

INDONESIA MARKET MATURITY SNAPSHOT 2019

This Green Building Market Snapshot is a summary of key market indicators based on IFC’s research on policy environment, building construction, and Green Building certification and finance. The year of the snapshot coincides with the launch of the UK-IFC Market Accelerator for Green Construction (MAGC) program in the country. Additionally, most recent Green Building developments in the market are included where available. IFC welcomes readers’ comments.



CERTIFIED GREEN BUILDING MARKET STATUS

Indonesia’s Green Building market was underdeveloped but strengthening in 2019. The Green Building market penetration rate was around 2% of new built area with a majority of certified buildings in the office sector.¹ The Indonesian Financial Services Authority (Otoritas Jasa Keuangan) pioneered a green finance road map in 2014², and a policy to develop green financing including Green Buildings in 2017³. Eleven banks provided financing for Green Buildings, but at a limited scale. The government has made progress towards facilitating Green Building market development through central and local governments’ issuance of Green Building regulations and codes in recent years. Yet, a lack of enforcement of the regulations prevails.



COUNTRY LANDSCAPE



- **Energy Consumption:** The building sector was responsible for 39% of electricity consumption in 2019 and produced 16% of electricity-related CO2 emissions in 2020.⁴⁵
- **Construction Market:** In 2012, the urban population was over 52% of the total population. It is estimated that 68% of Indonesians will live in urban areas by 2025. In 2015, the government launched the “One Million Houses per year” initiative that aims to address housing shortage. Around 3 million housing units were built within the first four years of the program.⁶ The office and retail sector construction growth are expected to be stable, while education and warehouse constructions are expected to increase.
- **Developers:** Around 70% of housing stock is self-built. Residential and commercial buildings are mostly built by big developers (39% of total floor area between 2014-2018).
- **Finance:** Housing finance is mainly raised from banks, with the government-owned Bank Tabungan Negara (BTN) having the largest share of the housing finance market. Real estate developers typically use bank loans to develop properties and rely on real estate sales to pay off the loans.

1. GREEN BUILDING POLICIES AND REGULATIONS

Is there a national definition of Green Building?

In 2010, the Ministry of Environment's regulation defined a Green Building as a building that implements environmental principles in its design, development, operation, and management.⁸

Is Green Building part of the country's Nationally Determined Contributions (NDC)?

The country does not have buildings as a target sector in the NDC. However, the country has an economy-wide GHG emission reduction target and reduction in energy intensity of buildings target, set at 1% reduction each year until 2025.

Is there a national Green Building strategy/action plan?

There is no national Green Building Strategy. In 2014, the Sustainable Finance Roadmap of the OJK included specific obligations for banks and financing institutions, among which were the prioritization of sustainable infrastructure development, and the development of a detailed loan categorization reporting for green projects.

Public Policy and Regulations

The Ministry of Environment Number 8 (2010).

- ▶ It defines environmentally friendly buildings and stipulates criteria for and certification of Green Buildings.

Ministry of Public Works and Public Housing 02/PRT/M/ 2015 (2015).

- ▶ The ministry issued the first national regulation on Green Buildings; the decree lays out the Green Building specifications.

Ministry of Public Works and Public Housing, Human Settlements' Decree No. 86/SE/DJCK/2016 (2016).

- ▶ It provides technical guidelines for Green Building developments.

Update 2021:

- ▶ Ministry of Public Works and Public Housing Decree No. 02/PRT/M/2015 was revised into Decree No. 21/PRT/M/2021 on Green Building Performance Appraisal to improve implementation of Green Building constructions in the ministry.⁹

Roadmap for Sustainable Finance in Indonesia 2015-2019.

- ▶ Indonesian Financial Services Authority (OJK) and the Ministry of Environment and Forestry (KLHK) launched it in 2014.

Sustainable Finance Umbrella Policy (POJK 51/2017).¹⁰

- ▶ The Policy defines and provides principles of sustainable finance, including an action plan for banking, capital markets and non-banking sectors. Starting in 2019, the policy is mandatory for the largest banks, foreign banks, and publicly listed companies. With the new regulation, financial institutions are required to submit an annual sustainable finance plan to OJK.

The Jakarta Green Building Code (DKI Jakarta No. 38/2012).

- ▶ It regulates planning, construction, utilization, maintenance, and deconstruction of buildings in Jakarta. It focuses on large, new, and existing commercial and residential buildings. It provides guidance on energy efficiency, water efficiency, indoor air quality, waste and soil treatment, and construction activities.

Jakarta Green Building Grand Design 30:30 (2016).

- ▶ The City has a target to reduce energy and water consumption, as well as carbon emissions by 30% by 2030.

1. GREEN BUILDING POLICIES AND REGULATIONS, *Continued*

Public Policy and Regulations

Bandung Green Building Code (No. 1023/2016).

- ▶ It is the first Green Building code that includes incentives for building developers. It focuses only on new buildings. The regulation stipulates one-star constructions, buildings, or commercial projects with an area of over 5,000 square meters (sqm). If a two- or three-star building is upgraded, it is given an incentive in the form of lower land and building tax.

Semarang Green Building Code (No. 24 of 2019).

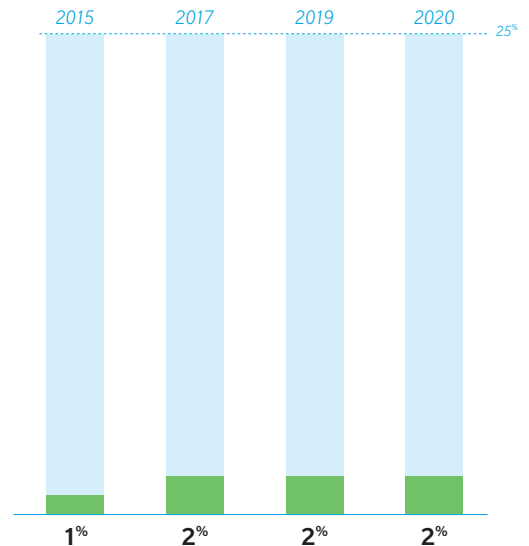
- ▶ The code regulates electricity, air, energy efficiency, green open space, and renewable energy in buildings. It is mandatory, focuses on new constructions and buildings of a certain size.

2. GREEN BUILDING MARKET SIZE

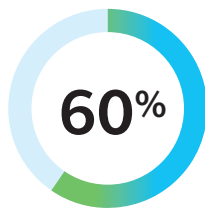
New and existing floor space certified green in 2019: 1.5 million square meters



Share of certified new green buildings among all new developments (based on square meters)



Share of green building developers among major developers¹¹



3. CERTIFICATIONS AND STANDARDS

National Green Building Rating Systems

- ▶ Greenship, established in 2009, is a certification product of the Green Building Council Indonesia (GBC Indonesia), an International NGO that focuses on certifying government and SOE buildings. Greenship had certified around 5 million sqm, as of 2019.

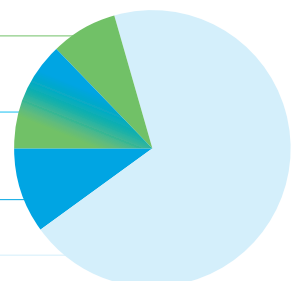
International Green Building Rating Systems

- ▶ LEED started to certify Green Building projects in Indonesia in 2011 and had certified around 0.6 million sqm, as of 2019.
- ▶ EDGE was launched in 2015, and had certified around 0.9 million sqm, as of 2019.
- ▶ The Green Mark-Singaporean certification scheme has been present in the country since 2011 and had certified 0.7 million sqm, as of 2019.

Voluntary Green Building certification systems' market share by square meters certified (as of 2019).

- ▶ LEED is 8% of cumulative GB
LEED breakdown: 100% non-residential or mixed-use¹²
- ▶ EDGE is 13% of cumulative GB
EDGE breakdown: 43% residential, 57% non-residential
- ▶ Greenship is 70% of cumulative GB
- ▶ Green Mark is 10% of cumulative GB

Numbers may not add up to 100% due to rounding.



4. GREEN BUILDING FINANCE

Financial Institutions offering Green Building finance (by public/private) and their products as of 2019

- ▶ In 2019, eleven banks provided Green Building financing for buildings projects: CIMB Niaga, BCA, BRI, BNI, Maybank, OCBC NISP, Bank Mega, Mayapada, Bank of Bangkok Citibank, and KEB Hana Bank.¹³
- ▶ OCBC, NISP and BRI require Green Building certifications for providing Green Building finance.

Green bonds or other capital market instruments earmarked for Green Building finance between 2015 and 2019.

- ▶ In 2018 and 2019, the Republic of Indonesia issued USD 2 billion in sovereign green bonds that allocated USD 500 million to buildings in their use of proceeds.¹⁴
- ▶ In 2018, OCBC NISP issued a USD 150 million green bond that included use of proceeds for buildings.¹⁵
- ▶ Update 2020: BRI issued sustainability bonds worth USD 500 million with an allocation of 8% to Green Buildings.¹⁶
- ▶ Update 2020: OCBC NISP issued a green bond worth USD 200 million that has use of proceeds for buildings.

Financial institution lending to Green Buildings as a % of total lending to building sector (Climate financing as a % of total bank credit)

- ▶ In 2019, eleven banks provided financing for Green Building projects with total value of USD 2 billion.¹⁷ This is equal to 4% of real estate and housing loans.¹⁸

Financial Incentives

- ▶ The Central Bank (Bank of Indonesia) lowered loan to value (LTV) ratio for 5% for green properties (for 2nd homes) in 2019. To be able to benefit from Bank of Indonesia's incentives, the Green Building projects need to obtain internationally recognized certifications.

5. COST OF UTILITIES

Share of cost of utilities
(Electricity and Water)
for an average income:
11%¹⁹



6. EDUCATION AND SKILLS

**Number of
Universities offering
Green Building
programs**

- ▶ In 2019, there were five universities in five cities that provided Green Building courses, titled Design for Greater Efficiencies (DfGE): Universitas Indonesia (Jakarta), Universitas Gadjah Mada (Yogyakarta), Universitas Diponegoro (Semarang), Institut Teknologi Bandung (Bandung), and Institut Teknologi Sepuluh Nopember (Surabaya).

ENDNOTES

1. IFC's calculations consider the formal construction sector. The rate covers EDGE post-design, LEED, GreenShip and Green Mark certified floor area divided by estimated new build for the formal sector, for calendar year 2019. There may be a delay between certification and completion of the building.
GreenShip numbers are from GBCI.
Green Mark numbers were retrieved from SLEB Smart Hub (<https://www.sleb.sg/Building/GreenMarkBuildingsDirectory>).
LEED numbers were retrieved from USGBC website (<https://www.usgbc.org/projects>) on October 19, 2021.
EDGE numbers were retrieved from EDGE App data as of September 30, 2021.
Green certification numbers do not differentiate between buildings certified with more than one certification system or product (that is, each certification is counted as unique) and include certifications for existing buildings.
Estimated new build is based on IFC's 2019 Market Assessment for Indonesia.
2. https://www.banktrack.org/download/roadmap_ojk_2015_2019_pdf/roadmap_ojk_20152019.pdf
3. <https://www.ojk.go.id/sustainable-finance/id/berita/berita-internasional/Pages/Indonesia-Makes-Significant-Progress-in-Sustainable-Finance-Reforms.aspx>
4. <https://www.climate-transparency.org/wp-content/uploads/2020/11/Indonesia-CT-2020-WEB.pdf>
5. <https://www.iea.org/countries/indonesia>
6. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/democratizing-indonesias-housing-market-an-interview-with-pahala-mansury>
7. <https://www.housing-finance-network.org/index.php?id=356>
8. Technical Guidelines for Banks on the Implementation of OJK Regulation POJK Number 51/POJK.03/2017
9. <https://events.development.asia/system/files/materials/2021/07/202107-ministry-public-works-and-housing.pdf>
10. <https://www.ojk.go.id/sustainable-finance/id/berita/berita-internasional/Pages/Indonesia-Makes-Significant-Progress-in-Sustainable-Finance-Reforms.aspx>
11. Calculated based on the number of developers that have at least one green certified building out of the top ten developers in Indonesia.
12. IFC's estimate is based on LEED publicly available data.
13. The information is based on the 2019 sustainability reports of the Banks.
14. <https://www.climatebonds.net/files/reports/climate-bonds-indo-barriers-20191219.pdf>
15. <https://www.ocbc.com/iwov-resources/sg/ocbc/gbc/pdf/investors/green-bond/ocbc%20green%20bond%20report%20aug21.pdf>
16. <https://ir-bri.com/misc/AR/AR2020.pdf>
17. 30,896 billion of Rupiah in the original source. The data is calculated based on the 2019 sustainability reports of the Banks.
18. Real Estate (Loans by Industrial Origin) and housing/apartment loans (household consumption) amounted to 695,420 billion Rupiahs in 2019. Data retrieved from <https://www.bi.go.id/en/statistik/ekonomi-keuangan/seki/Default.aspx#floating-2>
19. The number is based on the Economist Intelligence Unit Database for country utility data in major cities (2019) and the World Bank GNI per capita 2019.

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