



Exploring the Contribution of Real Estate Investment Trusts (REITs) to Achieving Sustainable Development Goals (SDGs) in Sub-Saharan Africa

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Abstract

Despite high-income inequality, Sub-Saharan Africa (SSA), like the rest of the world, is making efforts toward Agenda 2030. This paper examines how the REIT, a dynamic financial instrument, can support SDG progress in Sub-Saharan Africa. The potential of REITS to finance sustainable construction projects, create jobs, and drive economic growth is explored. The research methodology used is a literature review, including peer-reviewed papers from 2016 to 2024 from academic databases. It was found that while REITs impact sustainability by encouraging transparency and responsible investment, they are also faced with legal risks and are affected by regulatory dynamics that are accountable for their structure, which affects their adoption and growth. There is enormous potential for REITs to align with SDGs by raising funds to support affordable housing and infrastructure to support the achievement of SDGS 9(Industry, Innovation, and Infrastructure), 11(Sustainable Cities and Communities), and 8(Decent Work and Economic Growth) in SSA.

Keywords: REITS, Construction, SDGs, Sub-Saharan Africa, Financing Solutions.



1. Introduction

With a rich and diverse socio-economic landscape, income inequality is prevalent in Sub-Saharan Africa (Fuje et al., 2022; Odusola et al., 2019). However, like other regions across the globe, SSA too is striving to achieve the SDGs before the 2030 deadline, a feat whose attainment will require creative approaches, primarily recruiting the support of the private sector in overcoming development obstacles (Buckley & Bower, 2020; Mawdsley, 2015). The UN SDGs are a detailed framework deliberately crafted to support sustainable development, some of which include SDG 11(Sustainable cities and communities), SDG8(Economic Growth) and SDG9(Industry, Innovation and Infrastructure) (United Nations, 2015), reinventing development efforts (Caballero, 2019).

With a largely youthful demographic and abundant natural resources (Okada & Shinkuma, 2022), Sub-Saharan Africa has enormous potential but also faces considerable hurdles, such as the “resource curse” (Wegenast & Schneider, 2017), infrastructural challenges, and not to mention conflict in some parts of the region (Calderon & Zeufack, 2020; Coulibaly et al., 2019). Unexpected challenges have further curtailed progress towards Agenda 2030 such as the COVID-19 pandemic, which brought a heavier debt burden, and the Ukraine war (United Nations, 2023).

The private sector, governments, and civil society must work together if the SDGs are to be realized (Ionaşcu et al., 2020). The strengths offered by the private sector revolve mostly around specialized skills, high efficiency and resources (Scheyvens et al., 2016). Given how closely real estate and infrastructure relate to SDGs 8,9, and 11 as key drivers of economic growth and social well-being, strategic investments in critical sectors are necessary. Real estate greatly contributes to achieving the objectives through job creation, financing green (Mariani et al., 2018), construction (Fei et al., 2021), and more.

REITs, by definition, is a financial instrument that pools resources from various investors and then invests in a portfolio of income-generating real estate assets (Keke & Emoh, 2019), presenting an avenue for mobilizing resources towards SDG-aligned projects like affordable housing (Diala, 2021; Zou, 2017), infrastructural development



(Ishak et al., 2022; Wang et al., 2023), thus fostering economic growth. Fei et al. (2021) found that the construction industry has a crucial role in furthering all 17 SDGs, as has been demonstrated successfully in countries such as China and Malaysia in financing infrastructure (Wang et al., 2023; Ishak et al., 2022).

REITs, with proven resource mobilizing abilities and high productivity in the real estate sector (Ma, 2020), might offer a reprieve to SSA countries, given the heavy debt burdens (Calderon & Zeufack, 2020) many carry, yet this has not yet been widely explored for SDG financing. There is a need for region-specific research to understand how REITs can support the achievement of SDGs in SSA. This may be valuable academically and practically for implementation as 2030 approaches.

2. Literature Review

2.1. REITS Adoption and Economic Growth

REITs, according to a National Association of Real Estate Investment Trusts (NAREIT) study, have, over a period from February 2005 to December 2021 outperformed both bonds and stocks as reflected below, the REIT compound annual growth rate (CAGR) of 6.9% (FTSE EPRA/Nareit Global Index) while the broader stock market at 5.4% (MSCI EAFE), private real estate at 5.4(NCREIF) and finally global bonds at 3.1% (Bloomberg Barclays Global Aggregate bond index) (Funari, 2022).

REITs have received widespread adoption globally, providing capital for real estate development. Over the years, their number has grown to 865 REITs in 41 from a paltry 31 in 1990, contributing up to \$72 trillion (85%) to global GDP by 2020 (Bertoldi et al., 2021), as reflected in the comparative statistics above. SSA has, however, experienced slower growth due to underperforming capital markets, as well as regulatory challenges (Diala, 2021), and yet (Gogineni et al, 2022), in a study across 32 jurisdictions, found common themes in REIT regulation all across, despite some variations. Only five African countries, including Kenya (1), Tanzania (1), Ghana(1), Nigeria (4), and South Africa (44) have operational REIT structures (Joseph et al., 2020). This indicates the need for legislative and real estate market reforms for REITs to grow in SSA.

2.2. Social and Environmental Impact

A study on ESG ratings and REIT performance in the US revealed a positive relationship, with social factors more significant than environmental factors in the implementation efforts (Brounen & Marcato, 2018). Sustainability practices have been found to increase profitability in real estate, as evidenced by European REITs (Mariani et al., 2018), and even operational performance benefits from green building certifications (Morri et al., 2020), a good motivator for investment in sustainable development. Economic growth (SDG8) can be further boosted by promoting community engagement and SDGs, increasing even the REIT value (Minh Hiep et al., 2021; Feng & Wu, 2022). GCB securities in Ghana are fulfilling their social mandate by partnering with the National Housing and Mortgage Fund, Ghana (NHMF) to provide affordable rental homes for public sector workers in a 15-20 year rent-to-own model at lower rates (11.9 to 12.5 per cent) compared 24 per cent market rate (CAHF, 2020). Mortgage REITs can also enhance home buyers' affordability (Ndung'u & Onyuma, 2020). However, some REITs, even with diligent ESG reporting, have been found to lack actionable sustainability strategies (Ionaşcu et al., 2020), while other REITs only prioritize social reporting to appease the stakeholders (Zahid & Ghazali, 2015). This highlights a gap in actionable practices that render REITs contributing to sustainable development.

2.3 Regulation and Policy

The role of regulation and policy on the growth of REIT markets is emphasized in the literature. A Spain-based study on REITs demonstrated REIT regulatory practices good governance and transparency in addition to their tax-efficient nature as a way to promote commercial real estate markets and macroeconomic factors such as employment rates, contributing to economic growth (SDG8) (Indrawan & Wahyuningsih, 2021; Marzuki & Newell, 2018). Equity REITs are mandated by law to be listed on the stock exchange, which gives access to raising capital for infrastructural development, especially since REIT regulation in some jurisdictions allows for a broader definition of REITs to include even cellphone towers like American Tower (Habbab & Kampouridis, 2024), as well as electric and gas distribution systems (Deloitte).



On the other hand, a Chinese study on utilizing the REIT financing model for infrastructure investment to alleviate pressure on government funds revealed legal and policy-related challenges. Therefore while REITs offer a sustainable financing option for infrastructure in developing countries, risk management strategies should be put in place (Wang et al., 2023). Furthermore, Deb (2020) posits that the relationship between governance and sustainable development is complex as there is a positive and negative relationship between governance and sustainable development, even though governance is a prerequisite for sustainable growth.

2.4 Progress Towards SDG Achievement in SSA

Studies have discovered that the construction industry is a potential contributor to all 17 SDGs, although more directly than ten goals (Fei et al., 2021). This further emphasizes the need for joint concerted efforts by the government and partners, as recommended by (Ionaşcu et al., 2020), to adequately address the 17 SDGs. However, with the varied REIT adoption pace across the globe, more established REIT markets are already experiencing progress toward SDG in the form of the enormous REIT contribution to the GDP at 85% (\$72 trillion) as of 2021 (Bertoldi et al. 2021). On the other hand, SSA only has five countries with operational REITS (Joseph et al., 2020), and even then, only South Africa has about 33 REITs and only a handful of the rest. This points to a huge gap in leveraging the financial instrument to support SDGs in SSA, where there is still significantly high informal employment at 89%, manufacturing employment at 6% (United Nations, 2020), with small-scale industries receiving significantly less business financing than the rest of the world (United Nations, 2022); major infrastructural shortages to the point of nearly 300 out of 520 million rural dwellers lacking reliable road access (World Bank, 2019); the acute need for affordable housing and infrastructure due to rapid urbanization, with up to 51% of the urban population SSA living in slums (World Bank Data, 2019).

In comparison, some Asian REITs have aligned their strategies with specific SDGs, and this provides a model of how REITs may be effectively used to achieve sustainable development, for instance, Singapore's AIMS APAC REIT(SDGs 3,7,8,9)¹, Malaysia's ALSALAM REIT(SDGs8,9,11,13,16)², and UAE's TPL REIT (SDGs 3,6,9,11)³. REITs, therefore, can invest in infrastructural development, including telecommunications,



transportation networks as well as commercial property, triggering economic growth (Wang et al., 2023; Turner, 2023).

Nonetheless, there are conflicting views as to whether or not REITs can substantially contribute to sustainable development, with some studies highlighting their ability to mobilize resources for sustainable projects (Bertoldi et al., 2021; Funari, 2022), others stress the market condition and regulatory challenges (Diala, 2021; Wang et al., 2023) hindering REIT adoption and performance. This showcases the need for a robust study on the long-term socio-economic impact of REITs in SSA, assessing the impact on SDGs, considering that the current literature focuses more on the financial performance aspect.

3. Research Methodology

The research methodology employed a literature review to assess current knowledge on the role of REITs in furthering sustainable development. Academic databases such as Google Scholar, Research Gate, and Academia. Edu, Emerald and JSTOR were explored to retrieve relevant literature. Search keywords used in the study included “REITs”, “SDGs”, “ESG”, “Sustainable development”, “Construction”, “SSA”, and “Sub-Saharan Africa”

Inclusion criteria were peer-reviewed journal articles and reports from reliable sources such as the World Bank, United Nations, and the Nations Association for Real Estate Investment Trusts from 2016-2014 that particularly addressed the topic of sustainable development. Relevant information was extracted and synthesized to create a clear picture of current knowledge and expose gaps for further study.

4. Findings and Discussion

The overlap between the real estate and construction sectors and sustainable development should be addressed. Goubran (2019) suggests that 17% of the SDG targets directly require the construction industry to achieve, and indirectly, another 27%. Goubran & Cucuzzella (2019), in a case study of a Quebec-based building, showed that it is possible to integrate all 17 SDGs into building projects by leveraging futuristic building designs and cutting-edge technologies (Qi et al., 2021), such as



integrating IoT and BIM technologies (Nguyen, 2016) to create smart buildings that streamline maintenance reducing energy consumption and operational costs (SDG9). Construction technology companies like Giatec use IoT to create sensors to monitor emissions from concrete (Giatec, 2024). This is characteristic of the technology-powered intelligent REIT (REIT) (Hu, 2017) provides actionable ways to implement SDGs in the REIT sector.

Fei et al. (2021) highlighted the construction industry's potential toward the SDGs, which can be manifest in resource mobilization. REITs, aside from having access to capital on the stock exchange (Deloitte), are now exploring new financing mechanisms such as green bonds. For example, Acorn Holdings Ltd, a Kenyan-based REIT, has the Acorn green bond (Acorn Holdings Limited, 2019).

Poor REIT adoption in Africa has been attributed to regulatory challenges (Diala, 2021) and market conditions. REITS have had widespread adoption and success in the US on the other hand (Moobelaa et al., 2022). Benchmarking (Dai & Kuosmanen, 2014) regulatory practices from such successful markets can help SSA countries streamline their regulation for more successful REIT markets, which can in turn partner with governments to address affordable housing challenges as is the case in Ghana (CAHF, 2020), or even independently provide the same as has been done the Acorn Holdings REIT in Kenya which specializes in Student accommodation and now affordable housing (Acorn, 2024) for young professionals, to promoting social equity and supporting SDGs 8 and 11.

Many REITs focus on growing their profit margin through sustainability practices that lower costs through energy efficiency and retrofits (PRI.nd; Borchersen-Keto, 2022). Governments can create collaborative Sustainable Urban Development Projects, for example, by working with REITs to restore old government buildings and repurpose them to provide affordable housing options that promote sustainable urban living because of reduced commutes.

5. Conclusion and Further Research

The government alone would take much longer to achieve SDGs. Beyond paying taxes, citizens mobilized a civil society organization, and the private sector had to do its bit in a concerted effort. REITs have been used to finance even infrastructure in Malaysia, China, and the US, and therefore a version of these results can be replicated in SSA to at least achieve the SDG that is most directly related to the real estate and construction industry, SDGs 9 and 11, with a ripple effect of economic growth (SDG8) through job creation. An example of effective collaboration, is Rwanda's self-help model, where the government and some private organizations collaborate with women's groups to build affordable housing for the group members. As such, it is crucial to put in place capacity-building initiatives to enhance stakeholders' understanding of REITs and open minds to their potential impact on sustainable development.

A policy framework in Sub-Saharan Africa should be designed to support REITs and the real estate sector, with a focus on investment in areas aligned with SDGs like affordable housing and infrastructure. The framework should also focus on building technological infrastructure to support the sector, for example, smart cities, exploring the intelligent REIT (iREIT) model. There is a clear need for additional research to explore the role of REITs in advancing SDGs in SSA.

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¹<https://www.aimsapacreit.com/sustainability-framework.html>

²<https://www.insage.com.my/ir/interactiveAR/ALSREIT/interactiveAR2022/88/>

³<https://tplfunds.com/esg/>



References

- Acorn. (2024). Retrieved from <https://acornholdingsafrica.com/integrated-real-estate/#realestateinvestment>
- Acorn Holdings Limited. (2019). Acorn Holdings Limited Green Bond Framework. Nairobi: Acorn Holdings Limited.
- Akhter, A., & Sangmi, M.-u.-D. (2015). Stock Market Awareness among the Educated Youth: A Micro-level Study in India. *The Journal of Business Perspective*.
- Amos O. Arowoshegbe, & Uniamikogbo Emmanuel. (2016). Sustainability and Triple Bottom Line: An Overview of Two Interrelated Concepts. *Igbinedion University Journal of Accounting*, 2(January), 1–40.
- Borchersen-Keto, S. (2022). Retrieved from NAREIT: <https://www.reit.com/news/podcasts/retrofitting-buildings-seen-essential-step-reaching-net-zero-emissions-goals>
- Bertoldi, A., Prof, R., Viruly, F., & Ureru, U. (2021). Role of Residential Real Estate Investment Trusts (REITs) in Sub-Saharan Africa.
- Boshoff, D., & Bredell, E. (2013). Introduction of REITs in South Africa: Transformation of the Listed Property Sector. Pretoria: University of Pretoria.
- Bower, J. R. (2020). Housing Policies in Rwanda; Riding the Urbanisation Wave. IGC.
- Brounen, D., & Marcato, G. (2018). Sustainable insights in public real estate performance: ESG scores and effects in REIT markets. Berkeley Lab.: Berkeley, CA, USA. [https://buildings.lbl.gov/sites/default/files/ESG measures FinalVersion.pdf](https://buildings.lbl.gov/sites/default/files/ESG%20measures%20FinalVersion.pdf)
- Buckley, R., & Bower, J. (2020). Housing policies in Rwanda. Policy Paper S-19108 RWA-1, January 4.
- CAHF. (2020). Affordable housing in Ghana: Market shaping indicators. South Africa: Centre for Affordable Housing Finance in Africa.
- Caballero, P. (2019). The SDGs: Changing How Development is Understood. *Global Policy*, 10(January), 138–140. <https://doi.org/10.1111/1758-5899.12629>

- Calderon, C., & Zeufack, A. G. (2020). Borrow with Sorrow? The Changing Risk Profile of Sub-Saharan Africa's Debt. Borrow with Sorrow? The Changing Risk Profile of Sub-Saharan Africa's Debt, January.
<https://doi.org/10.1596/1813-9450-9137>
- CFI. (2021). Random walk theory. A mathematical model of the stock market.
Retrieved from www.corporatefinanceinstitute.com
- Cletus Moobelaa & Nalumino Akakandelwab & Mutale Katyokac & David Manased & Wilfred Matipae & Dingayo Mzyechef & Victor Samwingag & Sambo Zuluh, 2022. "Barriers And Success Factors To The Adoption And Implementation Of Real Estate Investment Trusts (REITs) In African Real Estate Markets," AfRES 2022-030, African Real Estate Society (AfRES).
- Coulibaly, B. S., Gandhi, D., & Senbet, L. W. (2019).
Africa_Sovereign_Debt_Sustainability. 1–16.
- Dai, X., & Kuosmanen, T. (2014). Best-practice benchmarking using clustering methods: Application to energy regulation. Elsevier.
- Deb, A. (2020). Governance and Sustainable Development Goals (SDGs): Exploring The Relationship Between Governance and SDGs Using an International Comparative Perspective. Texas: Thesis submitted to the University of Texas Rio Grande Valley graduate college in partial fulfilment of the requirements for the Master of Public Affairs degree. 14.
- Diala, O. A. (2021). Affordable Housing Ambidexterity of Real Estate Investment Trusts: SWOT Analysis for N-REITs. European Journal of Business and Management, 13(12). <https://doi.org/10.7176/ejbm/13-12-02>
- Deloitte. (n.d.). REITs and infrastructure projects.
- Fei, W., Opoku, A., Agyekum, K., Oppon, J., Ahmed, V., Chen, C., & Lok, K. (2021). The Critical Role of the Construction Industry in Achieving the Sustainable Development Goals (SDGs): Delivering Projects for the Common Good. MDPI.
- Feng, Z., & Wu, Z. (2022). Local Economy, Asset Location, and REIT Firm Growth. Journal of Real Estate Finance and Economics, 65(1), 75–102.
<https://doi.org/10.1007/s11146-021-09822-8>
- Fuje, H., Ouedraogo, R., Yao Jiaxiong, Diaby Mohamed, & Ouattara Franck. (2022). Regional Inequalities in Sub-Saharan Africa.

- Funari, N. (2022, 02 28). Nareit Study Shows the Growth and Benefits of Global REIT Adoption. Retrieved from NAREIT:
<https://www.reit.com/news/blog/market-commentary/nareit-study-shows-growth-and-benefits-global-reit-adoption>
- Giatec. (2024, 6 1). Retrieved from <https://www.giatecscientific.com/products/>
- Gogineni, Sridhar and Jain, Pawan and Upadhyay, Arun. (2022). REIT Regulations and Valuation: A Global Perspective. Available at SSRN:
<https://ssrn.com/abstract=4310581> or <http://dx.doi.org/10.2139/ssrn.4310581>
- Gondo, N. (2019). How to Invest: Exactly How Much Daily Volume Should You Look For In A Great Stock? Investors Business Daily.
- Goubran, S. (2019). On the Role of Construction in Achieving the SDGs. Journal of Sustainability Research, 1(2), 1–52. <https://doi.org/10.20900/jsr20190020>
- Goubran, S., & Cucuzzella, C. (2019). Integrating the Sustainable Development Goals in Building Projects. Journal of Sustainability Research, 1(2).
<https://doi.org/10.20900/jsr20190010>
- Habbab, F. Z., & Kampouridis, M. (2024). An in-depth investigation of five machine learning algorithms for optimizing mixed-asset portfolios, including REITs. Science Direct.
- Hu, S. (2017). Intelligent REITs in the information age. Research Gate.
- Indrawan, I., & Wahyuningsih. (2021). Literature Review on REITs and Islamic REITs and Lessons Learned for. Unpublished.
- Ionaşcu, E., Mironiuc, M., Anghel, I., & Huian, M. C. (2020). The involvement of real estate companies in sustainable development analysis from the SDGs reporting perspective. Sustainability (Switzerland), 12(3), 1–24.
<https://doi.org/10.3390/su12030798>
- Ishak, S. Z., Nusa, F. N. M., Ahmad, R., & Shafien, S. (2022). The Comparison of Malaysian Real Estate Investment Trusts (M-REITs) and Islamic REITs with China-REITs (C-REITs) and Japan Infrastructure Fund for Railway Infrastructure Development in Malaysia: A Review. 2022 IEEE International Conference on Automatic Control and Intelligent Systems, I2CACIS 2022 - Proceedings, June, 152–157.
<https://doi.org/10.1109/I2CACIS54679.2022.9815484>

- Joseph, D., Olanrewaju, O., Wayne, J., & Diouf, W. (2020). The Potential for Developing a Residential Real Estate Investment. Centre for Affordable Housing Finance in Africa.
- Keke,V;Emoh, F. I. (2019). Real Estate Investment Trusts (Reits) and Mortgage-Backed Securities (Mbs) as Emerging Trends for Financing Real Estate Development in the Nigerian Capital Market. *International Journal of Civil Engineering, Construction and Estate Management*, 15(2), 9–25.
www.eajournals.org
- Ma, X. (2020). Future Development Trends of REITs in Mainland China. *E3S Web of Conferences*, pp. 218, 1–5. <https://doi.org/10.1051/e3sconf/202021802011>
- Mariani, M., Amoruso, P., Caragnano, A., & Zito, M. (2018). Green Real Estate: Does It Create Value? Financial and Sustainability Analysis on European Green REITs. *International Journal of Business and Management*, 13(7), 80.
<https://doi.org/10.5539/ijbm.v13n7p80>
- Marsden, J. H., & Wilkinson, V. A. (2018). Big data analytics and corporate social responsibility: Making sustainability science part of the bottom line. *IEEE International Professional Communication Conference*, 2018-July, pp. 51–60.
<https://doi.org/10.1109/ProComm.2018.00019>
- Marzuki, M. J., & Newell, G. (2018). The emergence of Spanish REITs. *Journal of Property Investment and Finance*, 36(5), 495–508.
<https://doi.org/10.1108/JPIF-05-2018-0032>
- Mawdsley, E. (2015). DFID, the Private Sector and the Re-centering of an Economic Growth Agenda in International Development. *Global Society*, 29(3), 339–358.
<https://doi.org/10.1080/13600826.2015.1031092>
- Minh Hiep, P., Hoang Tien, N., Paul Dana, L., Rafal Kuc, B., Van Tien, N., Chi Minh City, H., & Vu Xuan Ha, V. (2021). Enhancing Social Responsibility and Sustainability in Real Estate Industry. *Turkish Journal of Computer and Mathematics Education*, 12(14), 4999–5013.
- Morri, G., Anconetani, R., & Benfari, L. (2020). Greenness and financial performance of European REITs. *Journal of European Real Estate Research*, 14(1), 40–61.
<https://doi.org/10.1108/JERER-05-2020-0030>
- Ndung'u, D., & Onyuma, S. (2020). Financing Affordable Housing Through Real Estate Investment Trusts in Africa. Africa Growth Institute.



- Nguyen, H. (2016). Integration of BIM and IoT to Improve the Building Performance for Occupants Perspective. Stockholm: Masters Thesis: Royal Institute of Technology.
- Odusola, A., Cornia, G. A., Bhorat, H., & Conceição, P. (2019). Income Inequality Trends in Sub-Saharan Africa Divergence, Determinants, and Consequences: Introduction, Motivation and Overview. In Nations Development Programme (UNDP) Africa Reports.
- Okada, K., & Shinkuma, T. (2022). Transparency and natural resources in sub-Saharan Africa. *Resources Policy*, 76(February), 102574.
<https://doi.org/10.1016/j.resourpol.2022.102574> PRI. (n.d.). A Strategy For Investing In Sustainable Reits. Retrieved from
<https://www.unpri.org/download?ac=6411>
- Qi, B., Razkenari, M., Costin, A., Kibert, C., & Fu, M. (2021). A systematic review of emerging technologies in industrialized construction. *Journal of Building Engineering*.
- Scheyvens, R., Banks, G., & Hughes, E. (2016). The Private Sector and the SDGs: The Need to Move Beyond 'Business as Usual.' *Sustainable Development*, 24(6), 371– 382. <https://doi.org/10.1002/sd.1623>
- Turner, D. (2023). A Tailwind for Towers: A Closer Look at the Cell Tower REIT Sector.
- United Nations. (2020). Economic and Social Council-SDG REPORT (Vol. 06176, Issue April).
- United Nations. (2021). Economic and Social Council -SDG REPORT. 05814(April), pp. 1–27.
- United Nations. (2022). Economic and Social Council-SDG (Vol. 2017, Issue April).
- United Nations. (2023). The-Sustainable-Development-Goals-Report-2023.pdf.
- UNSD. (2020). Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. Work of the Statistical Commission about the 2030 Agenda for Sustainable Development, pp. 1–21. https://unstats.un.org/sdgs/indicators/Global Indicator Framework after 2019 refinement_Eng.pdf%0Ahttps://unstats.un.org/sdgs/indicators/Global Indicator Framework_A.RES.71.313 Annex.pdf