strategi yang diambil oleh Indonesia dan Singapura dalam implementasi keuangan berkelanjutan dan strategi apa yang berpotensi untuk diterapkan oleh Indonesia dari Singapura. Penelitian ini menggunakan metode kualitatif dan pendekatan komparatif deskriptif. Berdasarkan laporan dan situs web resmi dari Otoritas Jasa Keuangan (OJK) (Indonesia) dan Otoritas Moneter Singapura (MAS) (Singapura) terbukti bahwa Singapura telah menerapkan strategi serupa seperti Indonesia dalam mengatasi tiga masalah utamanya; kurangnya pengetahuan dan keterlibatan di sektor keuangan, standardisasi kategori hijau, serta dukungan dan kolaborasi untuk peluang bisnis. Kedua negara tersebut telah menerapkan kampanye nasional, menerbitkan taksonomi hijau, dan membina kemitraan publik-swasta untuk mengatasi masalah ini. Dalam penelitian ini, sebuah temuan baru terungkap dalam hal pemahaman keuangan. Tidak seperti Indonesia, Singapura tidak memiliki aturan khusus yang berkaitan dengan promosi literasi keuangan. Namun, Singapura memiliki tingkat literasi keuangan yang jauh lebih besar dibandingkan dengan Indonesia. Tingginya tingkat literasi keuangan tentunya memberikan pengaruh positif terhadap penerapan keuangan berkelanjutan.

Kata kunci: Keuangan Berkelanjutan; Indonesia; Singapura

1. INTRODUCTION

Sustainable finance has become particular concern for the Association of Southeast Asian Nations (ASEAN) countries. The promotion of sustainable finance initiatives and the development of financial infrastructure in Southeast Asia have advanced significantly in recentyears, both regionally and among the ASEAN members (Ariyapruchya & Volz, 2023). The ASEAN members are among those most susceptible to the tangible effects of climate change, which could seriously jeopardize macroeconomic and financial stability (Beirne et al., 2021).

Indonesia is one of the ASEAN countries that is struggling to implement sustainable finance. Indonesia faces some problems regarding sustainable finance. Low levels of understanding and participation in the financial industry are still a problem in Indonesia (OJK,2021). The financial sector continues to believe that adopting sustainable business practices will result in higher expenses. In addition, most business actors continue to prioritize short-term financial gain.

Indonesia does not currently possess an official green category standardization, which is necessary for evaluating the execution of environmental, social, and governance aspects. (OJK, 2021). All Indonesian institutions continue to operate under their own sustainable business standards as of right now. Due to this circumstance, it is challenging for businesses toobtain funding and for investors to decide which projects to pursue. Thus, in order to support sustainable business and investment, national standardization of green categories and taxonomies is required. The taxonomy will also make it easier for businesses to improve theirrisk management practices.

Other problem is regarding the support to business opportunity. Business actors are able to get benefit from the growing demand and awareness for ESG implementation. But in addition to regulators, this business opportunity also needs the cooperation and support of industry players and relevant ministries/institutions, as well as an adequate infrastructure. (OJK, 2021). This cooperation is in line with the spirit that the International Development Bank(IDB), the World Economic Forum (WEF), and the IMF, who are all members of theMultilateral Development Banks (MDBs), started and promoted. This partnership will undoubtedly develop into a common framework that all stakeholders use to carry out sustainable finance projects in Indonesia.

Among ASEAN countries, Singapore is a country that has achievements in terms of implementing sustainable finance. Singapore is the only ASEAN country included in the top 15 in the thirteenth edition of the Global Green Finance Index (GGFI 13) (GGFI, 2024).

Table 1.1 Top 15 Global Green Finance Index

GFFI 13 Rank	Centre	GFFI Dimensions			
		Green Finance Depth		Green Finance Quality	
		Rank	Rating	Rank	Rating
1	London	1	319	1	329
2	Geneva	2	318	2	328
3	Zurich	3	317	3	327
4	New York	3	317	4	325
5	Singapore	5	316	4	325
6	Luxembourg	10	315	4	325
7	Washington DC	5	316	7	323
8	Los Angeles	5	316	9	321
9	Stockholm	10	315	9	321
10	Montreal	5	316	12	319
11	Chicago	14	312	8	322
12	San Francisco	13	313	13	318
13	Copenhagen	17	310	11	320
14	Oslo	5	316	19	313
15	Amterdam	17	310	13	318

Source: (GGFI, 2024)

Some highlights from the index results are as follows (GGFI, 2024):

- In the index, London remained at the top, but Geneva and Zurich passed New York to claim the second and third spots.
- Copenhagen was replaced by Montreal when it entered the top 10 in this index edition.
- Five of the top ten spots are occupied by Western European centers, with three by US centers. Within this elite group, Singapore is the only Asia/Pacific center.

- The margins between the centers at the top of the index in GGFI 13 get smaller over time.Compared to 20 points in GGFI 12, the rating spread among the top 10 centers is only 13 points out of 1,000.
- In the rankings, only nine centers dropped ten or more spots, while four increased ten or more spots.

Singapore is the country with the largest and most diverse thematic debt market in ASEAN, with USD 81 billion issued by 127 issuers (the latter is one of the issuers with the highest figure in the world) (Almeida & Wong, 2023). Green debt and sustainability-linked loans (SLLs) dominate, representing a combined 96% of total issuance. As an important financial center with a number of large financial institutions ready to provide loans for sustainable projects, loans are more popular than bonds.

Singapore is considered a green financial center in the ASEAN, and this is reflected in the many market-based initiatives and policies that have been introduced particularly by the Monetary Authority of Singapore (MAS) (Almeida & Wong, 2023). Some of them focus on the important topic of openness and aim to improve the availability, quality, consistency and accessibility of reporting, for example through, ESG Impact Hub, ESGenome and the promising Project Greenprint.

Besides, the development of Singapore's Green Finance Industry Taskforce (GFIT) taxonomy for green and transition activities will further support credible market growth acrossmultiple segments both in Singapore and ASEAN more broadly, helping to consistently define eligible projects for financial institutions (Almeida & Wong, 2023).

Singapore shows good performance in implementing sustainable finance. Therefore, in facing the problem of implementing sustainable finance, Indonesia might be able to see how sustainable finance is implemented in Singapore and how that country overcomes problems related to sustainable finance.

This research is conducted on the financial sector in Indonesia and Singapore. Research on a similar topic has been conducted previously. Based on the literature review, there is no research that discusses the implementation ofsustainable finance in Indonesia and

Singapore and tries to analyze the lessons that potentiallycould be learned Indonesia from Singapore, as the best ASEAN country in implementing sustainable finance. Therefore, research with the title " **Singapore's Experience In Sustainable Finance Practicing: Lesson Learned For Indonesia"** aims to fill this gap.

2. LITERATURE REVIEW

2.1 SUSTAINABLE FINANCE

In Indonesia, the term "sustainable finance" refers to the financial services sector's all-encompassing support for sustainable growth that arises from the convergence of economic, social, and environmental interests (OJK, 2017). Based on Sustainable Finance Roadmap Phase I, sustainable finance in Indonesia comprised of the following dimensions (OJK, 2014):

1. Achieve industrial, social and excellence economy in order to reduce threats global warming and prevention against environmental and social problems other;
2. Aiming for a shift in targets towards a competitive low-carbon economy;
3. Strategically promote environmentally friendly investments in various business or economic sectors; and
4. Supporting the principles of Indonesian development as stated in the RPJM, namely 4P (pro-growth, pro-jobs, pro-poor and pro-environment).

Sustainable finance in Singapore is focused on three major areas: increasing R&D in ESG products, expanding the range of green finance products available, and growing the region's asset class. The third area is greater integration of environmental, social, and governance (ESG) issues into Singapore's financial institutions (Tan, 2017).

The Singapore government is pushing for ESG integration in the financial sector (Tay & Sim, 2017). Beginning in 2018, the Singapore Exchange (SGX) requires all listed companiesto strictly adhere to ESG principles (Tao & Jindal, 2018).

2.2 Association of Southeast Asian Nations (ASEAN)

Southeast Asian nations formed the Association of Southeast Asian Nations (ASEAN),a geopolitical and economic alliance. The founding fathers of ASEAN—Indonesia, Malaysia,the Philippines, Singapore, and Thailand—signed the ASEAN Declaration (Bangkok Declaration) on August 8, 1967, in Bangkok, Thailand, officially founding ASEAN. On January 7, 1984, Brunei Darussalam became a member of ASEAN. Viet Nam joined on July 28, 1995; Lao PDR and Myanmar on July 23, 1997; Cambodia joined on April 30, 1999; and Timor Leste joined on November 11, 2022.

ASEAN has carried out various initiatives in dealing with sustainable financial issues.The ASEAN Taxonomy for Sustainable Finance has been released by the ASEAN TaxonomyBoard (ATB). It is a guide designed to enable a transition towards the adoption of sustainable finance by ASEAN member countries. The ASEAN Taxonomy for Sustainable Finance version 1 was released by ATB in November 2021. It is a multi-tier taxonomy conceptual framework with two major components: The Plus Standards, which include additional criteria or technical screening criteria (TSC), and the Foundation Framework, which is made up of general principles used to assess the sustainability of an economic activity. As a continuation of version 1, ATB published ASEAN Taxonomy for Sustainable Finance version 2 (ATSF v2) in March 2023, with highlights including the completion of the Foundation Framework and Plus Standard, as well as the development of TSC for the first focus sector, the energy sector (OJK, 2023).

In March 2024, ATB released ASEAN Taxonomy version 3. Following the release ofthe TSC for the Energy sector in ASEAN Taxonomy Version 2, TSC is now available for two new focus sectors: T&S (transportation and storage) and C&RE (construction and real estate).These two sectors encompass activities such as construction and building renovation, demolition and site preparation, building acquisition and ownership, urban transportation and freight, and land, water, and air transportation infrastructure (OJK, 2024).

2.3 Previous Research

The research conducted by Hendratno et al. (2022) to examine the adoption ofsustainable banking practices in Indonesia and Singapore. The objective was to create a sustainable banking framework that more comprehensive by merging multiple frameworks, including the GRI G4 Financial Sector Supplement (FSS), Sustainable Banking Assessment (SUSBA), United Nations Environment Program Finance Initiative (UNEP FI), and Sustainability Accounting Standards Board (SASB). Additionally, the framework was added to the pillars of stakeholder engagement and digital transformation. The study concludes that disclosure of the pillars of digital transformation and stakeholder engagement is necessary for sustainable banking to continue utilizing artificial intelligence in bank operations and to sustainpositive relationships with stakeholders.

Aulia et al. (2023) examined the impact of ESG disclosure trends on the performance of green finance on exchanges in Singapore, Malaysia, and Indonesia. The outcome demonstrated the impact of Price Earnings Ratio (PER) and Return on Asset (ROA) on Firm Value. The impact of Firm Value, ROE, and PER on ESG Disclosures was also discovered bythis study.

The research conducted by Nathania & Sumani (2023) to compare the volatility and liquidity of the Singaporean and Indonesian stock markets during the COVID-19 era of mobility restrictions. The study's findings demonstrated the variations in stock index liquidityand return volatility before and after community mobility restrictions. Prior to the communitymobility restrictions, the Straits Times Index (STI) and Indeks Harga Saham Indonesia (IHSG) had greater return volatility than they did afterwards. Prior to Pembatasan Sosial Berskala Besar II (PSBB II) and following Pembatasan Sosial Berskala Besar I (PSBB I), IHSG experiences liquidity. The analysis concludes that while liquidity in Indonesia did not improvewith the implementation of PSBB I, it did so with PSBB II. In the meantime, STI has more liquidity in the time following the installation of circuit breakers. These findings suggest that the Circuit Breaker policy, when put into effect, reduces volatility, which enhances the performance of the Singapore stock index. The Singapore stock index's liquidity is also decreased by the policy.

Additionally, the research also undertaken by Jonathan et al. (2023) to discuss a comparative legal analysis of the Monetary Authority of Singapore (MAS) and the Financial Services Authority of Indonesia (OJK) with regard to their respective jurisdictions over the enforcement of laws against insider trading. The study discovered that the regulatory and supervisory bodies that oversee and regulate the capital markets in Singapore and Indonesia have a lot in common. Both have integrated approaches to capital market regulation and supervision, as well as the necessary power to carry out their mandates. In Indonesia, the function of Badan Pengawas Pasar Modal dan Lembaga Keuangan (Bapepam-LK) in enforcingthe Capital Market Law as an autonomous entity has been replaced since 2012 by OJK. OJK is in charge of regulating the industry and carrying out other oversight duties.

Different from previous research, this research will focus on how Indonesia and Singapore practice sustainable finance, analyzing problems and solutions that have been implemented. Besides, when the research was conducted, there was not much literature discussing the implementation of sustainable finance in Singapore so this paper also attempts to fill this gap.

3. METHODS

This research uses qualitative methods and descriptive comparative approaches. In this research, data was obtained through reports related to the implementation of sustainable finance, namely Sustainable Finance Roadmap Phase I (2015 – 2019), Sustainable Finance Roadmap Phase II (2021 - 2025) for Indonesia and Green Finance Action Plan, Green Finance Industry taskfore, and Finance for Net Zero Action Plan for Singapore, the official website of the Financial Services Authority (OJK) and the Monetary Authority of Singapore (Singapore), as well as literature, news and other related reports and websites that can be accounted for. The research is specifically focused on a comparative study of sustainable finance in Singapore and Indonesia. After describing current developments, problems faced, and policies issued that occurred in Indonesia and Singapore,in terms of sustainable finance, this research attempts to compare the implementation of sustainable finance in the two countries. Furthermore, this research tries to analyze and draw conclusions in the form of lessons that can be obtained and implemented in Indonesia.

4. DISCUSSION

4.1 SUSTAINABLE FINANCE INITIATIVES OF INDONESIA

Growing concerns about declining environmental quality, widening social inequality, and climate change with all of its consequences have led to a focus on sustainable economic development that prioritizes social, environmental, and economic factors

The Long-Term Development Plan (RPJP) for Indonesia, covering the period 2005- 2025, outlines the implementation of sustainable development. One of the missions is to createa greener and more sustainable Indonesia, which includes, among other things, managing the implementation of development that maintains the balance between the existence, sustainability, and benefits of natural resources and the environment; using natural resources and the environment for economic purposes in a sustainable manner; and preserving and utilizing biodiversity as the fundamental capital requirement for development.

In 2009, the Indonesian government announced its commitment to addressing climate change, including a goal of reducing greenhouse gas (GHG) emissions by 26% on its own or up to 41% with foreign funding by 2020. Different mitigation and adaptation strategies are expected to be implemented in five priority sectors in order to meet the GHG reduction target,as indicated in the following table (OJK, 2014)

Table 4. 1 Sector contribution towards the targeted GHG emission reduction

Sector	Emission in mTCO2e for 2020		GHG Emmision Reduction from BAU (%)
	BAU	GHG Emmision Reduction	

Forestry and peat land	1344	672	50%
Energy and transportation	1000	38	3.8%
Agriculture	221	40	18%
Industry	134	2	1.8%
Waste	250	15	5.9%
Total	2950	767	26%

Source: OJK, 2014

BAU : Business as Usual
GHG : Greenhouse Gas
mTCO2e : Metric Ton Carbon Dioxide Equivalent

The Republic of Indonesia issued Presidential Regulation Number 61 in 2011 to govern the National Action Plan for the Reduction of Greenhouse Gas Emissions. The GHG Emission Reduction Action Plan includes funding contributions from the private sector in addition to public funding for adaptation and mitigation initiatives (OJK 2014).

Sustainability practices are implemented in a variety of sectors, including the financial sector. The Financial Services Authority (OJK) of Indonesia has issued regulations governingthe use of sustainable finance. The OJK initiatives focused on the Sustainable FinanceRoadmap Phase I (2015-2019) and Phase II (2021-2025). The roadmap aims to: 1) establish the end goal of sustainable finance in Indonesia by 2024 for financial institutions governed bythe OJK, specifically the banking, capital market, and Non-Bank Financial Service Industry (IKNB) sectors. 2) Determine and prepare a benchmark for improvements in sustainable finance through 2024.

In Sustainable Finance Roadmap Phase I (2015-2019), the strategic activities to implement sustainable finance in Indonesia comprise of three focus area as follows (OJK, 2014).

1. Increase the availability of environmentally friendly financing

2. Boost demand for eco-friendly financing products

3. Strengthen oversight and coordination for sustainable finance implementation

The above strategic activities will be implemented gradually in the Medium Term and Long Term, as described below (OJK, 2014):

1. Medium Term (2015-2019), the fundamental reporting system and regulatory framework, improving the comprehension, expertise, and knowledge of the human resources in the financial services sector, offering incentives, and collaborating with relevant organizations will all be key components of the strengthening of sustainable finance.
2. Long Term (2020-2024), the development of an integrated sustainable finance information system, bank rating, corporate governance, and integrated risk management will be the main areas of focus for the activities.

Table 4. 2 Indonesia's sustainable finance action plan for the period 2015–2024

Strategic Goals	Actions and Tools
Increase supply of sustainable financing	- Develop *policies / regulations to increase sustainable finance portofolios if FIs* (2015 - 2016) - Provide *prudential incentives* (2015 - 2016) - Offer *fiscal and non-fiscal incentives*, including tax holidays, feed-in tariffs, targeted loans, and guarantee schemes (2016 - 2018) - Establish a special award for FIs setting the highes standar in sustainable financing (2016 - 2024) - Develop *green products for both banking and non-banking sectors* (2015 - 2024) - Spur the *developments of the domestic green bond market* by providing government institutions and industry practitioners with adequate support (2015 - 2024) - Organize environmental analysis trainings of the staff of FIs and the Financial Services Authority (2015 - 2019) - Develop *green lending models for priority sectors* (2015 - 2019) - Create *information hub* (2016) - Carry out *joint research* on sustainable finance with national and international research institutes (2015 - 2024)
Increase demand from investors for sustainable finance products and services, including green products	- Increase *access of FIs to global public funds*, considering a risk mitigation mechanism (2015 - 2024) - Implement *an outreach campaign program* to enhance public understanding of sustainable finance (2015 - 2019)
Enhance oversigh and coordination in the implementation of the sustainable finance program among the relevant ministries / agencies	- Issue an *umbrella policy and regulation on sustainable finance*, laying down principles and supervision guidelines on the implementation of Indonesia's sustainable finance program (2015 - 2016) - Gradually make *sustainability reporting mandatory* to ensure its transparency to the public and supervision of the Financial Service Authority (2016 - 2017) - Establish *a Sustainable Finance Forum* (2015 - 2024)

Source: Compiled by Yakovlev & Nikulina (2019) based on (OJK, 2014)

In its implementation, the first phase (2015-2019) has produced several initiatives thathave become the foundation for changing the mindset of business actors in Indonesia (OJK, 2021):

First, eight principles of sustainable finance were introduced by OJK; responsibleinvestment, sustainable business strategy and practice, management of social andenvironmental risks, development of priority sectors, governance, informative communication,inclusive, and coordination and collaboration. These eight principles are the main considerations for players in the financial industry in the direction of developing their activities.Second, the OJK requires the financial services industry to develop a plan that incorporates environmental, social, and governance (ESG) principles into their business plan and submit a public report detailing its implementation.

Third, a number of categories for sustainable business activities have been categorizedby OJK. These include eco-efficient products, green building, pollution prevention and control,energy-efficient transportation, sustainable natural resources and land use, sustainable transportation, climate change adaptation, sustainable water and wastewater management, andMicro, Small, conservation of terrestrial and aquatic biodiversity, and Medium Enterprises (MSMEs). The financial industry will use this category as a guide for classifying the green sector in the hopes of growing its portfolio and promoting the development of sustainable finance.

Since the initial roadmap, Indonesia has issued several green finance-related regulations. To encourage the issuance of green bonds/sukuk, the OJK has enacted incentivesand regulations. These include OJK Regulation (POJK) Number 60/POJK.04/2017 on Green Bonds, as well as the OJK Board of Commissioners Decision on Green Bond Transaction Incentives. According to the OJK, first-time issuers who register their Green Bond transactionson the capital market will receive a 25% discount on their levies. Green bonds worth USD 3.72billion have been issued under the regulation (OJK, 2021).

Furthermore, OJK provides incentives to promote the development of battery-powered electric motor vehicles. The OJK has supported the government's battery electric vehicle acceleration program through Letter of the Chief Executive of Banking Supervision No- 14/D.03/2020 Concerning Banking Support in the Application of the Battery Electric Vehicle Acceleration Program (OJK, 2021).

The real commitment of the banking industry in supporting green financing is also seenfrom the initiative of eight banks (PT Bank Artha Graha Internasional Tbk, PT Bank BRI Syariah Tbk, PT Bank Central Asia Tbk, PT Bank Mandiri (Persero) Tbk, PT Bank MuamalatIndonesia Tbk, PT Bank BNI (Persero) Tbk, PT Bank Jabar Banten Tbk, PT Bank BRI (Persero) Tbk that joined as first movers to form the Indonesian Sustainable Finance Initiative(IKBI). Currently, IKBI membership has grown to 15 institutions. Those 15 institutions consistof 14 (fourteen) banks, namely PT Bank Artha Graha Internasional Tbk, PT Bank BRI SyariahTbk, PT Bank Central Asia Tbk, PT Bank Mandiri (Persero) Tbk, PT Bank Muamalat Indonesia Tbk, PT Bank BNI (Persero) Tbk, PT Bank Jabar Banten Tbk, PT Bank BRI (Persero) Tbk, PT Maybank Indonesia Tbk, PT Bank Syariah Mandiri Tbk, PT Bank HSBC Indonesia, PT Bank OCBC NISP Tbk, PT Bank Panin Tbk, PT Bank CIMB Niaga Tbk, and one Infrastructure Financing Institution, namely PT Sarana Multi Infrastruktur (Persero) (OJK ,2021).

Furthermore, in 2017, OJK collaborated with Udayana University to establish the Bali Center for Sustainable Finance (BCSF), a pioneering research centre for sustainable finance development and research.

The implementation of the Sustainable Finance Roadmap Phase I has earned Indonesia international recognition. China and Indonesia joined the Sustainable Banking Network (SBN)in 2019 as they entered the mature stage of sustainable finance regulations, specifically becoming first movers (OJK, 2021). Furthermore, according to a survey conducted by GlobeScan and the Global Reporting Initiative (GRI), Indonesia ranks first in terms of veracity and honesty in publicly available corporate sustainability reports.

After Sustainable Finance Roadmap Phase I, OJK issued Sustainable Finance Roadmap Phase II (2021 - 2025) in 2021. This roadmap will be explained in the next section.

4.2 SUSTAINABLE FINANCE INITIATIVES OF SINGAPORE

Singapore is considered a green financial center in the ASEAN. To promote the sustainable finance, Singapore has developed various initiatives and platforms that provide a framework to mobilize public and private sector efforts in achieving a sustainable and climate-resilient Singapore.

The Monetary Authority of Singapore (MAS) declared in 2019 that it was creating a new, all-encompassing long-term strategy with the goal of integrating sustainable finance into Singapore's position as a global financial hub. The Green Finance Action Plan, which is based on the three fundamental pillars of leveraging technology, expanding markets, and constructing resilience, will be implemented through initiatives in six domains (Green Finance Platform,2019

a) Environmental Risk Management Guidelines across the banking, insurance, and assetmanagement sectors
b) Grant schemes to support mainstreaming of green and sustainability linked loans
c) A US$2 billion Green Investments Programs
d) Expansion plans of external reviewers and rating agencies
e) Anchor Centres of Excellent with world-class research institutions and leading universities to contribute Asia-focused climate research and training programs
f) Green Finance as a key theme in the 2020 fintech Hackcelerator

In order to establish Singapore as a global hub for green finance, MAS also considersmarket regulations, research, and the education sector. The Singapore Green Finance Center (SGFC), which is jointly run by the Lee Kong Chian School of Business at Singapore Management University and Imperial College Business School, was introduced by MAS in theeducation sector in October 2020. In addition, the National University of Singapore's Sustainable and Green Finance Institute (SGFIN) was established by MAS. Under the directionof MAS, the Singapore Exchange (SGX) also arranges workshops, seminars, and educational initiatives to raise market participants' knowledge and comprehension of green finance. Additionally, SGX mandates that businesses apply reveal their gender diversity and carbon footprint.

Singapore's efforts to develop a sustainable ecosystem are not yet finish. In February 2021, Singapore government launched The Singapore Green Plan 2030. The Green Plan is spearheaded by five ministries of Singapore, namely the Ministry of Sustainability and Environment (UMK), Trade and Industry (MTI), Transport (Ministry), National Development(MND), and Education (MOE). In addition, The Green Plan is supported by the entire Government in mapping out ambitious and concrete targets for the remainder of this decade (Green Plan, 2024).

Singapore is still working on developing a sustainable ecosystem. The Singapore government introduced the Singapore Green Plan 2030 in February 2021. Singapore's Green Plan is led by five ministries: The Ministry of Sustainability and Environment (UMK), Trade and Industry (MTI), Transport (Ministry), National Development (MND), and Education (MOE). Furthermore, the entire government supports the Green Plan, which establishes specific, challenging goals for the remainder of the decade (Green Plan, 2024).

<u>Pillar 1: City in Nature</u>

2026 targets:

- "Develop over 130 ha of new parks, and enhance around 170 ha of existing parks with more lush vegetation and natural landscapes

2030 targets:

- Double our annual tree planting rate between 2020 and 2030, to plant 1 million more trees across Singapore
- Increase nature parks' land area by over 50% from 2020 baseline
- Every household will be within a 10-minute walk from a park

2035 targets:

- Add 1000 ha of green spaces

<u>Pillar 2: Sustainable Living</u>

A Green Citizenry that Consumes and Wastes Less

2026 targets:

- Reduce the amount of waste to landfill per capita per day by 20%

2030 targets:

- Reduce household water consumption to 130 litres per capita per day
- Reduce the amount of waste to landfill per capita per day by 30%

Green Commutes

2030 targets:

- Achieve 75% mass public transport (i.e. rail and bus) peak-period modal share
- Electric buses to make up half of the public bus fleet by 2030. Existing diesel buses will be replaced with cleaner energy buses by 2040
- Expand rail network to 360km by early 2030s
- Expand cycling path networks to around 1,300km

2040 targets:

- Achieve more than 80% mass public transport (i.e. rail and bus) peak-period modal share
- Public, active and shared transport modes to account for 9 in 10 of all peak-period journeys

Strengthen Green Efforts in Schools

2030 targets:

- Achieve a two-thirds reduction of net carbon emissions from the school sector
- At least 20% of schools to be carbon neutral

<u>Pillar 3: Energy Reset</u>

Green Energy

Play active and important roles in contributing towards two international goals

- The International Civil Aviation Organization's long-term global aspirational goal (LTAG) for international aviation to reach net zero carbon emissions by 2050
- The International Maritime Organization's target to reduce greenhouse gas (GHG) emissions from international shipping by at least 50% by 2050 compared to 2008 levels, and to phase out such GHG emissions in this century

2025 targets:

- 1.5 gigawatt-peak (GWp) of solar energy deployment, which can meet around 2% of our 2025 projected electricity demands, and generate enough electricity to meet the annual electricity needs of around 260,000 households
- Deploy 200 megawatt-hour of Energy Storage Systems to enhance grid resilience and support clean energy transitions [Achieved in December 2022]

2030 targets:

- Increase solar energy deployment to at least 2 GWp, which can meet around 3% of our 2030 projected electricity demand and generate enough electricity to meet the annual electricity needs of around 350,000 households
- Best-in-class power generation technology that meets emission standards and reduces carbon emissions

Greener Infrastructure and Buildings

2025 targets:

- Reduce energy consumption of desalination process from current 3.5kWh/m^3 to less than 2kWh/m^3
- Singapore's first integrated waste and used water treatment facility to be 100% energy self-sufficient (Tuas Nexus)

2030 targets:

- Green 80% of Singapore's buildings (by Gross Floor Area) by 2030
- 80% of new buildings (by Gross Floor Area) to be Super Low Energy buildings from 2030
- Best-in-class green buildings to see an 80% improvement in energy efficiency (over 2005 levels) by 2030

Sustainable Towns and Districts

2030 targets:

- Reduce energy consumption in existing HDB towns by 15%

Cleaner-energy Vehicles

2025 targets:

- New registrations of diesel cars and taxis to cease from 2025
- All HDB towns to be Electric Vehicle (EV) ready with chargers at all HDB carparks by 2025

2030 targets:

- All new car and taxi registrations to be of cleaner-energy models from 2030
- Deploy 60,000 EV charging points nationwide by 2030

2040 targets:

- All vehicles to run on cleaner energy by 2040

Sustainable Aviation

2025 targets:

- All new airside light vehicles, forklifts and tractors at Changi Airport to be electric from 2025

2040 targets:

- All airside vehicles at Changi Airport to run on cleaner energy by 2040

Sustainable Maritime

2030 targets:

- All new harbour craft operating in our port waters to be fully electric, be capable of using B100 biofuels, or be compatible with net zero fuels from 2030

Pillar 4: Green Economy

New Investments to be Among the Best-in-Class

Seek new investments to be among the best-in-class in energy/ carbon efficiency

Sustainability as a New Engine for Jobs and Growth

2030 targets:

- Jurong Island to be a sustainable energy and chemicals park
- Singapore as a sustainable tourism destination
- Singapore as a leading centre for green finance and services to facilitate Asia's transition to a low-carbon and sustainable future
- Singapore as a carbon services hub in Asia
- Singapore as a leading regional centre for developing new sustainability solutions
- Groom a strong pool of local enterprises to capture sustainability opportunities

Pillar 5: Resilient Future

Adapt to Sea-level Rise and Enhance Flood Resilience

2030 targets:

- Complete formulation of coastal protection plans for City-East Coast, North-West Coast (Lim Chu Kang and Sungei Kadut) and Jurong Island

Grow Local

2030 targets:

- Build the capability and capacity of our agri-food industry to produce 30% of Singapore's nutritional needs locally and sustainably

To broaden the scope, MAS released the Finance for Net Zero Action Plan in 2019 along side the Green Finance Action Plan. Lawrence Wong, Deputy Prime Minister, Minister for Finance, and Deputy Chairman of the Monetary Authority of Singapore (MAS), announcedthe launch of MAS' Finance for Net Zero (FiNZ) Action Plan at the National University of Singapore's Sustainable and Green Finance Institute in April 2024.

The FiNZ Action Plan aims to achieve the following four strategic outcomes (MAS ,2023):

- **Data, Definitions & Disclosures**. In order to protect against the dangers of greenwashing and to assist financial market participants in making decisions, MAS will continue to support consistent, comparable, and trustworthy climate data and disclosures.

- **Climate Resilient Financial Sector**. To identify financial risks associated with climate change, MAS will keep working with FIs to promote good environmental risk management practices and to further climate scenario analysis and stress testing. Whensupervising the transition planning of financial institutions, MAS will take into accountthe latest global best practices.
- **Credible Transition Plans**. MAS will work with international partners like the International Energy Agency to support the creation of believable regional sectoral decarbonization pathways in order to assist FIs in adopting science-based transition plans. FIs can use these pathways as a guide when establishing goals for reducing emissions and interacting with clients on decarbonization projects.
- **Green & Transition Solutions & Markets**. In order to assist decarbonization initiatives and the reduction of climate risk, MAS will advance creative and reliable green and transition financing solutions and markets.

To achieve the a fore mentioned goals, MAS will continue to develop and scale Green FinTech solutions. The MAS will also continue to invest in the skills and capabilities of Singapore's workforce.

Furthermore, the Monetary Authority of Singapore (MAS) convened the Green Finance Industry Taskforce (GFIT) between November 2019 and April 2023. The GFIT advanced the three objectives through four key initiatives: a) developing a taxonomy, b) improving disclosures, c) promoting green finance solutions, and d) improving financial institutions' environmental risk management practices (MAS, 2024).

The Monetary Authority of Singapore (MAS) introduced the Singapore-Asia Taxonomy in December 2023. This innovative taxonomy aims to provide precise standards and guidelines for characterizing environmentally friendly actions and shifts across multiple industries. It covers a wide range of industries, including energy, real estate, transportation, agriculture, forestry, land use, waste management, industrial processes, and product use (Tsui, 2023).

According to Tsui (2023), the Singapore-Asia Taxonomy is the first globally to providea comprehensive definition of "transition activities" encompassing a wide variety of industries.It is anticipated that this initiative will have a major impact on capital flows toward sustainableinitiatives and endeavors, assisting the world's shift to a low-carbon economy.

In the fight for sustainable development and the mitigation of climate change, the introduction of this taxonomy represents a critical turning point for both Singapore and the entire world. It demonstrates Singapore's resolve to set the standard for sustainable finance and to promote an environmentally friendly future.

4.3 Challenges and Strategies of Implementing Sustainable Finance In Indonesia

As discussed in Chapter 1, there are three major challenges to the implementation of sustainable finance in Indonesia. The three challenges include a lack of understanding and participation in the financial industry, green category standardization, and support and collaboration for business opportunities (OJK, 2021).

First, low level of understanding and participation in the financial industry

The financial industry still believes that implementing sustainable business practices will result in higher costs (OJK, 2021). Furthermore, the majority of business actors still placea high priority on immediate financial gain.

This low level of understanding is closely related to the level of financial literacy in Indonesia. According to an OJK survey from 2019, Indonesian financial inclusion was 76.19%at the national level, while financial literacy was 38.03%. The disparity between financial literacy and inclusion suggests that some customers may not be well-informed about the products or services they use. The low level of financial literacy will undoubtedly influence how sustainable finance is understood.

Second, Indonesia does not yet have an official green category standardization

Indonesia does not currently possess an official green category standardization, which is necessary for evaluating the execution of environmental, social, and governance aspects. (OJK, 2021). Therefore, to support sustainable business, investment, and risk management standards, national standardization of green categories and taxonomies is required.

A green taxonomy, according to the International Capital Market Association (ICMA), is a classification scheme for identifying investments or activities that will help a nation get closer to achieving particular goals associated with priority environmental objectives (World Bank Group, 2020). An identified environmental target is the overall outcome that a nation hopes to attain over a specified period of time, such as a net reduction in emissions or deforestation by a specific year.

Globally, governments are promoting and directing financial resources toward investments that uphold environmental goals. Many emerging markets are attempting to create precise definitions of investments or activities that represent their own national environmentalgoals, such as mitigating climate change or reducing deforestation, after being inspired by theEuropean Union's (EU) effort to create a green taxonomy (World Bank Group, 2020). The World Bank has released a guide titled "Developing a National Green Taxonomy: A World Bank Guide" in response to this issue. Its purpose is to give regulators working on the creationof a green taxonomy a conceptual framework and procedural guidelines.

To assist financial actors and others in deciding which investments are appropriate fortheir jurisdictions to label as "green," a green taxonomy is crucial. A green taxonomy also aidsin the process of making knowledgeable decisions about investments that are beneficial to the environment. It promotes the pursuit of initiatives and endeavors that advance ecologically sustainable economic growth and advance particular environmental goals.

Third, support and collaboration in business opportunity

Business actors can benefit from the growing demand and awareness for ESG implementation. To capitalize on this business opportunity, regulators must provide thenecessary infrastructure, as well as support and collaboration from business actors and relevant ministries/institutions (OJK, 2021).

Wimboh Santoso, Chairman of the OJK Board of Commissioners, believes that collaboration among various stakeholders to mitigate and adapt to climate change is critical to ensuring the sustainability of investments supporting them. This is accomplished by bringing together environmental, social, and governance perspectives. In this regard, by transitioning from traditional to sustainable business practices, the financial services industry helps to accelerate economic recovery (OJK 2021).

According to data from the National Development Planning Agency (Bappenas), Indonesia's green financing and investments are expected to reach Rp67,803 trillion in 2030. This enables financial institutions to contribute to sustainable development through the use ofsustainable financing. Financial institutions may benefit from the shift in global investment patterns. An increasing number of investors want to put their money into environmentally friendly products (OJK, 2021).

In dealing with the problems mentioned above, OJK prioritized several steps in the second phase of the roadmap. In 2021, OJK issued the Sustainable Finance Roadmap Phase II(2021-2025). This roadmap is a continuation of the first roadmap (2015-2019) which answersthe problems that arise. The main priorities at this stage include (OJK, 2021):

1. Developing a green taxonomy. It aims to categorize sustainable financing and investment activities in Indonesia. This classification will serve as the basis for the stakeholders' long-term economic activities. The taxonomy will take into account the existing general rules for the green industry.
2. Integrating ESG aspects into risk management. It aims to boost resilience and reduce environmental and social risks that could disrupt the financial industry's operations. Key performance indicators are developed, governance, social, and environmental issues are reported on, and theproject benefits from an overall increase in human resource capacity.
3. The goal of real program development is to showcase

successful examplesof innovative green schemes that can be replicated to strengthen the financial industry's role in sustainable financing. Genuine programs require collaboration with relevant ministries, organizations, and stakeholders. Thislays the groundwork for future green financing programs and aligns with the expansion of the government's primary economic domain.

4. Innovative financing schemes are being developed to speed up the financial industry's transition to sustainability. Credibility, inclusivity, long-term focus, expert support, and information transparency are all factors to consider when developing innovative programs.
5. A national campaign promoting sustainable finance that prioritizes environmental, social, and governance considerations. This is accomplished by developing a communication strategy and implementing a variety of socialization and educational programs.

This phase II roadmap is still ongoing and is being pursued by the OJK to move Indonesia's financial sector towards a sustainable business.

In more detail, the steps for developing sustainable finance in phase II are shown in the following table.

1

Table 4. 3 Details of The Development of Sustainable Finance Initiative (2021-2025)

POLICIES
Green Taxonomy (2021 - 2022) Integrasi Aspek LST / ESG Integration (2021 - 2023) Key Performance Indicator (KPI) (2021 - 2023) Developing Incentives (2021 - 2025) Guidance of Sustainable Finance Implementation in the Capital Market and NBFI (2021 - 2022)
PRODUCT
Developing Supporting Infrastructure (2021 - 2025) Product Innovation (2021 - 2025)

MARKET INFRASTRUCTURE
Development of Sustainable Finance Information Hub (2021 - 2025) Development of primary and secondary market (2022 - 2025)
COORDINATION AMONG MINISTRIES/INSTITUTIONS
National Task Force (2021 - 2025) Monitoring and Evaluation of the Implementation of Sustainable Finance (2021 - 2025)
NON-GOVERNMENT SUPPORT
Developing Research Centers (2022 - 2025) Real Programs (2021 - 2025)
HUMAN RESOURCES
Sustainable Finance Training and Training of Trainers (2021 - 2025) E-learning (2024 - 2025)
AWARENESS
Guide Book of Credit/Financing/Investment in Sectors (2021 - 2025) National Campaign - Indonesia Sustainable Week (2021 - 2024) Sustainable Finance Inclusion Program (2022 - 2025) Sustainable Finance Award (SFA) (2024 - 2025) Informative Publications for New Investors (2022 - 2025)

Source: OJK, 2021

Related to the main problems, low level of understanding and participation in the financial industry, green category standardization, and support and collaboration to business opportunity, OJK has taken a strategy to overcome those problems.

a. National campaign for sustainable finance

The national campaign is one of the main agendas in roadmap II of OJK. This focus is related to the problem of low levels of understanding and participation in the financial industry.

Wimboh Santoso, Chairman of the OJK Board of Commissioners, explained that the Sustainable Finance Roadmap Phase I (2015 - 2019) is actually focused on increasing understanding, developing capacity and laying the basis for regulations for the financial services industry (OJK, 2021). When the sustainable finance roadmap was launched, OJK hasalso prepared several guidebooks that can be used as a reference for the financial services industry in implementing sustainable finance. The guidebooks are as follows (OJK, 2017):

1. Buku Pedoman Energi untuk Lembaga Jasa Keuangan
2. Pedoman Pembiayaan Proyek Bangunan Gedung Hijau untuk Lembaga Jasa Keuangan
3. Pedoman Memahami Dokumen Lingkungan Hidup Sektor Energi Bersih untuk Lembaga Jasa keuangan
4. Pedoman Pembiayaan Efisiensi Energi di Industri untuk Lembaga Jasa Keuangan
5. Integrasi Lingkungan Sosial dan Tata Kelola bagi Bank, Panduan untuk Memulai Implementasi

Furthermore, in increasing awareness and capacity building of the financial services industry, in 2016 OJK collaborated with the Ministry of Energy and Mineral Resources (ESDM) and related international institutions to organize Environmental Analyst Training (TAL) 2016. The implementation of TAL 2016 aims to increase the portfolio financial services industry in the environmentally friendly economic sector, especially the renewable energy andenergy conservation sectors (OJK, 2017).

OJK strives to increase the level of financial literacy in Indonesia. OJK has issued regulation; POJK No. 3 of 2023 concerning Increasing Financial Literacy and Inclusion in The Financial Services Sector for Consumers and The Community. This regulation even requires financial services business actors to carry out activities to increase Financial Literacy for Consumers and/or the public as an annual program.

b. Taxonomy for Indonesian Sustainable Finance

In overcoming the problem of green category standardization. Indonesia Green Taxonomy launched for the first time in 2022. The development of the green taxonomy is oneof the priorities of the second phase of the OJK roadmap.

The Indonesia Green Taxonomy was prepared in collaboration by eight ministries: theMinistry of Environment and Forestry (KLHK), the Ministry of Industry (Kemenperin), the Ministry of Marine Affairs and Fisheries (KKP), the Ministry of Energy and Mineral Resources (ESDM), the Ministry of Transportation (Kemenhub), the Ministry of Agriculture (Kementan), the Ministry of Tourism and Creative Economy (Kemenparekraf), and the Ministry of Public Works and Housing (PUPR).

This green taxonomy version 1.0 has several strategic objectives as follows (OJK, 2022).

a) By applying a science-based approach, develop standard definitions and green criterias from economic sector activities that support Indonesia's climate change mitigation andadaptation agenda.
b) Applying science-based strategies to promote investments and innovations in commercial ventures that benefit the environment.
c) Promoting the expansion of the financial industry as a means of providing capital for green economic initiatives.
d) Giving Financial Services Sector (FSS), investors, and business actors (nationally andinternationally) a point of reference for disclosing information about funding, investments, and financing for green economic activities.

Furthermore, OJK published the Taxonomy for Indonesian Sustainable Finance (TKBI), which is a revised version of the Indonesian Green Taxonomy Edition 1.0. The Taxonomy for Indonesian Sustainable Finance framework, elements, and criteria refer to the ASEAN Taxonomy for Sustainable Finance and national policies as its main reference, by adopting four environmental objectives (Environmental Objective), namely EO1-Climate Change Mitigation, EO2-Climate Change Adaptation, EO3-Protection of Healthy Ecosystemsand Biodiversity, and EO4-Resource Resilience and the Transition to a Circular Economy; andthree essential criteria (EC), There are two methods for activity assessment: Technical

Screening Criteria (TSC) for the corporate/non-MSME segment and Sector Agnostic Decision Tree (SDT) for the MSME segment. The final result of the TKBI assessment process is that activities are classified as "Green" or "Transitional". If it does not meet these two classifications, the activity is assessed as "Does Not Meet Classification" (OJK, 2024).

c. Collaboration with government and non-government institutions

The sustainable finance initiatives developed in Roadmap Phase II integrate seven components into one unified ecosystem. Sustainable financial ecosystem consisting of seven components, including (OJK, 2021):

a) Policy, which offers the creation of different policies to assist sustainable finance

b) Products, creating a range of sustainable financial services and products

c) Building the information and technological infrastructure necessary for market infrastructure to support sustainable finance

d) Cooperation with Related Ministries/Agencies, enhancing information sharing and collaboration between ministries/agencies and other relevant parties

e) Support from non-governmental organizations, supply and demand, research assistance (from specialists, research institutes, and universities), international organizations, and participation in international forums for the advancement of sustainable finance projects

f) Human Resources, through organized capacity building initiatives, enhancing both internal and external capacity

g) Raising awareness and creating communication plans to inform the financial sector,relevant stakeholders, and the general public about sustainable finance initiatives OJK has worked with a number of partners to introduce sustainable finance in Indonesia. For example, in the released Indonesia Green Taxonomy, OJK works with eight ministries: Ministry of Public Works and Housing

(PUPR), Ministry of Agriculture (Kementan), Ministry of Tourism and Creative Economy (Kemenparekraf), Ministry of Transportation (Kemenhub), Ministry of Energy, Ministry of Marine Affairs and Fisheries (KKP), Ministry of Industry (Kemenperin), Ministry of Environment and Forestry (KLHK, and Mineral Resources (ESDM).

OJK works with academic, research, and development organizations in addition to ministries. These organizations include the University of Indonesia's Research Center for Climate Change (RCCC), Udayana University's Bali Center for Sustainable Finance (BCSF), Gadjah Mada University's Faculty of Economics and Business, the SDGs Center at Padjajaran University (UNPAD), Trisakti University, and Perbanas Institute (OJK, 2022).

Several non-governmental organizations are also involved, including the Indonesian Center for Environmental Law (ICEL), Transformasi untuk Keadilan (TuK) Indonesia, the Indonesian Forum for Environment (WALHI), Greenpeace Indonesia, the Sustainable Trade Initiative (YIDH), WWF Indonesia, and Perkumpulan PRAKARSA – Koordinator KoalisiResponsiBank Indonesia (OJK, 2022).

4.4 Lessons Learned From Sustainable Finance In Singapore

After reviewing the initiatives undertaken by Indonesia and Singapore, both have almost similar steps related to solving three main problems as follows.

Table 4. 4 Sustainable Finance Initiatives of Indonesia and Singapore

No.	Challenges	Indonesia	Singapore
1	Low level of understanding and participation in the financial industry	Campaign, regulation concerning financialliteracy, study center: Bali Center for Sustainable Finance (BCSF)	Campaign, no specific regulation, study center: Singapore Green Finance Center (SGFC)
2	Green category standardization	Indonesian Green Taxonomy (Version1), Taxonomy for Indonesian Sustainable Finance (Version 2)	Singapore-AsiaTaxonomy
3	Support and collaboration to business opportunity	Public-private collaboration	Public-private collaboration

Indonesia and Singapore have almost identical steps. Singapore has no specific regulations governing financial literacy, but there are several frameworks and regulatory measures in place to indirectly promote financial literacy and protect consumers in the financia l sector. For example, consider The MoneySENSE - Singapore Polytechnic (SP) Institute for Financial Literacy. The institute will provide financial education to Singaporeans, equipping them with core financial capabilities. The Institute offers free financial education to the public,covering topics such as basic money management, financial planning, and investment advice.

According to the S&P Global Financial Literacy Survey

2018, Singapore has the highest financial literacy index in Southeast Asia, at 59%, while Indonesia has a 32% index (Haura, 2023).

The application of sustainable finance is undoubtedly influenced by the degree of financial literacy. Christoper (2024) claims that financial literacy has a number of advantages for people, companies, society, and the environment when it comes to promoting sustainable finance. Individuals can use it to diversify their portfolio, lessen their environmental impact, make financial decisions that are consistent with their personal values and goals, and promote positive social change. It benefits companies in a number of ways, including increased funding availability, improved risk management, enhanced reputation, and long-term value creation. It benefits society by promoting social inclusion, lowering poverty and inequality, and defendingdemocracy and human rights. It benefits the earth by reducing the effects of climate change, preserving natural resources, and safeguarding ecosystems and biodiversity.

5. CONCLUSION

This research aims to compare the initiatives taken by Indonesia and Singapore regarding 3 main problems in Indonesia, including the low level of understanding and participation in the financial industry, green category standardization, and support and collaboration to business opportunity. Based on the results of the review, it was found that the steps taken were almost similar between Indonesia and Singapore. In green category standardization, both countries have their own green taxonomy. Indonesia issued Taxonomy for Indonesian Sustainable Finance, and Singapore issued Singapore-Asia Taxonomy.

In Support and collaboration to business opportunity, both Indonesia and Singapore build collaboration with public and private institutions. Regarding the low level of understanding and participation in the financial industry, there is slight difference between Indonesia and Singapore. Both conduct the campaign and build the study center, but Singapore has no specific regulation while Indonesia has. However, Singapore has frameworks that indirectly promote financial literacy and protect consumers in the financial sector. For example, consider The MoneySENSE - Singapore Polytechnic (SP) Institute for Financial Literacy. The Institute offers free financial education to the public, covering topics such as basic money management, financial planning, and investment advice.

According to S&P Global Financial Literacy Survey 2018, the data shows that Singapore has the highest financial literacy index in Southeast Asia, namely 59%, while Indonesia has a financial literacy index of 32%. The high level of financial literacy certainly has positive influences on the implementation of sustainable finance.

Based on research results, the level of financial literacy is very important to pay attention to. It is important for Indonesia to increase public awareness of the importance of sustainable finance issues. Therefore, innovative activities to increase the level of financial literacy that are substantive need to be launched.

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