Sustainable Housing Initiative (SHI)

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Comparative Study on Financing Schemes for Student Accommodation

in Ghana, Kenya, Nigeria, & South Africa

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Affordable Housing Institute

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Résumé
Cette étude comparative analyse les secteurs du logement étudiant au Ghana, au Kenya, au Nigeria et en Afrique du Sud, en se concentrant sur les modèles commerciaux prévalents, les avantages, les défis et les opportunités associés. L'étude révèle dix points clés, notamment une forte demande, une diversité d'options d'approvisionnement, des lacunes dans la réponse à la demande, des marchés matures avec des modèles innovants, des inefficacités réglementaires, des approches de gestion uniques, des défis de financement, des réductions dans les régimes d'aide nationaux, la participation des investisseurs institutionnels et la nature dynamique du logement étudiant. Basé sur une recherche approfondie, des entretiens avec les parties prenantes et les étudiants, le rapport propose une évaluation et une perspective pour chaque pays, mettant en évidence les tendances en matière d'offre, de demande et de financement. L'étude vise à informer les parties prenantes dans la création de communautés de vie dynamiques pour les étudiants dans ces pays.

Mots-clés :
Logement étudiant, PBSA (Logement étudiant spécialement conçu), partenariats public-privé, SCPI (Sociétés Civiles de Placement Immobilier).

Géographies :
multi-pays, Afrique

Abstract
This comparative study analyzes the student accommodation sectors in Ghana, Kenya, Nigeria, and South Africa, focusing on prevalent business models, benefits, challenges, and opportunities. The study reveals ten key takeaways, including high demand, diverse supply options, deficits in addressing demand, mature markets with innovative models, regulatory inefficiencies, unique management approaches, financing challenges, reductions in nationwide aid schemes, institutional investor involvement, and the dynamic nature of student housing. Based on extensive research, stakeholder interviews, and student input, the report provides an assessment and outlook for each country, highlighting supply, demand, and financing trends. The study aims to inform stakeholders in creating vibrant living communities for students in these countries.

Keywords :
Student accommodation, PBSA, private-public partnerships, REITs,

Areas :
Ghana, Nigeria, Kenya, South Africa, Multi-countries, Africa.

Introduction

In coordination with the Agence française de Développement (AFD), the Affordable Housing Institute has prepared a draft report. Following a desktop review period as well as a series of four field missions, AHI presents an assessment of the student housing sectors in Ghana, Kenya, Nigeria, and South Africa. This report represents the second deliverable of the consulting team and will constitute the basis for the dissemination workshop and final report.

Purpose of the study

The objective of this overview of student housing in Ghana, Kenya, Nigeria, and South Africa is to investigate the following themes and provide a detailed understanding of the main dynamics, trends, and bottlenecks therein:

- ***Market actors and financial resources.*** Which are the leading operators in PBSA sector, and how do they manage to mobilize, or not, the proper financial schemes to develop student housing?
- ***Student housing investment types.*** What is the share of investment into student housing between institutional actors (pension funds, insurance funds, other institutions) and supply-side market actors (developer, owner, operator), listed/nontraded REIT, and others?
- ***Role of institutional investors and DFIs.*** What can be the role of institutional investors and DFIs in student housing?
- ***Student housing funding.*** What are the existing funding models and mechanisms?
- ***Student housing stock.*** What are the main challenges to increasing the student housing supply? How are trunk infrastructure and essential services provided on sites (transport, electricity, water, sewerage)?
- ***Inclusive and green student housing.*** Are there opportunities for impact investment for higher inclusivity and green building?
- ***Property management models.*** How is student accommodation managed by different providers?

1. Executive Summary

This comparative study aims to provide a comprehensive analysis of the student accommodation sectors in Ghana, Kenya, Nigeria, and South Africa, focusing on identifying prevalent business models, associated benefits, challenges, and opportunities. By examining various themes, this study seeks to gain a deeper understanding of the dynamics, trends, and challenges within each country's student housing market, with the overarching objective of making student-living communities more vibrant and conducive to learning.

Ten key takeaways about the state of student accommodation in the four focus countries that have emerged from this study are:

1. ***High demand driven by young population and increased access to higher education.*** The student housing market in Ghana, Kenya, Nigeria, and South Africa experiences strong demand due to a young population with median ages between 18 and 27 years, and a growing emphasis on higher education from national governments[1]. This demand is expected to continue rising as more young individuals seek tertiary education opportunities.

2. ***On the supply-side, student accommodation in the four countries offers a diverse range of options***, including University provided and managed residences, as well as private-sector provided and managed PBSAs that are available both on- and off-campus. In Kenya, Ghana and Nigeria, a significant portion of the students live in small-scale owner-generated accommodations also, however, these lack proper regulations and formal lease agreements.

3. ***Despite dynamic supply, significant deficits exist in addressing students' demand***. While there is a diverse supply of student accommodations, there is a substantial gap between supply and demand. On-campus university residences can only accommodate a fraction of the student population, ranging from 15% to 40% across the four countries. Nigeria, in particular, faces a student housing gap of over 1.5 million units currently.

4. ***Affordability is constrained in all four markets with middle- and low-income students being able to afford only low-range cost of living expenses, resulting in qualitatively subpar living conditions.*** Affordability levels are especially low in Kenya; our estimates suggest that roughly 40% of the student population could afford even low-range costs (considering a monthly low-range budget[2] is roughly 60% of the average monthly per capital income in Kenya. See table 3 outlining the current state of affordability in the four countries). Widely available student aid in South Africa and Kenya in the form of NSFAS and HELB funding improves the effective affordability of the student by providing coverage to pay for living essentials. In counties without nationally-available aid, students resort to renting in unregulated/informal student accommodations that though available at a cheaper price, may not be an environment conducive to learning. This report elaborates on the cost of living and affordability estimates in the following sections, specifically in the Demand-side assessments in Section 2.2.

5. ***South Africa and Kenya showcase mature markets with innovative models***. Some markets are more mature in terms of innovative models being deployed for generating student housing, specifically South Africa and Kenya. This could be attributed to the nationwide availability of student aid like NSFAS (in South Africa) and HELB loans (in Kenya) that catalyze the market by improving payment capacity of students, however they also restrict the market in several ways including introducing a price ceiling, requiring adherence to minimum standards for the student accommodations, and need to transact with universities for accreditation to host aid-funded students.

6. ***Inefficiencies in regulations and certifications hinder student housing development***. Existing norms, building regulations, and green certifications do not certify student housing as an asset class separate from other multi-residential housing or commercial assets. This creates inefficiencies by increasing development costs to comply with multi-family residential building norms like parking requirements. Green certifications also fail to account for the distinct occupancy patterns, usage, and lifespan of student accommodations, impacting the efficiency of green systems.

7. ***Unique management approach for PBSAs enhances student experience***. Proper management and operations of PBSAs require a distinct approach compared to other residential or commercial real estate. Successful operators view these assets as "student communities," going beyond facilities management to foster a supportive environment that positively impacts students' well-being and enhances their learning experience. This approach leads to higher retention rates and occupancy levels, ultimately affecting overall profit margins.

8. ***Reductions in nationwide aid schemes raise concerns regarding feasibility and affordability of student housing.*** Students employ multiple resources to finance their education and accommodation costs. In

[1] In Ghana, total allocation to the education sector in the 2021/2022 fiscal year was GHC 12.7 billion (approximately USD 2.2 billion).
In Kenya, allocation to the education sector in the 2021/2022 fiscal year was KSH 527.4 billion (approximately USD 4.8 billion).
In Nigeria, allocation to the education sector in the 2021 budget was NGN 742.5 billion (approximately USD 1.8 billion).
In South Africa, allocation to the education sector in the 2021/2022 fiscal year: ZAR 408 billion (approximately USD 28 billion).
[2] Including accommodation, food, utilities, transport, and internet/phone

South Africa and Kenya, over half of the students benefit from nationwide aid and loans. However, in Nigeria and Ghana, where nationwide student aid is lacking, more than 60% rely on parental or sponsor support, with the rest self-funding. Recent reductions in NSFAS and reports of reduction in HELB loans raise concerns about the sustainability of these nationwide schemes, and their impact on the ability of the students to afford decent student accommodation.

9. ***Financing challenges highlight the need for innovative long-term funding from development finance institutions and institutional investors.*** Private developers face challenges in providing equity contributions for student housing projects. Development Finance Institutions (DFIs) can address this issue by exploring the establishment of development funds, guarantee funds, and by considering equity investments in promising student housing developers, ensuring sufficient supply-side financing for the sector. The relatively immature and fragmented nature of the PBSA market creates perceived risks that deter institutional investors, that are reluctant to make small-sized investments. To attract such investors, innovative financing options are necessary to provide stability and encourage participation in the student housing market. Student Accommodation REITs in Kenya by Acorn and in South Africa by Growthpoint have been able to unlock the institutional investor market to some extent. There is also potential to leverage the securitization market for student housing fundraising.

10. ***Student housing is a dynamic asset class with potential for addressing youth housing needs.*** Student housing in Africa is already on its path to becoming a dynamic asset class. In the future, it has the potential to evolve beyond serving solely as accommodations for students and encompass other youth communities, including young professionals, post-doctorate students, healthcare workers, and other emerging demographics. There is potential for supply-side entities to tap into the aggregated student demand and address their housing needs beyond academic life as well.

Our study highlights these key overall takeaways for the student accommodation sector based on expansive market research, stakeholder interviews and discussions, several student housing project tours, and focus group discussions with university students. A brief summary of our assessment and outlook for the sector in Ghana, Kenya, Nigeria and South Africa is outlined below, along with a comparative matrix, included at the end of this section, that presents a snapshot of the supply, demand and financing trends that persist in the four countries.

1.1. Ghana market summary

The student accommodation sector in Ghana is relatively nascent compared to other countries, with limited private sector involvement, possibly due to high-interest rates exceeding 25% per annum. The market is primarily led by national-scale trusts and funds like SSNIT and the Teachers' Fund, which develop and manage student hostels on leased land from universities. Stakeholders report an average yield on investment of less than 10%, taking 15 to 20 years to realize returns.

Accommodation options in Ghana include traditional university halls, private hostels, and more affordable but informal and unregulated homestels. While the country lacks a widespread student aid scheme, uncollateralized student loans are available from banks and government-regulated entities.

Although a previous attempt at a public-private partnership (PPP) for student housing faced corruption issues, the policy climate in Ghana is currently supportive of the higher education and student housing sectors. Notably, the government has initiated a project led by GETFunds, allocating EUR 38 million [GHC 485 million]to construct 300-bed hostel blocks in 45 Colleges of Education all over Ghana. This demonstrates a commitment to addressing accommodation needs and signifies a favorable environment for the sector's growth.

Despite the challenges and limited private sector participation in the Ghanaian student housing market, ongoing efforts and government initiatives reflect a positive trajectory for the sector. The focus on expanding infrastructure in educational institutions showcases the recognition of the importance of quality student accommodation and highlights the potential for further development and investment opportunities in the market, especially in exploring blended financing mechanisms with pension funds and insurance trusts that are already well-engaged in the sector.

1.2. Kenya market summary

The student housing market in Kenya is nascent but robust, offering ample opportunities for growth. In recent years, the market has been dominated by one player, Acorn Holdings. However, newer players such as Century Development and Student Factory are gradually emerging.

Acorn Student Living has primarily focused on off-campus student housing near major universities in Kenya. They have expanded their portfolio through a dual-REIT (Real Estate Investment Trust) system, attracting investments from commercial, retail, and institutional investors to develop and operate student accommodation assets. This approach has proven highly successful, yielding returns of over 10% since its introduction.

Universities in Kenya are able to accommodate approximately 20% of the student body in on-campus university housing, which is often poorly maintained and inadequately operated. Acorn Student Living's current portfolio of 4,500 beds accommodates just 0.01% of the student population. As a result, the majority of students seek other private student housing options or end up in informal student rentals, predominantly located in informal settlements with unfavorable living conditions.

Limited availability of low-cost financing, ineffective public-private partnerships (PPPs), high costs of strategically located land, and inadequate expertise among operators to manage rental tenures are factors deterring greater private sector involvement in the market. However, the outlook for the sector in Kenya remains positive. Recent policy changes have improved access to education, and Acorn Student Living's successful track record sets a promising precedent for the sector's growth and development.

With the potential for increased private sector participation, improvements in the availability and quality of student accommodation can be expected in Kenya. These developments align with the government's efforts to enhance educational access and create conducive learning environments for students across the country.

1.3. Nigeria market summary

The student accommodation sector in Nigeria is dynamic but fragmented. With over 200 higher education institutions (HEIs) and the largest student body among the four countries, Nigeria faces the highest demand and housing deficit. The deficit of over 1.5 million beds has attracted several private market players who are entering the sector to address the growing demand.

Public-private partnerships (PPPs) with federal, state, and private universities are the most prominent models being deployed in Nigeria. However, developers have expressed feasibility concerns, particularly with federal universities due to lengthy procedures and cumbersome processes. PPPs with private universities are preferred by developers. Despite these challenges, PPPs are more common than private off-campus accommodations. Factors such as the high cost of land in urban areas like Lagos, limited financial capacity of small-scale student accommodation developers to engage in land transactions, and students' preference for on-campus living contribute to this trend.

Universities in Nigeria are able to accommodate less than 15% of their student population in university residences. The absence of a nationwide student aid scheme similar to South Africa further reduces students' ability to access safe and decent student accommodation. As a result, the majority of students live off-campus in informal and often run-down hostels and rentals, competing with other young professionals in the rental market.

There is an urgent need to streamline the student accommodation market in Nigeria. Supporting developers with equity investments, establishing development and guarantee funds, and exploring alternative solutions like tokenization and endowment funds can help deepen their funding access. These measures are crucial for improving the availability and quality of student accommodation, ensuring students have access to safe and suitable housing options throughout their educational journey in Nigeria.

1.4. South Africa market summary

The student accommodation market in South Africa is the most mature among the four countries, with several private sector developers providing large-scale off-campus accommodations. This trend can be attributed to the availability of the nationwide student aid scheme, the National Student Financial Aid Scheme (NSFAS), which provides accommodation coverage of up to ZAR 45,000 per student annually. While the NSFAS aid catalyzes the market, it also introduces restrictions such as minimum norms and standards and university accreditation requirements, which can create inefficiencies in the development process for student accommodation in South Africa.

Each year, the NSFAS funds over 60% of university students and over 90% of students in Technical and Vocational Education and Training (TVET) institutions. With the new NSFAS regulations, both university and TVET students now receive an equal accommodation allowance of ZAR 45,000 per year.

Among the private sector players, companies such as Respublica, Growthpoint, and Eris are some of the largest contributors to the market. However, the private sector predominantly operates in the range of monthly rents from ZAR 3,500 to ZAR 4,500, leaving unaddressed demand in the affordable sector. Furthermore, private sector-developed student accommodation is concentrated near universities in urban areas and has yet to penetrate peri-urban and rural areas where most TVET institutions are located.

To address this gap, the South African government initiated the Student Housing Infrastructure Program (SHIP), led by the Department of Higher Education and Training (DHET), to increase the availability of student accommodation at TVET institutions outside urban areas. However, the program has faced limited success and struggles to attract significant interest from private sector players.

Despite the progress made by private sector entities and the catalyzing effect of NSFAS aid, a deficit of over 500,000 beds still exists in the South African market. The affordability needs are particularly concentrated in the TVET sector. Addressing these market penetration challenges requires more strategic partnerships between private and public sector entities, along with a reconsideration of building standards and norms for student housing. By fostering collaboration and adapting regulations, the South African student accommodation market can better meet the growing demand and provide suitable, affordable options for students across the country.

In addition to the individual market assessments in the four countries, we also conducted a comparative assessment of the supply and demand side characteristics of the markets to understand prominent business models used to deliver the beds, and their associated successes, challenges and limitations. Learnings from this supply and demand side assessments are outlined below.

The supply-side assessment of the student housing market in Ghana, Kenya, Nigeria, and South Africa reveals several commonalities and variations among the countries. In terms of product offerings, there are four main types of student accommodation prevalent in these countries: on-campus university provided and managed accommodation; on-campus private-sector developed and managed accommodation; off-campus private-sector developed and managed accommodation; and small-scale owner-generated rental accommodations. The table below provides a snapshot of the types of products that are prevalent in the four countries, along with the key development and management entity. An illustration of a conclusion from the chart is: On-campus private accommodations are prevalent in Ghana and Nigeria, and can be developed and managed either by a private sector developer only, or as a partnership between a university and a developer, as in a PPP. Additionally, we also see that off campus private accommodations are prevalent in Kenya and South Africa, and exist but are less common in Ghana and Nigeria.

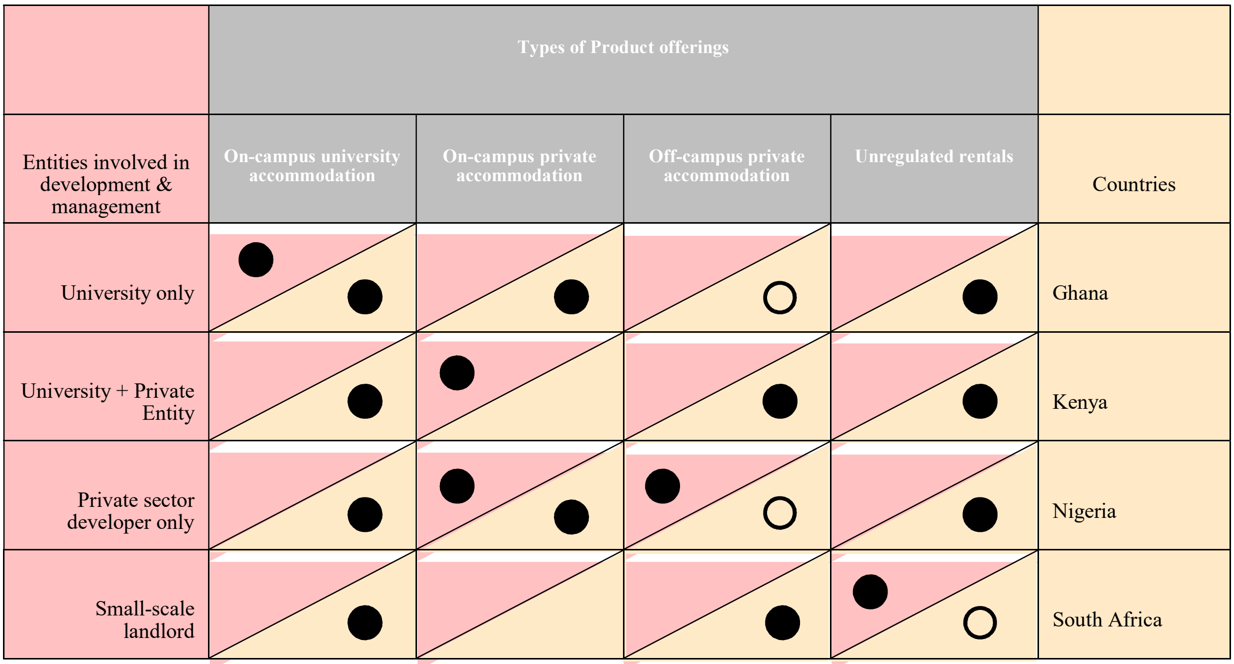

Figure 1 : Table denoting the type of products available in each country, and entities involved in development and management.

Source: AHI market research.

Student accommodation prices vary depending on factors such as the provider, unit type, amenities, location, student aid received, and market conditions. Public university-provided accommodation generally tends to be the most affordable, while private developer-built and private university-built accommodation are relatively more expensive. Price caps for student accommodation are uncommon, except in Nigeria with Federal and State universities where regulations exist. However, the student housing sectors in South Africa, and to some extent in Kenya, rely heavily on nationwide student aid, which provides affordability support for students but poses risks for PBSA providers when accommodation coverage changes. The pricing table below provides a comparative analysis of the price points across the four countries for the different product types available.

	Ghana[3]	**Kenya**[4]	**Nigeria**[5]	**South Africa**[6]
TYPES	*PRICES*[7] *(in euros)*			
University provided and managed residence	**138-174** [GHS 1765-2230] per bed per year	**288-335** [KES 37k-43k] per bed per year at a public university **819-936** [KES 105k-120k] per bed per year at a private university	**115-290** [NGN 100k-250k] per bed per year at a public university[8] **917-1,720** [NGN 800k-1.5mil] per bed per year at a private university	**1,450-3,205** per bed per year [ZAR 29k-65k] per bed per year
Private developer provided and managed[9] student housing (on-campus)	**465-2,340** [GHS 6k-30k] per bed per year	This model is not common in Kenya.	**183-230** [NGN 160k-200k] per bed per year at a public university **1,725** [NGN 1.5mil] per bed per year at a private university	This model is not common in South Africa.
Private developer provided and managed student housing (off-campus)	This model is not common in Ghana.	**945** [KES 150k] per bed per year for 'affordable' segment	**860-2,065** [NGN 750k-1.8mil] per bed per year in Abuja & Lagos	**2,120-2,220** [ZAR 43k-45k] per bed per year for affordable[10] segment

[3] 1 GHS = 0.078 EUR
[4] 1 KSH = 0.0078 EUR
[5] 1 NGN = 0.0011 EUR
[6] 1 ZAR = 0.049 EUR
[7] Range in pricing denotes that the price per bed depends on configuration layout, i.e. 2-person sharing, 4-person sharing, etc.
[8] Of the public universities in Nigeria, University of Lagos tends to charge more despite being a public university, and the price per bed can go up to 700,000 NGN.
[9] This includes student residences built on-campus using a PPP model as well.
[10] This price point is considered 'affordable' for South Africa since it falls under the 45k per year accommodation allowance given by NSFAS.

		1,195-2,170 [KES 190k-345k] per bed per year for high-end segment	**515-860** [NGN 450k-750k] per bed per year in other parts	**2,270-4,190** [ZAR 46k-85k] per bed per year for high-end segment

Figure 2 : Table showing the product-type wise pricing available in the four countries.

Business models deployed for student accommodation differ across the countries and are influenced by factors including availability of student aid, performance of capital markets, access to development financing, and regulations regarding public-private engagement.

In Ghana, the predominant model is of national-scale institutional investors leading the development of student hostels through their subsidiary organization, in partnerships with universities and on leased university land. The development is funded by the institutional investor fund.

In Kenya, private-sector led development of off-campus accommodations around universities is the predominant model. This development is financed using a dual-REIT model.

In Nigeria, PPPs are common where private sector developers partner with Federal, State or Private universities to develop on-campus accommodations that are operated by a private sector operator (mostly developers' sub-entity), to be eventually transferred back to the university at the end of a generally 20-25 year concession period. In addition to the land being provided by the university, these transactions are funded using a combination of developers' own equity, debt financing from banks, financing from special infrastructure funds, and some DFI investments.

In South Africa, catalyzed by the nationwide NSFAS funding, private-developer built and managed off-campus student accommodation is dominating the supply. These projects are funded using a combination of developers' own equity, debt financing from banks, and DFI investments.

Later sections of the report outline these models in further detail.

The demand for PBSAs in South Africa, Kenya, Ghana, and Nigeria has been increasing rapidly, creating investment opportunities, there are fundamental challenges in the sector that need to be addressed. On the supply-side, developers face limited capacity to provide equity contributions, hindering their ability to scale and improve yields while maintaining affordability. Access to long-term, low-cost funding is limited due to the perceived riskiness of the PBSA market. PPP implementation for student housing has seen limited success outside of Nigeria, with issues surrounding technical capacity of Universities, regulations, and financial feasibility. Integration of green and sustainable features and socially inclusive facilities is also limited.

Despite these challenges, the PBSA market in the region has attracted interest due to non-cyclical rental levels, stable yields, limited supply, and growing demand driven by demographic trends and economic prospects. Developers like Acorn Group in Kenya have addressed financing issues through innovative structures like dual-REITs. However, a more supportive policy environment, clarity in regulations, and improved access to financing are needed to unlock the full potential of the PBSA market. Further sections of this report discuss these recommendations in detail.

In addition to the supply and demand side assessments, this study identified three critical facets about student housing and its future outlook, that will require further research and consideration by the key stakeholders in the sector:

- ***Management of SA is significantly different from other residential or commercial assets.*** Operating student accommodations requires operators to cater to issues beyond just facilities management. Accurately described in an anecdote by one of the private-developers we interviewed in South Africa, "*in these accommodations, its our job to support them grow from kids to adults."* Operators deploy skilled accommodation managers with inter-personal skills to manage the young adults. Additionally, being attentive to the well-being of the student community living in the accommodation has a direct impact on profit margins due to increase retention and occupancy levels, coupled with lowered incidents of damage to property and accidents. We also learnt that the most effective operators prefer to track the operation lifecycle of a property at a bed-level to optimize operations.

- ***There is a need to define 'affordable' student housing.*** Affordability in the student housing world is a multifaceted concept that varies across different countries and locations. In Nigeria, affordability is linked to the economy and location, with rent prices needing to align with the local context, while in South Africa, it is linked to the accommodation coverage offered by NSFAS. While university residences are the cheapest option in the four countries, the private sector cannot compete with those prices since these residences were developed decades ago. It is critical for all stakeholders in the sector to establish a benchmark for what is to be considered 'affordable' student housing. Discussions with stakeholders during a synthesis workshop conducted during the study revealed a few ideas around defining affordability, these were:

    - Location and Rent Alignment: Affordability can be defined by ensuring that rent prices for student housing align with the local economy and the specific location of the university. This takes into account the cost of living in the area and ensures that rents are reasonable for students based on the context.

    - Parental Income Levels: Affordability can also be tied to parental income levels. Understanding the income levels of parents and their ability to contribute to student housing costs provides insights into the financial capacity of students and helps determine what is considered affordable for different segments of the student population.

    - Establishing gradations for student accommodations based on quality and facilities provided: Affordability can be assessed by comparing student housing prices to benchmarks established by universities residences. University and developer provided accommodation can be graded as 'affordable', 'mid-level', and 'high-end' based on its difference in rent from the university residences, i.e. 15-20% higher could be considered 'affordable' and so on.

- ***Concerns exist regarding reconciling profitability and affordability are emerging.*** In light of recent decreases in the NSFAS funding in South Africa, the sector needs to consider long term sustainability of these financial aid schemes, especially those that are funded using budget allocations. Additionally, with increasing development costs, stringent building norms, and a need for high-touch operations, and limited institutional investor participation, profitability for developers may be of concern. While the sector promises high demand, and high annual yields, setting realistic expectations for stakeholders, including financial institutions, and mitigating risks through cash flow negotiation and attracting investment from pension funds will be critical to facilitate the balance between affordability and profitability.

In conclusion, the PBSA market in these countries holds promising prospects, but addressing challenges and fostering an enabling environment are key for its sustainable growth. The future of student housing lies in envisioning youth communities and implementing student-centric norms and standards that prioritize holistic development and well-being, while ensuring that the development is optimized. By focusing on these factors, the student housing sector can thrive and contribute to the overall growth and success of students.

Topic	South Africa	Nigeria	Kenya	Ghana
Key market drivers/ considerations	- **NSFAS coverage** catalyzes the market. - **Private sector leading development of off-campus accommodations** in the vicinity of universities in urban areas. - **SHIP led by DHET** is attempting to increase SH in TVETs; limited success. - **MN&S** need reconsideration to align with reduced NSFAS and increasing development costs.	- **PPPs are common** but concerns regarding feasibility and profitability. - **Development costs and price points differ** significantly between Lagos + Abuja and other areas. - **Absence of widely available student aid reduces access to SH**; majority of the students live in informal rentals.	- **Market is currently dominated by one player developing off-campus SH** using a dual-REIT - Only market that has been able to unlock large-scale institutional investment via REITs. - **PPP is being attempted by UofN**, but any definite outcomes are yet to be seen.	- **Pension funds and insurance trusts lead development of SH**, on leased university lands. - Funded using member contributions, thus ability to deploy at scale. - **Off-campus opportunities still untapped** by private developers, possibly due to high interest environment.
Total student population (2023)	Over 1.1 million	Over 2 million	Over 900,000	Over 600,000
% accommodated in university residences	~20%	~15%	~23%	~40%
Estimated addressable demand	Approximately **750,000** students	Approximately **1.7 million** students	Approximately **430,000** students	Approximately **320,000** students
Per capita average monthly income (AI)	1,256 EUR (25,304 ZAR)[11] for 2023	167 EUR (135,589 NRN)[12] for 2022	398 EUR (62,000 KES)[13]	209 EUR (2,594 GHS)[14] for 2022
Estimated monthly total expenses for students[15]	Low: **EUR 350** [28% of AI] High: **EUR 912** [72% of AI]	Low: **EUR 44** [26% of AI] High: **EUR 113** [67% of AI]	Low: **EUR 230** [58% of AI] High: **EUR 341** [85% of AI]	Low: **EUR 68** [32% of AI] High: **EUR 249** [119% of AI]

[11] Stats SA Quarterly Employment Survey: https://www.statssa.gov.za/publications/P0277/QES_Presentation_2023Q1.pdf
[12] 2022 World Bank GNI Estimate - https://data.worldbank.org/indicator/NY.GNP.PCAP.CD?locations=NG&view=chart
[13] Estimated from multiple sources including: https://www.salaryexplorer.com/average-salary-wage-comparison-kenya-c111#disabled ; https://www.tuko.co.ke/343265-average-salary-kenya-2020.html ; https://www.fsdkenya.org/wp-content/uploads/2023/06/Housing-conditions-of-different-livelihood-segments-A-deep-dive-into-2021-FinAccess-survey-with-a-focus-on-housing.pdf
[14] This represents the public sector average monthly net income. This is the latest data available, and it does not include the private sector. GSS (2022), Ghana 2022 Earnings Inequality in the Public Sector. https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/Earnings%20Inequality%20Report%2014-02-2023.pdf#page=21&zoom=100,86,460
[15] This includes an estimate of cost of accommodation, utilities, transportation, food, and internet/phone.

Topic	South Africa	Nigeria	Kenya	Ghana
Estimated % of students that can afford living expenses[16]	[17]Low: less than 70% High: less than 20%	Low: less than 75% of students in public universities High: less than 5% of students at public unis; close to 95% at private unis	[18]Low: less than 40% High: less than 20%[19]	[20]Low: less than 60% High: less than 10%
Product types available	- On-campus university managed - Off-campus private-sector developed & managed - Unregulated rentals (less common)	- On-campus university managed - On-campus private-sector developed & managed (via PPPs) - Off-campus private-sector developed & managed (less common) - Unregulated rentals	- On-campus university managed - Off-campus private-sector developed & managed - Unregulated rentals	- On-campus university managed - On-campus private-sector developed & managed - Off-campus private-sector developed & managed (less common) - Unregulated rentals
Price points for Student Accommodation (per bed per year)	Lowest: **EUR 1,450** Highest: **EUR 4,190**	Lowest: **EUR 115** Highest: **EUR 2,065**	Lowest: **EUR 288** Highest: **EUR 2,170**	Lowest: **EUR 138** Highest: **EUR 2,340**
Institutions involved in development	- Private-sector developers - Some private universities	- Private-sector developers - Federal, State & Private Universities (via PPPs)	- Private-sector developers - Public university (via PPP - ongoing)	- Subsidiaries of national pension funds and trusts
Institutions involved in financing	Local and international DFIs, commercial banks, specialized FIs like TUHF, pension funds and other qualifying long-term investors via REITs (Growthpoint).	Commercial banks, private equity investors, pension funds via targeted infrastructure funds like NIDF, government-investment vehicles like TETFund, local and international DFIs.	Commercial banks, institutional investors like pension funds, insurance and reinsurance companies, high net worth individuals and anchor investor DFI via REITs.	Commercial banks, DFI capital via commercial banks, and institutional investor funds and trusts using their member contributions.
Predominant development model	**Off-campus private sector-led development of large-scale student housing around major universities.**	**On-campus accommodation, delivered using BOT-type PPPs, with land contributed by university.**	**Off-campus accommodations by private-sector developer on leased or acquired land, funded using dual-REIT system.**	**On-campus hostels, developed by national institutional investors through their subsidiary organization on leased university land.**

[16] These affordability estimates have been approximated taking into consideration monthly per capita average incomes and monthly living costs in each of the four countries. These figures are only approximate and may not reflect the true affordability of the students. Our interactions with students and student housing operators during the coure of this study also reavealed that funding sources for students may change from one semester to the other, thus altering their affordability levels too. To fully understand the effective affordability levels of the student population, a representative survey in each country is recommended.

[17] Effective affordability levels among the South African student population may be higher due to the widespread availability of NSFAS funding.

[18] Effective affordability levels among the Kenyan student population may be higher due to the availability of HELB loans.

[19] Most of the Kenyans employed in the formal sector are domiciled in the lower wage brackets, with only 15 per cent earning more than EUR 645 (KES 100,000) per month. Kenya National Bureau of Statistics December 2022 & Business Daily https://www.businessdailyafrica.com/bd/economy/kenyans-average-income-of-sh20-123-hits-six-year-high--4043204

[20] Percentage of students able to afford each living estimate bracket was based on income quantiles from the Ghana Living Standard Survey 2018.

Topic	South Africa	Nigeria	Kenya	Ghana
Predominant management model	**Properties are managed in-house** by developer's operations entity, few services may be outsourced to third-party vendors.	**Properties are managed in-house** by developer's operations entity.	**Properties are managed in-house** by developer's operations entity.	Properties are managed by wholly-owned subsidiaries of the institutional investor.
Opportunities for intervention	• **Potential for the SHIP model to be adapted to a PPP-like model.** Majority of the PBSA demand in the next 5-10 years is going to be concentrated in the TVETs under the affordable market segments. • **Need for more long-term institutional investor participation.** • **Need to reconsider MN&S to reconcile affordability and feasibility,** given the recent NSFAS reduction. • **Potential for private-developers to collaborate with large asset aggregators** to identify strategic land or latent assets for SH development. • **Explore guarantee funds, and minimum rental revenue guarantees** to boost borrowing capacity of developers.	• **Structured/blended finance models, with FX risk hedging, long concession periods,** would be an ideal financing model for the Nigerian SH market • **Promotion of student housing backed investment trust vehicles, private equity investment clubs and structured crowdfunding** with corporate governance. Tap into alumni network for this. • **Using the bond market** – develop bond issuance to finance the high cost of development. • **Exploring rehab models in high-density urban areas**. • **Explore guarantee funds, and minimum rental revenue guarantees.**	• **Remove Obstacles in the Capital Markets** such as reducing minimum investments to reasonable amounts in order to access a wider pool of investors. • **Reduce bureaucracy and regulatory hindrances in the working of PPPs** by addressing lack of a revenue sharing mechanism; and lack of a mechanism to transfer public land to a Special Purpose Vehicle (SPV).	• **Untapped opportunity for PPPs;** universities have land but have limited capacity to manage the development process. • **Universities can explore sale-leaseback options for land with institutional investors.** • **Opportunity to use SH as affordable starter homes for fresh graduates** that go into 2-year mandatory national service.

Figure 3 : Comparative matrix presenting supply-demand, and key characteristics of the student accommodation market in the four countries.

2. Overview of the Student Accommodation sector in Ghana, Kenya, Nigeria and South Africa

2.1. Supply-side Assessment

On the supply-side, our research demonstrates that there are many overlaps in the value chain between the four countries of study. In terms of product offerings, student accommodation in Ghana, Kenya, Nigeria and South Africa (GKNSA countries) is relatively diverse. There are four main types of student housing accommodation that are present, each with varying typologies, presented in order of prevalence.

- **University-delivered and managed student accommodation**: **on-campus** PBSA that exists either as hostels or residence halls;
- **Private-sector delivered and managed student accommodation: On-campus** PBSA that can be of varying typologies including apartment blocks, apartments, and hostels. Universities typically provide land, either free, or for a pre-agreed annual payment.
- **Private-sector delivered student accommodation: Off-campus** PBSA that can be of varying typologies including apartment blocks, apartments, and hostels. Developers typically acquire land themselves or enter head leases with a university
- S**mall-scale owner generated student accommodation: off-campus** housing that students rent in. These are typically not designated as formal or purpose-built student housing and are thus unregulated.

The most common providers are universities themselves and private developers, though PPP-delivered accommodation is also common, especially in Nigeria. Additionally, small scale owner-operated student accommodation exists, though it is unregulated and not well-documented.

Generally, student accommodation in GKNSA countries presents a wide range of price points, which differ depending on the provider, unit type and room size, offered amenities, location, aid that the student is receiving, and other market factors. Though there are some variations, public university-provided accommodation tends to be the cheapest accommodation available on the market, while private developer-built accommodation and private university-built accommodation are more costly. Caps on rent prices for student accommodation is relatively uncommon, with Nigeria being the only country of study to regulated price ceilings for student accommodation. However, the student housing sector in South Africa heavily relies on NSFSA student funding, which both helps bridge the affordability gap for students but puts PBSA providers at risk should the coverage change.

Student delivery models vary from country to country. PPP delivery models for student accommodation are not equally common in all four countries. In Ghana, PPPs are scarcely used for student accommodation, though head land leases from universities to private developers or pension funds is common. Instead, we see universities self-developing or contracting construction companies to carry out construction, while in Kenya, the dominating private provider Acorn uses a dual system REIT to deliver student housing and purchases land on the market. In Nigeria and South Africa, there are variations of PPP models that are used. In South Africa, Design-Finance-Build-Operate-Transfers are frequently used, while head leases are also common, which can be quasi-considered as a form of PPPs. In Nigeria, PPPs are the predominantly delivery model for student housing, so much so that each university has their own process for establishing PPPs for student housing.

Providers tend to demonstrate an overall lack of capacity, which limits their participation in the sector and shapes the players currently active. In Kenya and South Africa, small and medium scale developers lack the expertise to execute student housing developments, leaving large players to dominate the sector. Universities and small-scale developers in Ghana are undercapitalized and lack the financial means to carry out PBSA projects; universities face challenges finding and allocating adequate resources for PBSA, while developers are unable to commit to the longer commitment period required of student housing development.

All countries have local capital markets that invest in the development and operation of student accommodation. Typical institutional investors include pension funds, financial institutions, insurance and reinsurance companies. However, some capital markets are more developed than others. South Africa and Nigeria's capital markets are comparatively better developed, followed by Kenya, while developers in Ghana struggle to access long-term and large-scale institutional financing. Part of the difficulty in accessing institutional financing derives from a general apprehension against student accommodation and a perception of it as a risky asset class. This has also made sourcing development finance through commercial banks and institutional investors difficult, particularly in Ghana, Kenya, and to some extent, in Nigeria as well.

In terms of property management of SH accommodation, it is consistent across GKNSA countries. Private developers most commonly manage their developed properties, either using a subsidiary management company, relying on an in-house property management team, or outsourcing management to a third-party entity. In PPP configurations, developers also tend to act as the property management entity, usually through in-house property management facilities. Management of university accommodation varies; in Ghana, universities create private subsidiary entities for hostel management, while in Kenya public universities struggle to meet the operational needs of their student accommodation.

2.1.1. Current student accommodation supply in each country

Ghana: The student housing offering in Ghana comprises university residence halls, on-campus university hostels, private student hostels, and homestays. Private hostels are much more expensive than university owned halls and hostels. There is a significant price difference as university halls and hostels in the 2022-23 academic year charged EUR 60-82 [750 to 1,020 GHS] per semester, while private hostels' price points can go as high as EUR 1,189 [15,000 GHS]. Again, a variety of price points are available in Ghana, which allows for market segmentation. However, the supply of affordable student housing units is minimal. Universities, though they have an interest in increasing the student housing supply, are constrained financially, as such most student accommodation options are privately developed (PBSAs), which, as stated above, are much more expensive. No rent cap is applied for student housing accommodation in Ghana, but a Rent Control Act (2016) exists and is being considered for student accommodation assets.

On-campus university-managed residential accommodations for students have existed since 1952, with mixed residential halls featuring multi-storey buildings. Students share rooms and have access to shared kitchens and large, open bathrooms. Fees are affordable, ranging from EUR 140 to $176 per person per academic year. Some accommodations have faced capacity challenges, prompting the implementation of the "IN-OUT-OUT-OUT" policy.

Homestels are informal arrangements where homeowners rent out individual rooms to students in need of accommodation. These arrangements typically offer single rooms with shared living spaces, providing a "home experience" for students. Homestels are known for their affordability, with an average cost of EUR 234 per room per year. However, there are concerns raised about security, safety, and the quality of amenities in some cases.

Hostels in Ghana are often multi-story buildings. It is common to have larger hostel facilities consisting of several blocks or courts built at the same time or at different time periods. The buildings may be made up of floor plans with single rooms, studios, one bedroom flat or shared flats. A flat could have a single room or several rooms. Room occupancy varies with options such as either single occupancy or shared room with two to four beds. Shared flats may often have occupants sharing a kitchen and living space. The design of most hotels has units with balconies where residents dry or store items or even use it as cooking spaces in facilities without a kitchen. Electricity and water are common amenities provided by each hostel, but you may find more expensive hostels providing air conditioners, refrigerators, Wi-Fi, water heaters and security. Facilities provided at some hostels include kitchenettes, study rooms, tv rooms, backup electricity generators, basketball court, restaurants, car parking, retail shops, secretariat and printing centers and laptop/ mobile phone repairs.

Traditional University halls | Privately Managed Hostel Facilities | Homestels

Figure 4 : Student housing types in Ghana

Source: Student Housing Workshop, Kwame Frimpong

Kenya: Students in Kenya can access student housing accommodation via university residences and private hostels off campus (with or without an offtake guarantee from universities) and housing options developed by small landlords. Student housing accommodation in Kenya is diverse, but most of the stock comprises shared spaces from two to eight beds in a unit, with the most supply of shared spaces being that of two beds in a unit. Studios are also available but come at a cost. Several price points are available both on-campus and off-campus. There is a pricing gap between university halls in public and private universities and private hostels. Prices such as public university student housing prices are meager and affordable to all types of students, and PBSA's demand relies on students who are willing and able to pay for better facilities. Public university residences' pricing ranges from EUR 237 to EUR 276 annually, in comparison, private university hostels' pricing ranges from EUR 674 to EUR 770 per year, depending on rooms configuration.   PBSA, such as Acorn's developments, offer a range of price points starting at 80,000 per bed per year to 320,000 per bed per year. Acorn's PBSAs (Qejani and Qwetu brands) offer affordable to middle-income student housing products offering beds from 15,000 KES to 32,000 KES (EUR 138 to EUR 295) per bed per month (middle-income products) and from 8,000 KES to 12,000 KES (EUR 51 to EUR 77) per bed per month (affordable products).

These differences are reflected in rent per square meter: the upper-mid-end market averages EUR 3.99 [622 KES] per square meter, while lower-mid-end student housing comes at EUR 2.93 [456 KES] per square meter. The diversity in price points enables caters to different market segments and varying affordability levels. Privately-build student accommodation (PBSA) tends to be more and more standardized as developers are looking for ways to streamline student housing construction and make it more efficient. These facilities offer amenities such as tuck shops, backup generators, CCTV and 24/7 security teams, secure biometric access, standard rooms with DSTV, gyms and game rooms, laundry machines, separate study rooms, and some even offer shuttle services.

Overall, student housing is affordable, given the current demand appetite. However, there is potential for further savings if subsidized or university land is acquired. Currently, Acorn is acquiring its land from the market, which increases its development costs and, therefore, the eventual price point.

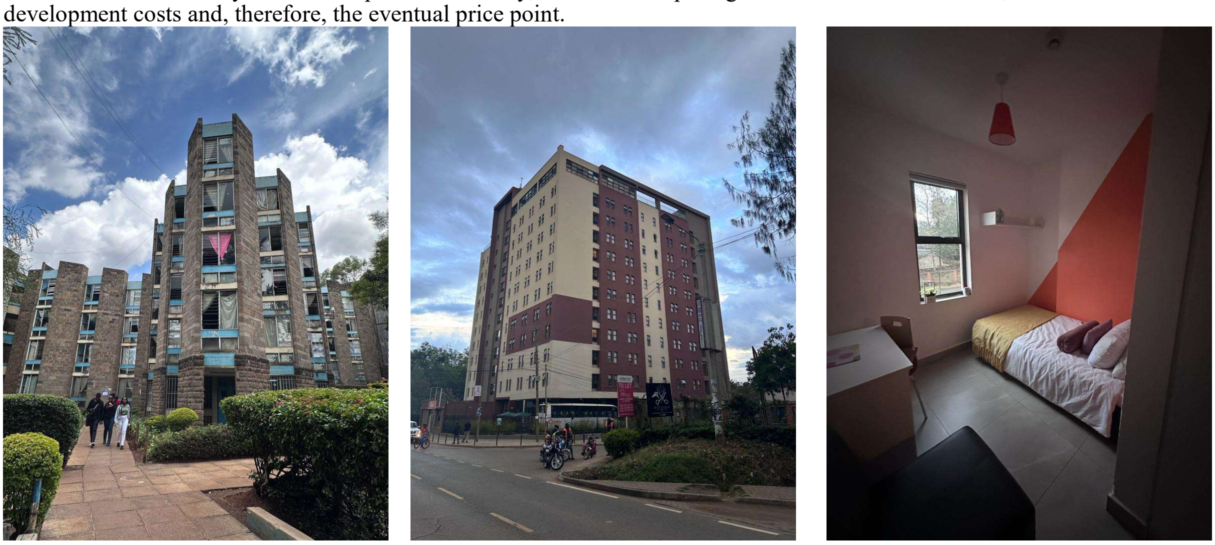

Figure 5 : Public university provided accommodation (left) and private-developer (Acorn) built accommodation (middle & left) in Kenya.

Photo credits : Sanjana Sidhra & Margaux Morenas.

Nigeria: There are several types of student housing accommodation available in Nigeria. University residence halls, on-campus student housing, accredited or non-accredited private hostels off-campus, and small landlords provide student housing options. The demand for student housing significantly exceeds the available supply. The current decaying and substandard student housing infrastructure has also driven the growth of informal housing around universities in urban and rural settings (makeshift hostels and village settlements inhabited by students). Private developers primarily drive the proliferation and growth of off-campus options in open-market conditions. Young professionals and affluent students can afford such product offerings and tend to compete for offtake. Price points vary extensively from private universities to state university hostels.

Bed prices at private university hotels are about EUR 1,726 per year. In contrast, on-campus state or federal university beds range from EUR 116.7 – 291.7 per year, the lowest price points being available for 4-bed sharing facilities. UniLag (University of Lagos) tends to charge more despite being a public university, and the price per bed can go up to EUR 816.8. This is attributable to the fact that UniLag is located in a landlocked city center with limited land for expansion and also impacted by the high cost of rental across Lagos. Federal universities have a price cap on rent they can charge to students to ensure affordability for legacy Hostels they own and manage. Private developers involved in PBSA PPPs with federal universities have developed mitigating mechanisms to cope with the imposed rent cap: negotiating a long concession period, securing an offtake guarantee commitment from universities (e.g., first, year, and final year students must stay on-campus), accessing trunk and other social infrastructure from universities to reduce overall development costs. Private developers tend to develop student accommodations for private universities. The diversity of price points available and unit typologies in the market cater to different affordability levels, even if private developers keep standardizing PBSA construction and designs for more cost-effective delivery of their developments.

Unit typologies include two, four, six and eight bedspaces per room with block space capacity to accommodate 250, 500, 750 and 1500 bedspaces cumulatively depending on the design, available land and existing infrastructure or utilities that can be accessed. The standard room measures between 28-30 Square meters and can comfortably accommodate 2,4,6 or 8 individuals based on bedspace arrangements.

Facilities include ensuite bathrooms or shared amenities like showers, toilets, reading rooms, common lounge/areas, laundry rooms, internet access points and kitchens. In private off campus accommodations, the facilities are sometimes extended to include Gyms, Swimming Pools, restaurants, and bars. In view of affordability, rooms can be planned and delivered with ceiling fans or air conditioners to achieve proper ventilation, articulation, accessibility, circulation, and linkages. Proper planning of the external facets of student housing buildings is also required to accomplish separation of vehicular, pedestrian and handicap access is achieved outside the perimeters of the building.

South Africa: The South African student housing market is divided into the public student accommodation, which is provided by higher education institutions and the private student accommodation, which is provided by the private sector developers and operators. The market is diverse and comprises many typologies, ranging from high-rise, state-of-the-art purpose-built student accommodation (PBSA) complexes, and backyard dwellings to shacks. In terms of affordability, the private student accommodation providers tend to provide mostly for mid to high-end student dwellers, though with a big element of NSFAS students in their portfolio, while public providers always focus on bringing affordability to students.

Figure 6 : Public university provided housing in Nigeria.

Source : Family Homes Funds presentation.

Figure 7 : Private-sector developer student housing in South Africa.

Photo credit : Margaux Morenas & Lethabo Setata.

Student accommodation in South Africa can be classified into three income brackets. The first, and lowest-income bracket, is the affordable and NSFAS student accommodation market. This market targets lower income students by providing basic facilities and rooms with a minimum level of standard as set out by the DHET (DHET, 2015). The second market is the mid-student accommodation market which targets middle income students with an affordability range of between EUR 147-295 [ZAR 3,000 – 6,000] per month. This mid-level student accommodation typically provides larger sized bedrooms compared to the affordable and NSFAS market with auxiliary amenities and services such as student support services, entertainment areas and other social amenities and is often occupied by students who can and are able to top up their NSFAS accommodation allowances. Usually, the costs of these services may be excluded from the base rental rate and additional payment may be required to use these facilities. These mid-level units are often marketed as standard rooms in a large- scale PBSA development.

The final market segment is classified as the upper-end student accommodation market and is usually integrated into a PBSA development. This is made of units that are marketed as a premium package which consists of larger rooms, private kitchen and bathroom amenities and higher quality finishes than standard rooms. These premium packages may also include the use of student services and other amenities which may often be included in the room price. The price points of upper-end student housing can vary significantly from one development to the next development, however, the average rental range for this market segment is between ZAR 5,000 – ZAR 8,000 per month but can be as high as over ZAR 14,000 in some exclusive nodes and developments. An example of upper student housing can be the 'Apex studios'[21] in Johannesburg by Thrive Student Living and 'The one, Stellenbosch',[22] a first-of-its-kind fully managed student development consisting of 508 luxury units.

2.1.2. Student Accommodation Providers and Supply-side Financing

Ghana: Student accommodation for public universities is primarily provided by the university, for at least all freshers. For private universities, not all are able to provide residential facilities and often require students to commute from their homes or resort to nearby student accommodation facilities. Besides universities, other entities involved in developing Purpose-built student accommodation (PBSA) include private developers, financial institutions, and pension funds. Recent developments

[21] https://www.apexstudios.co.za/rooms-and-rates/

[22] https://the-one.co.za

have witnessed student representative councils, religious institutions and alumni contribute to this space. Supply-side financing for private entities is mostly through income, savings, and loans. Financial Institutions such as banks rely on deposited funds and foreign investments. Pension fund schemes investing in PBSA utilize the retirement contributions of members to finance the construction of the residential facilities. Recent providers such as religious institutions and Alumni rely on fundraising and donations from members and benefactors. For the student representative council, as in the case of Kwame Nkrumah University of Science and Technology, the approach to financing was to levy students a specified amount which was paid as part of their fees for the year. The business model is to recoup investment through rental of rooms to students as well as spaces to commercial operators. Average yield on investment per annum is less than 10% and takes about 15 to 20 years to recoup investment. For university land, the lease period is about 25 years subject to renewal for another 25 years.

Kenya: In Kenya, student housing accommodation is mainly supported by public and private universities, private sector developers (Acorn), commercial banks (ABSA), pension funds, and insurance trusts through Real Estate Investment Trusts (REITs) and Development Finance Institutions (DFIs). Those stakeholders are either involved in developing and building the supply of student accommodation (public and private universities, private developers) or financing such properties (financial institutions, pension funds, DFIs). Universities tend to self-develop their supply of student housing accommodation using contractors and construction finance to build student accommodation. Relying on construction finance is less common; thus, terms for the same are not specific or standard. Still, recently USIU secured a 10-year loan facility with a 5.5% interest rate, the US dollar, to build a 2,500-bed facility on campus.[23] Currently, the University of Nairobi (UoN) is exploring a PPP model to develop a 4,000-bed capacity hostel. The project is in its early preliminary feasibility stages. Private developers build off and on-campus by leasing land from universities. A system exists for universities to accredit and officially market private-built off-campus student housing. For example, the United States International University partners with eleven accommodation providers located around the campus, providing about 2,265 beds. Qwetu Hostel (Acorn) is the university's major partner providing 1,500 beds. PBSA in Kenya is largely dominated by a single developer, Acorn, the only institutional provider of student housing in Kenya. Acorn is a precursor in Kenya in using REITs to source construction finance to develop student accommodation. Acorn uses a dual REIT system where the D-REIT assets become the pipeline that eventually gets transferred to the I-REIT post-completion (eleven projects under the D-REIT, three operating properties under the I-REIT). Institutional investors in REITs include pension funds, insurance and reinsurance companies, high net worth individuals, and anchor investor InfraCo Africa, thus effectively leveraging the local capital market for funding. The two REITs are expected to give long-term investors a blended return of 18% on a 10-year hold basis. REITs being the popular funding mechanisms in Kenya, REITs' investors generally evaluate the properties on a portfolio basis. In Acorn's case, the investors view the cash flows from the I-REIT as a risk mitigation measure for investing in the riskier D-REIT.

Nigeria: The student accommodation space in Nigeria involves a variety of stakeholders. Public (federal and state) and private universities are involved in student housing developments but are not self-developing student accommodations anymore. They often rely on outright design and build contracts where the funding is available or a Build, Operate, Transfer (BOT)-type PPP model with private developers by providing access to land. State universities have direct access to land, and private universities also have their land. When using a PPP-model, Federal universities are required to follow the PPP guidelines as stipulated by the Infrastructure Concession Regulatory Commission (ICRC) to structure and execute concession arrangements[24] to ensure due diligence and adherence to public procurement regulations such as the appointment of an independent transaction adviser. Other government entities such as ICRC or public financial institutions like TETFund[25] via way of special interventions are involved in supporting student housing supply. Private sector involvement is also crucial in Nigeria. Private developers are the main stakeholders driving the sector and developing and building student housing in Nigeria (e.g., Greenage, Student Accomodat8). The financial sector contributes through commercial banks, pension funds, insurance trusts, or structured capital market funds like the Chapel Hill Denham Nigeria Infrastructure Debt Fund (NIDF) and Stanbic IBTC Infrastructure fund. The funds finance the supply of student housing accommodations as a sub-portfolio of their overall infrastructure development financing objectives. Chapel Hill NIDF funds up to 70% of the total cost of development with 15 yearlong tenors and is an investor with long-term horizons which provides floating rates based on 400-450 basis points.[26] Family Homes Funds (FHF) is also looking to finance student housing development but requires a sponsor to provide equity as FHF does not fully fund student housing developments. FHF provides financing over 15 years at a 9% to 10% interest rate, with a 2-year interest only moratorium offered during the construction phase. Regarding collateral and other lending conditions, most financial institutions demand offtake guarantees or structured offtake commitments from the university, corporate guarantees, credit rating from the developer, all asset debenture, and performance bonds/advance payment guarantees to facilitate their credit underwriting and funding process for student housing developments. These collateral and other lending conditions also act as impediments and contribute towards the added cost of accessing structured finance by developers of student housing accommodation.

South Africa: Student accommodation in South Africa involves several stakeholders, mainly being the public (Public universities, as well as the Department of Higher Education and Training) and private developers teaming up to deliver/supply student accommodation assets. Investors have avenues to make investments into the student accommodation space as either public or private investments. Investors have a few vehicles or structures at their disposal to enter the South African student accommodation market.

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[23] The United States International University (USIU) explored funding options and settled and a dollar loan facility with a 2-year construction moratorium. The process is at due diligence phase having delayed due to effects of the COVID 19 pandemic.

[24] Universities in Nigeria as part of the National Universities Commission requirements have the capacity to structure concession arrangements on land they occupy or own with private sector investors. However, such arrangements are required to follow ICRC guidelines.

[25] TETFund is an intervention agency set up to provide supplementary support to all level of public tertiary institutions with the main objective of using funding alongside project management for the rehabilitation, restoration, and consolidation of Tertiary Education in Nigeria. The main source of income available to the Fund is the two percent education tax paid from the assessable profit of companies registered in Nigeria. The Federal Inland Revenue Services (FIRS) assesses collects the tax on behalf of the Fund.

[26] https://www.chapelhilldenham.com/nidf-supports-development-of-critical-social-infrastructure-in-nigeria-funds-the-development-of-student-accommodation-at-lagos-state-university . NIDF's investor base includes the African Development Bank (AfDB) and the Nigeria Sovereign Investment Authority (NSIA). Nearly all the pension funds in Nigeria have also participated in NIDF's fund raising.

South Africa has experienced increased activity by institutional funds in the student accommodation market in recent years, however the main barrier to the growth of the sector through investments by large long-term institutional investment funds (such as pension and insurance funds) is that most student accommodation providers lack adequate and substantial portfolios to attract large institutional investments with large ticket sizes. The other reason for few institutional investors in the market is that there are only a few greenfield PBSA buildings that have extensive track records. Given these above significant factors, institutional investors, who are highly risk-averse, are extremely cautious of PBSA as an asset class.

A recent large institutional investment in South Africa PBSA sector involves The International Finance Corporation's $10million equity investment into Eris Property Group,[27] to support its Student Accommodation Impact Investments Proprietary Limited platform to develop and operate accommodation for up to 15,000 students over a five-year period in order to assist meet the rising demand.

With regards to the PPP models, head leases could be considered a quasi-form of a PPP and there are several head leases being provided by universities in South Africa, but these are typically for short durations (one to three years). A case can be made that in providing PBSA, PPPs could assist universities access private funding in a transparent and low-risk manner, and become a solution to addressing the shortfall of quality accommodation.

The main PPP opportunity is for universities to consider a sale and leaseback; in this instance, universities generate capital that can be deployed into post-school education facilities. This allows the university to focus on its core skills of educating students and the acquirer (assuming a specialist student accommodation operator) can lease the beds back to the university and assume all operating risks associated with managing such facilities.

2.1.3. Existing Property Management models

Ghana: In Ghana, private hostels are managed by the developer organization itself. For example, the Social Security and National Insurance Trust (SSNIT) has set up a subsidiary company Ghana Hostels Limited to manage its hostel investment. Others just have a management team. Universities can impose regulations on private hostels only to some extent because the hostels are not earmarked for a particular university. A mix of students from different universities reside in the hostels, making supervision complex. As for student accommodation built by universities, some of them, like the University of Ghana (UoG), have set up private subsidiary entities for hostel management. The Student Residents Board at the universities plays a key role in student accommodation management and all types of accommodation, university-provided or private, are represented in it. In terms of managing costs, most hostels factor in the cost for water in the hostel fees, thought, for electricity, some hostels give a monthly quota and when exhausted residents are responsible for extra purchases.

Kenya: Student accommodations are both managed by private and public stakeholders. Public universities, like the University of Nairobi (UoN), are under-capacitated in addressing student housing units. UoN says only 70 staff members manage a student housing stock of 10,000 beds. Hence the stock is decaying, substandard, and poorly maintained. Kenyan universities estimate operations costs to be around 20% of their monthly costs.

Additionally, Kenya lacks professionalized and skilled facility managers to manage student housing, impacting property management capacities. As Kenya's most prominent student housing developer, Acorn also oversees PBSA property management and maintenance, which is done in-house through a subsidiary entity, Acorn Management Services Limited. Acorn develops their digital platform to manage their PSBA. This system also allows for tracking occupancy above 90% in most of their developments.

Nigeria: Investors or financiers often require property management plans as a risk-mitigating measure for future operations. Most developers involved in PBSA have in-house property management capacity (e.g. Greenage and Accommod8). For specific technical facility management requirements, private developers work with 3rd party vendors. When private developers have entered into a PPP or a partnership agreement with universities, developers manage facilities for the duration of the concession period, and universities set up a dedicated committee to ensure that hostels are being adequately managed according to defined standards. In other instances where the university is also concerned with the wellbeing of students under their care, it sets up a joint management team with the developer to provide facility management services. This is sometimes common with universities that have existing and functional facility and real estate management units or departments in private and public universities in Nigeria.

South Africa: In South Africa, it is common for student accommodation developers to have in-house property management capacity in place. An example of this is the 'Mpumelelo Student Accommodation' in Johannesburg, Doornfontein, next to the University of Johannesburg, which we conducted a site visit on. The asset is owned by the Affordable Housing Company (AFHCO)[28] and they have an in-house property management company that takes care of the day-to-day property management of the accommodation. When it comes to property management for purpose-built student accommodation in South Africa, it is common for investors or financiers to seek to understand the property management systems in place to ensure that the assets are being managed efficiently. In certain PPP student accommodation projects, the responsibilities of property management are often delegated to the team that has the skills and expertise for the job, which usually are private developers.

[27] https://www.eris.co.za/news/ifc-and-eris-partner-to-support-affordable-student-housing-in-south-africa/

[28] https://afhco.co.za/about/afhco-property-management/

2.1.4. Review of E&S considerations in Student Accommodation

In terms of the delivery of student housing across Africa and chiefly in GKNSA countries, environment and sustainability-oriented development has focused more on the creation thereof and less on exploring the wide-ranging impacts and challenges associated with long-term provision or lack thereof of student housing. The challenges related to access, affordability and safety have been widely documented however, there is a lack of uniform policies on the minimum norms and standards for student accommodation development and management in relation to its long term economic, social, and environmental impact.

Student housing developers in Ghana, Nigeria, Kenya, and South Africa have made significant strides in embedding Environmental and Sustainability (E&S) efforts into their asset designs and developments through green building certification and adoption of sustainability frameworks. Financial institutions in these markets are also demanding E&S requirements as part of funding due diligence requirements. However, more is still expected in terms of best practice.

Developers like Greenage in Nigeria, Acorn in Kenya, Eris in South Africa and Ghana connect sustainability initiatives to their institutional mission. Additionally, they have embedded diversity, equity, and inclusion initiatives within their sustainability orientation as proof that climate change has immediate and long-term impact on society and susceptible groups like female students. Incentivizing recycling programmes, energy and conservation, and introduction of sustainability curriculums are part of long-range efforts that are still required by universities and student housing developers while addressing the demand for accommodation.

The following suggestions are best practices in environmental sustainability in student housing:

- Recycling arrangements for managing waste from residents e.g., Organic or Food waste could be recycled and used as compost or gardening and landscaping inputs around the developments.
- Including opportunities that drive behavioural change are also important for promoting environmental and sustainability for student housing e.g., sustainability curriculums that teach attitude modification around consumption, energy use, and lifestyle choices.
- Create an Eco-Rep student leadership position with focus on sustainability and environmental events and programs e.g., Purchasing less food during events to reduce food waste or working with organizations to donate excess food.
- In new construction projects, look to integrate energy conservation into the project e.g., it is important to differentiate between building automation that consumes energy and green building features that conserves energy and resources (every green building is climate smart but not all smart buildings are green.

2.1.5. Review of Gender and Inclusivity considerations in Student Accommodation

A high level social and gender analysis of student accommodation in the Nigeria, South Africa, Kenya and Ghana reveals that the social and gendered dimensions and effects of student accommodation need to be factored in the supply of student housing. For example, student housing is not just about providing a roof for students, student housing is an education enabler in terms of promoting education access, retention and completion. Student housing should also support students to thrive by offering spaces that enable them to actively pursue their interests and participate in their community. Moreover, World Health Organization (WHO) categorizes housing, basic amenities and the environment as social determinants of health and wellbeing including in determining health equity .

On the other hand, student housing insecurity which is brought about by limited supply of quality student accommodation, is characterized by lack of secure, safe, affordable, consistent, stable, housing, limited infrastructure like affordable, safe and accessible transportation and important amenities. This affects the health and well-being of students. Student housing insecurity can intersect with food insecurity, where high cost of food, limited student funding or availability of safe, adequate nutritious food especially for off campus students, leads to dire health consequences. Food insecurity among university students is an emerging area of study although the connection with house insecurity has not received sufficient scrutiny. For example, in Nigeria food insecurity has been reported among university students. The same has been reported in Kenya and is tied to high costs of living.

Studentification, has been used to explain the mechanisms by which specific neighborhoods get concentrated by student housing, whether on or off campus. This trend, which is seen in some specific areas in Nigeria, South Africa, Kenya, and Ghana as recounted in the presiding discussions, has resulted in social, cultural, and physical implications, thereby eliciting various responses from communities. For example, in Kenya one of the affluent residential areas, resisted the setting up of student hostels which are in close proximity to the university in the neighborhood citing pressure on the infrastructure and the hostels affecting the value of the area. In addition, university students can be a target of theft, rape and other vices from the community. In South Africa invasion by armed gangs has also been reported. This means that transparent and consistent stakeholder mapping and stakeholder engagement has continue throughout the life of the student housing to cater for the new stakeholders and changes that take place within the context. This can be achieved through meaningful community engagement and joint community activities.

Student housing needs and expectations, whether on or off campus, shape and are shaped by the social cultural norms that emerge as different multi-ethnic and diverse students interact among themselves and their environment. New cultures, positive and/or harmful norms may arise including lifestyle changes. These encounters are also influenced by the economic, political, government and university policy and practices, as well as environmental variables of their surroundings, whether they are in urban, peri-urban, or rural settings. For example, a lack of university oversight and control over student housing standards, along with economic volatility and inconsistent governmental law enforcement, has resulted in the growth of negative and antisocial behaviors linked with student accommodation. For example, in Kenya there have been reports of university hostels being dangerous place where crime, drugs and sex work is rampant. Theft has been reported in Nigeria in student halls owing to poor security.

Student housing spaces are not gender neutral they mirror the existing gender norms within the society. Student housing providers frequently focus on gender as either females or men, but fail to consider those who are gender nonconforming and what housing modifications they may require. Furthermore, as previously noted, implementation of reasonable accommodations for students with disabilities is still limited in the four countries, with a significant omission being to homogenize the various forms of disabilities. Reasonable housing adjustments should be considered for different types of students with disability. For example, students with blindness, low vision, hearing impairment, physical disability, mental illness, dwarfism, and many other disabilities. Other student groups whose housing needs are not taken into account, include student parents and, in particular, student mothers, who are represented in the four countries. As such, student housing providers in Nigeria, Ghana, Kenya, and South Africa have more opportunities to adopt inclusive accommodation for the various student populations they serve, because students' housing needs vary based on the intersections of age, gender, disability, migration, sexual orientation and family responsibilities such as parenting, and marital roles.

Therefore, the role of universities, developers and investors is not only to limited to supplying student housing and making profits but these spaces have to embody non- discrimination, non-violent, gender equal, do good and do no harm values.

2.1.6. Overview of PPP and REITs being used to develop Student Accommodation

Ghana: PPP models are seen in Ghana as the only practical way to address the demand while not increasing the burden on universities, but these have not been fully explored yet. PPPs remain mostly unused because setting up a PPP in Ghana is a complicated process that requires approvals from the Ministry of Finance. Risks associated with PPPs, such as financial cash-flow structuring considering non-attendance, forex, political risks, and price caps on student housing rental charges, tend to deter private developers' involvement. Also, private developers see the government's involvement in PPPs as slow and tedious and prefer looking into alternative partnerships directly with universities, both private and public. In the recent years, private universities have done Build, Operate, Transfer (BOT)-type PPPs with 25-year concessions; for example, the Ghana Telecom University and UPSA or the University of Ghana with Africa Integras (1,000-bed PPPs). However, these projects have run into legal issues[29] through the development process and have not been implemented yet.

REITs have not been explored for student housing or housing in general in Ghana. However, if well marketed can be a transforming avenue to raise needed capital for student accommodation development.

Kenya: Although popular in Kenya, PPPs have not yet been fruitful in developing student housing. Several projects have been in the pipeline since 2015,[30] but none have been fully implemented yet. PPPs in Kenya face several challenges such as:

- Difficulties in managing the multi-stakeholder nature of most of the PPP projects.
- There is a lack of appropriate legal frameworks in Kenya to enable public land transfer into special-purpose vehicles to attract private capital and bank debt.
- The PPP hostel projects have a design, build, own, operate, and transfer model, where the developers will recoup their return after an approximately 20-year period. This is unattractive to investors who prefer to exit early. The extended time frame of PPPs while private developers prefer to leave projects within three to five years.

Most recently, the University of Nairobi has been exploring a PPP model to develop 4,000-bed capacity hostels. This is an ongoing initiative and is at the bidding stage of the process.

The student housing market in Kenya is dominated by Acorn Group, which has championed the use of REITs in effectively delivering quality student housing. Acorn offers both REITs as a blended product requiring investors to invest in the D-REIT and I-REIT in a 30:70 ratio to ensure regular returns while maintaining a reasonable risk distribution. At its inception, the opportunity to invest in the PBSA sector was only offered to institutional investors through the Acorn Student Accommodation D-REIT and I-REIT, successfully initiated in February 2021. However, Acorn has subsequently seen an increased interest in retail investors to participate in owning these REIT securities. After that, it launched "Vuka" an invite-only investment club that enables retail investors to buy units of the I-REIT. Qualified retail investors make their returns by owning REIT securities that entitle them to dividends and capital appreciation of the underlying income-generating portfolio. Vuka is licensed and

[29] https://www.modernghana.com/news/876077/64m-africa-integras-project-in-court.html
[30] http://portal.pppunit.go.ke/project-info/sector/Education

regulated by the Capital Markets Authority (CMA) and provides an opportunity to invest in a product that is regulated, tax-friendly, low-risk, and can be easily traded to unlock liquidity as and when required.

Nigeria: PPPs are a predominant model for student housing development in Nigeria. The student housing sector relies on a rather broad PPP regulatory framework with a dedicated entity, the Infrastructure Concession and Regulatory commission (ICRC), managing PPPs and well equipped to guide the market through the process. PPP models have proven feasible since universities own or have access to land, hence the market is responsive and comfortable with this model. There are three types of universities in Nigeria and all of them have different pre-established processes for PPPs.

- Federal universities must adhere to the established PPP regulatory framework and process for concessioning government owned infrastructure as proposed by the Infrastructure Concession and Regulatory Commission (ICRC). However, PPPs with federal universities are time consuming and require adhering to several specifications in the deal structuring that make student housing less profitable for private developers e.g., arduous, and overdrawn bidding process, lengthy stakeholder engagement process, appointment of an independent transaction adviser, pricing issues etc.
- State universities also have localized PPP regulations, though with few complexities compared to the federal rules by ICRC. In such a transaction structure, the state government could propose to subsidize bedspaces by paying developers an agreed mark-up for of each bed price to support initial operating costs or approving longer concession tenors to support viability of the concession.
- Private universities, on the other hand, manage student housing as private equity or private investment endeavors or as Joint ventures with investors.

Concession periods for PPP transactions are typically around 20-30 years; some deals manage a 40-year concession. The biggest challenge for PPP transaction structuring is the limit of 21 years for most federal and state-owned universities. However, developers and universities for the purpose of viable deal structuring address this issue by supplementing the concession agreement tenor with a facility management agreement. This additional agreement allows the developer to operate and manage the facilities for additional years that would cumulatively add up to a longer tenor in addition to the 21 years.

REITs are not developed in Nigeria and haven't performed as investors are hesitant towards sectional ownership or collective ownership of assets. Also, there is the challenge of structuring student housing cash flows (payments are per semester or once per academic year) to align with what is typically expected of REITs as most REITs are tied to rental cash flows (per month). Chapel hill Denham currently runs a privately managed REIT (N-REIT) that is focused on the outright acquisition of built-up student accommodation assets with established rental cashflows. While student housing dedicated REITs are yet to catch on in Nigeria, due to considerations that REITs are sensitive to economic trends and its performance tends to be affected during prolonged economic recessions occasioned by to the resultant rise in rental payment defaults from job losses. This is however not the case for Student housing focused REITs. Student housing as an asset class has been proven to be resilient, inflation and recession resistant due to the inelastic demand for education that drives the need growing need for more student housing in most developed and emerging economies with a predominantly youthful population like Nigeria. Also, of importance is the growth in demand from the Pension industry in Nigeria for assets to match its long-term liability position. The pension funds require this to effectively manage their growing contributory pension pool. This is where student housing focused REITs could begin to play a major role as a long-term source of investment for pension funds and while also funding the development of student housing.

South Africa: It is a typically accepted model for student housing projects to follow the PPP model of "Design-Finance-Build-Operate-Transfer", with universities most of the time offering land to the private developers for a specific period and transferring back the asset plus the land into university ownership at the end of the agreed period. However, in the South African context, the closest to the PPP model we have is Head leases which could be considered a quasi-form of a PPP. There are several head leases being provided by universities in South Africa, but these are normally for short durations (one to three years). However, some developers are beginning to partner with universities in ways that do not fall within the definition of a formal PPP.

Private stakeholder engagement suggests that universities should commence to allow more private sector ownership arrangements of new schemes as the development and operation of student accommodation assets is something that sits outside their core competency or business model. Some universities are therefore beginning to consider alternative funding structures to that of full ownership, such as minority stakes in SPVs (special purpose vehicles), which involves some level of risk transfer arrangements. New models that offer universities largely different levels of control are beginning to emerge. In this way, the onerous prescriptions of the PPP legislation can be overcome to some degree.

Private sector stakeholders suggest that the "Student Housing Infrastructure Programme" should consider flexible funding arrangements as opposed to only focusing on 100 percent university-owned schemes and in so doing, they will attract more private sector involvement and expertise. Allowing for a flexible approach to funding through the various business models or investment vehicles as discussed above will ensure to open up investment in the Student Accommodation asset class to different types of funders and investors. It is however crucial that for the asset class to grow at scale, more institutional investment is therefore much-needed. Institutional investment will help remove the bottleneck to new developments, (resulting in favorable social impact) and also help developers achieve strong and sustainable yields for their shareholders., when they collaborate with long-term investors.

In general, PPP have the ability to achieve social impact, while mobilizing private funding, and as well as the opportunity to do large scale student housing projects while taking advantage of private expertise. PPPs are also good at Profit-sharing arrangements between public and private, as well as the transfer of responsibilities to those with core expertise.

The private sector has different options of investing in the student accommodation asset class, be it through a fund or a REIT structure (indirect) or through direct ownership of assets or joint ownership (JV) of assets. Underpinning all of these types of investment vehicles is financing, hence it is therefore crucial to recognize how banks perceive the student accommodation asset class and what they perceive to be barriers to funding developments and transactions.

Due to the fact that the PBSA market in South Africa is quite new, many developers and investors are finding it relatively hard to obtain financing for South African student accommodation projects and investments. This can be attributed to the perception of local banks that PBSA is still relatively new and untested, and therefore considered relatively risky.

To bring more liquidity to this new asset class, development finance institutions such as the DBSA and the IFC are already playing a catalytic role in funding PBSA as social infrastructure. This in turn is anticipated to grow the market and in so doing attract private commercial banks and further investment in the sector.

With regards to REITs in Purpose Built Student Accommodation, the JSE-listed property investor Growthpoint Properties launched an unlisted PBSA REIT named the GrowthPoint Student Accommodation REIT.[31] This REIT which was launched in late 2021, started with a seed portfolio of R2billion. In addition to this, there other JSE-listed funds which also hold Student Accommodation portfolio in South Africa, like SA Corporate Real Estate REIT.[32]

2.1.7. Supply-side risks, limitations, and challenges

Ghana:

- ***Limited land concession period.*** Policies regarding leasing of university land are not uniform and transparent. As per the yet to be passed 'Public University Act, land can be leased for five years first, followed by 25 years maximum, which can be renewed for another 25 years if the university wants to. Currently, each university has its own regulations, and the average is a 25-year lease subject to renewal. Access to land outside of campus is difficult and limited. Land outside of the university premises can be leased for a maximum of 99 years. Land registration can be expensive, especially for large plots, and the risk of extensive litigation over land ownership is significant.
- ***Lack of financial capacity to provide student housing.*** Universities lack the financial capacity to develop student housing and maintain such properties. Public universities are undercapitalized and understaffed and face challenges in diverting or allocating resources to student accommodation facilities, away from their core business which is education. Additionally, private student housing developers are small-scale developers and often under-capitalized to take on large-scale projects. For small scale developers, they will rather want a quicker turnaround time than the longer period required of student housing.
- ***Insufficient access to funding.*** Financing from commercial banks and market resources is limited. Commercial banks currently transact directly with universities. Due to the high cost of loans and the long-term nature of the investment, commercial banks are not a popular preference by developers to acquire funds to invest in student housing. If they do, financial institutions appraise student housing on a project basis and don't have standard terms. Financial institutions prefer universities to guarantee offtake through some agreements, especially off-campus student housing. Still, this practice is uncommon for universities, limiting the development of private sector-led student housing initiatives. Additionally, the upfront capital requirements are significant (GHS 20-30 million or EUR 1.6-2.4 million) and often require securing funding from several banks. Long-term financing from capital markets is limited. Conditionally, the banks will require the university to maintain an active account with them into which students pay their fees, again for lending in local currency, the rate depends on the prevailing Ghana reference rate plus a margin of 3 to 4 %. Longer tenure will allow recovery for investors from property cash flows. Short term funding coupled with the high cost of operations is deterring investors from entering the student housing market.

Kenya:

- ***Inadequate expertise among developers.*** PBSAs require development and management expertise, which most developers lack the capacity for, making them shy away from investment in the sector. Currently, the formal student housing market is dominated by Acorn Group, further discouraging new players from entering the market and exploring alternative strategies.
- ***Lack of focus on rental tenures from residential developers.*** A limited number of developers focus on rental housing because that requires long-term capital, robust property management, and customer relationship-building skills, all of which are essential for developing student housing.
- ***High cost of well-located land.*** Currently, the predominant model is used to develop student housing. Kenya's leading student accommodation developer, Acorn, requires land to be acquired at market rate, which can prove expensive in the long term, especially when developing in urban areas like Nairobi. From a student housing developers' perspective, the property's location is the primary risk in student housing, which eventually impacts the price. Private developers are looking for a catchment area for students interested in living in your property and can pay the price point. Hence, access to well-located land is key but expensive and often weighs on the final pricing.
- ***Insufficient access to funding.*** Obtaining financing for local developers has been difficult due to the reluctance of lending institutions to finance such an asset class and therefore apply strict underwriting standards. The developers do not prefer

[31] https://www.engineeringnews.co.za/article/r2bn-student-accommodation-reit-launched-in-gauteng-2022-01-28
[32] https://www.sacorporatefund.co.za

non-local currency funding in the current economic climate. Additionally, the local capital markets, which can be a long-term funding source, remain relatively undeveloped compared to developed markets. In recent years, local capital markets have suffered from several market failures, making investors wary of new issuances such as REITs. The involvement of prominent players like InfraCo Africa, DBSA, and other institutions, in Acorn REIT offerings has helped ease this market perception. Access to long-term funding is also a significant issue, as most developers currently use their equity or banks to finance projects.

Nigeria:

- ***Significant lack of student accommodation supply.*** According to the National Universities Commission (NUC), universities must provide housing to 60% of their student population. However, the reality is that universities can only offer about 10-15% of the student housing demand, leaving an estimated supply gap of over 1.5 million bed spaces. Many problems drive the supply gap, but the most critical of these is a lack of appropriate funding by the government for the universities.
- ***Limited land concession period and agreements modalities.*** Key features that could be of interest are the length of the concession, exclusivity clause, termination, right to set prices, revenue/ profit share, guaranteed occupancy levels etc. Developers typically seek tenors ranging from 25 to 30 years to make the deal attractive. They would also want to factor in conditions to review prices and retain the operations and maintenance rights of the facility, all to improve the IRR of the project. In some cases, universities can only grant ground leases for 21 years at a federal university level.
- ***Expensive construction costs.*** The rising cost of imports of building materials and finishes on real estate, in general, has constrained the supply of student housing accommodations. Some entities like Family Homes Funds (FHF) use a supply-chain approach where they negotiate for building materials at the wholesale level with approved suppliers to mitigate cost and price volatility in building materials while ensuring standards for finishes. In a high inflationary and import-dependent environment, locking prices through Fixed Price Engineering, Procurement, and Construction (EPC) contracts or early payments to suppliers and following strict timelines to prevent cost overruns is particularly important. Investors encourage developers to do the acquisition part of the materials at the beginning, so the cost overruns are minimized.
- ***Administrative hurdles.*** Administrative and union strikes, especially in federal universities, are perceived as a significant risk by developers and financiers as strikes result in unpredictable loss of revenue for a long and sustained period.[33] Some entities mitigate by requiring students to pay for the entire year or semester upfront.
- ***Offtake commitments are not implemented.*** Offtake commitments made by federal universities as part of a PPP deal with developers are commonly not adhered to. As a result, private developers are left to attract students and maintain occupancy.
- ***Large-scale student housing developments are uncommon.*** Private developers are not involved in developing large-scale student housing accommodations and tend to build small-sized projects. The largest project comprises about 3,000 beds, but developers build 800-bed projects on average. Small-sized projects are less attractive and lack high-quality construction contractors.
- ***Inability of developers to access affordable long-term funding (>15 years).*** It has been a significant constraint given Nigeria's high-interest rate environment and traditional lenders' unwillingness to provide facilities with appropriately matched tenors. In January 2023, MPR hit 17.5% p.a, thus, resulting in developers accessing loans at interest rates of over 20%, which is expensive for developers who require single-digit lending rates to enable to develop affordable and sustainable student housing projects, build at scale and be profitable.
- ***Limited capacity in equity contributions.*** Most investors and banks require developers to provide equity contributions towards part financing student housing transactions as this presents an opportunity for blending or co-financing for affordability. PBSA developers have limited capacity to provide these.
- ***Maintenance Issues with university hostels.*** The sustainability and resilience of student housing developments to a large degree depends on timely and planned maintenance. Hostels in most public universities and some private universities are not adequately maintained due to a lack of institutionalized facility management policy for their maintenance and this forms a major concern for financiers. The additional cost of facility management is sometimes viewed as an extra that increases overall student accommodation cost and as such most public institutions tend avoid the issue.
- ***Low Access to Utilities.*** Functional toilets, and reliable access to water and electricity are critical aspects of running a successful student accommodation facility particularly in terms of providing sanitary conditions necessary to thrive and learn. Female Students as a subset of the university population require access to clean toilets, water, electricity, and internet to sustain their life and activities. Access to utilities is even more dire for students that have to seek accommodation off-campus who are usually at the mercy of landlords.

South Africa:

- ***Lack of expertise and/or capacity of small to medium-scale developers.*** The student accommodation space in South Africa is dominated mostly by large established developers, that have been previously involved with developing other forms of residential or commercial real-estate. This has crowded the market and deterred some small- and medium-scale developers that do not have adequate experience and are deemed to be riskier by financiers to lend to in comparison to some of the large developers.
- ***High dependence of the market on NSFAS funding.*** Both supply-and demand-sides of the PBSA market in South Africa rely greatly on the NSFAS funding. Students rely on funding to be able to afford their accommodation, while on the supply-side developers see the NSFAS aid as an assured monthly rental revenue. This has a great impact on the student housing that is eventually developed for the market, as any change in the level of NSFAS coverage for accommodation triggers a change in the quality and quantity of units being produced by the supply-side market. In addition to this high

[33] https://guardian.ng/news/asuu-to-call-off-8-month-old-strike-national-president/

dependence, the NSFAS funding management is generally considered unreliable with issues such as delayed registration of students, late disbursement of payments and more.[34] With most developers depending on NSFAS students for occupancy and regular revenues, this high dependency on an unreliable NSFAS system further restricts the developers from making a strong case to convince commercial banks to lend for student housing developments.

- ***Limited equity with developers to contribute to the deals.*** Our interviews with some of the financial institutions highlighted that some lenders require developers to provide cash equity before they offer loan facilities, which hinders many players, especially small to medium scale, to enter the student housing space because of lack of cash equity. Most banks use the 30/70 rule (though it often depends on risk assessment), 30% equity is often required to access 70% of loan financing, which is often hard to achieve for some developers. Additionally, recent rises in the interest rates further add to the infeasibility of the financing, especially for first-time developers of student accommodation.
- ***Lack of long-term and local institutional financing***. Most financiers deem the student accommodation asset class in South Africa as being untested and lacking a proper track record, hence they are reluctant to deploy capital in the asset class. It is also deemed risky by commercial banks. However, this is slowly changing and institutional investors like the International Finance Corporation (IFC) have already started investing in Eris Property, where it invested $10 million equity investment in Eris's South African Student Accommodation Impact Investments Proprietary limited platform that will assist Eris to develop and operate student accommodation for up 15,000 students over a five-year period. The Student Housing Infrastructure program that is being spearheaded by the DHET, mainly to be financed using…. …is also anticipated to change this trend. Our interviews with some of the supply-side stakeholders also highlighted that there is an appetite and preference for local currency sources of financing, to avoid the forex risk associated with recently volatile markets.
- ***Lack of proper PPP structure to deliver student housing.*** South Africa has a comprehensive PPP legislative framework. However, the perception of the private-sector entities is that the legislation is extremely complex, and the approval process is onerous. Due to the challenges associated with operationalizing PPP agreements and the perceived prohibitively high costs incurred prior to development if the project is aborted, the private sector is often deterred from participating in PPPs. Additionally, universities are often under-resourced and generally inexperienced in rolling out PPP projects; this makes PPPs a complicated business model for PBSA development. Till date, PPPs have had mixed successes in being used for student housing development in South Africa.[35] Several PPP initiatives have been undertaken, but not fully realized yet.

2.2. Demand-side assessment

Across all four countries, higher education institutions are numerous; with 60 to 170 universities and tertiary institutions, it is no surprise that the university student populations are large and growing. Within the countries of study, 560,000 to 2 million enrolled university students and 10 to 24% tertiary enrollment rate, the student populace has exponentially grown and is expected to continue its growth trajectory in the coming years.

Despite the historical and projected future demographic growth, the supply of student housing lags the demand for student accommodation. In Kenya, for example, between 2015 and 2021, the student population increased by 40%, but student accommodation only increased by 7% in the same period. Though most students prefer to live on-campus, universities struggle to accommodate their student body, giving preference to first year students. The private sector often services the demand unmet by universities, either developers in partnership with universities, independent private developers, or small-scale opportunistic landlords. In markets where supply is severely lacking, such as in Nigeria and Kenya, students tend to live in inadequate conditions far from university campus, or even in informal student villages. The notable exception to this trend is South Africa, where university-provided accommodation and private accommodation have equal uptake by students.

Target markets for student accommodation in the GKNSA countries are relatively homogenous with some variations. In Ghana, Kenya, and Nigeria, there is significant aggregated demand amongst upperclassmen students who are not given preference for university accommodation. These students often have financial aid in the form of student loans or scholarships, which provides housing expense coverage to students in Kenya, but students in Ghana often do not have adequate aid to cater for these living costs. Nigerian students generally do not receive financial aid, which constrains their already limited housing options.

As previously mentioned, in Nigeria, Kenya, and Ghana, students prefer on-campus student accommodation. Since living off-campus increases the likelihood of security issues, higher housing costs, and poorer access to campus, students prioritize affordability, security, and proximity to campus for their housing. In Nigeria, for example, many students live far away from campus, and due to poor roads and lack of adequate transit options, students tend to spend as much on transportation costs as they do on housing.

	Ghana	Kenya	Nigeria	South Africa
Student population	634,999	562,000	2,000,000+	1,100,000+
Tertiary enrollment rate	20%	10%	12%	19%

[34] https://www.careersportal.co.za/news/nsfas-says-they-are-resolving-mynsfas-system-issues
[35] To date there have only been two completed and publicized formal PPP student housing projects. The first was the 1,200 bed Ovals development at the university of KwaZulu-Natal's Westville campus, completed by Crowie Construction in 2006, and the second the provision of the 1,100 bed Kovacs complex development at the University of the Western Cape.

Higher education institutions	• 160 HEIs • 16 public unis • 10 pvt tertiary • 40 education colleges • 10 public tech unis	• 35 public unis • 25 pvt unis	• 79 pvt unis • 43 federal unis • 48 state unis • 80 other tertiary institutions	• 26 public unis • 10 public tech colleges • 9 community colleges • 80+ pvt unis
Student pop. by institution	n/a	• 80% public unis • 20% pvt tertiary institutions	• 65% federal unis • 5% pvt unis	n/a
Financial aid availability	• Direct student loans, small and not enough to cover living expenses	• Merit and need-based scholarship • Direct student loans • Scholarship-loan ratio depends on student economic background	• Gov't scholarships are available, but are very limited	• NSFAS funding (scholarship) • 64% of students are NSFAS funded • In 2023, the number of NSFAS students increased by 41%.

2.2.1. Analysis of Student population and HEIs

Ghana: In 2022, there were about 634,999 students enrolled in tertiary education in Ghana, an increase of 9% in comparison to the previous year. Overall, students' enrollment at this educational level has increased over the last 15 years and reached a gross tertiary enrollment rate[36] of 20% in 2021. The envisioned outcome is to increase gross tertiary enrollment to 40% by 2030. Ghana's public education expenditures are substantial – over the past 15 years, the country spent more on education as a percentage of GDP than both the global average and the average in sub-Saharan Africa, the latter of which ranged from 3.8 percent to 4.6 percent in the current decade (as per World Bank data). Ghana counts 160 tertiary institutions regulated by the Ghana Tertiary Education Commission of which 16 are public universities, 10 are chartered private tertiary institutions, 40 are colleges of education and 10 are public technical universities. Moreover, in 2020, the Gender Parity Index for tertiary education indicated that male students were more favored in learning opportunities than female ones.

The Student Loan Trust Fund provides direct financial loans to tertiary students upon application to cover their expenses. Across the country, there is not yet an intervention for aid to cover funding of student's accommodation and even the loans provided by the Trust which ranges between GHS 1500 to GHC3000 is inadequate to cater for private hostel accommodation and living expenses. The trust has however introduced a "no guarantor policy" that eliminates the requirement for a guarantor who was responsible for payback when the student defaulted.

Kenya: As of 2019, gross enrollment rate in tertiary education stood at 10.04%. Around 562,000 students were enrolled in universities in Kenya during the academic year 2021-2022. The number increased from roughly 546,700 in 2020-2021 and the growth is attributed to an expansion in the number of governments sponsored students. Men constituted majority of students in Kenyan universities, some 334,400, against 227,600 thousand women. Most (80%) of the students enrolled in higher education in Kenya attended public universities, making up a total of 448,500 in 2021-2022, while the number of enrollees in private tertiary institutions reached 113,600 (20%) in the same period. Overall, there are 61 universities in Kenya, 35 of which are public and 26 private. Kenyatta University and the University of Nairobi are the preferred institutions; combined, they account for roughly one-third of the students enrolled in public institutions.

Tertiary-level students in Kenya can be eligible for sponsorship for the Government of Kenya on a merit and need basis. For the government sponsored student, Kenya currently pays up to 80 percent of tuition fees and expenses (including accommodation) for the students it sponsors in public universities while the students and their parents or guardians bare the remaining 20 percent of the costs. For government sponsored student, Standard amount equivalent to half of semester fee of KSH 4000 (~USD 29) is deducted from the loan awarded and disbursed to the university per semester and the rest is sent to the applicant's bank for taking care of living costs.

Additionally, student loans between KSH 40,000 (USD 290) to KSH 60,000 (USD 434) depending on student need. The loans attract a 4% interest and KSH 1000 (~USD 7) ledger fee per annum. The loan is payable up to a maximum of 120 months but several students are known to default due to inability to secure employment after completion of their course. A limited number of low-income students further receives KSH 4000 to 8000 (USD 28-57) per year as a bursary.

Over the past 5 years, the number of government-sponsored students in public universities has grown substantially to 324,142 students, making up over 50% of the tertiary enrollment in 2022.[37] In addition to government sponsorships, student can also or apply for loans to cover the cost of education from the Higher Education Loans Board (HELB). Recently, in May 2023, the Government of Kenya unveiled updated higher education funding model for public universities and TVETs[38] that categorizes students into three 'financial' categories: vulnerable, less vulnerable, and able. Under the new model, vulnerable students will not pay tuition fees as they will get government scholarships that will cover the full cost of their education. Students from less vulnerable backgrounds will receive government scholarships of up to 53% and 40% loans from the Higher Education Loans Board (HELB), and households will contribute 7%. As for students from able backgrounds, the government will give them scholarships of up to 38% of the cost of their degree courses and 55% in the form of loans from HELB and households will

[36] This is the total enrollment in tertiary education, regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school leaving.
[37] The record rise is linked to the lowering of the entry mark to public universities to C+ for government-sponsored students five years ago. https://www.businessdailyafrica.com/bd/news/state-sponsored-students-increase-fastest-in-four-years-3680304
[38] https://www.president.go.ke/government-unveils-new-funding-for-college-students/

contribute 7%.[39] Since this model has been announced very recently, it is yet to operationalized and its full effects on the student population are yet to be known.

Nigeria: The tertiary education landscape in Nigeria is rather vast with several institutions spread throughout the country, comprising of 170 universities with 79 private universities, 43 federal universities and 48 state universities.[40] According to information from the National Universities Commission (NUC), Nigeria has over 250 Tertiary Institutions with 170 accredited Universities as of 2023 (the number is inclusive of Private, State and Federal Government owned institutions). The total population of students currently enrolled in tertiary education is over 2 million students as of today and is estimated to grow over 10% every year. Overall, the gross enrollment rate in tertiary education was 12.1% in 2018. As of 2019, there were over 1.8 million full-time undergraduate university students in Nigeria and over 65% (or 1.2 million) of them attended federal universities. Private universities account for 103,000 students or about 5% of the total student population.

Housing Sector Analysts have noted that even with the increase in the numbers of higher institutions from just under 30 institutions in 2007, most tertiary institutions in Nigeria still struggle to admit over 70% of their students due to lack of accommodation. According to Nigeria's applications and admissions statistics, over a million applicants sit for the yearly Joint Admissions and Matriculation Board (JAMB) examinations and less than 20% on the average gain admission into available Tertiary Institutions. This is due to factors such as inadequate absorption capacity, lack of adequate facilities, and shortage of adequate manpower all tied to low levels of student housing. In addition, over 70% of the admitted student population in Nigeria reside off campus and are required to grapple for bedspaces with young professionals at commercial market rates as well as commute over a significant distance to attend lectures daily.

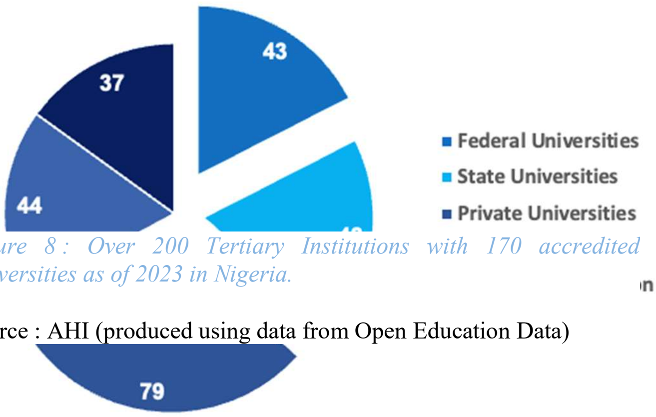
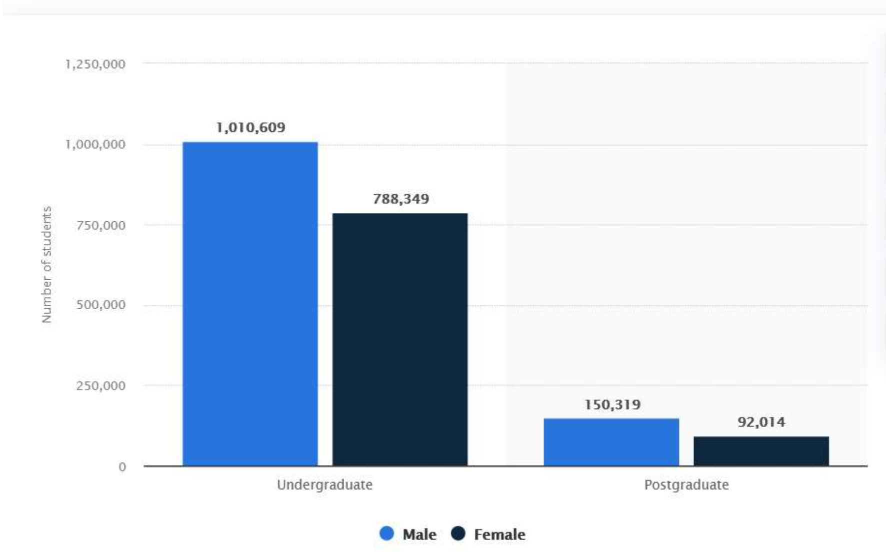


Figure 8 : Over 200 Tertiary Institutions with 170 accredited Universities as of 2023 in Nigeria.

Source : AHI (produced using data from Open Education Data)

[39] https://www.universityworldnews.com/post.php?story=20230503180948135
[40] http://www.fmebasic.intellisys.xyz/index.php/universities



In terms of other implications, it is already noted that Investment volumes in Nigeria's Student Housing subsector is low in direct comparison to the growing demand. The shortfall in Student Housing provision is a natural consequence of the increasing number of tertiary institutions, a corresponding increase in the number of students that these institutions admit and the inevitable demand by newly admitted students for accommodation.

South Africa: As of 2020, the total enrollment rate in tertiary education was 24.24%. Additionally, recent total enrolments for the Public University sector for 2022 academic year was approximately 1.1 million students. South Africa set increasing student housing population as a target in its Vision for 2030 as part of its National Development Plan (NDP) and is planning to reach 1.62 million students in higher education by 2030. South Africa benefits from the National Student Financial Aid Scheme (NSFAS), which acts as a real market catalyst and supports the student housing space. Each year, NSFAS receives close to 1.5 million applications, of which it funds over 600,000 students. In 2021, 64% of students in tertiary education were NSFAS funded (which represents about 623,386 students). In 2023, this number has further grown with NSFAS approved funding applications for 941,491 students. Share of student receiving NSFAS aid in TVETs is even higher with close to 90% students being beneficiaries of partial or complete NSFAS coverage. International students also make up a reasonable share of the student population (e.g. up to 15% at the University of Pretoria). They add to the student housing demand, but do not get NSFAS funding.

The higher education sector of South Africa has undergone a transformation which resulted in three types of public higher education institutions: Technikons or Universities of Technology, Comprehensive universities, and Traditional Universities. As of today, South Africa's post-school education and training sector comprises 26 public universities, 50 public Technical and Vocational Education and Training colleges, nine Community Education and Training Colleges and numerous private universities and private colleges.[41]

2.2.2. Estimated university-student budget breakdown and resultant affordability levels

To gain insights into the demand patterns and monthly expenses of university students in the GKNSA countries, we have conducted a concise analysis to estimate the overall cost of living for students in each country of study. For the purposes of this analysis, we consider the most basic components of living expenses that are essential for students: accommodation, transportation, utilities, food, phone, and internet costs. Due to their variable nature, we have excluded entertainment, leisure, and clothing costs from the analysis.

This analysis considers potential financial aid and fluctuating costs depending on whether students reside on or off-campus. Drawing from desktop research, we have developed two distinct analysis scenarios to better comprehend the living expenses for students with varying budget profiles: one scenario focusing on students with limited budgets and another scenario addressing students with higher budgets.

2.2.2.1. Low-budget cost of living estimate

	Ghana	**Kenya**	**Nigeria**	**South Africa**
STUDENT AID	*No large-scale student aid*	*HELB loans*	*No large-scale student aid*	*NSFAS student aid*
Accommodation	-	-	-	223 EUR (4,500 ZAR)
Transport	-	-	-	31 EUR (625 ZAR)

[41] https://www.usaf.ac.za/public-universities-in-south-africa/

Educational materials	-	-	-	8 EUR (167 ZAR)
Living allowance	-	-	-	62 EUR (1,250 ZAR)
Incidentals	-	-	-	12 EUR (242 ZAR)
Student loan	-	25 EUR (4,000 KES)	-	-
General bursary	-	4 EUR (667 KES)	-	-
Total aid	**-**	**29 EUR (4,667 KES)**	**-**	**336 EUR (6,784 ZAR)**
LESS: EXPENSES				
Accommodation	10 – 13 EUR (125 – 170 GHS)	19 – 23 EUR (3,083 – 3,583 KES)	10 – 23 EUR (8,333 – 20,833 NRN)	147 – 223 EUR (3,000 – 4,500 ZAR)
Utilities[42]	-	-	-	-
Transportation[43]	14 EUR (181 GHS)	13 EUR (2,174 KES)	0.50 – 3 EUR (500 - 2,500 NRN)	17 EUR (353 ZAR)
Food	12 EUR (145 GHS)	133 EUR (21,153 KES)	26 EUR (23,067 NRN)	58 EUR (1,171 ZAR)
Phone	1 EUR (18 GHS)	4 EUR (2,000 KES)	3 EUR (2,307 NRN)	70 EUR (1,407 ZAR)
Cost of living	**65 – 68 EUR (808 – 853 GHS)**	**228 – 232 EUR (36,341 – 36,841 KES)**	**40 – 44 EUR (34,707 – 38,707 NRN)**	**298 – 374 EUR (6,056 – 7,556 ZAR)**
NET EXPENSES				
Accommodation	10 – 13 EUR (125 – 170 GHS)	0 EUR (0 GHS)	10 – 23 EUR (8,333 – 20,833 NRN)	0 EUR (0 ZAR)
Utilities	-	-	-	-
Transportation	7 EUR (85 GHS)	13 EUR (2,174 KES)	0.50 – 3 EUR (500 - 2,500 NRN)	0 EUR (0 ZAR)
Food	12 EUR (145 GHS)	126 EUR (20,069 KES)	26 EUR (23,067 NRN)	0 EUR (0 ZAR)
Phone	1 EUR (18 GHS)	4 EUR (2,000 KES)	3 EUR (2,307 NRN)	10 EUR (211 ZAR)
TOTAL EXPENSES	**30 – 33 EUR (373 – 418 GHS)**	**143 EUR (24,243 KES)**	**40 – 44 EUR (34,707 – 38,707 NRN)**	**10 EUR (211 ZAR)**

Table 1 Estimated monthly cost of living for university students, low-budget

Source: AHI market research, 2023

Ghana: Despite the absence of large-scale student aid, the living costs for university students in Ghana is low, particularly for students living in university-provided accommodation. With utilities and internet included in the cost of accommodation, which ranges from 10 – 13 EUR per month (125 – 170 GES), students generally must pay for their food and phone expenses, which are estimated to total 13 EUR per month (163 GHS). On-campus students are likely to have some travel costs for traveling outside of campus as needed, but not nearly as much as students who live in private off campus housing, estimated at 7 EUR (85 GHS) per month. Altogether, university students living in on-campus accommodation must pay 30 to 33 EUR (373 – 418 GHS) a month out of pocket in living expenses.

Kenya: HELB assistance is readily accessible to university students in Kenya hailing from lower-income families. With the support of a HELB loan as well as a small HELB bursary, Kenyan students receive approximately 29 EUR (4,667 KES) in combined financial aid to cover the cost-of-living expenses. Among all monthly expenses, food constitutes the most substantial financial burden for students, accounting for approximately 57% of their total costs, with an estimated monthly expenditure of 133 EUR. For students living in public university-provided housing, the HELB assistance covers the total cost of accommodation, which includes the cost of utilities and internet, as well as eases the burden of other costs like transportation and/or food[44]. In total, on-campus students who receive HELB assistance must pay a monthly out-of-pocket amount of 143 EUR (equivalent to 24,243 KES) for their living expenses.

Nigeria: Like Ghana, university students in Kenya also lack access to financial aid, leaving many of them vulnerable to bearing the full burden of living expenses. With the cheapest accommodation available in the market priced at 10 – 23 EUR (8,333 – 20,833 NRN) per month, on-campus university students bear the burden of paying anywhere from 25% to 50% of their total living expenses solely for accommodation costs. It is worth noting that the accommodation cost also encompasses utilities and internet expenses. However, food is the most expensive living cost for students, estimated at 26 EUR (23,067 NRN) per month., followed by phone bills and transportation. Overall, on-campus Nigerian students must pay 40 – 44 EUR out of pocket per month on living costs.

South Africa: Out of the four countries of study, South Africa offers the most comprehensive financial aid to university students through its NSFAS program. The NSFAS program is accessible to most university students, excluding those from very wealthy families[45]. The aid covers the cost of accommodation up to 4,500 ZAR, and offers reimbursements for transportation, living expenses, and incidentals. As demonstrated in the table above, NSFAS covers the cost of nearly all living expenses for university students, particularly those living in the cheapest accommodations provided on-campus by universities. The cost of accommodation is covered by NSFAS aid, though the coverage is limited to 4,500 ZAR per month, which may require some students living in slightly more expensive on-campus housing to pay out of pocket for the remainder not covered by NSFAS. With utilities and internet included in the total cost of housing, it is possible for on-campus university students to be 100% covered with NSFAS aid, depending on the type of accommodation. Living expenses and incidental reimbursements cover the estimated cost of transportation and food, leaving students to pay for their phone bills out of pocket at an estimated

[42] In public-university provided accommodation, utilities and internet are included in the price of the accommodation. Thus, utility and internet costs are excluded from this analysis.
[43] As students living on-campus likely spend much less on transportation than off-campus students, we assume they spend 50% less on transit costs.
[44] For the purposes of this analysis, we have assumed students would put their HELB aid majorly toward food costs given the cost of food.
[45] To be eligible for NSFAS program, applicants' household income must not exceed 350,000 ZAR per year.

10 EUR (211 ZAR) per month. In total, on-campus university students living in the cheapest accommodation are estimated to be fully covered by NSFAS aid for their cost of accommodation.

2.2.2.2. High-budget cost of living estimate

	Ghana	Kenya	Nigeria	South Africa
STUDENT AID	*No large-scale student aid*	*HELB loans*	*No large-scale student aid*	*NSFAS student aid*
Accommodation	-	-	-	223 EUR (4,500 ZAR)
Transport	-	-	-	31 EUR (625 ZAR)
Educational materials	-	-	-	8 EUR (167 ZAR)
Living allowance	-	-	-	62 EUR (1,250 ZAR)
Incidentals	-	-	-	12 EUR (242 ZAR)
Student loan	-	25 EUR (4,000 KES)	-	-
General bursary	-	4 EUR (667 KES)	-	-
LESS: EXPENSES				
Accommodation	195 EUR (2,500 GHS)	168 EUR (26,667 KES)	67 EUR (58,333 NRN)	696 EUR (14,000 ZAR)
Utilities	7 EUR (85 GHS)	-	-	37 EUR (750 ZAR)
Transportation	29 EUR (362 GHS)	13 EUR (2,174 KES)	11 – 17 EUR (10,000 - 15,000 NRN)	35 EUR (707 ZAR)[46]
Food	12 EUR (145 GHS)	133 EUR (21,153 KES)	26 EUR (23,067 KES)	58 EUR (1,171 ZAR)
Internet/Phone	6 EUR (90 GHS)	4 EUR (2,000 KES)	3 EUR (2,307 KES)	10 EUR (211 ZAR)
Cost of living	**249 EUR (3,182 GHS)**	**341 EUR (54,168 KES)**	**107 – 113 EUR (91,400 – 96,400 NRN)**	**912 EUR (18,372 ZAR)**
NET EXPENSES				
Accommodation	195 EUR (2,500 GHS)	139 EUR (22,000 KES)	67 EUR (58,333 NRN)	472 EUR (9,500 ZAR)
Utilities	7 EUR (85 GHS)	-	-	0 EUR (0 ZAR)
Transportation	29 EUR (362 GHS)	13 EUR (2,174 KES)	11 – 17 EUR (10,000 - 15,000 NRN)	0 EUR (0 ZAR)
Food	12 EUR (145 GHS)	133 EUR (21,153 KES)	26 EUR (23,067 KES)	0 EUR (0 ZAR)
Internet/phone	6 EUR (90 GHS)	4 EUR (2,000 KES)	3 EUR (2,307 KES)	10 EUR (211 ZAR)
TOTAL EXPENSES	**249 EUR (3,182 GHS)**	**289 EUR (45,153 KES)**	**107 – 113 EUR (91,400 – 96,400 NRN)**	**482 EUR (9,711 ZAR)**

Table 2 Estimated monthly cost of living for university students, high-budget

Source: AHI market research, 2023

Ghana: There is a substantial difference in overall cost of living between students living on campus versus students living off-campus. For students who have a higher budget or are upperclassmen unable to secure on-campus housing, off-campus private accommodation becomes the preferred or sometimes the only option. Private hostels or accommodation costs are approximately 14 times higher than the cheapest available options for students. These private hostels demand a per month cost of 195 EUR (2,500 GHS), excluding additional expenses for utilities (estimated at 7 EUR or 85 GHS) and internet (estimated at 6 EUR or 90 GHS) that students must cover separately. Apart from housing expenses, transportation stands as the most significant living cost for off-campus students who commute to campus, amounting to 29 EUR (362 GHS) per month. Additionally, students are responsible for food and phone expenses, estimated at 12 EUR (145 GHS) per month. Consequently, without any available financial aid for university students, those residing in private off-campus accommodations are required to cover living expenses amounting to 249 EUR (3,183 GHS) per month, nearly eight times more than students in on-campus accommodation.

Kenya: Private university students in Kenya shoulder the highest accommodation expenses among all university students. While lower-income students can access HELB assistance, it inadequately covers the accommodation costs for private university students, amounting to approximately 29 EUR (4,667 KES) per month. The combined financial aid only covers 17% of the total accommodation cost at private universities, leaving students with a monthly out-of-pocket payment of 138 EUR (22,000 KES). Although utilities and internet expenses are included in the accommodation fees, students are responsible for their own food, phone, and transportation costs. Food stands as the second highest living expense, accounting for an estimated 42% of their total living costs. As on-campus residents, transportation costs are minimized, with phone expenses estimated at 4 EUR (2,000 KES) per month. Consequently, university students subject to higher accommodation fees in private universities face a total monthly living cost of 289 EUR (45,153 KES), which is more than double the living expenses of students with lower-budget accommodation in public universities. However, it is worth noting that most universities do not have the capacity to accommodate students in on-campus housing, and many students live in unregulated informal rentals for which we do not have data on typical price ranges. Transportation costs for off-campus students are a significant cost and are estimated to hover around 27 EUR (4,303 KES) per month.

Nigeria: University students in Nigeria also face a lack of access to financial aid, placing them at a disadvantage when it comes to covering their living expenses. Among these students, those enrolled at the University of Lagos, the largest public university in Nigeria, incur the highest accommodation costs. At a monthly rate of 67 EUR (58,333 NRN), they pay nearly triple the amount compared to students enrolled at other public universities. Accommodation expenses make up a significant portion,

[46] For many private student accommodations that are high end, water and electricity are included in the monthly rent with caps on certain utilities like electricity. For this analysis, we assumed that water and internet are included in the cost of accommodation, and electricity is covered up to 350 ZAR. We assume most students exceed this cap and accrue approximately 37 EUR (750 ZAR) in additional electricity charges.

accounting for 67% of the total cost of living for Nigerian university students residing on the University of Lagos campus. Utility and internet costs are included in the on-campus accommodation fees, leaving students responsible for covering food, phone, and transportation expenses.

Food expenses are the second-highest living cost for students with a higher budget, comprising one-fourth of their total living expenses at 26 EUR (23,067 NRN) per month. While transportation costs are relatively reduced for on-campus residents, the rising fuel prices in Nigerian cities contribute to a growing burden. Overall, on-campus students at the University of Lagos accumulate living costs ranging from 107 to 113 EUR (91,400 to 96,400 NRN) per month, which is more than double the out-of-pocket expenses for students residing on-campus at other universities.

However, it is important to note that most students opt for off-campus accommodation due to limited availability on-campus, with preference often given to first-year and disabled students. Although data on typical monthly costs for private off-campus accommodation is lacking, finding housing near the university campus proves challenging. Our research indicates that students living off-campus endure long commutes, with transportation costs rivaling their housing expenses. According to a recent news article on the rising cost of fuel in Nigeria, commuting students now spend approximately 20,000 to 30,000 NRN per month on transportation[47].

South Africa: Most students are eligible for financial aid through the NSFAS program, which typically covers most living expenses. However, for students with higher budgets or from higher-income households, accommodation makes up most of their incurred living costs. Various accommodation options are available, including private off-campus accommodations, which can reach a monthly cost of 696 EUR (14,000 ZAR). While most students can access the NSFAS program, high-budget or high-income students can still apply for the maximum 223 EUR (4,500 ZAR) accommodation allowance, but they are responsible for the remaining cost of their accommodation. For the top-end of the market, the NSFAS stipend covers approximately 30% of the total accommodation cost, leaving students to pay 472 EUR (9,500 ZAR) out of pocket. In higher-end student accommodation, some or all the utilities as well as internet costs are included in the monthly rent. Some accommodations cap utility consumption, and any student who exceeds the cap must pay the difference out of pocket[48]. However, the NSFAS living allowance and incidentals stipend sufficiently covers any additional utility costs.

With over 50% of their living expenses covered by NSFAS allowances, excluding phone costs which amount to 10 EUR (211 ZAR) per month, high-budget students face an estimated monthly living expense of 482 EUR (9,711 ZAR), primarily attributed to the remaining accommodation costs not covered by the NSFAS stipend.

2.2.2.3. State of Affordability in the four markets

As showing in the pricing table in Figure 2, we see that in all the four markets, the least expensive housing option are the university-managed student halls. Subsequently, we also see that private-developer-built PBSAs in the four countries are at least three to five times more expensive than university- provided student housing. Students that are unable to get allocated university housing, and those who are unable to afford the higher-priced options, result in renting off-campus rooms in informal settlements and urban slums where they are confronted with security problems, challenging social environments, poor lighting and internet facilities. In Kenya and Nigeria, there are also several cases of eight to ten students squatting in a four- or two-person informal rental room, causing overcrowding and potentially unsanitary living conditions.

Assessment of a student's effective affordability is complex as their sources of funds change from semester to semester or year to year. Affordability is also a factor of dependent on family income/capacity to fund the child's higher education. Thus, we find that while there is variance in the pricing of beds available on the market, a student's affordability is capped by student aid/loan availability, and limited personal financing resources. Students thus analyze the funding available to them for accommodation costs and other educational expenses before deciding where to stay and access student housing that fits their budget. Students may also perceive their rental costs 'affordable' in cases where they do not pay the rent by themselves but by a third party, whether their parents or NSFAS. Through this study, we found that reduced capacity of the student to spend on accommodation costs has a directly correlation with the type and quality of living conditions they are able to access. Cheaper off-campus rentals that exist in the countries where affordability is relatively more strained like Kenya and Nigeria, are known to be overcrowded, inadequately serviced, and not conducive to a holistic education experience. Moreover, on-campus affordable options which are the university halls in most cases, are also found to be dilapidated and in need for major upgradation. Thus, while the markets do offer several price points for student housing, not all of the options are qualitatively suitable for students to live. It is critical for PBSAs in the region to take into account that they much compete with fragmented low-cost and low-quality alternatives on pricing, and thus offer products where the students' affordability levels are also considered.

The table below shows our rough estimates for affordability in each of the four markets, taking into consideration average per capita incomes and monthly budget ranges for students. The figures in the table are only estimates and are not a comprehensive representation of the true affordability of the students. We recommend a representative demand survey of the student population to determine their effective affordability levels to pay for accommodation costs.

[47] https://www.universityworldnews.com/post.php?story=20230606200857948
[48] For example, Apex studios'[48] in Johannesburg by Thrive Student Living includes water in the accommodation cost, but caps electricity at 350 ZAR per month.

Country	Average monthly income per capita	Monthly Cost of living - Low range	% student body that can afford low-range living costs	Monthly Cost of living - High range	% student body that can afford high- range living costs
		% of monthly income		*% of monthly income*	
GHANA	209 EUR (2,594 GHS)[49]	68 EUR (853 GHS)	< 60%[50]	249 EUR (3,182 GHS)	< 10%
		32%		119%	
KENYA	398 EUR (62,000 KES)[51]	232 EUR (36,841 KES)	<40%	341 EUR (54,168 KES)	<20%[52]
		58%		85%	
NIGERIA	167 EUR (135,589 NRN)[53]	44 EUR (38,707 NRN)	<75% of student in public univ	113 EUR (96,400 NRN)	<5% of students in public univ >95% of students at private univ
		26%		67%	
SOUTH AFRICA	1,256 EUR (25,304 ZAR)[54]	298 EUR (7,556 ZAR)	<70%	912 EUR (18,372 ZAR)	<20%
		29%		72%	

Table 3 : Affordability estimates for student populations that are able to access low and high range monthly living costs.

Ghana: Analysis of cost-of-living estimates among Ghana's tertiary students in 2023 reveals a dual reality. The majority (60%) can manage the monthly living cost within the EUR65-68 range, aligned with the average monthly income per capita of EUR 209. However, a significant 40% face financial hardship, impacting their academic performance due to struggles to cover even basic living expenses. For the high-range living cost, fewer than 10% can comfortably afford it. This underscores the financial challenges faced by a substantial majority of students in maintaining a higher standard of living while pursuing their education.

Kenya: Kenya is home to 3,362-dollar millionaires of out a population of 52 million with a net worth US$ 30 million or more according to Knight Frank Wealth Report 2022. Despite this, data shows that 40% of all formally employed Kenyans earn below KES. 50,000 (EUR 318.75) per month. Considering that parents fund some or all of the student's education costs, affordability in PBSA is reflective of these household/ incomes in the country. Affordability is made worse by rise in cost of living driven by depreciating Kenyan currency and rise in food price globally occasioned by Russia -Ukraine crisis.

On campus accommodation remain favorite due to their low costs, despite price reviews, for instance at university of Nairobi with over 500% rise in per day rates. The government has also reviewed fees in public universities and revised the higher education funding model. Low-income students will now be funded maximum 53% scholarship and 40% loan, the student only contributing 7% of their fees. Lwo-to-middle income students are funded maximum 38% in scholarship and 55% in loans. This initiative is hoped to boost overall education affordability among the Kenyan population.

Nigeria: In terms of student housing affordability, private universities are more expensive, and typically offer better facilities and services, like security, electricity, water, internet, and transportation. Alternatively, public universities are cheaper, but often come with issues like overcrowding, poor infrastructure, and lack of resources. Private universities tend to charge higher tuition and accommodation fees than public universities in Nigeria. Private universities in Nigeria charge as much as N3 million Naira, or about $7,740 yearly for tuition. The variance in fees also has implications for affordability and student population attending Private and Public Universities. According to NUC and JAMB admission data, private universities account for between 6% -10% of student population across Nigeria's university system. This also implies that over 80% of Nigeria's 2 million plus student population attend public universities. Living costs in Nigeria are not affordable for many students who come from low-income backgrounds which constitute about 60% - 65% of students in public universities.

In summary, the median income per capita in Nigeria could pose a significant impact on access to accommodation and the disparity in the number of students in both private and public universities. Low-income levels also limit the choices and

[49] This represents the public sector average monthly net income. This is the latest data available, and it does not include the private sector. GSS (2022), Ghana 2022 Earnings Inequality in the Public Sector. https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/Earnings%20Inequality%20Report%2014-02-2023.pdf#page=21&zoom=100,86,460

[50] Percentage of students able to afford each living estimate bracket was based on income quantiles from the Ghana Living Standard Survey 2018.

[51] Estimated from multiple sources including: https://www.salaryexplorer.com/average-salary-wage-comparison-kenya-c111#disabled ; https://www.tuko.co.ke/343265-average-salary-kenya-2020.html ; https://www.fsdkenya.org/wp-content/uploads/2023/06/Housing-conditions-of-different-livelihood-segments-A-deep-dive-into-2021-FinAccess-survey-with-a-focus-on-housing.pdf

[52] Most of the Kenyans employed in the formal sector are domiciled in the lower wage brackets, with only 15 per cent earning more than EUR 645 (KES 100,000) per month. Kenya National Bureau of Statistics December 2022 & Business Daily https://www.businessdailyafrica.com/bd/economy/kenyans-average-income-of-sh20-123-hits-six-year-high--4043204

[53] 2022 World Bank GNI Estimate - https://data.worldbank.org/indicator/NY.GNP.PCAP.CD?locations=NG&view=chart

[54] Stats SA Quarterly Employment Survey: https://www.statssa.gov.za/publications/P0277/QES_Presentation_2023Q1.pdf

opportunities for many students who aspire to pursue qualitative higher education resulting in lower enrolment and student numbers in private universities and vice versa. Access to education and affordable student housing across public and private universities is expected to improve with increased private sector investment and government interventions like the recently approved student loan policy.

South Africa: Existence of a national-level student aid scheme that covers accommodation and living costs for over 60% of the student population each year has a substantial impact on improving the affordability level for the South African students. Recent changes in NSFAS funding have had a dual impact however; while they reduced the overall funding coverage from ZAR 6000 to ZAR 4500, they also have standardized the coverage for universities and TVETs. Under the new NSFAS rules, students at TVETs will also have a ZAR 4500 accommodation coverage; this is especially advantageous as majority of the lower income students in South Africa are concentrated in the TVETs.[55] The NSFAS accommodation coverage limit also provides a benchmark for private student accommodation providers to peg their rental prices to, which sets the relatively affordability of the overall PBSA market in South Africa.

2.2.3. Demand-side trends and preferences

Ghana: Given the increase in student housing population and significant public spending to foster the education sector in Ghana, the demand for student housing has consistently increased over the years. University of Ghana accommodates 60% of students on campus, which is significant as compared to other countries considered for this study. This is mainly attributed to the fact that in Ghana, several universities have leased parcels of land to private developers and Pension schemes like the Social Security and National Insurance Trust (SSNIT) to build and manage student accommodations on-campus. Students prefer on-campus housing due to proximity to facilities, safety, convenience, and comfort compared to staying off campus. However, not all students can access Traditional halls of the university as preference is given to first year students. The effect is that continuing students mostly occupy hostels and homestay accommodations.

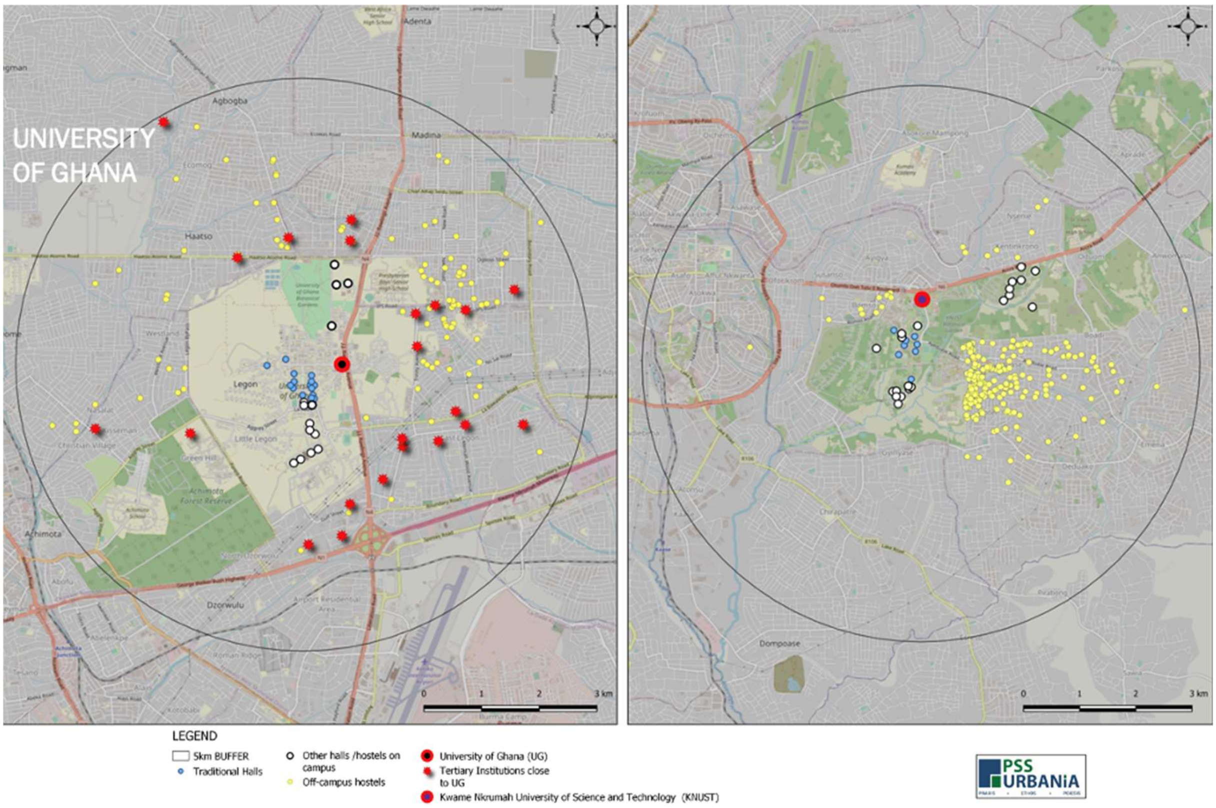


Figure 9 : Emergence of student townships around major universities – U of Ghana, and KNUST – comprising of various on- and off-campus living options.

Source : PSS Urbania.

It is common across the major universities that the neighborhoods sharing boundary with the universities have gradually become student hubs. Due to high demand of students for accommodation close to the university, combined with the scarcity of vacant land, developers are acquiring residential units or whole units and converting them to hostels for students. Homeowners, likewise, are converting their residential buildings to student accommodations to cash in on the opportunity.

[55] As estimated in IFC *MARKET ASSESSMENT - The Student Housing Landscape in South Africa, 2020.*

KNUST and University of Ghana have centralized portals where students can secure residence in private hostels. KNUST for instance goes further to grade the hostels by class. The classification relates to students' preference of available facilities, location, utilities, security, accessibility, and services provided. At present, the high demand for student accommodation is driving the ecosystem and the regularity of rental income remains a key incentive for developers. The currently dominant model for student housing provision in Ghana, which is private hostels built on leased university land or situated close to the universities, is costly and will impact overall affordability parameters in the near future. Due to affordability, there is a general demand for four in a room. That notwithstanding a need for privacy has led to an increasing demand for 2 per room hostel.

Kenya: Kenyan universities have capacity to accommodate less than 15% of the student body on country supply of approximately 40,000 bed capacity. The largest university in Kenya, University of Nairobi (UoN) has a total capacity of 9,863 beds across eight campuses while the total student body is close to 85,000 students. UoN accommodates only 11.7% of its students in university housing. Private universities are facing similar challenges. According to the United States International University (USIU), only 4% of students can be accommodated on-site (253 beds on-campus for 6,000 students). Preference is given to first-year and final year students for on-campus housing. Kenya welcomes international students and recently removed VISA requirements for most African countries wishing to study in the country. The increased influx of international students has also been fueled by conflicts arising in neighboring countries. Hence, due to very few supply-side stakeholders in the sector and a growing student population, there is a high aggregated demand for student accommodation. There has been a rise in the use of off-campus accommodation such as hostels where poor security, overcrowding and inadequate sanitation are common. Students can also end up in informal settlements of Kawangware, Mathare, Kibera and parts of Ngara estates in Nairobi. A focus group discussion with the students from USIU, a private university in Nairobi, highlighted that the five main criteria for students selecting their student accommodation are listed below in order of priority:

- Affordability
- Security
- Proximity to school
- Room size, design and functionality
- Neighborhood

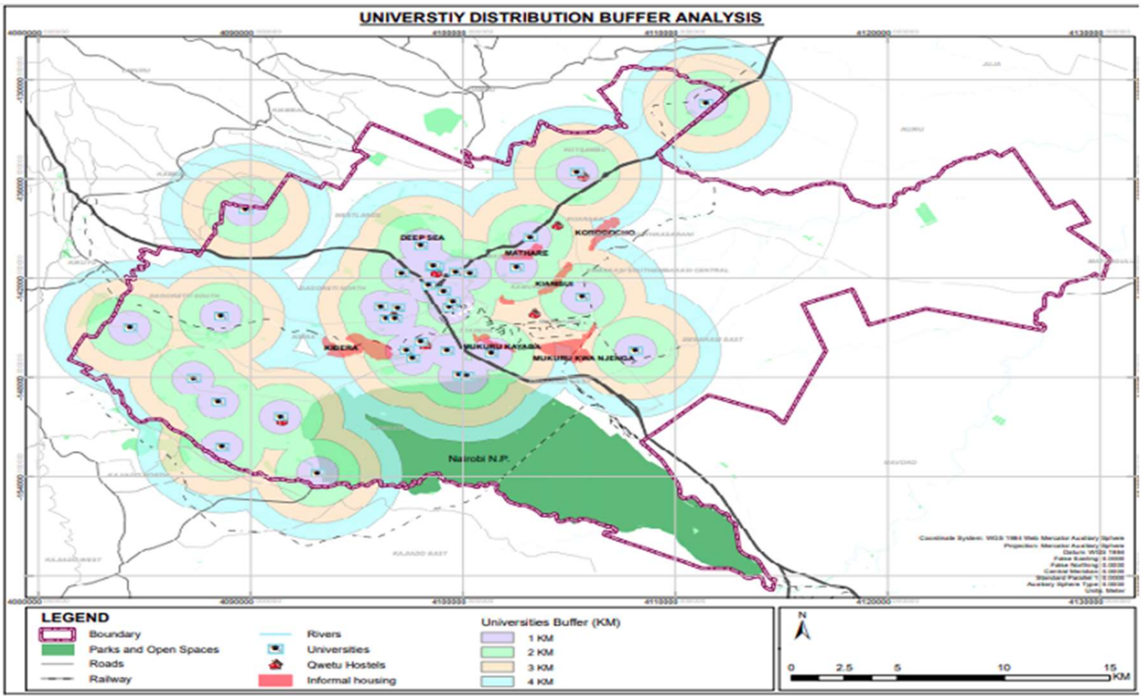


Figure 10 : Informal areas serving students in key HEIs in Nairobi.

Source : Johnson Denge, AHI market research.

Further, study commissioned by Acorn Holdings Limited found out that security, amenities provided, price charged and location are top deciding factors for students when selecting accommodation.[56]

Nigeria: The large student housing supply deficit causes increased and sustained demand for student accommodation. Most Nigerian universities face difficulties to accommodate about 10 to 20% of their student body and must cope with a growing

[56] Daily Nation Newspaper 13 May 2021 https://nation.africa/kenya/brand-book/why-kenya-needs-more-purpose-built-student-accommodation-3399216 (Accessed 2 may 2023)

student population every year. In this context, university neighborhoods have become incidental student villages. Student housing developments have been fostered by small-scale landlords which are not regulated by any rental policy or laws. Hence, demand for student housing is available on the market and students have demonstrated capacity to pay, as existential proof of effective demand. This equation - the lack of supply and effective demand - drives the market. Demand for student housing accommodation, pricing and affordability are all highly location sensitive and vary greatly based on the geographical context in which the university is located. This may also explain why not all markets are unable to attract investment despite widespread demand, and why new student accommodation developments are concentrated in urban centers of State capitals like Lagos, Ibadan, Abuja, Enugu, Port Harcourt and Calabar. Demand for student housing in urban centers prevails as most large universities are in these cities. Security concerns, especially for female students, have driven the high preference for on-campus accommodation.

Conditions to access student housing in Nigeria vary. For university-provided housing, preference is given to the physically challenged, new intakes, and followed by old intakes. Some universities even take merit into consideration when allotting units. As part of residential policy, cohabitation is not permitted on campus facilities. Student hostels are gender specific in terms of habitation (male and female hostels are separated). While private facilities that are located off-campus tend to allow co-habitation. For properties being managed by private-sector companies, returning residents are given priority. Some also allow people to select their roommates and allocated units on a first-come first-serve basis.

According to JAMB's Application and Admission Statistics, in 2022 over 1.8 million applications into tertiary institutions were processed. This figure has grown from 1.4 million in 2021 and under a million from about 10 years ago. This is however occurring against a backdrop of a growing demand for requisite housing infrastructure as federal and state governments including proprietors of private universities would rather allocate limited resources to providing learning facilities against investing in housing infrastructure.

The current situation has created a vacuum of over 2 million bedspace deficit which needs to be filled to ensure viable capacity for overall human capital development in Nigeria. Nigeria's student population of over 2 million students is soaring. Despite recent increase in tuition fees, there are more students securing admissions to tertiary institutions in recent years. Correspondingly, there is a huge pool of demand for accommodation. This is in consideration of the growth in population and other trends as highlighted below:

- Growth in Youth Population: Over 70% of Nigeria's over 200 million population fall within the age group of 15-35 years. This is the prime age range of those seeking education for personal development and employment purposes.
- Long-term nature of Students as tenants: Given that it takes several years to complete a degree (could be between 4-5 years), students are considered long-term tenants by default with new students replacing older graduating students.
- Growing Investors interest and Strong demand: Student and faculty accommodation will continue to grow and as such is witnessing increased interest from investors with more capital coming into the space. As admission trends from JAMB and NUC indicates more growth in applications and consequent demand for bedspaces.
- Expected increase in Rental Cost: Rental cost linked to inflationary pressures is expected to rise between 10-15%. Rents, when considering by-the-bed rates, are likely to increase further across tertiary institutions due to demand and affordability issues. Though we believe this could be higher as there is no information from schools or landlords on this trend. Student accommodations have a better yield than the other types of investment property.
- High occupancy and Guaranteed Rentals: For the past few years, leasing velocity has increased year-over-year, and occupancy is over 98% on average across Nigerian tertiary institutions, based on information from Nigeria's National Universities Commission. Nigeria's student housing market is sizeable and growing. As students head to university, many will want to be on campus; but others may choose to reside near their school in view of rising insecurity and increased need for safety. Students are often considered to be less difficult tenants because the potential for rental default is low as student housing rental as regulation is prepaid with school fees on an annual or Bi-annual basis.

South Africa: As described above, most students (>60%) receive NSFAS funding that covers accommodation. This coverage was recently lowered from ZAR 60,000 to 45,000 and is currently capped at ZAR 45,000 per student per academic year for accommodation.[57] This decrease in capped allowances resulted in several impacts for students and student housing providers such as a reduction of operational costs and (monetized water access, censored lights, reduced bus schedule to provide for only peak times services) and attempts to save on costs and expenses.

NSFAS has a significant impact on the entire student housing ecosystem in South Africa since it is a form of secured offtake with an assured monthly rental revenue for the student housing providers. NSFAS allowances vary for the students depending on their accommodation arrangements (university residence, private, other off-campus, or personal/family). NSFAS data

[57] NSFAS is the most widely utilized demand-side financing for students. It covers accommodation, transport, books, tuition and food. Accommodation is capped at ZAR 45,000 per academic year per student (~ZAR4,500 per month for 10 months). https://www.careersportal.co.za/news/what-are-the-nsfas-allowances-for-2023-university-students#:~:text=Students%20living%20in%20institution%20owned,to%20R45%2C000%20per%20annum.

indicates that 35% of bursary beneficiaries qualify for accommodation allowance and 65% for travel allowance.[58] Students apply directly with universities for NSFAS allowances as part of the registration process but must first apply with NSFAS to determine whether they qualify. The allocation of all student housing is managed by universities as per their respective housing policies and most universities are encouraged to ensure that first year students and NSFAS qualifying students are accommodated in university-managed residences. Next preference for students is NSFAS accredited housing off-campus. Students can receive single use, private accommodation NSFAS allowances on condition they submit a lease agreement to their university. Due to the mobility of the NSFAS accommodation coverage, students are not restricted to on-campus housing, and there is an equal uptake of off-campus housing as well.

2.3. Review of government initiatives to promote housing for Students

This section outlines the public-sector initiatives to promote, regulate, and/or manage the development of student accommodations for HEIs.

Ghana: The national policy on Public-Private Partnership Act 2020 (Act, 1039) in Ghana has the potential to promote student accommodation development which is a critical need in the county. The policy creates an environment and framework to enable the private sector to participate in partnership projects and offer value for money in the delivery of efficient infrastructure with assured quality. The policy allocates risks to the party best able to control and manage the risk ensuring good health of partnership arrangements. It also establishes a transparent procurement process for the selection of partners and the negotiation of partnerships, ensuring that the best value for money is obtained for the development of student accommodation. In addition, the Act provides for the development of model contracts for public-private partnerships which provides a framework for the negotiation and implementation of partnerships, ensuring that both parties are clear on their roles, responsibilities, and obligations. Models for PPP arrangements envisaged by the act include options such as Build, Own, Operate and Transfer; Design, Build, Finance, Operate and Maintain among others. The approving authority will depend on the financial threshold. Capital cost for student housing not exceeding an amount of USD 200 million can be approved by the national PPP committee while amount greater than that requires cabinet approval.

The Ghana Investment Promotion Centre (GIPC) has also identified hostels as accommodation facilities with high demand thereby encouraging investment in that area. GIPC facilitates entry of foreign investors into Ghana, streamlining barriers to enhance operations and reinvestment. Through the centre, foreign investors may benefit from several incentives applicable to the sector.

Another policy through which has led to student accommodation increase has been the Ghana Education Trust Fund. The trust provides financial support to universities which they are at liberty to use for any educational infrastructure development intervention as the university deems fit. The trust is financed through a special levy on goods and services at a rate of 2.5%. The Public universities, due to inadequate academic infrastructure mostly opt to spend their GETfund allocation on expanding teaching and learning infrastructure. Currently, the government has planned to build 300 bed hostel blocks for 45 Colleges of Education at a tune of GHS485 million through GETfund. These colleges are responsible for teacher education.

Kenya: Kenya Constitution, 2010 (CoK, 2010) under Article 43(1)(b) states that "every person has a right to accessible and adequate housing and to reasonable standards of sanitation". Further, in Article 21(2) "the State shall take legislative, policy and other measures, including the setting of standards, to achieve the progressive realization of the rights guaranteed under article 43."[59] Sessional Paper No. 3 of 2016 on National Housing Policy recognizes the need to come up with guidelines on hostel accommodation that include location, facilities, space, design and amenities shall be developed in collaboration with the institutions of higher learning. This however has not been implemented by the responsible government entities, and the PBSA sector is mainly being catered to by the private sector.[60] The government and especially the local government mainly play a role in monitoring the development via building code and zoning regulation. Additionally, in terms of financing, this housing policy further recognizes the opportunity to use REITs for funding PBSA and to this effect, the capital market has partnered with Acorn to approve the only PBSA REIT in Kenya[61].

The Government of Kenya scrapped Visa requirements for other African countries international students. This has boosted enrollment of foreign students to local institution further fueling demand for PBSA. Further, The Kenya National Qualification Authority (KNQA), apart from fast tracking recognition and equating of qualifications obtained from other countries, it plans to include upgrading accommodation facilities, setting out clearly defined academic calendars and establishing international student directorate to assist students[62].

[58] https://www.zabursaries.co.za/nsfas-allowances-for-2023/#:~:text=NSFAS%202023%20Allowances%20for%20TVET%20students&text=Students%20at%20TVET%20College%20with,directly%20to%20the%20TVET%20College

[59] Constitution of Kenya 2010- Kenya Law Review http://kenyalaw.org/lex/actview.xql?actid=Const2010 (Accessed 2 May 2023)
[60] Republic of Kenya, Sessional Paper No. 3 2016 https://www.housingandurban.go.ke/wp-content/uploads/2019/10/Updated-Sessional-Paper-No.3-of-2016-National-Housing-Policy.pdf Pg 22(Accessed 2 May 2023)
[61] Republic of Kenya, Sessional Paper No. 3 2016 https://www.housingandurban.go.ke/wp-content/uploads/2019/10/Updated-Sessional-Paper-No.3-of-2016-National-Housing-Policy.pdf Pg 22(Accessed 2 May 2023)

[62] https://www.howwemadeitinafrica.com/nairobi-understanding-the-opportunity-to-invest-in-student-accommodation/140908/ (accessed 2 May 2023)

Other government policy interventions include; government education funding to low-income students through the Kenya Higher Education Loans Board (HELB), that caters for tuition and upkeep. In the financial year 2021/22 the government increased funding for loans and bursaries by 1.4% to Ksh. 14.4 billion and government funding to university fund increased from Ksh.43.8 billion in the year 2021/22 to Ksh. 44.3 billion in 2022/23, boosting enrollment[63]. The government of Kenya increased public universities to 35 in 2022 after awarding charters to three universities, Kaimosi Friends University, Tom Mboya and Tharaka Nithi universities, creating a market for PBSA and further expansions of Technical and Vocational Education Training (TVET). Enrollment in vocational training grew 11.7% in 2022 to 562,500 students.[64]

Nigeria: In Nigeria, the responsibility of providing students with housing at a quick glance appears relatively simplistic. However, students' housing in Nigeria assumes a different dimension with an interplay of complex factors. For instance, students housing at different tertiary levels, requires not only a high level of coordination but also well-thought planning for long term sustainability to address social, psychological, educational and affordability needs. However, like every other form of housing, students' housing remains a challenging venture for tertiary institutions across Federal State and Private levels in Nigeria.[65] One of the key laws regulating this space is the National Universities Commission (NUC) establishment act that governs Federal, State and Private Universities in Nigeria, grants these universities the autonomy to conduct transactions on land that has been allocated for their Use. The NUC act stipulates that Universities have the legal authority to enter contracts, which include leases on university land. In terms of tenor concerns and for purpose of concession arrangements, universities are also at liberty to grant operations management contracts as a supplement to concession agreements to address the need for increased tenors for concession transaction structuring purposes. The NUC) mandates all approved Universities to have its own Physical Planning and Public Private Partnership Departments with oversight functions for Infrastructure development projects and responsibility for monitoring student accommodation Concession contracts, engagement of private developers, project design, execution, and facility management. This is the current regulatory and approval structure for university hostel development projects across Nigeria. The NUC does not run any special interventions to finance, support or promote student accommodation development as it considers this part of the primary and core responsibilities of approved and accredited Universities that it regulates.

In addition to the NUC act, the Infrastructure Concession and Regulatory Commission (ICRC) act 2005, also stipulates that all concessions which involve infrastructure financing, construction, operation, or maintenance being embarked upon by any Federal Government Ministry, Agency, Corporation or Body should be subject to the ICRC act. This implies that Universities are required to follow the Public Private Partnership requirements to ensure a transparent public procurement process in line with the recommendations of ICRC act and not to seek approvals for land concessions or necessarily make recourse to the ICRC for student housing concessions agreement approvals. This is more so as State and Private Universities effectively execute legally binding concession arrangements without recourse to the ICRC granted such government owned universities adhere to the guidelines for such public procurement processes as recommended by ICRC.

In addition to the NUC, a special fund was established by the government of Nigeria to redirect funds to advancing tertiary education. The Tertiary Education Trust Fund (TETFund) was established as an Intervention Agency under the Tertiary Education Trust Fund Establishment Act, 2011. TETFund is charged with the responsibility for managing, disbursing, and monitoring the utilization of education tax by public tertiary institutions in Nigeria. Towards achieving its objectives, TETFund imposes a 2% Education Tax on the assessable profit of all registered companies in Nigeria. The fund administers the tax imposed by the act and disburses the funds collected to tertiary educational institutions at Federal and State levels only. It also monitors the projects executed with the funds allocated to the beneficiaries. The mandate of the fund as provided in the TETFund act is to administer and disburse the funds specifically for the provision and maintenance of the following:

- Essential physical infrastructure for teaching and learning;
- Instructional material and equipment;
- Research and publication;
- Academic Staff Training and Development;
- Special needs, which in the opinion of TETFund is considered critical or essential for the improvement of quality and maintenance of educational standards in tertiary institutions.

From the above, it could be deduced that TETFund's responsibilities do not categorically cover the provision of student housing infrastructure. However, in recent years TETFund operating under the aegis of point 5 above initiated what it terms "special intervention projects" targeted at improving educational standards like redevelopment of dilapidated facilities if such facilities are deemed to improve the quality of educational standards e.g., student hostels. TETFund in recognition of the challenges facing tertiary institutions, such as kidnapping and cult activities and degradation of accommodation infrastructure that disrupt academic activities, commenced the TETFund Special intervention scheme for development and rehabilitation of student hostels to encourage universities towards attracting and structuring student accommodation investments from the private sector.

As part of its engagement in 2022, TETFund promoted a special impact project for the delivery and rehabilitation of student hostels across 20 institutions in Nigeria. TETFund intends to intervene towards the delivery of hostels across an additional 20 institutions by year end 2023. In furtherance of its intervention activities, TETFund in March 2023 revealed plans to disburse N18 billion (US$39.05 Million) to public universities under its "Special Intervention projects". This special Intervention funds supports selected tertiary institutions towards the upgrade of their programs and improve existing teaching and learning environments.

[63] Kenya Bureau of Statistics Economic Survey 2023 https://www.knbs.or.ke/download/economic-survey-2023/ (Accessed 4 May 2023)

[64] Kenya Bureau of Statistics Economic Survey 2023 https://www.knbs.or.ke/download/economic-survey-2023/ (Accessed 4 May 2023)

[65] Olanrewaju, S., et al., (2022): A Review on Students' Housing in Nigerian Universities. LAUTECH Journal of Civil and Environmental Studies Volume 9, Issue 1; September 2022 DOI: 10.36108/laujoces/2202.90.0150

South Africa: To be able to fully understand the nuances of the student accommodation space in South Africa, it is crucial to take note of the large number of policies, legislation and regulations governing the higher-education sector. There is two key regulations that govern the sector: the University Macro Infrastructure Framework and the Minimum Norms and Standards outlined by DHET.

As per DHET and the IFC report, Annexure 6 of the University Macro-infrastructure Framework published by the DHET (DHET, 2019) guides universities on the formation of PPPs, more specifically for student accommodation. PPPs in South Africa are regulated by the Public Finance Management Act (PFMA) and Treasury Regulation 16. At a municipal level, they are governed by the Municipal Finance Management Act and regulations as well as the Municipal Systems Act. Treasury regulations are issued in terms of the PFMA, DHET utilizes Treasury Guidelines to evaluate PPP proposals for Ministerial approval.

University PPPs are also regulated by the Treasury Regulation 16 , which requires ministerial approval for the creation of a PPP (Act 101 of 1997). Treasury Regulation 16 permits PPPs with a wide range of characteristics, but mainly center on models that emphasize risk transfer to the private sector. Criteria for PPP approval includes the following: substantial technical, operational and financial risk being transferred to a private party; public institution being able to afford fees; and having solutions that offer value for money.

The PPP legislation is quite complex, and for most PBSA developers, PPPs are unsuccessful because of their onerous requirements. As a result, the private sector considers PPP arrangements to be too strenuous and would need a more streamlined process that is user-friendly and attractive to private sector stakeholders.

In addition to the PFMA and Treasury Regulation 16. the Department of Higher Education and Training (DHET, 2015) published a draft policy stipulating the Minimum Norms and Standards (MN&S) for student accommodation at public universities in 2011, to gazette it in September 2015. The MN&S guidelines are to ensure that students have adequate and good quality accommodation, and these policies apply to both new and existing student accommodation.

Below are some of the Minimum Norms and Standards as per DHET's policy, which covers physical infrastructure, residence site, design of Residences, Health and Safety, Furnishings and Fittings, Construction, Repairs and Maintenance, Student well-being and support, Student housing governance and management, as well as Compliance with Minimum Norms and Standards.

- **Physical infrastructure –** The policy indicates that the existing accommodation should be brought up to standards within a reasonable period. Additionally, student accommodation should incorporate universal access for students with disabilities.
- **Residence site –** The future development should be located within a 20km radius of the university and for accommodation further than a 5km radius, the operator should provide affordable and secure transport.
- **Design of residences –** The rooms should have a maximum of two students per room with single rooms having a minimum size of 8 sqm and double rooms 14 sqm.
- **Health and safety –** The student accommodation must comply with all national, regional and municipal legislation regulating health and safety.
- **Furnishings and Fittings** - Furnishings and Fittings should be maintained in a sound and working order and should be replaced as soon as possible when broken beyond repair by the relevant university, landlord or agent.
- **Construction, repairs and maintenance –** All construction, repair and maintenance must comply with national legislation and the following: reasonable emergency response times, minimum disruption to the academic program and ministerial approval before construction.
- **Student Wellbeing and Support** - The university student housing must provide adequate provision for the medical and psychological well-being of student residents during work hours, and that emergency support is available after hours.
- **Governance of student housing** – A council created by the university should conduct quarterly meetings while staffing levels should be at a ratio of one warden for 100 students and one sub-warden for 100 students.
- **Compliance with Minimum Norms and Standards –** The DHET is the custodian of the policy, and all NSFAS-funded students may only be accommodated in housing that meets the MN&S.

While the primary objective of the MN&S policy is to ensure that the living standards are necessary to foster positive academic progress, critics of the policy suggests that in future the MN&S could benefit from engaging/consulting with the private PBSA developers, who have had experience with some of the constraints of the current standards.

In addition, and in conclusion to the above, it is important to note that the Minister of Higher Education, Science and Innovation published the draft revised policy on the Minimum Norms and Standards for Student Housing at Public

Institutions of Higher Learning for public comments on 29 October 2021[66] (Government Gazette No. 45396, Government Notice No. 1458). While the due date for submission of comments was 31 March 2022, feedback on this has yet to be received or publicised. Although there is no comprehensive framework governing PPPs, according to the DHET Revised Strategic Plan[67] (2020 - 2025), the Student Housing Infrastructure Programme (SHIP) is tasked to develop a policy framework on the accreditation of private student accommodation, and given that the SHIP projects are currently underway, more should be heard on this in the short-medium term.

[66] https://www.gov.za/sites/default/files/gcis_document/202112/45643gon1601.pdf
[67] https://www.dhet.gov.za/SiteAssets/Planing%2CPolicy%20and%20Strategy/DHET%20Revised%202020-2025%20Strat%20Plan%20.pdf

3. Assessment of business models being used to develop Student Accommodation

The four countries investigated in this research use several development models that are being spearheaded by different stakeholders. Previously outlined Supply and demand assessment section describe these models in detail; this section focusses on analyzing financing mechanisms and the resultant business models in the four countries. We go into detail of the predominant models in the countries, along with an assessment of other less popular but emerging business and funding models for student housing. Additionally, the following Section 4 on elaborates visa case studies the operational aspects of some of these business models used to develop student accommodation.

South Africa is the most mature of the four markets and thus has a few operating business models for student housing. Catalyzed by the nationwide NSFAS funding, private-developer built and managed off-campus student accommodation is dominating the supply. These projects are funded using a combination of developers' own equity, debt financing from banks, and DFI investments. An alternative model in the peri-urban and rural areas is the government-led Student Housing Infrastructure Program (SHIP) model. This uses a combination of government-provided grants and commercial debt from DBSA in an 80/20 equity-debt ratio. A lesser-known model of rehab of vacant properties into student housing is also emerging in the inner-city areas of South Africa. Being rather recent and adopted by small-scale developers, this model uses more debt financing; debt to equity ratio is 90-10. It is worth mentioning here that all of these financial models in South Africa are underpinned in the widespread NSFAS-aid received by the students, as a means of regular assured rental revenue.

In Nigeria, PPPs are common where private sector developers partner with Federal, State or Private universities to develop on-campus accommodations that are operated by a private sector operator (mostly developers sub-entity), to be eventually transferred back to the university at the end of a generally 20-25 year concession period. Such a model requires coordination with regulatory government entities like the ICRC. Universities generally provide land for development, and developers utilize debt and equity financing to develop projects. Private sector developers also manage to mobilize long-term concessionary financing from special funds like the NIDF.

Alternatively, ***in Kenya we see that the market is private-sector led, with one dominant institutional developer of student housing, i.e. Acorn, leading development of off-campus accommodations around universities. Acorn mobilizes funding for student housing development using a dual-REIT structure.*** Investments in the D-REIT are utilized as development capital for the projects, while investments in the I-REIT are used as operating capital for the completed properties. Investors are required to invest in both REITs in a 30-70 ratio of D-REIT to I-REIT. This also balances their risks and returns.

The Ghanaian market, which is the most nascent of the four countries, the predominant model is of national-scale institutional investors leading the development of student hostels through their subsidiary organization, in partnerships with universities and on leased university land. The development is funded by the institutional investor fund. These funds use their members contributions to finance and develop student housing. The operations are managed by subsidiaries of the pension fund.

3.1. Review of existing framework for PPP Student's Hostel Projects

Ghana

PPP models are seen as the only practical way to address the demand while not increasing burden on universities in Ghana. At present, though a traditional PPP structure is not utilized fully, public-sector institutional investors like Social Security and National Insurance Trust (SSNIT) are partnering with universities in BOT-type contracts on on-campus land that is leased from the universities for a monthly payment (see table below). Formal PPPs that involve public-sector universities partnering with private sector developers have mostly stayed unexplored because of the complicated process incurred by such framework as it needs approvals from MoF.

	Institutional-investor entity	*Universities*	*Government*
Land		√ *(leased to developer for a monthly rent)*	
Trunk Infrastructure	√		√
Construction	√		
Financing	√ *(using contributions from fund members)*		
Offtake	√		
Operation and Management	√		

Some private universities have done BOT-type PPPs, with 25-year land concessions such as Ghana Telecom University and UPS. University of Ghana has done a 1000-bed PPP with Africa Integras. Overall, developers perceive working with governments in PPP as slow and tedious, thus not preferred. Developers prefer partnering with private universities for PPPs as they are considered more efficient. Developers must consider PPP financial cash-flow structuring which include risks like non-attendance, Forex risk, and/or political risk and have an effect on PPP perception for developers.

3.1.1. Source of land and Typical concessions/ land lease agreements and process for renewals

In Ghana, universities have land and lease this land to private developers and pension funds (SSNIT & GNAT) at a per acre market rate for them to develop student housing projects. The market in Ghana is ready for a formal PPP model where universities provide land with private-sector entity developing and managing the property. Access to land outside of campus is difficult and limited and the risk of litigation and expensive registration for larger pieces of land is high and deter private developers. Ultimately, developers prefer to lease land rather than acquiring it to develop student housing project.

3.1.2. Factors that impact the overall financial feasibility of the PPP structure

In Ghana, price-caps on student housing rental charges are in effect and greatly impact developers PPP structure's financial feasibility. Operating and maintenance costs are high for student housing projects and have a significant impact on the financial viability and structure of a proposed project.

3.1.3. Financing resources used

Developers tend to finance student housing development projects through their own equity and capital. Universities can take debt from commercial banks to construct, but some repayment challenges have arisen in the past (issue with SG Bank and University of Ghana). The student housing field has previously benefitted from DFI capital via banks (IFC via Ecobank and SG Bank). The loan currency in usually in Ghanian Cedis to which a 3 to 4% margin is applied. In the case of loans provided in dollars, the tenor will be between 8 to 10 years and an upfront facility fee of 2% will be applied.[68]

Kenya

PPPs, although popular in Kenya, have not yet been fruitful in developing student housing. Several projects have been in the pipeline since 2015, but none have been fully implemented yet. PPPs in Kenya face challenges such as;

- Difficulties in managing the multi-stakeholder nature of most of the PPP projects,
- Lack of appropriate legal frameworks in Kenya to enable transfer of public land into special purpose vehicles to be able to attract private capital and bank debt
- The extended time-frame of PPPs while private developers prefer to exit projects within 3-5 years. The PPP hostel projects have a design, build, own, operate and transfer model, where the developers will recoup their return after an approximate 20-year period and this is unattractive to investors who prefer to exit early.

Most recently, University of Nairobi (UoN) is exploring a PPP model to develop 4,000 bed capacity hostels. A 2,000 beds hostel will be built at the main campus and other project are planned to be developed at Chirono and Kenyatta each with a capacity of 1,000 beds under the UoN Purpose-Built Student Accommodation project. This is an ongoing initiative and is at the bidding stage of the process.

3.1.4. Source of land and Typical concessions/ land lease agreements and process for renewals

Right now, Acorn is acquiring its land from the market, which increases their development costs and therefore the eventual price point as well. Since PPPs have not yet been implemented for PBSAs, there is a lack of data to analyze typical concession agreements and its impact.

3.1.5. Financing resources used

Acorn is the largest institutions developer of student accommodation and mainly finances its developments through a dual-REIT structure. Institutional investors in REITs include pension funds, insurance and reinsurance companies, high net worth individuals and anchor investor, Infraco Africa (invested USD 10mil) , thus effectively leveraging the local capital market for funding. The two REITs are expected to give long-term investors a blended return of 18% on a 10-year hold basis.

Other less common sources of financing include loans from commercial banks. Recently USIU secured a 10-year dollar loan facility at a cost of 5.5% with a 2 year construction moratorium to construct a 2500-bed facility on-campus. PBSA investors

[68] Sometimes an annual renewal fee of 2.25-2.5% over the margin.

generally look at price (product pricing visa vis the market), purpose of the property, location, track record, price points and capacity of the developer (expertise in the sector) and ability to repay. They also do a thorough land due diligence and general adherence to environmental and zoning regulation.

Typical commercial lending is not popular and thus terms for the same are not specific or standard. With REITs being the popular funding mechanism, the investors in the REIT generally evaluate the properties on a portfolio basis. In Acorn's case, the investors view the cash flows from the I-REIT as a risk mitigation measure for investing in the riskier D-REIT.

Nigeria

PPPs are a predominant model for student housing development in Nigeria. Nigeria has a very board PPP regulatory framework. ICRC manages PPPs and is well equipped to guide the market through PPP process and the market is comfortable with the model as it has proven feasible since universities owner have access to the land.

All three types of universities (public, private, federal) have different pre-established processes for PPPs.

- At **federal universities** there is a PPP regulatory framework and process for student housing managed by the Infrastructure Concession and Regulatory commission (ICRC). However, PPPs with federal universities are time consuming and require adhering to several specifications in the deal structuring that make student housing less profitable for private developers.
- **State Universities** also have their own localized PPP regulations though with fewer complexities as compared to the federal regulations by ICRC. Ultimately, the state government subsidizes each bed space and pays the developer a piece of each bed price such that to kick-start the operation costs.
- **Private universities** on the other hand manage student housing as private equity or private investment endeavors or as Joint ventures with investors.

3.1.6. Stakeholders and their respective contributions to the deal

Most PPPs in Nigeria have universities providing land on-campus for constructing the PBSA. Private sector entities propose the design and construction of the property, while also managing the financing of the development by approaching private-sector financiers and commercial banks for construction loans. PPPs are Federal Universities have to be approved by the respective regulatory authorities based on the type of university as described above.

	Developers	*Universities*	*Government*
Land		✓	
Trunk Infrastructure			✓
Construction	✓		
Financing	✓		
Offtake	✓		
Operation and Management	✓		

3.1.7. Source of land and typical concessions/ land lease agreements and process for renewals

In Nigeria, the most popular model is the BOT-type PPP model with land provided by the universities. Federal universities have to go through ICRC to get land concessions, while state universities have direct access to land, so the process is easier. On the other hand, private universities have their own private land.

Land lease agreements are actually the biggest challenge for PPP transaction structuring in Nigeria. Federal and State Nigerian universities have a limit of 21 years during which they can benefit from a land concession which is relatively short for these types of projects.

3.1.8. Factors that impact the overall financial feasibility of the PPP structure

Federal universities have a price cap on rents they can charge for student housing to maintain affordability, and this has an impact on private developers' business models when considering student housing developments. Private developers doing PPPs with federal universities mitigate this by:

- Negotiating a long concession period
- Negotiating offtake guarantee with universities.
- By making it compulsory for first and final year student to be on campus
- The institutions also help with trunk infrastructure and other social infrastructure for the projects to reduce overall costs

3.1.9. Financing resources used

Private developers in Nigeria rely on various financing sources to support them in their student housing developments. They rely on commercial banks, private equity investors, pension funds via Special targeting funds like NIDF; Stanbic IBTC Infra Fund , government-investment vehicles like FHF that uses Federal grants earmarked annually for them, local DFI like TIB, and international DFIs, and lastly grants from government institutions like TETFund.

Lending terms vary from one stakeholder to another as described in the table below:

	Chapel Hill NIDF terms	***FHF terms***
Loan-to-Value (%)	70	Less than 100%, need sponsor for equity
Tenor (years)	15	15
Interest rates (%)	NA	9-10
Comments	• Long term investor horizons – pension funds. Fund life is 99 years • Promises investors a floating rate based on a 400-450 basis points. • Low risk – smaller margin; high-risk is higher interest.	• Construction is ~2 years of the loan tenor. • The construction period might have a complete moratorium or Interest only.

In terms of collateral, some FIs demand corporate guarantee from the developer, all asset debenture, and performance bonds/advance payment guarantees to facilitate its credit underwriting for student housing.

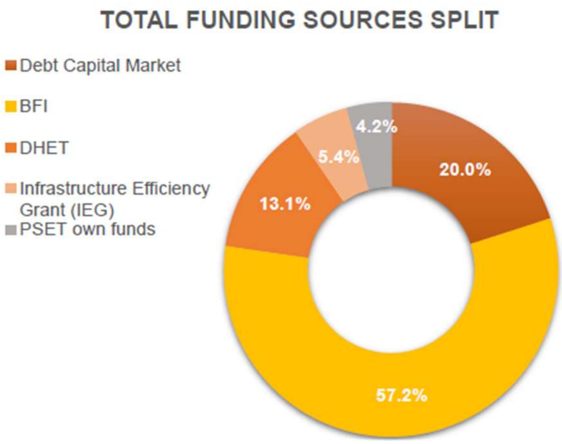
South Africa

South Africa has a comprehensive PPP legislative framework. However, perception is that the legislation is extremely complex, and the approval process is onerous. These features and the fact that universities are often under-resourced and generally inexperienced in rolling out PPP projects makes them a complicated business model to execute. PPPs have had mixed successes in being used for student housing development in South Africa.[69] Given these difficulties, traditional PPPs for student where the public entity contributes land and private entity implements the project, have not yet fully seen the light of day. Several PPP initiatives have been undertaken, but not realized yet.

[69] To date there have only been two completed and publicized formal PPP student housing projects. The first was the 1,200 bed Ovals development at the university of KwaZulu-Natal's Westville campus, completed by Crowie Construction in 2006, and the second the provision of the 1,100 bed Kovacs complex development at the University of the Western Cape

The SHIP model, led by DHET, is similar to a PPP with regards to public and private entities partnering to address the student housing demand and is another mode of production for student housing in South Africa. These are structured as Design-Build-Operate-Manage contracts, except that the institution does not provide the land, but it is instead acquired from market, or other govt-owned land is earmarked. The main sources of funding for student housing development under SHIP are:

- DHET Infrastructure and Efficiency Grant (IEG) for university housing totaling R1 billion per year
- BFI grant funding – R638 million
- DBSA loans
- IIPSA grants
- Universities' own resources – usually 10% of IEG
- Developers and financial institutions



There have, however, been several challenges with the SHIP model, including:

- Delays due to no title deeds, rezoning and land claims on rural campuses.
- Private entities competing for land deals with government.
- Limited planning, procurement and implementation capacity in institutions
- Limited capacity in government to support program preparation.
- Uncoordinated sequencing of funding causes project delays and loss of funds
- Investors deterred by onerous procurement processes, including poorly structured RFP documents, unclear or indefinite timelines, extended bidding stages due to insufficient bids, and corrupt procurement processes.
- Instances of private sector promoting corrupt and illegal practices or projects in their own interests, not that of institutions or students.

3.1.10. Source of land and typical concessions/ land lease agreements and process for renewals

Land acquisition is done via market-price land sales or leases. Land costs are a majority of the development costs. This is a big deterrent for private sector entities entering the market. The most popular model is private developer-led delivery of PBSA on acquired lands in the vicinity of universities.

3.1.11. Factors that impact the overall financial feasibility of the PPP structure

NSFAS student accommodation allowance is capped at 45,000 ZAR per student per academic year. This has a huge impact on the entire student housing ecosystem in South Africa since it is a form of assured monthly rental revenue for the student housing providers and define their business models.

3.1.12. Financing resources used

Student housing suppliers rely on several financing resources to develop their projects. Stakeholders such as local DFIs, like DBSA along with international DFIs and local banks, like ABSA are active in the sector. Specialized financial institutions like TUHF, pension funds and other qualifying long-term investors via REITs.

3.2. Main challenges of student accommodation financing

Short-term risk	***Medium-term risk***	***Long-term risk***
• **Forex risk.** • **High-interest rates** and volatile capital market.	• ***Capital requirements/"skin in the game".*** Lack of equity of small and medium sized developers to contribute to deals.	• **Affordability challenges** since cost of development and operations is high. Lack

• This is a **high-capital requiring asset class**. • Increasing development costs.	• ***Crowding out the market and selecting target segments.*** Market is dominated by large developers that are able to leverage their reputation and acquire financing. This can potentially result in crowding out the market and limiting student housing options addressing all types of target segments. • ***Limiting supply in profitable locations.*** Additionally, this could also lead to concentration of supply in certain more profitable urban area, leaving the rural and peri-urban campuses with unaddressed demand (the SHIP program in SA is mainly focused on rural campuses to avoid this issue possibly). As per IFC report, largest concentrated affordable demand will be in the TVETs, that are frequently located outside of large urban cities.	of long-term concessionary capital is further making deals infeasible. • **Limited participation by institutional investors.**

Ghana

In Ghana, the upfront capital requirement is significant and one single bank cannot finance the total development (about 20 million GHS minimum). Hence financing from commercial banks and market resources is limited. Usually, commercial banks transact directly with universities and not private developers when financing student housing projects and prefer universities guaranteeing offtake through some agreement, especially for off-campus student housing.

Long-term financing from capital markets is limited. Developers look for student housing funding sources on a project basis. Longer tenure will allow recovery for investors from property cash flows. Short term funding coupled with high cost of operations is deterring investors from entering the student housing space.

Overall, we note that student housing developers operate on small-scale project basis and are undercapitalized to take on large-scale projects.

Kenya

In Kenya, local capital markets have suffered from a number of market failures in recent years, making investors wary of new issuances such as REITs. Involvement of large players like InfraCo Africa, DBSA and other institutions in Acorn REIT offerings have helped ease this market perception.

Obtaining financing for local developers has been difficult due to reluctance of lending institutions to finance such an asset class and therefore apply strict underwriting standards. Additionally, the local capital market, which can be a source of long-term funding remains relatively undeveloped compared to developed markets. Access to long-term funding is also a major issue as most developer currently use their own equity or banks to finance projects. Additionally, non-local currency financing and funding is not preferred by the developers in the current economic climate.

PBSA requires high development and management expertise, which the majority of developers lack capacity for hence making them shy away from investment in the sector. Currently, the Kenyan student housing market is monopolized by the Acorn model for SH development, further discouraging other players to enter the market and explore alternative strategies.

Nigeria

In Nigeria, developers are unable to access affordable long-term funding (>15 years) which has been a major constraint given the high interest rate environment in the country and unwillingness of traditional lenders to provide facilities with appropriately matched tenors. In January 2023, MPR hit 17.5% p.a, thus, resulting in developers accessing loans at interest rates of over 20%, which is expensive for developers who require single digit lending rates to enable them to tick the affordability or sustainability criteria, build at scale and be profitable. The weak local currency has also had a major impact on the student housing sub-sector.

Most investors and banks require developers to provide equity contribution towards part financing student housing transactions as this presents an opportunity for blending or co-financing for affordability. PBSA developers have limited capacity to provide these.

Key features that could be of interest are the length of the concession, an exclusivity clause, termination, the right to set prices, revenue/ profit share, and guaranteed occupancy levels among other things. In some cases, universities are only allowed to grant ground leases for 21 years (federal universities). Developers typically seek tenors ranging from 25 to 30 years to make the deal attractive. They would also want to factor in conditions to review prices and retain the operations and maintenance rights of the facility; all to improve the IRR of the project.

South Africa

In South Africa, indirect entry options into the student accommodation market are limited, mostly because the market is still relatively immature and fragmented.[70] The main barrier to the growth of indirect investment options in the sector for large institutional funds (such as pension and insurance funds) is that most student housing providers do not have substantial enough portfolios or platforms to attract large institutional investments yet. Some entities like Respublica and Eris have been successful in attracting foreign investments, but low uptake on investment opportunities in PBSA by pension funds and other long-term investors.

Another prohibiting factor is that as of now, there are few, if any, greenfield PBSA buildings that have extensive track records and performance trends[71] (having gone through at least one financial cycle). As a result, investors and funders seem to be adopting a wait-and-see approach. Nonetheless, the student housing market is growing, and properties have been operating successfully and answers to investors and funders concerns are starting to emerge.

[70] The largest investment in the sector by an institutional investor in the PBSA asset class in South Africa occurred in 2015 when the Public Investment Corporation, on behalf of the Unemployment Insurance Fund (40 percent) and the Government Employees Pension Fund (60 percent), purchased the largest PBSA platform in South Africa, South Point. Other pension funds or institutional involvement in the sector include Momentum Metropolitan Life Limited's (MMLL, 2020) alternative investment and the Eskom Pension and Provident Fund in Eris Property Group. Source: https://www.ifc.org/wps/wcm/connect/region__ext_content/ifc_external_corporate_site/sub-saharan+africa/resources/market-assessment-the-student-housing-landscape-in-south-africa

[71] Almost all large greenfield PBSA developments in South Africa were constructed from 2015 onward

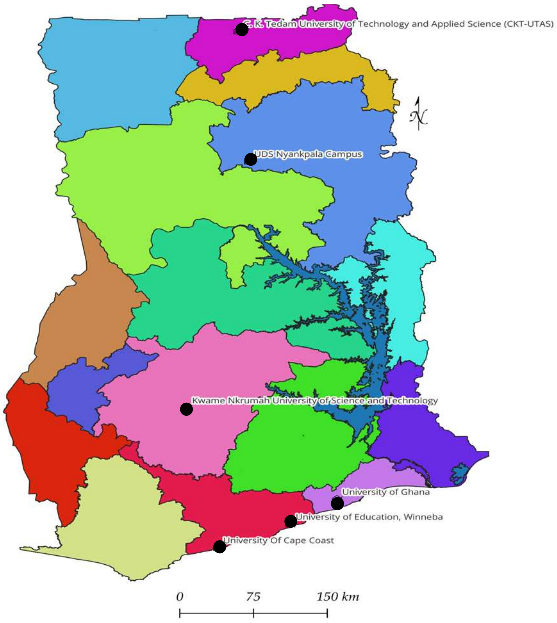
4. Country-wise case studies of Student Accommodations

The case studies described in this section outline predominant and innovative models for delivering student accommodation in the four focus countries.

4.1. Ghana: Student Hostels by SSNIT

4.1.1. Project Background

Figure 11 : Location of GHL Residential Facilities
Source: PSS Urbania, 2023



Ghana Hostels Limited is a subsidiary company of the Social Security and National Insurance Trust (SSNIT). SSNIT is the statutory public agency with responsibility for administration of the first tier of Ghana's national Social Security Pension Scheme. SSNIT as at April 2023 had an active membership of about 1.8 million making it the largest Non-bank financial institution in Ghana. The equity holding of SSNIT in Ghana Hostels Limited is aligned with its mandate to administer and invest funds of the scheme for current and prospective pensioners. SSNIT has equity in other real-estate such as West Hills Mall, Ridge Tower, Heritage Tower, Ridge Car Park, Trust Towers, Accra World Trade Center among others. Apart from SSNIT, the Ghana Universities Staff Superannuation Scheme which is a pension system for senior staff of universities have similarly invested in student residential facilities on public universities, yet accommodation challenges remain as demand exceeds supply.

The establishment of Ghana Hostels Limited (GHL) is to leverage on the opportunity and address the inadequate accommodation for tertiary students. This was necessitated by an explosion in the student population due to a reform in the educational system. In 2012, GHL was converted into a hostel management company. Currently, there are 6 accommodation facilities being managed by GHL in public universities spread across the country.

The accommodation is mostly hostel-type facilities consisting of rooms from single occupancy to a shared quadruple occupancy. The target population for the hostels are registered students at the university, most of whom are undergraduate students. The goal of SSNITs investment is to improve student access to quality accommodation. To this effect, GHL aims to be the first-choice student accommodation management company in all the tertiary institutions in Ghana.

4.1.2. Project Features

Different designs and layouts are used at the various residential facilities of GHL. At African Union Hall, popularly called Pent at the University of Ghana, which is the largest of the various facilities, the rooms are organized by blocks. There are currently three blocks labeled A to C that cumulatively houses over 2600 beds in 990 rooms on a 15-acre land. KNUST houses about 696 beds in 272 rooms and University of Cape Coast houses about 337 in 144 rooms. In all, the Students Hostels provided by SSNIT on all 6 campuses have about 1644 rooms with 4303 beds. The hostel has no specific gender-inclusive features and is based on the ability of students to pay.

At the University of Ghana, one green/sustainable building feature is the use of clay bricks and roofing tiles which helps to keep buildings cool thereby reducing energy consumption. This is not peculiar only to the SSNIT hostel but an adopted university building standard.

The Hostel at the University of Ghana provides amenities such as water, electricity, basketball court, commercial stores, parking space, gym and restaurants for residents. Wi-Fi and security are mostly provided by the university.

The hostels are easily accessible on campus. Students can reach them by walking or by using privately organized shuttles.

The price charged per room, as indicated in the table below, depend on the student's nationality as well as the room size and whether the room has an AC or not. The rooms with AC are more expensive than the rooms without AC and international students pay more than Ghanaian nationals. The least priced room at African Union Hall at the University of Ghana is EUR 275 [GHC 3446] for a local which is 4 in a room. The prices stated above were for the 2022 -2023 academic year. For the same year, the traditional residential Halls owned and maintained by the University of Ghana charged EUR 68 [GHS 850] per local student whereas international students were charged EUR 463 for 4 in a room.

Table 4 : Ghana Hostels Ltd pricing information

Source : AHI and PSS Urbania market research

Room Type	***Location***	***For Ghanaians per year (EUR)***	***For Intl. Student per year (EUR)***
Single Room w AC (big)	New Pent	1,229	3,920
Single Room w AC (small)	New Pent	1,128	-
Single Room No AC	New Pent	940	-
2 in 1 w AC	New Pent	740	2,436
2 in 1 w/o AC	New Pent	599	3,023
4 in 1	New Pent	319	1,036
2 in 1 shared Flat	Old Pent	497	1,744
4 in 1 shared Flat	Old Pent	275	924
2 in 1 room w/o AC	New Pent	-	1,918

We estimate that roughly 80% of the student population is able to afford the cheapest room option offered by the hostel at EUR 275 per bed per year. Whereas, roughly 30-40% of the students can afford the single room options offered by SSNIT student hostels. The affordability performance of these hostels is relatively good considering Ghana is a nascent market for student housing. However, with growing demand for quality student housing in the vicinity of universities, coupled with the absence of large-scale student aid schemes could result in affordability among the student population to be further strained.

4.1.3. Stakeholders

The intervention of SSNIT in student housing was initially at the request of the government and universities at a time when student enrollment had drastically increased. As such SSNIT was among the first non-academic institutions to venture into Students residential accommodation in Ghana. Though government through the Ministry of Education regulates tertiary education through the Ghana Tertiary Education Commission, the commission does not regulate privately owned facilities.

The Lands on which SSNIT built its hostels are owned by the universities and were provided. Between SSNIT and the Universities is a memorandum of understanding which was signed as a binding legal document regulating their relationship. The hostels operate according to the university calendar issued before the commencement of each academic year. The university as a stakeholder is responsible for disciplinary action of students who flout regulations.

The GHL rents out a number of stores and spaces to commercial establishments and private individuals to provide complementary services such as restaurants, gyms and supermarkets for the convenience of residents.

4.1.4. Development model

SSNIT leases land from the universities and invests in the building structures after which it hands over management to GHL. After the expiry of the lease period, the buildings erected on the land will be returned to the University. At University of Ghana, the lease granted to SSNIT is 35 years likely subject to renewal. Private building contractors were engaged to construct the building with the university ensuring its quality standards were met.

4.1.5. Financing model

All the hostels are 100% owned by SSNIT as an investment using funds from the Trust. The full cost of the hostel facilities built across Ghana were financed by SSNIT. The model is based on a Build Operate and Transfer scheme for a payback period ranging from 35 to 50 years. SSNIT recovers its cost of investment annually through GHL as it pays about 41% of all incomes realised from its assets. For pension funds like SSNIT, though the venture into student residential accommodation was seen as a social investment, it has provided security against fluctuations and uncertainties in the economic financial markets as income and returns are assured once there is a student population.

Financial Model	Challenges & Lessons
• 100% equity by SSNIT	• Limitation of assets allocation policy of SSNIT .
• BOOT	• Revision of the memorandum of understanding
• Social Investment	• Demand of payment from statutory authorities
• Certainty of returns	• Location on fringes
• SSNIT is entitled to 41% of all revenue. GHL retains 59%	• Affordability influenced by social characteristics
• Revenue through rental of rooms and spaces	• Utility Cost

4.1.6. Impact and Outcomes

The hostel facilities provide a relaxing atmosphere for students to focus on their academics. As a result, students of the hostel are perceived to be privileged. No rigorous studies have yet been conducted comparing performance of students in the hostel to other residential accommodations. However, it is well known that the facility affords students the peace of mind and healthy environment to study.

The hostels employ a number of people from the communities where their facilities are located. These employments provide jobs and income to people and their families. Furthermore, the restaurants in the hostels utilize materials from the local market thereby supporting local economic growth.

The presence of the hostel facilities have helped to absorb many students and given them good accommodation thereby supporting the university to focus on its core educational mandate.

4.1.7. Challenges and lessons learnt

Challenges encountered by GHL has been with meeting the high demand of students accommodation. Although opportunities exist, the assets allocation policy of SSNIT caps its investment in a particular sector, hence its allowable investment in real estate has been exceeded thereby limiting its ability to expand.

In addition, SSNIT was one of the early bird investors in student accommodation, as such the arrangements was for the universities to provide land whilst SSNIT finances the construction At that time, there was no no consideration of charging premium ground rents. However, the high demand for land has led to an increase in ground rent rates based on which some universities are demanding a revision of the memorandum of understanding in order to charge higher ground rents to GHL.

Another challenge bothers on statutory payments, some of which come from local governments and state authorities. For example, though the facility is purely for students, the Ghana Tourism Authority demands it to register and acquire a licence subject to annual renewal. Again, though the properties are on government land, the local government assemblies also demand payment of property rate. In addition, the cost of utilities keeps on rising for example, water, electricity and insurance which is partly linked to the general increase in cost of goods and services.

Furthermore, security was sometimes an issue faced as the lands leased to SSNIT were often sited on the fringes of campuses and not close to the traditional halls. This posed security challenges for students especially in the evening.

On the part of students, challenges with regards to management of the property include theft , quarrels by students, and the need to regularly maintain facilities .

A lesson SSNIT has learnt is that while demand for students housing remains strong, the ability of students to pay in some locations is influenced by affordability and the socio-economic conditions thereby affecting the subscription of its facilities. For instance, In the northern part of Ghana, where the SSNIT residential facilities are undersubscribed compared to those in the southern Ghana. The situation is attributable to the relatively lower levels of income and pervasive poverty faced by households in the regions.

4.1.8. Conclusion and recommendations

The Ghana Hostel Limited has greatly impacted the student's accommodation landscape by providing quality and accessible residential facilities across the country thereby relieving university management of a lot of pressure. The standard room offered by GHL with high demand is 4-in a -room due to its affordability. The hostels in the southern part of Ghana especially at University of Ghana are oversubscribed while those in the north especially Navrongo are undersubscribed likely due to availability of cheaper homestay options in the market.

The demand for student housing is high and still growing. Lessons from this case study is for investors to conduct a good feasibility study based on location to determine the needs of students. The contract between the university and the investor should also be precise, clear and unambiguous leaving no stone unturned. Complementary amenities that support student living should be considered to make living comfortable.

4.2. Kenya: Student Accommodation REITs by Acorn Holdings Limited

4.2.1. Project Background

In recent years, the government of Kenya has committed to upskilling the county workforce, which has led to increased investment in education and increased enrolment in both universities and tertiary institutions. Enrollment in Technical and Vocational Education and Training institutions grew by 11.7 per cent to 562,500 in 2022. University enrollment is expected to grow from 562,100 in 2021/22 to 562,900 in 2022/23 academic year. Approximately 23% of these large enrollment's secure accommodation in their institutions of study. The remaining population opt for off campus arrangement.

Acorn Holding limited identified this opportunity and ventured into student accommodation, initially through a partnership with Helios Capital. In October 2019, Acorn issued a Green Bond for KES 4.3 billion (USD33.077 million) which provided financing of 6 projects that for majority of the initial properties that are taken over by the Acorn D- REIT and I-REIT.

4.2.2. Project Features

Acorn/Helios partnership is the largest private purpose-built student accommodation developer and operator in Kenya with a listed portfolio of 4,500 beds spread across Nairobi. It also has secured funding from ABSA for a pipeline of over 10,000 bed facilities.

Their units are mainly in Nairobi Metropolitan with expansion target in Nairobi and the neighboring counties. Specifically, their units are spread out in Hurlighum Nairobi, Chiromo, Jogoo Road, Nairobi West, and Ruarka.

Acorn develops students' hostels under the brands Qwetu and Qejani. The projects target safety of students, ample environment for best education outcomes and affordability.

A typical building layout features the following: A perimeter wall to secure the compound, manned entrance gate with CCTV, Access is designed with ramps to cater for people with disabilities. Access also features an automated system that uses biometrics and or keycard. Thereafter, there is an entrance lobby, ground floor with study rooms on one end, a tuck shop and a commercial laundry. Other floors are accessed by an automated lift that takes a student to their floor of residence or to common areas on the upper floors. There are also stairs to access upper floors and an emergency staircase for fire exits. The accommodation floors are sandwiched with other further common area on the roof top floor that is partly open with clothe hanging line and entertain room with gym, indoor games, tv room and break out room. The facility has WIFI, transport facilities mainly from one institution to another or to the central business district.

The Qejani brand is targeted to serve public universities and averages KES 15,000 (EUR 98) per bed per month with four persons per room. However, when compared against average per capita incomes in Kenya, at present, we estimate that both Qwetu and Qejani rooms are effectively affordable to less than 15% of the student population.

The facilities provide study rooms, breakout rooms, entertainment areas with indoor games, laundry area and the brand also provide for transport to and from the central business center in the morning and in the evening. At the time of the visit, the facility was 100% occupied owing to the partnership of the brand with nearby targeted institutions.

There are five Qejani facilities that have added 6,600 beds in Chiromo, Catholic University, Hurligham, Qejani Northland, and Qejani JKUAT.

Figure 12 :Typical interior layout and finished for Acorn's Qwetu Housing

Source : AHI market research.

Its products are differentiated as follows to cater for the various market segments:

Qwetu Product type	Accommodation	Cost per bed/ month KES	Cost per bed/month EUR
Premium	One Pax self-contained room (3by 4 m)	34,500	240
Cluster	One person per self-contained room, 8 Pax sharing a kitchen (3by4 m)	29,000	211
Twin	Two Pax sharing, share the kitchen and toilet (2 by 4m)	19,000	132
Studio	Approx. 2.4m by 4 m and one Pax	31,000	215

All the Acorn facilities are IFC EDGE (Excellence in Design for Greater Efficiencies) certified as green building with utilities efficiency and sustainable operations. The design and construction are in accordance with the policies reviewed and certified by Green Business Certification Inc. (GBCI). Under the IFC EDGE, the target required for certification is 20% savings in energy usage, 20% in water consumption, and 20% in material utilized. All Acorn projects are designed to achieve higher savings than these basic benchmarks[72].

On gender and social aspects. As of December 2019, the student occupants of Acorn's existing PBSA properties came from 53 countries and represented an equal 50-50 gender balance split among the students. Additionally, Acorn projects have created 342 jobs and with 25% reduction in the capital cost per bed[73].

The operations are also automated to ensure security and for ease of response to defects where students log in for maintenance issue and management respond immediately. The facilities are drug free as a matter of policy.

4.2.3. Stakeholders

Kenya Constitution, 2010 (CoK, 2010) under Article 43 (1) (b) states that "every person has a right to accessible and adequate housing and to reasonable standards of sanitation". Further, in Article 21 (2) "the State shall take legislative, policy and other measures, including the setting of standards, to achieve the progressive realization of the rights guaranteed under article 43." Sessional Paper No. 3 of 2016 on National Housing Policy recognizes the need to come up with guidelines on hostel accommodation that include location, facilities, space, design and amenities shall be developed in collaboration with the institutions of higher learning. This, however, has not been implemented and the PBSA sector mainly remains role by private sector. The government and especially the local government mainly play a part in building code and zoning regulation. On funding the housing policy further recognizes the opportunity to use REIT for funding PBSA and to this far, the capital market has partnered with Acorn to approve the only PBSA REIT in Kenya.

Universities and other firms' partners with Acorn for reserved accommodation and sometimes for negotiated long-term rates. United State International University (USIU), together with their sponsorship partner Master Card, have partnered with Acorn Ruaraka facility for reserved spaces and at negotiated rates. Other universities in a similar partnership include Strathmore university with the Nairobi West, 728 bed facility and Daystar university with the Hurlighum facility. In 2022 through a strategic review on tenant base, highlighted substantial increase in number of education institutions from approximately 65 institutions in 2020 to over 120 universities and colleges in 2022.

Private sector partners with acorn, across all the development value chain through sale of land, supply of materials, professionals in design and construction. During management, the facilities though managed internally partners with suppliers on daily supplies and maintenance.

Acorn student accommodation is purely private sector led under the Acorn Holding Limited, a joint venture of Acorn and a private equity firm Helios with focus on student housing.

4.2.4. Development model

Acorn approaches higher learning institutions to partner with them and orient their project to address the universities' student housing demand. Through this partnership, they can guarantee student inflow and source land near the institution. To develop a project, Acorn sources development capital from their D-REIT, and post-completion, transfers the asset to the I-REIT for operation at a negotiated price.

4.2.5. Financing model

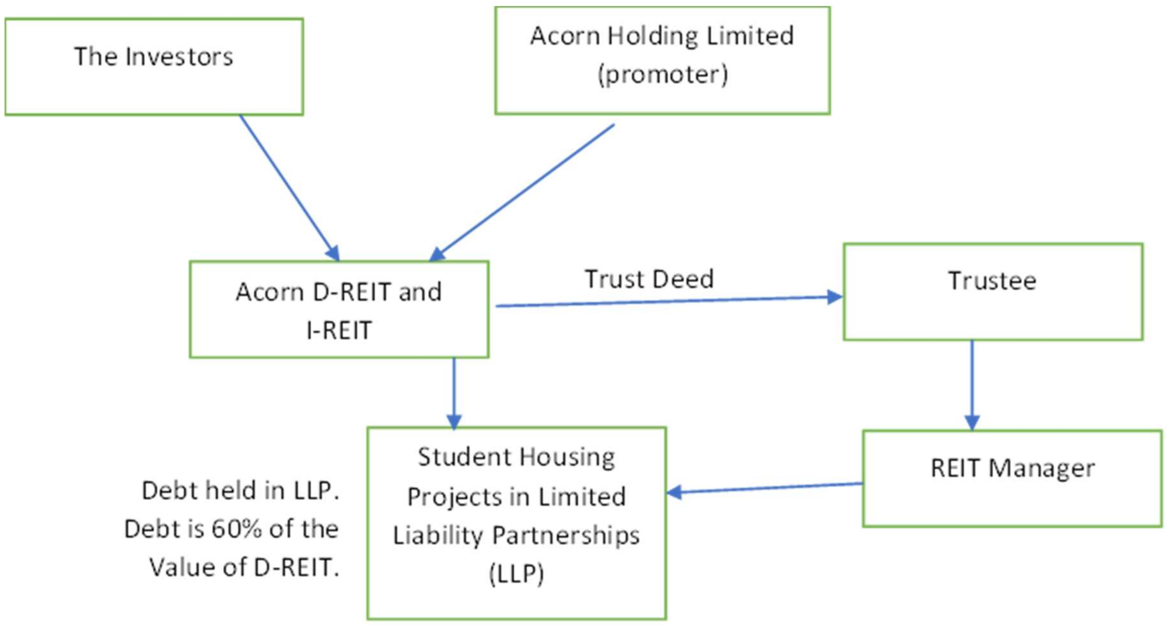
Acorn is a pioneer institutional real estate player in PBSA market in Kenya with initial backing from Helios of US$65 million committed by year 2020, funds that went into development of pilot projects Qwetu Jogoo Road, Qwetu Ruaraka and Qwetu Parklands[74]. Today, the firm has created 4,500 bed capacity and 11 properties under management on the D-REIT and 3 on the I-REIT[75]. The initial capital mainly went to the following: (i) development of the pilot projects, (ii) development of a robust pipeline targeting to satisfy 9% of the market needs by 2030 of 60000 beds, and (iii) creation of a property operation platform. The pipeline has about 10,000 beds to be constructed over two phases with the first phase of 5,500 being financed by equity from Acorn and other potential investors in the Acorn D-REIT and the debt component by the Acorn Project II LLP, Green Bond that was issued in October 2019 and debt from ABSA Bank secured in 2023[76]. The funding model thus included equity advance in the joint venture, debt, and the REIT.

Prior to the Acorn REIT, there was only one other investment REIT, ILAM Fahari I-REIT, which is not a student housing REIT. The Acorn REIT launched in February 2021, dubbed Acorn Student Accommodation REIT (ASAREIT), includes a development REIT (ASA D-REIT) that undertakes the development Qwetu and Qejani PBSA brands and an investment REIT (ASA I-REIT) purchases all the completed and stabilized operational student accommodation and holds them for a long term[77].

[72] Acorn Development REIT Offering Document 2020
[73] Acorn Development REIT Offering Document 2020
[74] Acorn Development REIT Offering Document 2020 https://www.nse.co.ke/usp/wp-content/uploads/sites/5/2021/11/Acorn-D-REIT-OM.pdf pg 27 (Accessed 2 May 2023)
[75] Acorn Holding Website - https://acornholdingsafrica.com/integrated-real-estate/ (Accessed 2 May 2023)
[76] Acorn Development REIT Offering Document 2020 https://www.nse.co.ke/usp/wp-content/uploads/sites/5/2021/11/Acorn-D-REIT-OM.pdf pg 27 (Accessed 2 May 2023)
[77] Acorn Holding Website - https://acornholdingsafrica.com/integrated-real-estate/ (Accessed 2 May 2023)

Both the D-REIT and the I- REIT were listed at the Nairobi Stock Exchange at a cost of KES 7.5 billion (US$ 58 million) and trading on the Unquoted Securities Platform (USP), launched in December 2020[78]. Indicating a great avenue for investors to tap into the capital markets to grow development capacity.

The Acorn REIT is a blended investment offering. The offer includes a mixture of units in the Acorn D-REIT and I-REIT at a ratio of 30% units in the D-REIT and 70% units in the I-REIT[79]. The aim is to offer investors a risk-adjusted return.



4.2.6. Impact and Outcomes

The strain placed on on-campus housing, especially in public universities, leads to students resorting to unsafe overcrowding and illegal subletting[80]. According to government policy formulation, the strain has also led to mushrooming shanties around key universities to cater for these students. This impacts student's ability to learn, wellbeing, mental health, and safety[81].

Available stock non-instructional accommodation does not always come with a conducive environment for the young adults to promote learning, growth and holistic personal development. A study commissioned by Acorn Holdings Limited found out that security, amenities provided, price charged, and location are top deciding factors for students when selecting accommodation[82]. Acorn accommodation provides students with security, high speed internet, leisure facilities, water and reliable power and are in safe distance to learning facilities (Within 2.5 kilometers from the target Institution of learning). The impact is improved performance, holistic student development and peace of mind to parents and guardians.

The local community benefits through employment during construction phase and management phase, supply of essentials during management, supply of commodities to students during their stays and sustainable neighborhood since Acorn developments are developed sustainably.

The education system, a case of United States International University in Nairobi is that Universities are keen to focus on their core business of teaching and growth in enrolments. Provision of decent accommodation especially closer to an institution of learning enables the university increase enrollment and tap into the foreign student market. Thus, increase revenues and quality education provision due holistic student development offered on their non-academic environment.

[78] Cytonn Report -Student Housing in Nairobi Metropolitan Area and Cytonn Weekly February 2022 https://cytonn.com/uploads/downloads/student-housing-in-the-nairobi-metropolitan-area-cytonn-weekly-082022.pdf (Accessed 2 May 2023)
[79] Acorn Development REIT Offering Document 2020 https://www.nse.co.ke/usp/wp-content/uploads/sites/5/2021/11/Acorn-D-REIT-OM.pdf pg 28 (Accessed 2 May 2023)

[80] Daily Nation Newspaper 13 May 2021 https://nation.africa/kenya/brand-book/why-kenya-needs-more-purpose-built-student-accommodation-3399216 (Accessed 2 may 2023)
[81] Republic of Kenya, Sessional Paper No. 3 2016 https://www.housingandurban.go.ke/wp-content/uploads/2019/10/Updated-Sessional-Paper-No.3-of-2016-National-Housing-Policy.pdf Pg 22(Accessed 2 May 2023)
[82] Daily Nation Newspaper 13 May 2021 https://nation.africa/kenya/brand-book/why-kenya-needs-more-purpose-built-student-accommodation-3399216 (Accessed 2 may 2023)

4.2.7. Challenges and lessons learnt

Various challenges face the PBSA sector ranging around development budgets, regulatory, financial and environmental. Below are some of the main identified challenges:

Inadequate access to funding. High underwriting standard from conventional lenders coupled by underdeveloped capital markets. For instance, in Kenya, according to the World Bank, the capital markets contribute a mere 1.0% of Real Estate funding while banks contribute 99.0%, compared to 60.0% and 40.0% respectively in developed countries. The chart below compares bank funding in Kenya and capital markets. This makes development funding inadequate investment in PBSA.

Ineffectiveness of Public-Private Partnerships (PPPs). Public-private partnerships (PPPs) in Kenya face challenges such as i) difficulties in managing the multi-stakeholder nature of most of the PPP projects, ii) lack of appropriate legal frameworks in Kenya to enable transfer of public land into special purpose vehicles to be able to attract private capital and bank debt, and, iii) the extended time-frame of PPPs while private developers prefer to exit projects within 3-5 years. The PPP PBSA projects have a design, build, own, operate and transfer model, where the developers will recoup their return after an approximate 20-year period, which is unattractive to investors who prefer to exit early[83].

Regulatory challenges. Kenya has no effective regulation of PBSA. The Sessional paper No. 3 on Housing policy recognizes this challenge and proposes a policy on regulation of the sector[84]. This has, however, not been implemented.

Budgets and price fluctuation. The average cost of construction in Kenya increased by 5.2% in 2022 compared to 2021, potentially impacting budgets and returns to real estate investments[85]. This is mainly caused by the disruptions in supply chains and the global economic crisis. This is also coupled with increasing land costs due to high demand for developable land and especially for the PBSA sector that is location specific.

Inadequate expertise. The sector demands expertise in development and management, which major developers lack. Acorn has built this expertise and dominated the Kenyan markets.

Capital markets hold the key to funding need, benchmarked to developed world where 60% of capital comes from the capital market. According to Kenya Vision 2030 blueprint, deepening capital markets is to be anchored on robust policy and regulatory framework, diversification of products and services, efficient market infrastructure and institutional arrangements and investor education and public awareness on capital markets products, services and processes. This will unlock capital for development of PBSA.

Kenya also needs to address PPPs framework to respond to investor needs. Kenya now has a fully-fledged directorate of Public private Partnerships and the Ministry of Finance Treasury and Planning. Mandated to develop PPPs in the country among other roles. This will unlock huge investment land owned by especially public universities.

Communities embrace sustainable developments within their localities. Alluding to developers to ensure adherence to best practices of construction, adherence to environmental management best practices, public participation in environmental impact assessment and implementation environmental mitigation measures during development. The community also needs to secure employment opportunities in the PBSA facilities during development phase and management phase.

There is also a need to invest in research and development on innovation of alternative sustainable construction materials. Conversion of abandoned 4- and 5-star hotels in Nairobi, case of Intercontinental Hotel and Hilton hotel to PBSA and embracing PPP by private developers to reduce on cost of land.

There are various key lessons drawn from the Acorn PBSA and their dual REIT system:

- Though an emerging frontier under real estate investments, it is a competitive asset class
- PBSA should be institutionally approached as an investment and with a longtime investment horizon
- REIT and capital markets forms a best alternate funding avenue for not only in PBSA, but also for other real estate investment
- There is need to strengthen capital markets for developing countries such as Kenya
- There is also a need to align regulations and structures of PPPs to respond to investors especially in PBSA

[83] Cytonn Report -Student Housing in Nairobi Metropolitan Area and Cytonn Weekly February 2022 https://cytonn.com/uploads/downloads/student-housing-in-the-nairobi-metropolitan-area-cytonn-weekly-082022.pdf (Accessed 2 May 2023)
[84] Republic of Kenya, Sessional Paper No. 3 2016 https://www.housingandurban.go.ke/wp-content/uploads/2019/10/Updated-Sessional-Paper-No.3-of-2016-National-Housing-Policy.pdf Pg 22(Accessed 2 May 2023)
[85] Intergrum Construction Project Manager's Report 2022 https://integrum.co.ke/construction-costs-in-kenya-2022-index-528/ (Accessed 2 May 2021)

- Huge opportunity exists in the PBSA sector mainly driven by demographic trends, growth in education enrollments and growth in foreign students. The approach, however, needs to be holistic in terms of accommodation, leisure, and personal development environment for targeted clients.
- Currently there is no specific regulation on PBSA development standards, room size, amenities etc. There is need for authorities to develop regulations to assist standardize PBSA offerings in Kenya.
- The need to innovatively come up with sustainable methods of developing PBSA that will ensure sustainable costs, efficient utilization of energy, water and other utilities.
- Ensure social inclusiveness and gender inclusiveness by ensuring women participation in development and management of PBSA, consideration for women users of the facilities, user friendliness for people with disabilities and ensuring that the facilities co-exist with the neighboring communities.

4.2.8. Conclusion and recommendations

Demand for student accommodation across the world continues to grow, and while PBSA is relatively a new sector in real estate especially in Kenya. It has established itself as a significant asset class in many developing countries. This is mainly driven by non-cyclical rental levels, stable yields, low supply and growing demand aligned with demographic trends and positive economic landscape.

In Kenya the PBSA sector for a long time lacked institutional investors with mainly done by public universities, and small investors and Granted investors such as YMCA. While university enrollment has been growing, no significant investment went into student accommodation, thus, a huge demand.

We therefore recommend the following into investment in PBSA sector in Kenya.

- Institutional approach to investment and with a long-term approach
- Explore the capital markets for fundraising through the REIT
- Lobby for investor friendly regulatory framework around deepening capital markets, structuring the PPPs framework and regulation of the sector in terms of product standardization.
- Investment across the entire country. Currently, most institutional investor is only targeting Nairobi and in metropolitan

4.3. Nigeria: Student Accommodation using PPPs by Greenage Student Housing Program

4.3.1. Project Background

The Greenage Student Housing Program is currently developing affordable on-campus student accommodation across three different Universities in Abuja and Calabar for a total of 5,000 bedspaces. Greenage's delivery pipeline includes 1,500 Bedspaces in Veritas University (Abuja), 2,000 bedspaces in Arthur Jarvis University (Calabar) and 750 bedspaces at Nile University (Abuja) that will be ready for occupation. Greenage student housing projects are value-creating partnerships between tertiary institutions and Greenage (public and private respectively) towards providing affordable and environmentally sustainable student accommodation.

Figure 13 : Development of 750 Bedspaces due for delivery in September 2023 at Nile University, Abuja in Partnership with Bulwark Construction
Source: Greenage Development

The Program hopes to reduce the current student housing shortfall across Universities in Nigeria (only 10%-15% of students admitted have access to suitable accommodation on campus yearly). The Program is providing between 100,000-200,000 bedspaces across Universities in Nigeria over a ten-year period with a growing and current asset pipeline of $50mil. Greenage estimates that there is currently a 2-3 million bedspace deficit in student housing across tertiary institutions in Nigeria. This deficit is impacting access to education for students, which is eventually impacting the human capital development in Nigeria in the long-term.

Greenage's provision of sustainable, decent, and affordable student housing increases the hygiene and safety conditions that helps to combat social problems like student homelessness, open defecation, transmission of infectious diseases, sexual molestation, and drug abuse particularly where vulnerable groups like female students are concerned. The Greenage program as a part of its gender equality and social inclusion strategy (GESI), reserves 50% of its bedspace developments for female students to drive inclusivity and gender development. Despite an increasing number of higher institutions across Nigeria, most institutions lack space for qualified students due to limited accommodation infrastructure amongst other issues. The shortfall in Student Housing is a natural consequence of the increasing number of tertiary institutions, a corresponding increase in the number of students admitted and the inevitable demand for accommodation by students.

4.3.2. Project Features

The Greenage student housing infrastructure features a standard 28-30 Square meter room that can comfortably accommodate 4-6 bedspaces with shared amenities like showers, toilets, reading rooms, common lounge/areas, laundry rooms and kitchens. The standard development provides 125 Rooms that accommodate 500-750 bedspaces per single block. The rooms are planned to achieve proper ventilation, articulation, accessibility, circulation, and linkages. Proper separation of vehicular and pedestrian and handicap access is achieved outside the perimeters of the building.

The flexibility of the design makes it possible for the hostel blocks to be built in modules or phases of 250-350 bedspaces depending on land availability. Each room is furnished with beds & mattresses, built-in wardrobe, study table & chair for each bed space. The Greenage accommodation applies the EDGE Green building methodology (Excellence in Design for Greater Efficiencies) to create scalability and global replicability. The EDGE standard ensures that the buildings come with low flow taps and energy saving lighting systems to demonstrate reduction in operational energy consumption, water use and low maintenance in the use of building materials. The building has a rainwater capture and management system with solar power support to reduce environmental impact and ensure sustainability as compared to typical traditional buildings.

Greenage student hostels come with internet access, wheelchair access ramps, and specially designed and dedicated bathrooms and toilets on the ground floor of the building for the physically challenged. Greenage in line with local school regulations also designs dedicated female accommodations that have convenience shops that stock female hygiene and period products. In terms of security the facilities come with electronic key cards as a means of access control and safety. Also, as a fallout of parental demands to ensure wellbeing for students, the facility makes allowance for rooms that accommodate resident supervisors and counsellors.

Figure 14 : EDGE certification of Greenage Student Housing Program
Source : Greenage Student Housing Program

Environmental and Social Impact	Greenage's construction is mapped to the Sustainable Development Goals (SDGs) as a frame of reference by which issuers, investors and bond market participants can evaluate the financing objectives for issuance of Green, Social or Sustainability Bonds. *Note: Green Homes account for accomplishing 9-15 out of 17 of the SDG's 1. https://www.unglobalcompact.org/what-is-gc/participants/139983-Greenage-Development-Managers 2. https://edgebuildings.com/project-studies/greenage-student-housing-university-of-abuja/
Gender, Equity and Social Inclusion	Greenage is Dedicating 50% of its Housing Space to support affordable access to education for Female Students while advancing social wellbeing and sustainability in partner institutions.

Thus far, the Greenage Student Housing program is in the process of delivering their first PBSA at Nile University in Abuja. Considering it is a private university, and assuming that the paying capacity of student is relatively high, Greenage has priced the beds at EUR 1500-1800 per bed per year. Such a price range for student housing is affordable to most students studying in private universities, whereas it is out of bounds for the majority (over 90%) of the Nigerian students that study at public universities.

4.3.3. Stakeholders

Greenage and Bulwark Construction Limited (equity investors) work together to facilitate the funding and construction process for development of student housing. Greenage also acts as the program manager and sponsor in partnership with universities/concession holders to drive development of purpose-built and affordable student housing. Greenage's role as the promoter also involves identifying, allocating project risks, determining the economic, financial, and technical viability of student accommodation projects in collaboration with universities.

Financial Institutions also act as advisors or lenders on a case-by-case transaction basis to drive investors' entry and exit and capital market access for long term fund raising. Financial institutions, including development finance entities are primarily responsible for funding and technical assistance to the program e.g., IFC-EDGE/World Bank.

Development Finance institutions (DFI's) like IFC-EDGE- World Bank certifies the program and Greenage is a signatory to the United Nations SDG sustainability framework. The government's role is understated as most Universities have been authorized and empowered by the National Universities Commission and the Ministry of Education to structure and provide enabling environments for the successful structuring of student housing accommodations.

The Universities as partners are typically responsible for the provision of land and assured rental offtake from its admitted Student population. The rental offtake is guaranteed by universities via way of covenanted contractual commitment that are stipulated as part of the PPP/BoT agreement between the developers and Universities. The Universities are required to fill up every available bedspace and in the event of a vacancy is committed to provide the offtake from its pool of available students or cover the rental cost. The commitment is premised on the unmet demand for bedspaces by admitted and growing pool of students. The Universities are also responsible for liaising with regulators for necessary approvals and review of legal, regulatory, and operating conditions of the Project. As part of the PPP model, the Universities sometimes negotiate for a percentage of rental collections as premium for provision of land on campus and support towards facility management and maintenance of the facilities.

4.3.4. Development model

The Greenage student housing Program is typically structured as joint venture partnerships or Build Operate and Transfer arrangements between tertiary institutions that are either public or private towards providing student accommodation on the back of long-term concessions (20-30 years and above). This particular Program is private-sector led and driven by Greenage. The program is proposed as a long-term relationship with Universities and Investors aimed at approaching the student housing gap in Nigeria with an improved level of innovation and sustainability that supports access to education for students in Nigeria through the provision of sanitary, safe, and affordable student housing. All development approvals and regulatory requirements are handled by the University as part of its responsibilities with support from Greenage liken to a typical approval process in line with already existing University Development Masterplans.

4.3.5. Financing model

The Greenage Student Housing Program receives private investments by pledging its future rental cash flows from the student housing assets based on the agreed contractual security interest to investors from the development of the student accommodation assets. The funds raised are used as a source of both repayment of debt and financing developments activities. The development and delivery period are tied to yearly admission seasons to balance receipts of cashflows with lending moratoriums while meeting the needs of universities for bedspaces on a rolling basis (construction and development that goes beyond a typical 12-month period from experience would likely attract gaps or delivery mismatch).

The Greenage model delivers student Bedspaces from access to funds from investment clubs and private lenders for its immediate development needs. While on a long-term basis it intends to issue sustainability linked instruments to access pensions funds, Insurance companies/annuity underwriters and capital markets. Greenage as part of its plans also intends to promote a private equity driven Real Estate Investment Trust that allows for tokenization of its student housing assets for ease of investment and divestments for angel, impact, retail investors.

4.3.6. Impact and Outcomes

The Greenage Student Housing Program is an impact focused business initiative that supports universities to meet their mandate of providing human capital development by ensuring the provision of sustainable, affordable, and impact-driven housing. This increases access to education with consideration for female and specially-abled students in alignment with United Nation's SDG framework and Nigeria's National Determined Contribution to the Global Net-Zero Initiative.

The Greenage student Housing program tracks Power, Water, Environmental and Social Impact as well as Co2 Reduction across its student accommodation infrastructure. A few of Greenage's social impact and business outcomes till date are listed below;

- Increased student intake and access to education for female students on a yearly basis
- Improved human capacity development in Nigeria through affordable student housing
- Reduction of Green House Gas emissions and Environmental degradation
- Decarbonization of the built environment and conservation of natural resources like water and reduction of Co2 emissions from electricity

4.3.7. Challenges and lessons learnt

Greenage is faced with approval constraints for execution of concession or joint venture agreements. Typically, the delays are anywhere from 2-3 years from public universities while private universities execute agreements at a much faster pace at 6 months - 1 year. The program also suffers from a lack of access to structured or traditional commercial finance from Banks or Corporate lenders. These are structured lenders that only offer short term lender that does not match the long term cashflow profile of student housing, they also demand high level equity participation, collateral, offtake guarantees, corporate guarantees amongst other conditions.

Greenage applies a risk assessment criterion to help identify and engage with institutions that it can collaborate with to structure viable investment opportunities on a design build and operate basis or outright contractual build and handover basis. Greenage intends to address the funding bottlenecks by focusing on raising capital at an accelerated rate with little bottlenecks through tokenization of assets as an easier means to have access to retail investments on a wider scale.

It is important to begin every engagement with a good understanding of the policy approach by universities to student housing as this will help better address stakeholder issues and reduce the engagement timelines. Also, it is important to reduce the interference by universities in the execution and development phase of the project to prevent stakeholders' interference. This can be achieved by presenting all possible development scenarios with their attendant cost implications for students affordable where universities are insistent on certain minimum standards and features e.g., Greenage realized that provision of shared toilets and bathrooms on every floor of the building were more economical, flexible and an easier option to manager than providing ensuite rooms.

4.3.8. Conclusion and recommendations

In terms of achievements, the Greenage program has a working relationship with the IFC-World Bank towards the set-up of a $150 million private equity fund. In 2022, the Greenage program was admitted into the Climate Finance Accelerator program managed by PWC and Adam Smith International to improve its access to attract climate funds. Greenage will deliver 1,500 bedspaces in 2023-24 (750 in August 2023 at Nile University) and this will spur growth in its target provision of more sanitary and affordable student accommodation.

The Greenage program will also ensure students (particularly female students) continually gain access to nurturing environments that foster's qualitative education and human capital development. The Program is targeted at resolving the current student housing shortfall across Universities in Nigeria by an additional 20% in 10 years (only 10%-15% of the over 1.8 million students that apply to universities have access to suitable accommodation on campus yearly). Greenage aims to develop a green asset portfolio of 100,000-200,000 bedspaces across Universities in Nigeria on a recourse and demand driven basis. Tertiary institutions in Nigeria currently experience a gap in the delivery of student housing due to the increasing number of students they admit and the inevitable demand for accommodation by Students. To effectively address the challenge and harness the opportunity there is need for the injection of long-term, affordably priced, patient and impact focused capital to augment the current funding available within the student housing space in Nigeria.

4.4. South Africa: Student Accommodation through rehab of inner-city vacant properties

4.4.1. Project Background

Urban Lofts property is in the Free State Province, Bloemfontein, Westdene (Situated less than 2km from the University of Free State Campus. Urban Lofts has 18 sharing apartment units of 26 m2 each, all with ensuite bathrooms. The target student population is students from previously disadvantaged backgrounds who are first-entry students and enrolled mainly in undergraduate studies at the university of Free State.

The main goal was to refurbish a previously vandalized guest house into quality affordable student accommodation for students attending the University of the Free State, as well as ensuring that students from previously disadvantaged backgrounds have a secure place to form long lasting friendships during their university years.

4.4.2. Project Features

Urban Lofts has 18 sharing apartment units of 26 m2 each, all with ensuite bathrooms. The building includes a common area of 65 m2 that holds a kitchen for students to prepare meals, and offers space to eat together, watch TV, do laundry and get to know each other. All ensuite apartments have outside access. Green and sustainable design features are not incorporated into the building, but plans to reduce consumption of electricity, like time switch controls, as well as control geyser operation based on off-peak hours for efficient use of electricity, are underway.

On gender-inclusive features, it is a friendly and secure environment for all and played host to LGTBQ+ students. The landlord follows a resident ratio of 70% females and 30% males, as they believe female students are much better to manage, as opposed to male students.

The building includes a common area of 65 m2 that holds a kitchen for students to prepare meals, and offers space to eat together, watch TV, and for laundry. Urban Lofts also offers Wi-Fi, as well as safe, quiet space to study and attend virtual lectures. In terms of safety, Urban Lofts is not far from SAPS Park Road Police Station, and the National District Hospital Bloemfontein. It is also not far from the surrounding recreational centers and as well as shopping malls like Mimosa mall and Twin City mall.

In terms of affordability and physical design, the accommodation is accessible to students. This is because the building is accredited by the university, meaning it has passed all the due diligence requirements of university authorities. Regarding accessibility by students with disabilities, there is one room that is designed for wheelchair access.

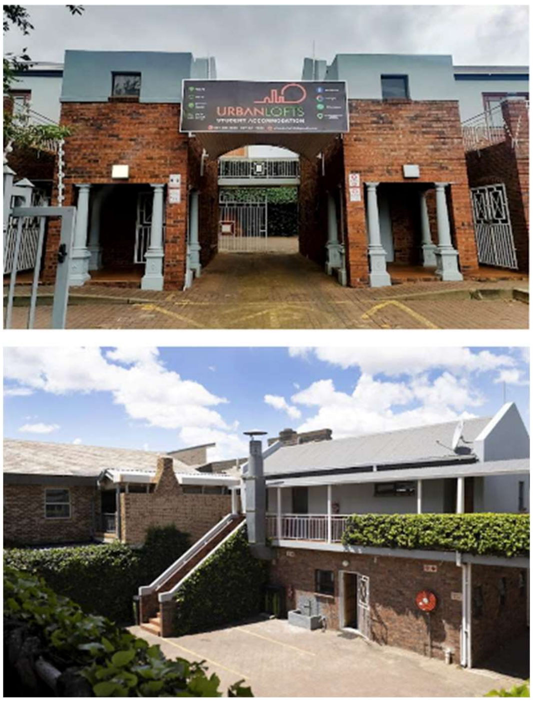


Figure 15 : Urban Loft Student Accommodation in Free State, SA.

Photo credits : Lethabo Setata.

The target student population for the Urban Lofts Inner City Rehab Project is students from previously disadvantaged backgrounds who are first-generation college goers and enrolled mainly in undergraduate studies at the university of Free State. It is a 100% NSFAS project, and hence without the NSFAS Accommodation allowance, only an estimate of less than 40% students will afford. Affordability of the Urban Lofts product is well within reach by students who depends on NSFAS and it was a product catered specifically for that market, providing quality affordable student accommodation for students attending the University of the Free State, as well as ensuring that students from previously disadvantaged backgrounds have a secure place. Replicating this product in other student concentration areas like Hatfield or Braamfontein as it is quite expensive to acquire land and develop, and the competition is much tighter.

4.4.3. Stakeholders

Government. Some of the key government incorporations include compliance with the minimums norms and standards (MNS) policy established by the Department of Higher Education and Training, including the property of no more than 20 km from the campus, and room size designs (24 - 28 sqm), etc.

Universities. The university mostly assisted with providing the accreditation requirements that guided the development, like providing a decent personal space, WIFI, and things like fridges etc. The university was key in making the accreditation approvals, assisting in marketing the property by listing it as an approved student accommodation provider on their online platforms which in turn ensured the property had full occupation.

Private sector. The developer hired local contractors for the development project, who are often ignored by big projects, mainly black local contractors, for the whole project, from construction to electrical installations, painting and carpeting etc. In terms of financing the project, it is the developer himself who invested cash equity and TUHF offered the debt.

4.4.4. Development model

The development of Urban Lofts was led by a first-time and small-scale private developer who partnered with TUHF company, which specializes in commercial and residential property development finance loans for inner city projects. Another developer was previously tasked with developing the property, but due to equity constraints could not move the project forward. The new small-scale private developer submitted a loan application, which was approved in a matter of weeks as TUHF had already carried out a project feasibility study and had significant knowledge of the project.

4.4.5. Financing model

The project was financed with a development loan at 90% of value and equity of 10% of value. The total cost of the development (Purchase Price + Refurbishment) was R5,200,000 (EUR 2,56,890). The developer put forward 10% cash equity of about R520,000 (EUR 25,689). TUHF provided 90% of the debt financing, approximately R4.7 million (EUR 2,32,140) in total debt.

4.4.6. Impact and Outcomes

UFS has approximately 41 307 students and only about 6692 on-campus bed capacity, so this asset added reliable housing to off-campus students, esp. the Bloemfontein campus. It provided a well-equipped and safe environment that allows students to relax and build relationships.

Justified appreciation of neighboring properties now that a once-vandalized asset is an active and accredited student accommodation. Job creation for local people like hiring local contractors for the construction of the development, as well as other services like painting, electrical installations, plumbing, carpeting etc, and as well as the creation of a vibrant neighborhood.

Quality accommodation is a key academic performance enhancer, and this asset added to that value; particularly, it enhanced security and safety for student residents students. The property is equipped with WIFI and quite spaces that allow virtual lectures, which was crucial during Covid-19 pandemic for students to keep engaging the university.

4.4.7. Challenges and lessons learnt

There are several challenges that the Urban Lofts project faced in its development and that it currently faces today:

- The university has a stringent accreditation process.
- Leases are usually for 10 months and not 12 months, hence leaving the property unoccupied for two months.
- Tight refurbishment timeline due to property transfer only going through in December 2021.
- TUHF required cash equity from the developer to finance the project. The developer had to provide R500,000 into the project, which is a challenge for many small developers, and left the developer cash constrained.
- Rental collection agencies were expensive. The developer cut off their original agency and saved about R100,000 on rent collection fees.
- High electricity consumption. In response to this, the developer started monitoring electricity consumption and introduced control geyser operation through off-peak periods that saved R7,000 to R30,000 in utility cost per year.

Out of the challenges the Urban Lofts property faces, there are key takeaways that are important for future student housing endeavors.

- In the South African student accommodation space, being an accredited PBSA provider proves to be a risk mitigator as it creates guaranteed offtake. In 2020, Urban Lofts had 100% occupancy during the academic year.
- Student accommodation should have extended amenities, such as reliable WiFi, and recreational space, such as quiet spaces that allow students to attend virtual lectures.
- It is important to make sure property is occupancy-ready at the beginning of the school year so leases can be signed.
- Monitoring utility consumption is key to reducing costs.

4.4.8. Conclusion and recommendations

One of the key achievements of Urban Lofts is having to efficiently revamp the property within a 3-month tight timeline in an effective and quality manner. The additional beds generated by the property played a key impactful role in housing some of the students not accommodated on-campus. The property also played an important role, especially during Covid-19 through providing reliable WIFI and quite spaces for virtual lectures, for students who remained on campus (because these students lacked reliable spaces that supported virtual learning at their rural homes).

Based on the Urban Lofts case, below are a list of consolidated recommendations that could help facilitate student housing production:

- More identification of inner-city dilapidated buildings that can be turned into PBSA, especially the ones closer to universities and having a way to improve the face of old areas like where Urban Lofts is based.
- Bulk of government buildings in inner-cities must be sold or leased to private developers for further development of PBSA to fight supply backlog in a form of a PPP structure.
- When repurposing, always pick the right property that aligns with the University's accreditation requirement, for instance, a building that is far away means you must provide transport and that will finish your profits quite quickly. Lastly, having cash equity will help you a long way in helping developers to secure debt. Smaller developers will undoubtedly have difficulty in doing this. To increase their capacity, financial assistance may be required to help bridge the financing gap.

5. Findings and Recommendations

Our study found that the increasing demand of safe, affordable adequate purpose-built student accommodation, coupled with a lagging supply of units, has created an addressable target opportunity that has managed to attract interest from financiers, private developers, and operators. However, there exist challenges associated to affordability and financing, enabling environment, and political instability that remain to be addressed still. As a result, though this asset class has been able to attract investments from commercial and private-sector investors, it is still perceived as risky and has not been able to fully attract large-scale long-term investments from institutional investors like pension funds, insurance trust and sovereign wealth funds.

Across South Africa, Kenya, Ghana and Nigeria, the demand for purpose-built student accommodation (PBSA) has been growing rapidly. Subsequently, the current supply of student housing has not kept up with the demand. In this environment, student housing in the SSA region has emerged as an attractive alternative investment category, just as it has in developed markets such as the UK and US. Non-cyclical rental levels, stable yields, limited supply, and growing demand driven by demographic trends and positive economic prospects have made this asset class highly attractive to investors. However, certain challenges remain to be addressed. Our research and interview with stakeholders in all four countries highlight that though the context and market in each country varies, some of the key constraints faced by the PBSA sector remain similar across all markets. The key challenges we observed occurring across all four markets include:

- **Limited capacity of developers to provide equity contributions.** Most developers, especially small- to medium-scale, expressed limited capacity to be able to prove 20-30% equity when financing transactions with commercial lenders. This, coupled with high-cost of development and operations, and a relatively small-scale of development for PBSA , is limiting the developers from realizing economies of scale and improve their yields, while maintaining affordability in the offerings.
- **Limited access to long-term low-cost funding.** The PBSA market, due to its relatively immature and fragmented nature is still perceived as risky by institutional investors. At present, most student housing developers lack substantially sized portfolios to attract large-scale investments from institutional investors, that are generally reluctant to make small-sized investments. Acorn Group in Kenya has managed to address this issue via a dual-REIT structure as is described in detail in previous sections of this report.
- **Issues with PPP implementation.** At present, PPPs for PBSA development have seen limited success. Of the four countries, only Nigeria has had successful examples of PPP models being used to develop student housing. There are several issues associated with PPP implementation that require alleviation:
    - Universities lack the technical capacity to be a critical stakeholder in a PPP. In Nigeria, the Universities are supported by the ICRC and The Infrastructure Bank (TIB) in implementing the PPP process and structuring the transactions. Despite this, developers in all countries expressed hesitation in working with government entities since the process tends to be long and cumbersome.
    - Lack of clarity regarding regulations surrounding land leases, transfers, concession periods, and renewals. Policies regarding leasing of university are not uniform or transparent. In most cases, university land can be leased for a maximum of 25 years with an option to renew it for 25 more years. However, proper legal frameworks for public land transfer into special-purpose vehicles for a PP either does not exist or is excessively complicated. Most developers expressed that for a PPP transaction to be feasible, a minimum 25-year land concession would be necessary for them to realize returns.
    - Low financial feasibility of PPP transactions for private developers. At present, using PPPs for PBSA development requires developers to adhere to public sector regulations on land concessions and rent caps. These restrictions, coupled with the high cost of development and long-processing time taken for the deals, deter most private-sector entities from getting involved in PPPs.
- **Limited integration of green and sustainable features.** Though these have seen some uptake in being integrated in PBSA developments but not to an adequate level to have substantial impact on operations-related cost savings. Some developers expressed that the scale of development of PBSA does not justify the cost of installation of some green features like solar panels. Some stakeholders in the countries and spearheading portfolio-wide greening.
- **Limited integration of socially inclusive features.** Our interviews with PBSA providers highlighted that adequate measures like ramps, accessible kitchens and bathrooms were not a common feature to make developments more inclusive. Some developers do reserve units for female student and students with disabilities, but a holistic portfolio-wide integration of facilities catering to female and special-needs students is yet to be seen. There are also restrictions surrounding occupancy of units by pregnant females. This is seen as a restricting factor for female-students since it pushes them to possibly quit or pause their education. These challenges are further exacerbated in university-built residences that are old and have more rules to adhere to.

Given the barriers outlined above, we see DFIs like AFD have the ability to play a key role in unlocking long-term financing for the PBSA sector, improving capacity of the various stakeholders, while also working with governments and local authorities to improve the enabling environment for the private sector; thus, streamlining the PBSA development process. Based on the type of issues that exist in the current environment, the figure below organizes relevant recommendations to improve the efficacy of the PBSA ecosystem, while ensuring the demand is addressed and overall well-being of students is impacted.

The following recommendations detailed below provide orientations for improving the purpose-built student housing market through critical interventions on the supply and demand-side of the PBSA ecosystem. These recommendations have been detailed following the identification of key constrains limited the affordable housing space and are framed based on local market dynamics.

5.1. Recommendations to address Development Challenges in PBSA development

- **Establish a PBSA Construction & Development Fund.** To alleviate lack of equity issues for developers, AFD, in collaboration with other mission aligned DFIs and investors could set up a Construction & Development Fund that the developers can tap into for a low-cost line of credit for constructing PBSAs. This fund could also be potentially used as collateral when borrowing from commercial banks to avail preferable lending terms.
- **Collaborate with Universities and Local Governments to streamline future PBSA development.** Our interaction with key stakeholders in the ecosystem highlighted that though public and private actors are involved in the delivery of PBSA, neither of the countries have a single entity that is driving the market towards a holistic PBSA development vision to address the large and growing supply-demand gap. DFIs like AFD that are not restricted by geographic or administrative boundaries have the potential to spearhead such an initiative. To this effect, we recommend collaboration with universities, especially large public universities (like University of Lagos, Nigeria or University of Nairobi, Kenya) and local governments to predict, capture and manage the future development of PBSA at a country-wide scale. AFD can work with local government and other public entities to identify and possibly earmark lands in suitable locations close to campus or in urban centers that are feasible for PBSA development. Furthermore, we recommend that this information be used to tabulate an open-source database for each of the four countries that captures the quantum needed to address the demand in each university, while also outlining potential sources of land for the same. This database should be accessible by private sector entities as well. This data-driven approach enables targeted interventions and helps ensure that investments align with actual market needs. A schematic framework of this tool with an example is suggested below:

HEI	***Current PBSA Gap***	***PBSA gap in 5-years***	***Availability of Uni Land***	***Availability of off-campus land***	***Possibility of PPP?***
University of Nairobi, Kenya	75,000 beds	85,000+ beds	Yes; >200 acres	Yes; (2) lots earmarked by National Land Commission	Yes; Fiscal sponsor mandatory

5.2. Recommendations to address Operational Challenges in PBSA development

- **Establish Rental Guarantee or Minimum Revenue Guarantee fund.** Traditionally, due to the high demand, occupancy in student accommodations is reported to be over 90% in most cases, however, some offtake and revenue risks do exist. Moreover, developers expressed that offtake risks for PBSA located off-campus are significantly higher and though offtake guarantees are promised by the HEIs, they are not fully implemented and eventually developers could face a loss in revenue. This issue also reduces the investability of the asset class for investors. To alleviate this, we recommend establishing a Rental Guarantee Fund or a Minimum Revenue Fund that guarantees any losses in case of no/low offtake, or other revenue minimizing events like long administrative strikes in Nigeria Federal Universities. A rental guarantee de-risks an investment in its entirety from a revenue point of view. Furthermore, in the medium-to-long term as the supply of student housing slowly increases, there may be situations where there may be a temporary oversupply of units in a particular area with a new project development, leading to some revenue loss. Such a phenomenon typically stabilizes after a 12-month cycle, but in the meantime, a rental guarantee can also help preserve investor return by covering any shortfalls in revenue.
- **Improve profitability of PBSA for private sector to realize better returns.** The PBSA sector is characterized by the high cost of development as well as the high cost of operations. At present, yields from PBSA developments average between 14-25% and developers take anywhere from 9-25 years to breakeven. Though profitable, the PBSA development pipeline for most developers has not reached a scale where it is cyclical such that the returns from one property can contribute towards the development of the next. Some recommendations that can help achieve a cyclical pipeline and improve profitability for PBSA development while also improving credibility of the developers and attracting more investors:
    - Technical assistance for Portfolio-wide integration of cost-saving features to be integrated into the development. Portfolio-wise integration of features like energy-efficient technologies, renewable energy systems, and water-saving measures will allow for realization of cost-savings at scale. Developers can use a student-accommodation specific property management tool that helps them track utility consumptions and save on operational expenses. In interacting with the stakeholders, our study came across 'hi-res', a property management solution, designed and deployed in-house by Respublica, one of the leading developers in the South African Market. This tool has potential applications in several countries to streamline operations relevant to student accommodation management. Box 1 below outlines this tool in more detail.
    - Manage rising construction costs using a supply-chain approach for construction materials by partnering with suppliers and establishing discounts for bulk orders.
    - Advocate for longer concessions in PPPs. For PBSA built using PPPs, at the least, a 25-year concession is ideal to realize returns from the development. Considering that a PBSA is more costly to develop and operate as compared to other residential types, realizing adequate returns from PBSA imply a longer concession duration. A handful of stakeholders in Nigeria have managed to obtain 30-40 year long concessions on some PPP transactions, however, these are not common yet.
    - Promote mixed-use developments to improve facilities provided and realize additional revenue streams. AFD can work with local governments and developers to encourage the integration of student housing within mixed-use developments to optimize land use and create vibrant living environments. AFD can provide incentives for developers to incorporate commercial spaces, such as retail outlets, labs, or study areas, within student housing complexes. This approach enhances the livability of the projects while generating additional revenue streams. Such an approach was implemented by the City of Melbourne in Australia; they implemented a policy encouraging mixed-use developments that integrate student housing with commercial spaces. As a result, the Carlton Connect Initiative development combines student accommodation with research and innovation spaces, fostering a collaborative learning environment.

Box 1: Hi-res: Property Management Solutions pioneered by Respublica, Student Living in South Africa

- **Hi-Res, developed by Respublica, addresses the key capacity issue in student housing property management. This cloud-based solution provides a centralized operating system for managing large-scale student accommodation portfolios** across multiple sites in South Africa. With nine years of operational experience, Hi-Res offers diverse features, including centralized administration, facilities management, community management, and business management tools.
- **Hi-Res has been successfully licensed by the international student housing operator Journal Student Living. It is especially geared towards achieving greater operational efficiency when students sign up after signing and paying their lease.** It offers scalability, accountability, and decentralization capabilities, along with features like credit bureau integration, allowing students to build credit as they pay rent, wifi connectivity management, biometrics network, utilities and facilities management, reporting software, and online support. The system caters to various stakeholders, including students and facility operators, who have access to different features in the app.

It enables tracking of occupancy status, configuration of billing and rental rates, and implementation of advanced business rules.

A key feature of Hi-Res is its **multi-level granularity, which extends to as small as the bed levels and includes different scales of product, frequencies (daily, weekly, annually, etc), and customizable billing options.** This unique capacity sets Hi-Res apart from other management systems in the markets as it offers flexibility and applicability across various intensive real estate sectors.

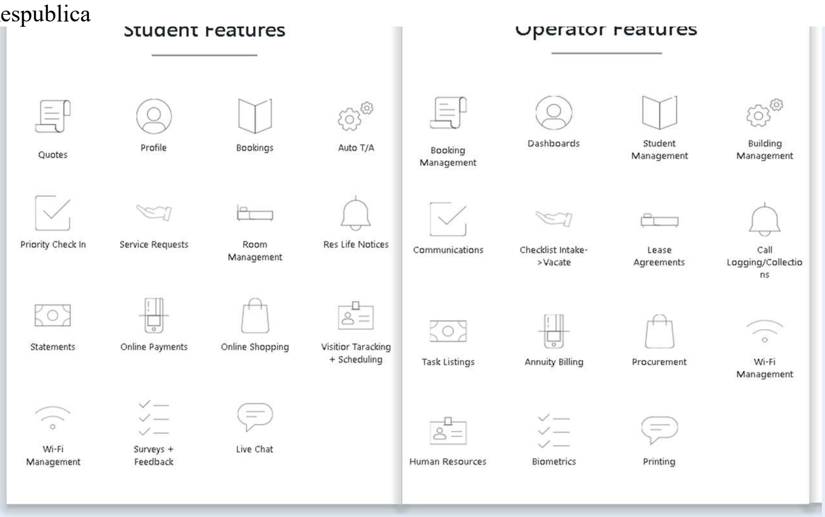
Figure 16 Hi-Res: Applicability of System

Source : Respublica

- Hi-Res caters to its various stakeholders by providing personalized app features that meet the needs and requirements of residents, facility operators, and other stakeholders. This approach helps ensure there is a seamless and efficient process for all activities and enables each user group to effectively engage with the platform and each other.

Figure 17 Hi-Res' Residents, Operators, and Stakeholders Features

Source : Respublica



- The platform's interface provides a one-stop application service to its users, which specifically caters to their needs -- an example for its residents can be seen in the graphic below. Its specifically designed interface is a core collaboration between the technical tea and core business team, to ensure quick turnaround times with minimal disruption to BAU for clients. The system and the app basically have multiple layers of logic which work together to deliver a simple to use, functional and management tool for property operaters.The system also undergoes test cycles following an agile development methodology, guaranteeing that newly deployed features are properly tested, integrated, and well-supported through the development cycle.

- The implementation process is efficient and minimizes disruption to regular operations. The costing structure of Hi-Res is flexible and tailored to the scale and property types of portfolios, incorporating setup fees, licensing fees, maintenance and support fees, hosting fees, integration fees, and training and support costs.

Hi-Res is hereby a context-specific innovative platform that allows stakeholders the opportunity to gain insight where it matters most, make decisions faster, and optimize portfolio performance on a regulated basis.

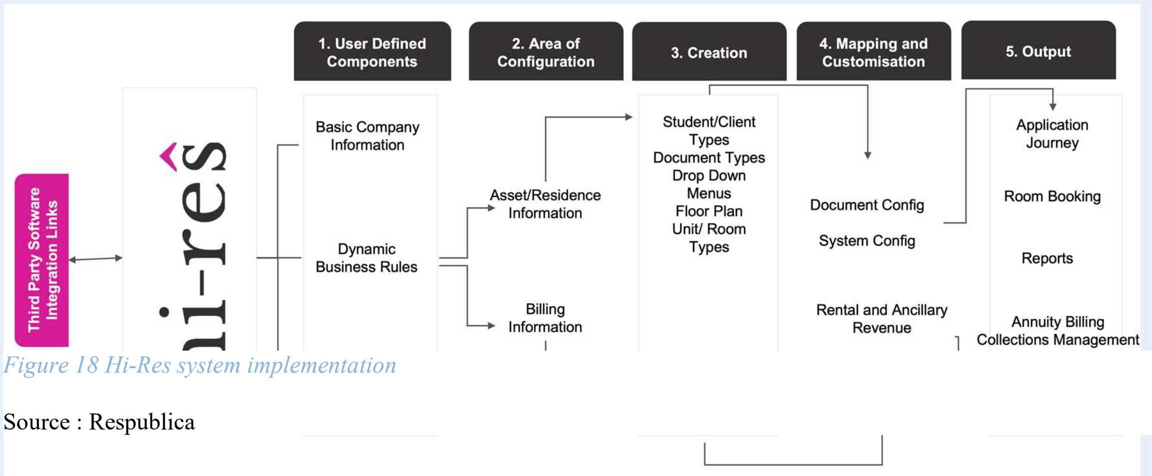


Figure 18 Hi-Res system implementation

Source : Respublica

5.3. Recommendations to address Financial Challenges in PBSA development

- **Collaborate with institutional investors to create tailored investment opportunities.** Involvement of institutional investors is critical in alleviating some of the financial barriers that exist in the sector at present. Their participation will bring significant benefits, including increased access to capital, expertise, and long-term stability, contributing to the expansion and improvement of student housing development in sub-Saharan Africa. AFD can collaborate with institutional investors, offering them tailored investment opportunities in the student housing market that take into consideration their perceived risks of the PBSA asset class. By promoting institutional investments in student housing and partnering with institutional investors, AFD can unlock substantial capital flows, stimulate the growth of the sector, and ultimately enhance the availability and quality of student accommodation in sub-Saharan countries. Some ways in which AFD can encourage participation by institutional investors are:
    - AFD can provide risk-sharing mechanisms, such as guarantees or insurance products, to mitigate the perceived risks associated with student housing investments. This can enhance investor confidence and encourage more institutional capital to flow into the sector.
    - AFD can support the establishment of investment vehicles or funds like the Construction & Development Fund, and the Minimum Revenue Guarantee funds recommended earlier, specifically dedicated to financing and de-risking student housing projects. These vehicles can pool resources from multiple institutional investors, enabling them to diversify their portfolios while increasing the overall investment capacity in the student housing market.
- **Unlock innovative funding mechanisms to improve access to capital for PBSA development.** So far, the student accommodation sector has had limited success in unlocking sources of funding that are able to provide large-scale low-cost capital for developing PBSA. AFD can support the development of innovative financing mechanisms to increase the availability of capital for student housing projects, while aligning with broader goals relating to sustainability and inclusivity. We recommend exploring the development of the following instruments to unlock latent capital for the student accommodation sector:
    - Support the development of bond issuance to finance the high cost of development of student accommodation project. Issuing bonds can also help attract investments from institutional investors, which is a critical need of the sector in the present scenario. In 2022, Shelter Afrique issued bonds worth USD 110mil to finance mass development of housing. This bond was oversubscribed by 60%, showing that there is a huge appetite in the market for such investment venues that unlock capital for targeted large-scale real estate development. Issuing bonds will also provide tax incentives to the issuers, thus improving overall profitability.

- Furthermore, Support the development sustainability and/or inclusivity linked instruments[86] that the developers can issue to further unlock investments from pensions funds, Insurance companies/annuity underwriters and capital markets. In addition to supporting individual projects and single issuances to create demonstration effects and build momentum, AFD can also provide technical assistance and capacity building to the developers in effectively using such instruments.
- Explore avenues to tap into equity funding through established funds such as REITs, Infrastructure Funds or Private Equity. REITs have shown substantial success in unlocking large-scale investments in Kenya and to some extent in South Africa as well. Though piecemeal ownership of assets is not a general investment pathway for investors in the region, Acorn Group's success with REITs is changing that perception. AFD can build on this success and spearhead the establishment of similar dual-REIT structures as an anchor investor in contexts like Nigeria and Ghana to finance PBSA development.

5.4. Recommendations to address Regulatory Challenges in PBSA development

- **Streamline PPP framework and provide transaction advisory to universities for PPP.** At present, PPP models that are being used to deliver PBSA are structured like a traditional housing PPP model. However, there are several characteristics of student housing that distinguish it from regular rental housing – first, it is a permanent rental tenure; second, there is a regular annual turnover in occupants; and third, it requires high-intensity property management. The traditional housing PPP model does not capture these features of student housing in the transaction structure, and there is need for a more nuanced PPP model for PBSA development. AFD can facilitate the establishment of PPP frameworks and guidelines specific to student housing in collaboration with local governments and universities. These frameworks can provide clarity on roles, responsibilities, and revenue-sharing mechanisms, fostering a conducive environment for successful PPP projects. Moreover, Universities lack the technical capacity to be a critical stakeholder in a PPP. AFD can provide technical assistance and capacity building support to public entities and universities, helping them effectively engage with private developers and navigate the complexities of PPP implementation. Additionally, AFD can act as a mediator and facilitator between public entities and private developers, bringing them together to identify suitable PPP opportunities in the student housing sector. In acting as the transaction advisor for PBSA PPPs, AFD can also offer financial support such as providing guarantees or concessional loans to private sector entities, thus reducing the financial risks associated with student housing development.
- **Collaborate with universities and government to facilitate long (>25 yrs) concessions on land.** A key factor of a PPP arrangement is the agreement on the length of concession period. The concession period is one of the most important decision variables for arranging a successful PPP contract because of its impact on the financial feasibility of the project. The length of the concessions duration allows the private sector entity and other investors to realize their returns from the development over that duration. For a student housing development, our study found that yields typically average between 14-26%, and depending on the financial structuring of the development, it takes anywhere from 9-20 years for a developer to breakeven on a PBSA project. This implies that a minimum 25 yearlong concessions are mandatory for making student housing PPPs feasible for all entities. At present in Nigeria where PPPs are commonly used to build PBSAs, we see most concession durations as being around 20-25 year long, however, some stakeholders have managed to structure PPPs with 40-year long concessions with some universities. Given that longer concessions are possible and necessary, we recommend that AFD work with universities and relevant public entities in the countries to establish a minimum concession duration for student housing PPPs.

By implementing these recommendations, AFD can contribute to the improvement of the student housing market in these sub-Saharan countries, fostering affordable and sustainable accommodation options for students. In addition to the above recommendations that are applicable in all four countries, this report also outlines recommendations specific to each country and the issues that persist in the respective student accommodation markets. The country-wise recommendations are outlined below.

Ghana

- Advocate for transparent and uniform land policies regarding the leasing of university land. Work towards establishing clear guidelines and regulations that provide longer concession periods for student housing development. This can include extending the maximum lease duration beyond the current 25 years, with provisions for renewal, to attract long-term investment in the sector. Collaborate with relevant government authorities to streamline land registration processes, reduce costs, and address issues of land ownership disputes.
- Provide capacity building and technical assistance programs to universities and private developers. Support universities in developing financial management skills and capacity to allocate resources for student accommodation. Offer training and mentorship programs for small-scale developers to enhance their understanding of the student housing sector, project management, and financial planning. This can help increase the number of qualified developers and strengthen their ability to undertake student housing projects.

[86] The SH market is well-positioned to leverage the use of green, social, sustainability and sustainability-linked bonds (GSSS bonds) to generate off-balance sheet financing for building projects. Green-certified student housing assets can provide the basis for new exchange-traded funds, define the use of proceeds for green bonds and earn points on ESG benchmarks. Student Housing developers can have a portfolio-wide approach to sustainability, thus issuing sustainability-linked (nonrated) bonds with explicit sustainability targets that are linked to the financing conditions of the bond.
Additionally, in the markets under consideration, there lies a huge opportunity for retrofitting/upgradation of existing student halls on university campuses. This activity is especially needed in the short-to-medium term to better address the demand. GSSS bonds can be used by the public universities to raise financing for green and sustainable upgradation of their existing student halls at a campus-wide scale, with a goal of achieving sustainability targets as a university.

- Work with financial institutions to develop specialized loan products or funding mechanisms specifically tailored to student accommodation projects. This can include offering lower interest rates, flexible repayment terms, and collateral options that consider the unique nature of the sector.

Kenya

- Remove Obstacles in the Capital Markets such as reducing minimum investments to reasonable amounts in order to access a wider pool of investors. Currently, the minimum investment for sector specific funds is KSH 1mil, while that for Development-Real Estate Investments Trusts (D-REIT) is currently at KSH 5.0mil hence limiting private sector's investment in the development of student housing in Kenya.
- Reduce Bureaucracy and Regulatory Hindrances in the Working of PPPs by addressing:
    - lack of a revenue sharing mechanism; and
    - lack of a mechanism to transfer public land to a Special Purpose Vehicle (SPV) to facilitate easier access to private sector funds through the use of the land as security. This will be key to explore and implement PPPs for Student Housing in Kenya.

Nigeria

- Biggest supply-demand gap. There is need to explore alternative models of student housing, since PPPs are long and time consuming. Explore rehab models in high-density urban areas (converting vacant hotels or hospitals into student accommodation) like Lagos and Ibadan.
- Work with government and universities to implement longer term concessions (>25 yrs) within the confines of the target university's act.
- Make PPPs more feasible by provision of a minimum revenue guarantee to cover shortfalls in occupancy ratio.
- Support developers like Greenage to explore innovative financing options like issuing sustainability linked instruments to access pensions funds, Insurance companies/annuity underwriters and capital markets; or promote a private equity driven Real Estate Investment Trust that allows for tokenization of its student housing assets for ease of investment and divestments for angel, impact, retail investors.

South Africa

- AFD can consider providing debt capital to the projects being undertaken in the SHIP initiative by DHET. As per the recent IFC study on the Student Housing market in South Africa, highest demand for affordable student accommodation units is going to be in TVETs. Additionally, SHIP is targeting TVETs located in rural or peri-urban areas, that do not much attention from private sector developers at present. Getting involved in the SHIP initiative will enable AFD to broaden its impact on student housing outside of urban cities.
- Work with DHET to advocate for improvements in the management and reliability of NSFAS funding. Engage with the relevant authorities to address issues such as delayed registration and disbursement of payments. By enhancing the efficiency and reliability of the NSFAS funding process, developers can gain more confidence in the stability of rental revenues and present a stronger case to financiers.
- Promote rehab of inner-city vacant properties into student accommodations. In partnership with TUHF, develop a low-cost line of credit for rehab projects that seek to utilize vacant property into housing for students. More preferential terms can be provided to developers that integrate green and inclusive features when converting properties.
- Offer support and guidance to universities to enhance their capacity in rolling out PPP projects, ensuring they have the necessary resources and expertise to engage in successful partnerships.

6. Conclusion

In conclusion, the student accommodation sector in Ghana, Kenya, Nigeria, and South Africa presents both challenges and opportunities. The supply-side analysis highlights the diverse range of accommodation options available, with universities, private developers, and PPP models playing significant roles. However, capacity limitations and financing challenges restrict the participation of smaller players and hinder the development of student housing projects.

Demand for student accommodation is on the rise, driven by the growing student populations in these countries. Despite efforts by universities, the supply of accommodation falls short, leading to unmet demand and students resorting to inadequate housing options. Affordability, security, and proximity to campuses emerge as key considerations for students in choosing their accommodation.

Addressing the supply-demand imbalance and improving the quality of student accommodation require collaboration between universities, private developers, and financial institutions. It is crucial to enhance the capacity of smaller developers, facilitate access to long-term institutional financing, and implement regulatory frameworks that ensure the safety and affordability of student housing.

Stakeholders in the student accommodation sector should also explore innovative delivery models and financing mechanisms. Public-private partnerships can be further leveraged to increase the supply of student accommodation, while investment in local capital markets should be encouraged to support development and operation of student housing projects.

By understanding the dynamics of the student accommodation sector and addressing the identified challenges, these countries can foster an enabling environment for the growth of the sector. Providing adequate, affordable, and secure student accommodation will not only enhance the overall student experience but also contribute to the development of the education sector and the economy as a whole.

7. Annex

7.1. Student Housing Synthesis Workshop, Johannesburg South Africa

I. Introduction

The two-day “Unveiling the Future of Student Housing Workshop,” held on June 14th and 15th, 2023, at Capital on the Park in Sandton, Johannesburg, provided a platform for professionals from various organizations to convene and discuss critical aspects of African student housing. The workshop brought together a diverse group of 39 attendees, in-person and virtual, representing organizations such as TUHF, AFD, CAHF, Greenage Development, and more. The workshop's primary objective was to share and deliberate on the study’s findings, present a comparative analysis of the four countries, provide recommendations and strategies, and engage the participants in interactive sessions focused on PPPs for student housing delivery.

Figure 19 : Presenting findings from the study at the Synthesis workshop.

Photo credit : AHI team.

II. Workshop Structure and Key Discussions

The workshop spanned two days, with the first day focusing on introducing the context of the study. It started with presentations on the overall comparative analysis by Sanjana Sidhra and Margaux Morenas (AHI) and country-wide analysis delivered by experts Abel Owotemu (Nigeria), Johnson Denge (Kenya), Kwame Boye Fimpong (Ghana), and Lethabo Setata (South Africa). Key presentations were then featured, including “Affordable Housing vs. Student Housing: Similarities and Distinctions” by Anya Brickman Raredon (AHI) and “Using PPPs for Student Housing Delivery,” and “Innovative Strategies to improve institutional investor participation including REITs, special funds,” by David Smith (AHI). The day concluded with a moderated question-and-answer session.

On the second day, interactive sessions through guided open-ended discussions with the whole group were conducted for a few hours each. The guiding principle for the first session, “Creating a Thriving Learning Community: Strategies for Balancing Affordability and Profitability in Student Housing,” was minimizing the financial burden on students while remaining profitable ad competitive and mobilizing affordability levers to reconcile affordability and profitability. The second session, “Partnerships for Success: Aligning Public and Private Sectors for Effective Student Housing Execution," discussed the comparative advantages of private and public actors, alignments of objectives and agendas, and project-based and sectoral approaches. The day ended with a report-out and wrap-up session, consolidating insights and action steps, followed by a student housing project tour.

III. Takeaways and Conclusion

The key discussion pieces revolved around takeaways from the countries’ experiences in student housing, common trends, and market specifics, which offered valuable insights into the dynamics of student housing across the studied countries.

The first day yielded key takeaways that formed the basis for the discussion on the second day. South Africa and Kenya emphasized supporting the private sector and market development. Ghana highlighted the involvement of institutional investors in bridging gaps. Nigeria provided insights into PPP experiences, including successes and challenges. Common trends across all countries were discussed, such as significant student housing deficit, limited capacity for market players, challenges accessing long-term finance, and the need for innovative exit strategies. Market specifics included the role of NSFAS in South Africa, private sector leadership in Kenya, and high-interest rates in Ghana.

The second day of the workshop focused on balancing affordability and profitability in student housing and yielded several key takeaways through the open-guided discussions. In Session 1, discussions focused on affordability, considering location, amenities, tuition fees, vacancy rates, and illegal secondary markets. It was suggested that universities establish affordability benchmarks and consider minimum standards. Facilities addressing student life issues were also highlighted as important for student performance and perceived value for money. There was also an indication to consider parental income, comparative analysis, and value for money when considering affordability, as for example, in Ghana, it is mostly parents catering to student fees. Critical issues such as local government’s involvement in earmarking land for student housing, land assembly and trunk infrastructure mechanisms, innovative financing strategies with resilient designs, standardization for off-campus housing, and resource allocation were highlighted in terms of achieving long-term affordability. The session emphasized recognizing student housing as an asset with broader impact within the community and standardization, sustainability considerations, and long-term planning were stressed as important elements for achieving affordability.

In Session 2, the focus shifted to partnerships between the public and private sectors for effective student housing execution. Governments were expected to provide policy and regulatory frameworks, while the private sector had expectations on the supply and demand side of student housing. Issues discussed included the duration of concessions, with developers requiring more time than the 21-year concessions given by universities, clarifications required for the grey areas in PPP regulations, identifying the right stakeholders for engagement, maintenance expectations and regular servicing, insurance products to cover for strikes impacting revenues and cash flow,, financial mechanisms through the use of DFIs and leveraging financial relationships with universities to attract investment, alongside exploring grant contributions and equity involvement, and challenges related to online learning and broadband connectivity. Innovative strategies such as mixed-use development, student housing hotels, shorter-term leases for exchange students, and conversion of housing into Airbnb accommodations were brought up as other solutions.

The sessions overall highlighted the need for a multifaceted approach to reconciling affordability and profitability in student housing. The findings and discussions from the workshop will be incorporated into a final report, which will be published by AFD and made available to the public free of charge.