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United Kingdom Nigeria Infrastructure Advisory Facility

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International Development

Delivering Climate-Smart and Inclusive Student Accommodation:

A case study on the development of a public-private partnership in Nasarawa State, Nigeria

February 2025

Contents

Summary

The Nasarawa State University, Keffi, in Nigeria has expanded significantly since its establishment in 2001. It currently has four campuses and a student population of 35,000. It has good quality educators and teaching facilities. However, the facilities for students, especially accommodation, are inadequate.

At the moment, only 5% of students are able to live on campus. Off-campus accommodation is massively overcrowded and sub-standard. Travel to and from the University is lengthy and dangerous, especially for women. This situation is having a negative impact on the well-being of the students, the University's enrolment numbers and the lives of the local community.

Both the University and the State Government want to solve this problem and are eager to build on-site, climate-smart and inclusive accommodation for 4,000 students. However, early attempts to find a practicable design and a workable funding package were unsuccessful.

The United Kingdom Nigeria Infrastructure Advisory Facility (UKNIAF) is a technical assistance programme that aims to transform Nigeria's capacity to plan, finance, deliver and maintain climate-smart, critical infrastructure. UKNIAF saw a compelling opportunity to help drive this vital project forward and, since 2023, has been working with the Nasarawa Investment Development Agency (NASIDA) and the University to develop an innovative design and agree a funding proposal that would attract high-quality developers and investors.

This case study tells the story of this engagement, providing a candid account of the experiences and lessons learned.

There were several helpful elements in place at the start of the project, particularly in terms of political leadership and commitment, and the existence of a dedicated and strong team at NASIDA. Nonetheless, there were also significant challenges that had to be addressed over the course of the project's implementation:

- High costs, rising inflation and financial constraints impacted the viability of the funding package. Bankability – to attract developers and investors – had to be finely balanced with affordability for students, many of whom come from low-income families.
- Some climate-smart features, such as solar power, were difficult to integrate into the facility's design.
- The institutional capacity of NASIDA and the University had to be built during the process, alongside the introduction of new tools and processes.

From these challenges, and the adaptations and breakthroughs made to meet them, important lessons have been learned. These have been captured here and shared as recommended actions (summary below).

This case study is primarily intended for individuals in ministries, departments, and agencies who are developing similar PPP projects: the decision-makers and practitioners responsible for planning, funding and executing these projects. Taking our recommended actions should help to reduce time, costs and risks, particularly where resources are limited. Ensuring that an infrastructure project is bankable through early screening and assessment can limit associated impacts and costs at a later stage.

We also believe that the lessons hold value for a wider group of development partners, programme designers and technical advisors who are supporting the delivery of climate-smart and inclusive infrastructure. Our case study highlights how bankable, credible projects can be developed, with the aim of increasing flows of climate finance into Nigeria and other countries.

Summary of insights and recommended actions

UKNIAF insights	Recommended actions
There were key success factors for the NSUK project that were identified at the outset of UKNIAF involvement: • Strong political will from the State government • An effective delivery body (NASIDA) • State-level autonomy which allowed for effective decision making and action • Student accommodation is a less contentious infrastructure project	Assess whether there are elements in place that will facilitate the delivery of the project and build (or improve) the enabling environment: • Implement a structured approach to the process of project identification • Build solid relationships between all partners • Identify areas for early capacity building
Relationships, teams and processes are key: • Collaboration is essential: it builds in buy-in and solid working relationships for the long term • Qualified and engaged teams are critical to high-quality output • Templates and guidance based on recognised best-practice underpin credibility	Establish an open, transparent and supportive approach to foster trust, build confidence and allow for greater independence and responsibility. Allow time and resource to co-develop the project with partner organisations, bringing in relevant (project-specific) expertise. Engage stakeholders as early as possible and maintain relationships throughout the project. Establish clear processes for effective communication and the transparent exchange of discussion topics, questions and challenges. Introduce analytical tools to assess project suitability and bankability (for example, the HM Treasury Five Case Model).
A structured approach to selecting projects and developing their details fostered credibility with developers: • It helped to ensure alignment with state priorities • UKNIAF's screening tools helped to identify the best commercial model	Take a systematic approach to compare options for the commercial structure for the project using multi-criteria analysis.

Innovative financing is essential to overcome Nigerian project financing challenges: • Balancing bankability with affordability is a key challenge – a viability gap remains • Earlier engagement with finance providers can reduce the viability gap funding need • Lessons can be learned from similar projects in other states/countries	Explore solutions to balance affordability and bankability – visit and take examples from other states and countries. Identify and engage with climate finance providers as early as possible to understand their requirements and incorporate these into project preparation.
A credible procurement process is essential to attract developers and investors • Early market engagement helped to generate competition and interest • Building developer and investor confidence can be achieved with high-quality documentation and a transparent process	Engage with the potential developers as early as possible to increase visibility and interest, and make the procurement process as efficient as possible. Integrate PGESI and climate change requirements into procurement documents. This will demonstrate to the market that these objectives are important.
Poverty, gender and social inclusion measures and good climate change solutions need to be incorporated into the project design: • 'Bankability' is the first consideration and a project design suitable for climate change financing and PGESI-related support can contribute to achieving this • Robust environmental and social risk management can reduce material risks (a key requirement for investors) Some climate-smart solutions have been incorporated but there is scope for more: • This could be resolved with grants or climate finance Student accommodation development can deliver major gender and social inclusion benefits: • PGESI needs to be built in intentionally • Tools for developing climate-smart and inclusive infrastructure are important	Use a PPP Screening Tool to embed PGESI and climate change criteria in all stages of the process. Integrate this assessment with the assessment of financial viability to understand and address the trade-offs between climate and gender outcomes, and financial outcomes. Involve climate change, environmental and social experts to technical and nuanced input provide (sometimes qualitative) when using the tool.

Background

Section 1

In March 2023, the United Kingdom Nigeria Infrastructure Advisory Facility (UKNIAF) began work with Nasarawa State Government to develop a detailed project design and funding proposal for climate-smart and inclusive student accommodation at Nasarawa State University, Keffi (NSUK).

The challenge

NSUK was established in 2001 and grew quickly. It now has four campuses[1] and a student population of over 35,000. However, university accommodation is scarce. There are fewer than 1,800 bed spaces available, so only 5% of the population can be accommodated on campus. Most students have to find off-campus housing which creates problems for the students and the University, and negatively impacts the local community.

Off-campus accommodation is inadequate. There is serious overcrowding – with reports of as many as 10 students sharing a two-person room. Students have to pay for transport to and from the campus, which is a particular burden for students from low-income households. Time spent travelling also impacts their education, health and mental well-being as they struggle to attend classes and participate in extra-curricular activities.

Climate change is exacerbating these issues: Keffi faces high exposure to floods, droughts and extreme heat. Poorly constructed and overcrowded rooms are unbearable during heatwaves and increase health risks for the students. Extreme weather events also disrupt transportation, making safe access to the University even harder.

The commute can also leave students vulnerable to robbery and sexual assault: high levels of gender-based violence and harassment are reported. There are also reports of students being recruited to criminal gangs and drug abuse, leading to crime and violence that impacts the whole community. This is exacerbated by a lack of adequate policing in these neighbourhoods.

Unsurprisingly, NSUK's admissions are directly impacted by this lack of on-campus accommodation. Potential students – and their parents – are concerned about the risks of living off-campus and are reluctant to enrol.

Finding a solution

In the past, NSUK has attempted to build more hostels using traditional procurement processes, but this has not been successful. The cost of building a hostel has been prohibitive: funding constraints have meant that the University can barely cover its operating expenses. Inadequate project preparation and a lack of institutional capacity have also deterred quality developers and potential investors from engaging with the University.

However, Nasarawa State's Governor, Abdullahi Audu Sule, has made it a top priority to attract private investment. This objective is outlined in the Nasarawa Economic Development Strategy, to be achieved by:

- strengthening the state's PPP investment framework
- improving industrial access to land
- streamlining regulations to reduce bureaucracy.

[1] Keffi (main campus), Lafia, Gudi and Pyanku

The Nasarawa Investment and Development Agency (NASIDA) was established to drive this change by supporting other government agencies to unlock private sector investment. Strengthening and expanding the State's education sector is central to the development agenda. Providing safe, secure and affordable housing for students at the University is viewed as a priority to attract more students and improve academic performance.

The NSUK student accommodation project aligns well with UKNIAF's goal of assisting government in Nigeria to implement climate-smart and inclusive infrastructure PPPs.

Purpose of this case study

This engagement has yielded rich insights and lessons on how to develop an infrastructure PPP.

This case study provides an honest account of what UKNIAF, NASIDA and the University have experienced and learned so far. It outlines the objectives of the engagement and the work that was carried out, highlighting the main phases of delivery. It presents the lessons that emerged during the course of implementation: what has worked well and what has proved challenging – and why.

Recommendations are provided, based on this learning, which offer practical steps and approaches (including checklists) that have been identified as key factors for success. The case study also references tools and guidance which will be available online (details can be found on the UKNIAF website).

This content is primarily intended to inform and support the work of ministries, departments and agencies looking to develop similar PPP projects. This includes both decision-makers and practitioners within those organisations who are responsible for proposing and delivering the project, and ensuring that it is well-planned, funded and executed to meet its intended goals. However, we also believe that it is of value to development partners, programme designers and technical assistance providers who are looking to support the delivery of climate-smart and inclusive infrastructure.

Section 2

Objectives

The aims of the engagement between UKNIAF, NASIDA and NSUK were to develop a workable design for the student accommodation that would be both climate-smart and inclusive, and to agree a funding proposal that would attract and engage high-quality developers and investors.

As a result, during 2023 and 2024, UKNIAF provided technical assistance to NASIDA and the University to develop a concept note, an outline business case and procurement documents, and to engage with potential project developers.

The overall approach was to deliver this technical assistance whilst building partnerships, buy-in, capacity and momentum.

The scope of the accommodation project

The plan is to deliver 4,000 new hostel bedspaces at two campus sites to bridge some of the accommodation deficit. This will include a 3,500-bed facility for students at the main Keffi campus and the Pyanko campus (also located in Keffi), and a 500-bed facility to serve the smaller Lafia campus.

The decision to build a 4,000-bed capacity facility was carefully considered to incentivise developers and partners by offering a project of sufficient size and acceptable delivery risk. The plan also optimises available plots to allow for a phased delivery.

The building design includes on-site facilities, such as study areas, commercial spaces and recreational facilities to enhance the overall student experience and foster a cohesive campus community. The design aims to be energy efficient and sustainable. This includes integrating green construction practices such as the use of low-carbon materials and nature-based solutions.

It also includes the offer of affordable rents for low-income students and the prioritisation of female students who are more vulnerable to violence and harassment off-campus.

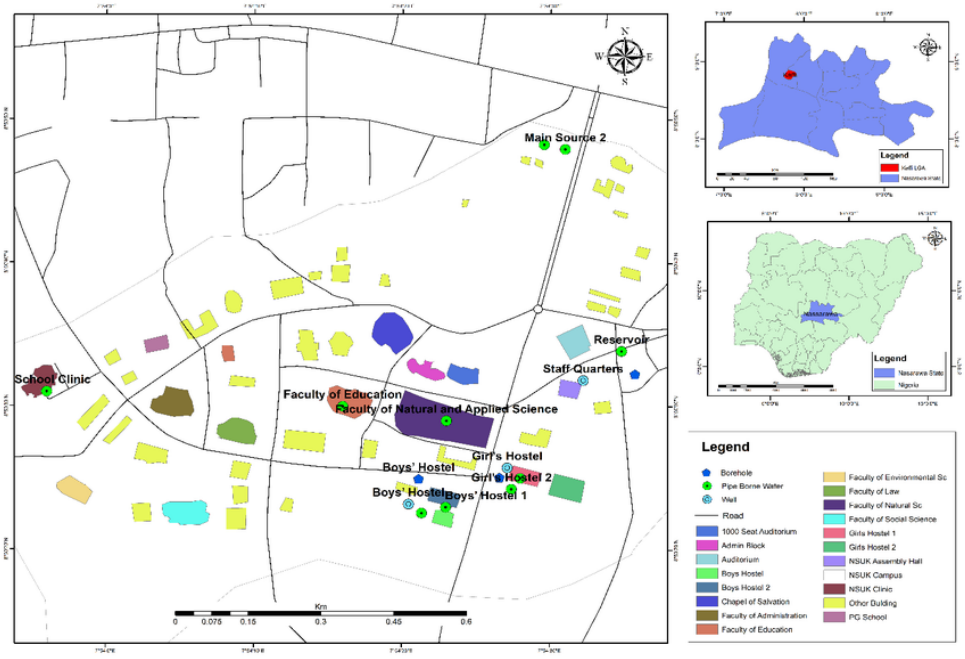

Figure1: Map Showing the Nasarawa State University

Implementation

Over 2023 and 2024, UKNIAF worked collaboratively with NASIDA, NSUK and other state agencies to develop a public-private partnership (PPP) for the delivery of the 4,000-bed accommodation project. The engagement covered three stages, outlined below.

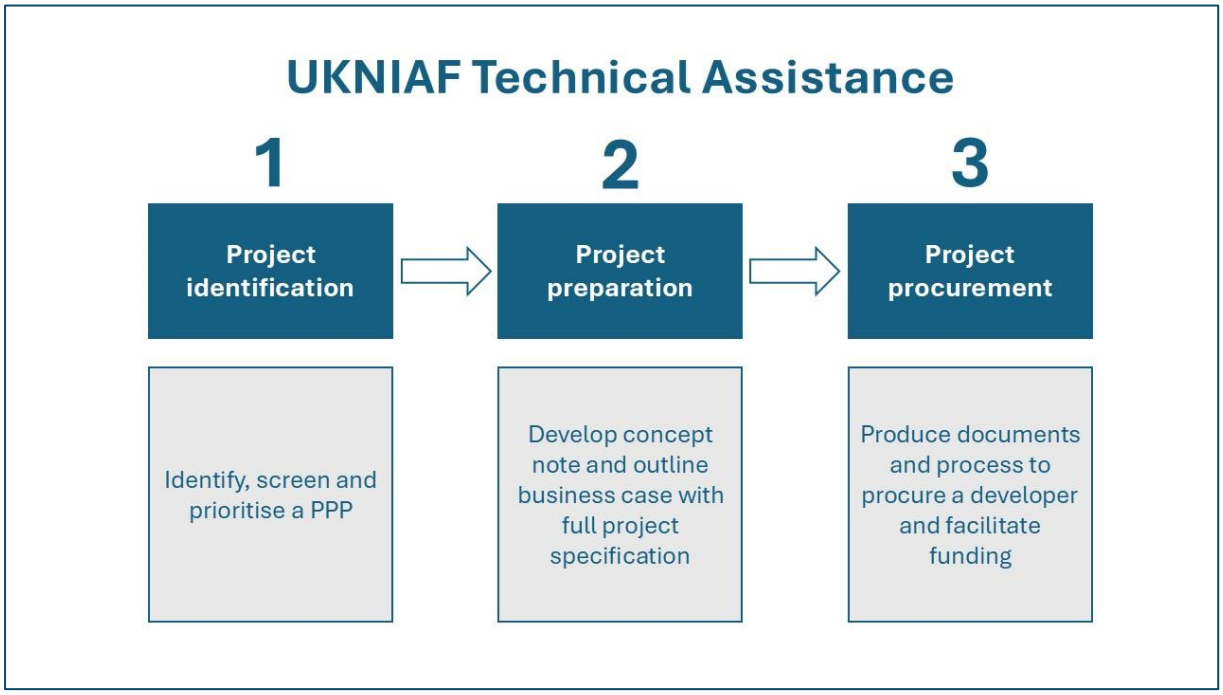

Figure 2: The three stages of UKNIAF technical assistance during the engagement

At the beginning of 2023, UKNIAF evaluated whether the project had the potential for a PPP. This was carried out in collaboration with NASIDA and NSUK and included interviews, online and in-person workshops, stakeholder consultations, site visits and research.

A concept note and outline business case were then developed. The concept note was vital in ensuring that the basic case for project development was sound. It provided a framework within which key issues were explored and evaluated. These included:

- the extent of alignment with State strategic priorities
- the scale of likely costs and benefits
- the potential to capture value added as income for a private partner
- considerations relating to climate change and inclusion.

The business case set out the project's strategic alignment with the State Government's policies and objectives, assessed its financial viability, and recommended a commercial model and management structure for delivery.

THE UKNIAF team offered comprehensive support during the procurement process. This included preparing procurement documents, facilitating engagement with key market players, and providing guidance on the bid evaluation process, risk management and legal and regulatory compliance. The templates and guidance for the concession agreement, request for qualification and request for proposal are now available for NASIDA to use for other projects. The team also helped in structuring the financial aspects, including exploring options for climate finance and other funding sources.

UKNIAF supported NASIDA and the University to undertake stakeholder engagement at all stages to build consensus, generate ideas, and ensure full alignment on project objectives. They also conducted a high-level environmental and social (E&S) risk analysis to ensure that the project adhered to best practices in E&S risk due diligence.

The following section outlines the experiences and insights that emerged throughout this process. It identifies the elements that were critical to success – whether they were already in place or had to be developed over the course of the engagement. Recommended actions are offered to embed these 'factors for success'.

Factors for success

Section 3

1. An enabling environment

This engagement started with a number of positive elements in place.

There was **strong political leadership** behind the accommodation project. The Nasarawa State Governor was committed and fully engaged in driving the progress of the project and, importantly, supported a climate-smart and inclusive approach. He was key in influencing the State Executive Council to support the project.

A **strong state investment agency**, NASIDA, was in place and had the mandate and autonomy to provide technical support, convene stakeholders and drive the project with the backing of the Governor. Indeed, NASIDA had already established that the NSUK accommodation project was a priority for the State and that it offered potential for PPP development. It is also likely that the development of student accommodation is less politically contentious than other infrastructure sectors.

This assessment was made through **a structured approach** which took into account the Nasarawa Economic Development Strategy, the State PPP Law, and a review of whether traditional public procurement offered a feasible option for project implementation. This approach allowed NASIDA to prioritise projects based on development priorities and shared some features with HM Treasury's Five Case Model (Annex C) which supports better value for money in public capital project procurement.

At the start of the engagement, a Mutual Accountability Framework was put in place defining the responsibilities of UKNIAF and the NSUK teams. This Framework strengthened NASIDA's convening power to engage stakeholders across the state to participate and support the project. However, real collaboration was based not on the 'rules of engagement' but on the **development of personal relationships and trust**, with the UKNIAF listening to and supporting their counterparts, and the NASIDA and NSUK team bringing commitment and focus to the engagement: a 'one-team' approach.

Together, these elements demonstrated a credible and transparent approach to external stakeholders, including developers and investors, and clear alignment with stated development priorities. This has been essential in building confidence in the project and attracting developer proposals and financing.

Not all potential infrastructure projects will start with all of these positive elements in place. It is important to understand the context and identify where there might be gaps (see the Checklist below). That is not to say that these gaps cannot be addressed and there are steps that can be taken to build this enabling environment.

Recommended actions

Assess whether there are elements in place that will facilitate the delivery of the project.

Checklist

- Is there explicit political impetus behind the project?
- Does the project fully align with government objectives and policies?
- Is there a delivery team in place at the government level?
- Do they have a strong mandate and appropriate resources?

Work to build (or improve) an enabling environment where this does not exist or is weak.

- Implement a structured approach to the process of project identification:
  - unsolicited proposals may not align with government priorities and needs
  - a clear and credible approach builds confidence for potential developers and investors
- Build solid relationships between all partners: listen, build trust and establish a genuinely collaborative approach (see more below).
- Identify areas for early capacity building.

2. A collaborative approach

UKNIAF was intentional about adopting a collaborative approach and co-developing the project details and documents with NASIDA and the University. Whilst this approach can take additional time and resources, '**learning by doing'** is an effective way to build the knowledge and skills of individuals and teams. NASIDA was also committed to this approach and ensured that their team was empowered to co-deliver the work.

The UKNIAF team found a **dedicated and competent counterpart** in NASIDA – they were engaged throughout the process and responsive to needs and requests. NASIDA is led by a director who has a team that understands how to engage the private sector and the principles of private sector financing, including for PPPs. There was also a dedicated focal point within NASIDA to engage with UKNIAF on the engagement which allowed the process to progress quickly.

The UKNIAF team included individuals with **diverse expertise**: legal, technical and financial. A member of the team had participated in a student accommodation project in Lagos. Bringing in this **project-specific experience** was invaluable. For example, by prior knowledge of developers with specialism in hostel accommodation meant that the team was able to engage with them quickly during the market engagement process.

UKNIAF's **open and transparent approach** to working with NASIDA fostered trust and a productive partnership. This enabled NASIDA to take on significant roles such as investor engagement and project coordination under UKNIAF's guidance.

Early and sustained stakeholder engagement was also a critical feature of the successful approach.

Senior leaders were engaged during the inception phase. The State Governor visited the UKNIAF office in Abuja and met with the team and senior representatives from FCDO. The

backing of the Governor also helped NASIDA to convene other relevant government agencies quickly and effectively. This included engaging with the Ministry of Land for site clearances and the Ministry of Finance for support with the viability gap funding of the financial model (i.e. the finance that government needs to provide to make the project financially viable for private investors). The involvement of an international partner, such as UKNIAF, also helped to expedite discussions with State Government agencies.

Workshops were held with the NSUK team, including during inception, where they were able to immerse themselves in the project details and develop technical knowledge. An example of the benefits of this approach was seen during the bidder's conference when procurement committee members who had participated in the workshops were able to answer bidders' questions confidently and knowledgeably.

Interestingly, an area of improvement identified by the UKNIAF team would be to increase the numbers of those team members in meetings and workshops. They felt that engagement could have been more effective had more members were in attendance, as it would have allowed for more in-depth interactions and enhanced relationship building. It was also agreed that hybrid meetings (with both online and in-person participation) were 'clumsy' and not as effective as in-person sessions.

Overall, the effective collaboration between NASIDA, the University and relevant agencies underscored **a credible and transparent process** which attracted a higher level of interest from local developers. The success of this approach has led NASIDA to adopt it for their other projects, such as the commercial redevelopment of the once-abandoned deputy Governor's Lodge in the FCT under a Joint Venture arrangement.

Recommended actions

Allow time and resource to co-develop the project with partner organisations. 'Learning by doing' is an effective way to build skills and knowledge.

- Bring in relevant expertise. Legal, financial and technical experts are essential but project-specific expertise can be a game changer.
- Appoint a government focal person who can expedite processes and take decisive action.

Establish an open, transparent and supportive approach to foster trust, build confidence and allow for greater independence and responsibility.

Engage stakeholders as early as possible and maintain relationships throughout the project.

- Involve those in senior leadership positions at the inception stage.
- Include all relevant State Government agencies to foster broad understanding and support.
- Hold in-person meetings where possible to encourage a greater degree of engagement and capacity building.

3. Effective processes and tools

One of UKNIAF's most important contributions to the NSUK engagement was the development of processes (including ways of working), tools (including project templates) and accompanying guidance.

Effective communication was established through regular contact in meetings and workshops, and a system for sharing documents. Content was clearly marked so that NASIDA team members could explain it to other stakeholders which they found helpful. Both teams had good access to each other to discuss any questions or challenges that arose during the course of their activities.

Tools and templates provided a systematic approach to developing project details. They helped the NSUK team to analyse the suitability of the project as a PPP and its bankability, and to develop a detailed design specification. The UK HM Treasury's Five Case Model (see Annex C) was used in the concept note and outline business case which the NSUK team found to be a methodical way to analyse and organise information. The Five Case Model has been incorporated into the Nasarawa State PPP Manual as a best practice framework to develop PPP projects.

Flexibility was built into the engagement. NASIDA valued the ability to agree timelines and tasks with the UKNIAF team, with some degree of flexibility where needed. This made the process *'easier'* and '*more interesting'.* There is a concern that development partners can at times make ambitious requests with tight deadlines which government is not able to deliver, particularly when there are gaps in knowledge and skills.

Recommended actions

Establish clear processes for effective communication.

- Set up shared platforms to allow all teams to access information and documents.
- Establish a regular series of sessions/meetings to ensure a transparent exchange of discussion topics, questions and challenges.

Introduce analytical tools to assess project suitability and bankability (for example, the HM Treasury Five Case Model).

- Develop and share all relevant templates which can be adapted and integrated into future work.

Be flexible and adaptable.

- Allow for some changes to timelines and tasks so that teams can get up to speed with new processes, learn new skills and manage competing priorities.

4. Appropriate and innovative finance

In order to compare options for the commercial structure for the project, UKNIAF devised a simple **multi-criteria analysis** (MCA). The MCA approach ensured consistent and complete evaluation of the alternative commercial options. Although the evaluation remained qualitative in nature, the MCA method ensured that a systematic approach was adopted.

Five options were compared:

1. Traditional Procurement Model
2. Design Build Plus Operate and Maintain
3. Design Build Operate Maintain
4. Design Build Finance Maintain plus Operate
5. Build Operate Transfer (BOT) Concession

Each option was evaluated using the following criteria:

- Quality of offering
- Transfer of Integration risk
- Whole Life Cycle cost efficiency
- Management simplicity
- Revenue transfer risk

Three of the five options were rejected due to affordability considerations – irrespective of the total weighted score that they achieved on the other criteria. The BOT Concession scored highest in the MCA because of its management simplicity and the transfer of revenue/demand risk from the University to a private partner. It incentivises cost-effectiveness and aligns with procurement laws and regulations in Nasarawa State.

That said, a cautionary note is required for the BOT Concession option. While it delivers benefits for the NSUK project, potential developers and investors may be unwilling to accept the revenue risk or may require a high price to accept it. It may not, in practice, be achievable and further market testing and/or negotiation during the transaction phase is likely to be required.

"The project's structuring and financial model focused on simplifying complex financial aspects to ensure viability and sustainability. UKNIAF played a key role in refining these models, making them more understandable and actionable for stakeholders. This approach facilitated better decision-making and clear communication, helping secure investor confidence. The structured planning ensured the project's financial framework aligned with its objectives, adapting to changing conditions to maintain long-term success and financial stability." UKNIAF Infrastructure Finance Team Leader

Undertaking a robust financial evaluation was one of the most difficult technical challenges in developing a bankable PPP. This is generally the case for long-term capital projects. UKNIAF helped NASIDA to analyse the financial viability of different project alternatives. Several solutions have been identified to bridge the viability gap. However, a significant gap remains, at 37% of the project's capital value. Innovative financing is essential to overcome Nigerian project financing challenges (e.g. high rates of interest, rapid currency depreciation and rising inflation).

Summary of the NSUK PPP financial model

Capital Expenditure: Estimated at ₦14.5 Billion (approximately $19.1 Million).

Operational Expenditure: The annual operational expenditure is projected at 5% of the engineering, procurement and construction (EPC) costs, with additional replacement capital costs estimated at 8% and 21% of EPC costs incurred every five and 12 years, respectively.

Duration of BOT Concession: The developer is responsible for designing, building, financing, operating and maintaining the facilities for 23 years, before transferring them back to the University.

Financial Instrument (s): A combination of 75% debt and 25% equity, with a Weighted Average Cost of Capital of 10.596% in real terms and a target Equity Internal Rate of Return of 16.1%. The primary revenue source will be student rent, supplemented by service charges.

Viability Gap Funding: To achieve financial viability, the project requires Viability Gap Funding of ₦302,304,000 (approximately $402) per bedspace per year, with the present value of this gap amounting to ₦5.6 Billion (approximately $7.4 Million), or around 37% of the project's capital value.

Balancing bankability and affordability

Bankability - the ability of a project to attract financing from investors, banks or financial institutions – is essential to the delivery of a PPP: it ensures that projects can secure adequate financing to cover development and operational costs; it promotes investor confidence by minimising risks and uncertainties; it aligns public and private sector interests to achieve sustainable project outcomes; and it enhances the capacity of social projects to deliver long-term public value.

However, balancing bankability with student affordability and inclusion was a key challenge for this project. Rental rates for on-campus accommodation are capped at ₦13,000 ($17.28) per annum to ensure affordability for students, but these rates are unsustainable. The revenue generated from this low rental income is insufficient to cover the operating and maintenance costs of existing hostels, let alone fund expansion or improvements. As a result, hostels have deteriorated over time, with students subject to poor quality accommodation.

In comparison, the rental rates for off-campus accommodation in the local area are between ₦90,000 ($119.6) and ₦150,000 ($199.46) per room per year, creating a vast disparity between on-campus and off-campus options. The preliminary financial modelling done during the concept note stage revealed that for the project to be bankable, the required rental rate per bed space would need to rise as high as ₦900,000 per annum – a rate far beyond what the University administration and student body would accept. This drastic increase in rates would have excluded many students from accessing on-campus housing and undermined the achievement of the project's inclusion objectives. It would also have deterred developers and investors, given the high risk of low occupancy rates.

Solutions

Reworking the building design

To address the issue of affordability without compromising on bankability, the UKNIAF Team, worked with NASIDA, the University Physical Planning Department, and the State Ministry of Works and Housing to rework the building design. The UKNIAF team also recruited a real estate expert to help re-engineer the design during the business case stage. The main changes to the building design are captured in the table below.

Original building design in the concept note	New building design in the business case
High-cost, active systems for improving energy efficiency, such as power-saving bulbs and low-energy air cooling systems. While these systems contributed to long-term sustainability, they significantly raised construction costs.	Passive systems and streamlined design helped reduce capital expenditures, without compromising on energy efficiency or the overall student experience.
Two bed spaces per room.	Bunk beds, which doubled the room capacity from 2,000 to 4,000 beds. This adjustment helped to halve rental costs while maintaining an acceptable standard of living.
'Luxurious' facilities such as an ensuite and kitchenette.	Replacement with basic shared facilities, which further helped to reduce costs.

The real estate expert brought experience of student accommodation in other countries, such as Mauritius, and team members visited student facilities in Nigeria and abroad. This experience helped the teams to identify the redesign solutions.

Increasing the University's contributions

After detailed assessments, the University agreed to provide some key infrastructure facilities up to the perimeter of the project, including drainage systems, waste management systems, water supply and road access. The University also committed to providing security and operational support.

Importantly, they agreed to provide land for the project free of charge, and the costs of construction permits will be waived. This not only reduced the upfront costs for the developer, but importantly, signalled the University's commitment to the success of the project.

Introducing flexible rental models

The project introduced flexible rental models to meet the needs of different types of students and willingness to pay of students from diverse socio-economic backgrounds. While the initial financial model (developed during the concept note) assumed only annual rental rates, the review by the team for the business case, revealed the need for a mix of annual, monthly and weekly rental options, tailored to part-time and postgraduate students.

This flexibility was essential, as many of these target students, particularly those from neighbouring states or the Federal Capital Territory, attend classes during weekends or for time-bound periods, making traditional yearly rental structures inadequate. This had a significant impact on financial viability, without compromising affordability.

Using cross-subsidies to fill affordability gaps

With the design changes, the University's additional contributions and flexible rental structure, the financial model was recalibrated. This brought down the required bankability revenue target to ₦528,000 ($702.1) per bedspace annually. This figure, while significantly lower than the ₦900,000 ($1,196.8) originally estimated, was still far above what most students could afford.

To bridge the affordability gap, the project adopted a rental rate of ₦150,000 per bedspace in the final financial modelling – based on willingness to pay data gathered by NASIDA – while leveraging a Viability Gap Funding mechanism. The estimated Viability Gap Funding per bedspace was ₦305,000, highlighting the need for additional financial model innovations to reduce reliance on public funding.

A cross-subsidy mechanism was introduced to ensure affordability for students from lower-income backgrounds. Higher rental rates were modelled for postgraduate and part-time students, who have greater financial capacity, allowing lower-income undergraduate students to pay more affordable rates. The new accommodation is expected to free up spaces in the existing accommodation, often occupied by wealthier students, making it more accessible to those from lower-income backgrounds.

Further options for reducing Viability Gap Funding

UKNIAF will continue to work with the NSUK team to explore other ways to reduce the VGF need and improve project bankability during the transaction phase.

- **Value engineering:** Capital expenditure could be reduced by optimising engineering design and reducing EPC costs. Many potential private sector developers will also double as the EPC contractors, offering opportunities to streamline cost.
- **Occupancy guarantees:** The University could guarantee minimum occupancy by requiring a defined cadre of students to stay in the new accommodation, ensuring a steady revenue stream. Rental fees could be integrated into the students' annual registration fee and paid upfront, reducing the risk of non-payment.
- **Nigerian Education Loan Fund (NELFUND):** The newly launched fund provides students with a monthly stipend of ₦20,000 ($26.59) or ₦240,000 ($319.14) annually, which could help students meet their rental obligations.
- **Public sector refinancing at lower interest rates:** If developers can secure initial funding at the market interest rate, it can quickly be refinanced with a lower interest rate loan through public sector borrowing schemes.
- **Climate and gender-smart finance:** Given the project's climate and gender benefits, it aligns with financiers looking to deploy capital with a climate and/or gender lens.

It is important to note that grants and/or concessional financing for the additional costs of climate-smart measures would improve the bankability of the project. The team agreed that earlier engagement with climate finance providers would have helped them understand their requirements and incorporate these into project preparation. It would also have helped to

identify interested funders and relevant funding sources which may have helped to unlock concessional financing earlier.

Procurement

In advance of the procurement process, with support from UKNIAF, NASIDA had one-to-one discussions with developers. With the advance notice and information, developers were able to consider the project in their pipeline and begin preparing their responses. All those that participated in the market engagement exercise submitted a bid, demonstrating the value of early engagement. As of September 2024, NASIDA has selected a preferred developer following a successful procurement process.

Recommended actions

Take a systematic approach to compare options for the commercial structure for the project using multi-criteria analysis. This will ensure consistent and complete evaluation.

Explore solutions to balance affordability and bankability – taking examples from other States and countries.

Checklist

- Can the infrastructure design be adapted to increase value for money?
- What contributions could other partners make to bring down costs?
- Can revenue sources be adapted to improve financial viability without compromising affordability (e.g flexible payments and cross-subsidies)?
- Could the project leverage climate or gender-smart finance?

Identify and engage with climate finance providers as early as possible to understand their requirements and incorporate these into project preparation.

Engage with the potential developers as early as possible to increase visibility and interest, and make the procurement process as efficient as possible.

Incorporating climate-smart and inclusive solutions

Section 4

The assessment tool

UKNIAF developed a bespoke tool to ensure that climate change and poverty, gender, equality and social inclusion (PGESI) criteria were embedded in all stages. The tool was designed to drive a structured approach to integrating risks and positive impact, based on national priorities and international standards.

Importantly, the tool integrates an assessment of a project's financial viability with PGESI and climate change criteria for an integrated approach. These can often be two separate and disjointed processes which runs the risk of climate and inclusion being seen as a 'bolt-on,' and optional rather than integral to the commercial model.

Although the team were able to use the tool to develop PGESI and climate change content in the concept note, they found it more challenging to use it for the business case. The business case requires more technical and nuanced data, a higher level of guidance and expertise, and more robust financial modelling.

UKNIAF is looking at ways to match the tool more effectively with the business case. One promising option is the integration of more qualitative climate and gender performance measures with quantified financial performance attributes, using an extended form of multi-criteria analysis. In principle, this would allow a holistic assessment of project performance and a more systematic evaluation of the trade-offs between climate and gender outcomes, on the one hand, and financial outcomes, on the other.

A major challenge in using the tool is having sufficient technical knowledge and experience of the criteria. The engagement teams believe that they would benefit from the involvement of dedicated local climate change and environmental and social expert(s) to support the team and provide an in-depth and nuanced assessment using the tool.

Overall, NASIDA valued the tool highly and use it as a "PPP Screening Tool" for other PPP projects. They have requested an updated version that incorporates their feedback, including adapting it to the local context, making it more user friendly without losing the technical content, and increasing training support. They recommend the tool is shared with other States alongside in-depth guidance and training.

It is important to note that UKNIAF integrated PGESI and climate change requirements into the project's procurement documents. A balance had to be found between demonstrating to developers the importance of these issues in the selection process and not discouraging those without this experience. The inclusion of these criteria sent a strong signal to the market and we understand that it is one of the first times that the criteria have been included in a state-led PPP procurement process.

Integrating climate-smart solutions

Climate-smart measures relating to resilience, energy efficiency, low-carbon building solutions and nature-based solutions have been integrated into the project and are estimated to be 16% of capital costs. These are outlined in Annex E. However, there are upfront financial and practical challenges to implementing these – and other solutions such as solar power – in this project. There are concerns about the additional costs of these

measures, the impact on the scheme's bankability and the lack of local capacity to deliver all proposed solutions.

As the biggest emissions savings for buildings are from sourcing clean energy, the UKNIAF team explored options for solar energy, to meet the total estimated yearly energy need of the new accommodation, at 1MW. For this installed capacity, the roof space of the University was not sufficient. A solar plant over four to five acres of land is required, at a CAPEX of approximately ₦ 752,000,000 ($1 million). The University is not currently able to provide additional land, and the additional upfront capital costs would increase the Viability Gap Funding to an unbankable level.

Even though a solar plant or solar panels on existing roof space/new land adds to the capital expenditure, they can improve the project's bankability by providing assurance to developers and investors of a secure supply of electricity and savings in the long-term. However, the University is reluctant to take on the additional costs, as it sees a reliable source of energy from the grid and because any resulting increases to fees would make them unaffordable for many students. There is a risk of them reverting to diesel generators if the grid is not available to meet demand.

One solution that is being explored is a blended approach, with solar power used for some utilities and on-grid energy powering others. Solar external lighting and solar borehole systems are two potential options. Although they are not a mandatory requirement, developers that included these in their bids were at a competitive advantage. Ultimately, developers and investors will need assurance that an adequate supply of electricity will be available for the hostels to operate as planned.

As noted above, climate finance solutions are being explored to offset extra capital costs and NASIDA remains committed to developing climate-proofing infrastructure.

"To other States looking to do PPPs, I would say think of the benefits of developing climate-smart and inclusive infrastructure. Yes, you want to do infrastructure and want to do it fast. You need to ask the question, 'how will this be useful today and in 20 years?' A climate-smart design will save you from losing money in the future. This isn't a first world problem. It's ours too. We recently saw the impacts of floods in Nasarawa and Benue. You need buildings that are safe." NASIDA

Addressing poverty, gender, equality and social inclusion

The project includes some significant PGESI benefits.

Affordable, safe, convenient accommodation: The project has developed solutions for affordable rental rates for low-income students (see Section 3).

Additional quota for females: Given the higher risk of gender-based violence and harassment off-campus, the University dedicated 60% of the accommodation for female students. This is expected to encourage more females able to attend the University and create a more conducive learning experience, leading to improved educational performance and future earning potential.

Job creation: The facility will create local employment opportunities – this is estimated at 873 person-years jobs during construction, and 6,096 person-years jobs during operations. The accommodation was not designed to be large, relative to the total amount of students (4,000: 35,000), in recognition of the negative impact it may have on landlords and jobs from ancillary services such as buses and taxis.

The UKNIAF and NSUK teams developed a robust qualitative case for the PGESI benefits. However, socio-economic cost-benefit analysis is highly complex and requires expert(s) in this field to develop a comprehensive case. Given the importance of demonstrating PGESI outcomes from public spending, it is advised that an expert is engaged to develop this level of comprehensive analysis – which can then be revisited periodically to ensure PGESI solutions are upheld.

There is also an opportunity for developers and investors to adopt a PGESI lens in their own organisations, for example, using the global 2X Criteria for gender-lens investing. This was raised in the procurement process and will be explored during the transaction stage.

Recommended actions

Use a PPP Screening Tool to embed PGESI and climate change criteria in all stages of the process.

Integrate this assessment with the assessment of financial viability to understand and address the trade-offs between climate and gender outcomes, and financial outcomes.

Involve climate change, environmental and social experts to technical and nuanced input provide (sometimes qualitative) when using the tool.

Integrate PGESI and climate change requirements into procurement documents. This will demonstrate to the market that these objectives are important.

Next steps

Section 5

Detailed Project Drawings for the Project are now complete, and negotiations are at an advanced stage. In the coming months, the engagement will be focused on three priorities.

1. The NSUK project will be expedited to achieve commercial and financial close, including unlocking climate and/or gender finance.
2. A robust contract management framework will be created
3. Capacity will be built within NSUK and NASIDA so that they are in a position to manage effectively the concession agreement with developers.

The state of student accommodation is similar across other Nigerian states. There is a huge need to develop bankable, climate-smart and inclusive PPPs to close the deficit in on-campus hostels. The Tertiary Education Trust Fund (TETFund) has announced an allocation of ₦1 billion ($13,29,787) for construction of student hostels across 12 educational institutions in Nigeria as part of its 2024 intervention cycle. We believe the NSUK project can provide a best practice model for building student accommodation across Nigeria.

Annexes

Section 6

Annex A – Methodology

To capture the insights and lessons, we deployed a qualitative methodology, which comprised of:

- semi-structured interviews with the UKNIAF team, NASIDA and the university
- an in-person workshop with NASIDA and the university
- a review of the NSUK project documents
- a review of best practices from other countries.

Interviews were conducted with UKNIAF team members, NASIDA, NSUK and stakeholders involved in the engagement. All information provided by the interviewees was aggregated and anonymised.

Annex B - Summary of UKNIAF's technical support to NSUK

1. Strategic alignment and project conceptualisation

- **Strategic Needs Assessment:** UKNIAF provided technical assistance in conducting a Strategic Needs Assessment, which was crucial in aligning the project with broader government policies at both the state and federal levels, including Nigeria's Nationally Determined Contributions towards climate change mitigation.
- **Support in early stages:** UKNIAF supported NASIDA and NSUK in the development of a Concept Note for the project, embedding considerations around poverty, gender equality, social inclusion, and climate change in the project's conceptualisation.

2. Stakeholder engagement and communication

- **Stakeholder workshops and focus groups:** UKNIAF facilitated workshops and focus groups with key stakeholders to build consensus, generate ideas and ensure full alignment on project objectives.
- **Communications plan:** UKNIAF helped develop a comprehensive communications plan to ensure effective stakeholder engagement and minimise resistance to the project.

3. Management and implementation support

- **Project Delivery Team:** UKNIAF advised on the establishment of a Project Delivery Team to manage the day-to-day implementation of the project, including contract monitoring and ensuring the retention of institutional memory.
- **Transition planning:** As UKNIAF's support is time-bound, they have emphasised the importance of a transition plan to ensure continuous high-level strategic support throughout the project's lifecycle.

4. Outline Business Case development through the Five Case Model

- **Economic case:** Evaluated the project's value for money through cost-benefit analysis, comparing different options and justifying the preferred solution.
- **Financial case:** Assessed the project's affordability, detailing capital and operational costs, revenue generation, financing sources and the overall financial viability, including the need for viability gap funding.
- **Commercial case:** Recommended the Build-Operate-Transfer concession model as the preferred PPP option for the project. This model was selected based on stakeholder engagement, market readiness, private sector interest, and the project's alignment with procurement laws and regulations in Nasarawa State.
- **Strategic case:** Established the rationale and strategic fit of the project, demonstrating its alignment with broader government policies and objectives.
- **Management case:** Outlined the project management structure, governance arrangements, and implementation plans to ensure successful delivery and operation.

5. Climate smart and inclusive infrastructure

- **Environmental and Social Risk Assessment:** UKNIAF conducted a high-level environmental and social analysis, ensuring that the project adhered to best practices in E&S risk management.
- **Climate and inclusive benefits:** This included recommendations for integrating nature-based solutions and other climate-smart features into the project design.

6. Procurement support

- **Development of procurement documents**: UKNIAF assisted in preparing comprehensive procurement documents, ensuring they met international standards and were tailored to attract reputable bidders.
- **Market engagement:** They facilitated engagement with key market players, organising market sounding exercises and bidder conferences to gauge interest and gather feedback from potential investors and contractors.
- **Bid evaluation process:** UKNIAF provided guidance on structuring the bid evaluation process, helping to develop criteria and procedures that ensure transparent and competitive selection of preferred and reserve bidders.
- **Capacity building:** They conducted training sessions and workshops for NASIDA and other stakeholders, enhancing their understanding of best practices in procurement and contract management.
- **Risk management**: UKNIAF provided tools and frameworks for identifying, assessing, and mitigating risks associated with the procurement phase, ensuring that potential challenges were proactively addressed.
- **Legal and regulatory compliance**: They offered advice on legal and regulatory requirements, ensuring that all procurement activities complied with local and international laws and standards.
- **Financial structuring:** UKNIAF helped in structuring the financial aspects of the procurement, including exploring options for climate finance and other funding sources to enhance the project's financial viability and affordability.

Annex C - Summary of Nasarawa State's Project Selection Framework

Project selection and alignment - NASIDA: NASIDA follows a comprehensive framework for project selection focused on several key criteria to ensure sustainable development. This framework emphasises PPP as a cornerstone, aiming to foster collaboration between the government and private sector to drive economic growth and development. Their Framework encompasses the following components and criteria:

- **Assessment and infrastructure stocktaking:** An assessment of the State's infrastructure needs is conducted regularly. This involves taking stock of existing infrastructure, identifying gaps and developing projects that address these gaps. Projects are then prioritised based on engagement with government officials and other stakeholders. This ensures that the State's evolving needs and priorities are reflected in the project pipeline and that projects are based on actual needs rather than arbitrary selection.
- **Nasarawa Economic Development Strategy (NEDS):** Projects are assessed based on their alignment with the NEDS, a strategy document that outlines economic development priorities in Nasarawa State.
- **Infrastructure project pipeline:** Projects are then evaluated and ranked within NASIDA's pipeline, and those that score highly on defined criteria are advanced.
- **Solicited vs. unsolicited proposals:** Projects are categorised into solicited and unsolicited proposals. Solicited projects are identified based on the State's strategic needs, while unsolicited proposals are assessed and potentially included in the pipeline if they align with the state's priorities and address identified gaps.
- **Decision-making process for PPP vs. traditional procurement:** The decision to pursue a PPP versus traditional procurement involves an analysis of financial feasibility, project requirements and government budget constraints. Using tools like the Public Sector Comparator, which involves comparing the financial and operational requirements of the project through traditional procurement versus a PPP, NASIDA evaluates which approach offers the best value for money. For projects with significant financial demands or where private sector involvement is essential, a PPP is often the preferred model.
- **PPP:** NASIDA prioritises projects that can be executed through PPP arrangements. This approach leverages private sector efficiency and innovation while mitigating public sector risks.
- **Sustainability and innovation:** The Agency focuses on projects that incorporate sustainable practices and innovative solutions. This includes the use of green technology, renewable energy and environmentally friendly materials.
- **Economic impact and job creation:** NASIDA evaluates the potential economic impact of projects, particularly their ability to create jobs and stimulate local economic activities.
- **Assessment mechanism:** An assessment mechanism is used to evaluate projects against specific criteria, including feasibility, impact and alignment with strategic priorities. This mechanism helps in selecting projects that are not only important but also viable and impactful.

Annex D - HM Treasury Five Case Model for projects including PPPs

The Five Case Model examines a project from five key perspectives:

1. **Strategic case:** Is the project strategically necessary/important?
2. **Economic case:** Is the project economically and socially desirable?
3. **Commercial case:** On what basis is the project commercially viable?
4. **Financial case:** Is the project affordable?
5. **Management case**: Can the project be practicably delivered?

These questions are answered in turn through five individual cases, each of which was prepared using a combination of stakeholder workshops, technical studies, and desktop research:

- The **strategic case** provides the rationale for the project, describes its fit with wider policy/strategy, sets the project's scope and boundaries, describes clear project objectives, summarises environmental and social risks and opportunities, and identifies the outcomes expected. It should clearly express the strategic need for the project.
- The **economic case** demonstrates that a wide range of options for developing the project has been considered and refined to a shortlist, and eventually a preferred option using cost-benefit analysis.
- The **commercial case** demonstrates that the project is commercially viable. It sets out the proposed business model, contractual structure, allocation of risk and the procurement strategy.
- The **financial case** demonstrates that capital investment and operating costs to be met from public resources are affordable, allowing for any government income, and that sufficient allowance has been made for risk and uncertainty including possible contingent liabilities.
- The **management case** describes the project delivery team and demonstrates it has the right skills and experience, appropriate governance and a realistic project delivery plan. It should include plans for stakeholder engagement, risk management and benefits realisation.

International experience indicates that using this approach leads to a more transparent system for infrastructure planning and development, resulting in:

- better quality projects
- fewer failed and stalled projects
- more and better bidders and bids
- lower transaction costs and quicker delivery times
- easier investment decisions for lenders
- improved understanding of risk and delivery confidence across projects and programmes
- better decision-making for the government
- increased access and equity.

These are critically important to incentivise private sector investment, reduce waste in public expenditure, and maximise the economic and social benefits of investment that infrastructure can bring.

Annex E – Climate-smart solutions

Climate-smart design	Details	Insights including opportunities/challenges
Resilience	From the preliminary climate risk assessment conducted, the project was categorised as moderate risk from extreme climate events such as heat, flooding, and drought. **Solutions to increase resilience:** • Passive design, construction and maintenance of the building envelope and structure to enhance natural ventilation, insulation and shading. • Construct building entrances at higher elevation. • Install barriers to route floodwaters away from facilities and buildings. • Upgrade drainage systems to alleviate flooding. • Implement water conservation programmes	The principles of passive designs focus on reducing the building's energy consumption and enhancing comfort through natural ventilation, insulation and shading. This enhances the building's resilience, as it reduces dependency on energy-intensive systems, delivers greater adaptability to varying climate conditions, to ensure occupant comfort even during extreme weather events. The lack of emergency response systems for recovery in the project location remains a risk.
Energy efficiency / low-carbon solutions	**Target:** Achieve at least 20% reduction in energy, water and embodied energy in materials in the NSUK hostels compared to existing student accommodation or other buildings within the campus. **Standards/Certification:** Excellence in Designing for Greater Efficiencies (EDGE) selected over other certifications, as it is more affordable and accessible, and has been designed to help emerging markets such as Nigeria to build sustainable buildings at scale. **Solutions for energy efficiency/low-carbon construction:** • Passive design, construction and maintenance of the building envelope and structure to enhance natural ventilation, insulation and shading. • Use of energy efficient bulbs with sensors (replacing a 60-watt incandescent bulb with a 10-watt LED bulb). • Use of energy-efficient air conditioners. • Implement green construction practices such as using prefabricated components and use of low-carbon building materials (one-time GHG reduction). • On campus accommodation is expected to reduce the need for motorised transport, with associated emissions reductions.	For EDGE Advanced Certification UKNIAF is supporting strategies to achieve a 20% reduction in energy, water and embodied energy in materials compared to a conventional building.[2] These will be fully integrated in both preliminary and post-construction stages. However, feedback from developers is that there may not be local capacity for EDGE certification, and it will cost more, adding to the VGF. Energy, emissions and cost savings from passive design are estimated at: • 727.4 kWh/room/year energy saving assuming a conservative 35% reduction • 353.4 kg CO2e per room per year emissions reduction • $66.2 per room per year from energy savings (assuming (assuming 0.091 per kWh) • $1.413 per room per year assuming a carbon price of $4 per ton CO2e. To manage the risk that the final project design and construction will not achieve the proposed energy efficiency target, energy efficiency requirements were included as part of the selection criteria for the developer.

[2] Green Buildings for a Smarter World, Edge

Nature-based solutions (NBS)	**Target:** Achieve at least three to five of the most significant, material nature-based solutions, with an optional target of Biodiversity Net Gain. **Standards/certification:** Appropriate national and international best practice to be identified e.g. UK Green Building Council **Measures:** • Use of green spaces and trees for shade and recreational use, to absorb heat during extreme heat. • Green roofs and walls • Sustainable drainage systems	The project has identified some NBS based on best practice globally, which are outlined in the business case. However, there is an opportunity to go beyond the commonly known measures and identify innovative solutions that can serve as a model for other buildings in Nigeria – given that NBS for buildings is still a nascent area.