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## Original Research Article

# UPLB Dormitories SD-G? Assessing Selected Dormitories in Terms of Contribution to SDG 11

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## Abstract

*Sustainable Development Goal (SDG) 11 promotes inclusive, safe, resilient, and sustainable human settlements. Most empirical studies focus on large-scale urban systems and overlook micro-scale environments like university dormitories. To address this gap, this study examines how campus dorms contribute to SDG 11, with an emphasis on inclusivity, safety, resilience, and sustainability. A mixed-methods approach was used. Case studies of UPLB dormitories involved interviews with dormitory management and surveys of residents (n = 20) from the Men's and Women's Residence Halls. Qualitative data were analyzed thematically to identify practices, challenges, and perceptions. Quantitative data were analyzed descriptively to assess satisfaction across the four dimensions of SDG 11. Findings show residents reported neutral satisfaction with safety and sustainability, satisfaction with inclusivity, and dissatisfaction with resiliency. Thematic results highlight positive aspects, such as equitable admissions, basic safety mechanisms, and sustainability initiatives, as well as persistent challenges, including limited disaster preparedness, insufficient accessible infrastructure for persons with disabilities, and financial constraints that hinder long-term improvements. Overall, this study underscores the potential of university dormitories as micro-scale models for SDG 11 and the need for targeted interventions in infrastructure, safety, and sustainability to bolster inclusive, resilient, and sustainable campus living environments.*

**Keywords**— Dormitory living, Student housing satisfaction, SDG 11, sustainability, dormitory planning

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## 1 Introduction

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, presents a comprehensive global framework for addressing interconnected social, economic, and environmental challenges, including poverty reduction, improved health and education, reduced inequalities, and climate action [1]. Central to this agenda are the 17 Sustainable Development Goals (SDGs), which collectively emphasize inclusive and sustainable development pathways. Among these, Sustainable Development Goal 11 (SDG 11) specifically aims to make cities and human settlements inclusive, safe, resilient, and sustainable. SDG 11 underscores the importance of improving quality of life while ensuring environmental protection and long-term resilience, recognizing that human settlements are critical arenas where sustainability principles are either realized or undermined [2].

While SDG 11 is often framed within the context of cities and large urban systems, its principles are equally applicable to smaller-scale human settlements that mirror urban functions. University campuses, particularly campus-based residential facilities such as dormitories, function as micro-scale urban environments. They concentrate populations, rely on shared infrastructure and services, and require coordinated governance, making them relevant sites for examining inclusivity, safety, resilience, and sustainability in practice [3]. In the Philippines, dormitories play a vital role in accommodating transient populations, especially students who migrate from distant provinces to access higher education [4]. Strategically located dormitories can support efficient land use, reduce commuting distances, and encourage sustainable transportation, thereby aligning with broader SDG 11 objectives [5]. Moreover, sustainable management of dormitory facilities through waste management systems, energy conservation measures, and environmentally responsible practices can reduce environmental footprints while fostering sustainability-oriented behaviors among residents [6].

In addition, dormitories can drive innovation and knowledge sharing in urban areas, especially near educational and research institutions. These spaces help integrate academic and professional networks, encourage collaboration, and enable the exchange of ideas among residents and the broader campus community [7]. By fostering daily interactions in shared spaces, dormitories strengthen social cohesion and knowledge diffusion, supporting sustainable urban development and SDG 11 [2].

However, a central challenge addressed by SDG 11 is the provision of adequate, affordable housing for all. Rapid urbanization and commercialization have intensified urban housing demand, including in university towns, resulting in affordability constraints and shortages [8]. Dormitories help ease this pressure by providing cost-effective, accessible, centrally located housing for students and other transient groups. These facilities can reduce reliance on private rentals while supporting access to education and urban services [9].

Beyond their physical and environmental functions, dormitories are also social spaces in which inclusivity and safety are continually negotiated. Inclusivity, a core dimension of SDG 11, emphasizes equitable access to resources, services, and opportunities, as well as the recognition of diverse social identities and needs [10]. In dormitory settings, inclusivity is reflected in admission policies, affordability, accessibility for persons with disabilities (PWDs), and opportunities for student participation in decision-making [11]. Safety, another key pillar of SDG 11, encompasses not only protection from crime and hazards but also reliable safety infrastructure, effective management, and a sense of security among residents [12]. Similarly, resilience highlights the capacity of settlements to anticipate, withstand, and recover from shocks such as natural disasters, climate-related events, and public health emergencies [13]. Finally, sustainability focuses on long-term environmental and economic viability through practices such as resource efficiency, waste reduction, and the promotion of renewable energy and ecological awareness [14].

Research shows that dormitories can support these dimensions by providing affordable housing,

fostering social interaction, and supporting sustainable management [6]. However, most SDG 11 research focuses on large metropolitan areas and urban infrastructure. Studies of student housing often prioritize design, service quality, or occupant satisfaction without linking dormitories to the SDG 11 framework. Few studies combine administrative and resident perspectives to assess how inclusivity, safety, resilience, and sustainability are realized in campus housing [15]. This gap leaves a lack of empirical evidence on the roles of dormitories in contributing to SDG 11, particularly in developing countries such as the Philippines.

This study addresses this gap by advancing an integrated assessment of campus-based dormitories through the lens of SDG 11. By examining both institutional practices and residents' perceptions, the study contributes to the growing body of literature seeking to localize and contextualize the SDGs within everyday living environments. Academically, it extends the discourse on SDG 11 beyond conventional urban settings by positioning university dormitories as analytically valuable microcosms of sustainable human settlements. In practice, it provides evidence-based insights to inform campus housing policies and planning strategies that improve inclusivity, safety, resilience, and sustainability.

This study examines selected dormitories at the University of the Philippines Los Baños (UPLB) through the following research objectives: (1) to identify the factors facilitating or hindering the attainment of SDG 11 within campus dormitory settings; (2) to evaluate the satisfaction level of UPLB dormitory residents regarding inclusivity, safety, resilience, and sustainability in alignment with SDG 11; and (3) to formulate recommendations for the UPLB Office of Student Housing to enhance the contribution of campus dormitories toward achieving SDG 11.

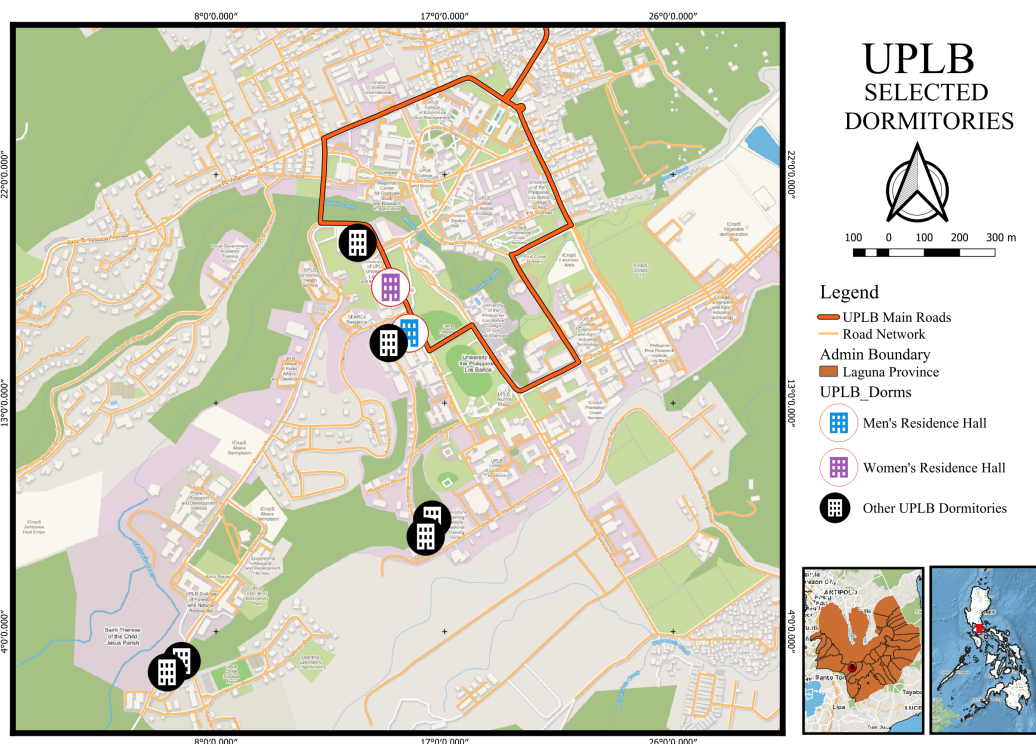
## **2 Methodology**

### **2.1 Locale of the Study**

This study examined residents of selected dormitories at the University of the Philippines Los Baños (UPLB), Laguna, evaluating their satisfaction with the dormitories' adherence to the four central components of SDG 11. The Office of Student Housing (OSH) oversees nine residence halls: International House Residence Hall, Women's Dorm, Men's Dorm, Veterinary Medicine Dorm, ATI-NTC, New Dormitory, Makiling Dorm, Forestry Dorm, and New Forestry Dorm. The Men's Dorm, ATI-NTC, and New Forestry Dorm accommodate only male residents, whereas the remaining dormitories house female students. The latter two dormitories are located on the upper campus, while the others are on the lower campus. Presently, university dormitories house more than 2,000 undergraduate and approximately 150 graduate students. This study was limited to the centrally located and most utilized halls: the Women's Residence Hall and Men's Residence Hall (Figure 1).

### **2.2 Research Design**

The study employed a mixed-methods approach, combining qualitative and quantitative research methods. A qualitative research design was used to collect data that could not be quantified, such as the behaviors, attitudes, and experiences of dormitory residents, through open-ended survey questions. Key informant interviews were conducted with dormitory management, including the OSH and dormitory managers. A quantitative research design was employed to present data numerically, using instruments such as the Likert scale and closed-ended questionnaires. This mixed-methods research design was primarily used to analyze the factors dorm residents considered when evaluating the contribution of UPLB dormitories to SDG 11. The study was guided by a conceptual framework that focused on four key dimensions of SDG 11: Inclusivity, Safety, Resilience, and Sustainability. These dimensions were used to assess dormitory policies and experiences from both management and dorm residents, allowing the study to evaluate how these living spaces contribute to inclusive and sustainable campus environments (Figure 2).



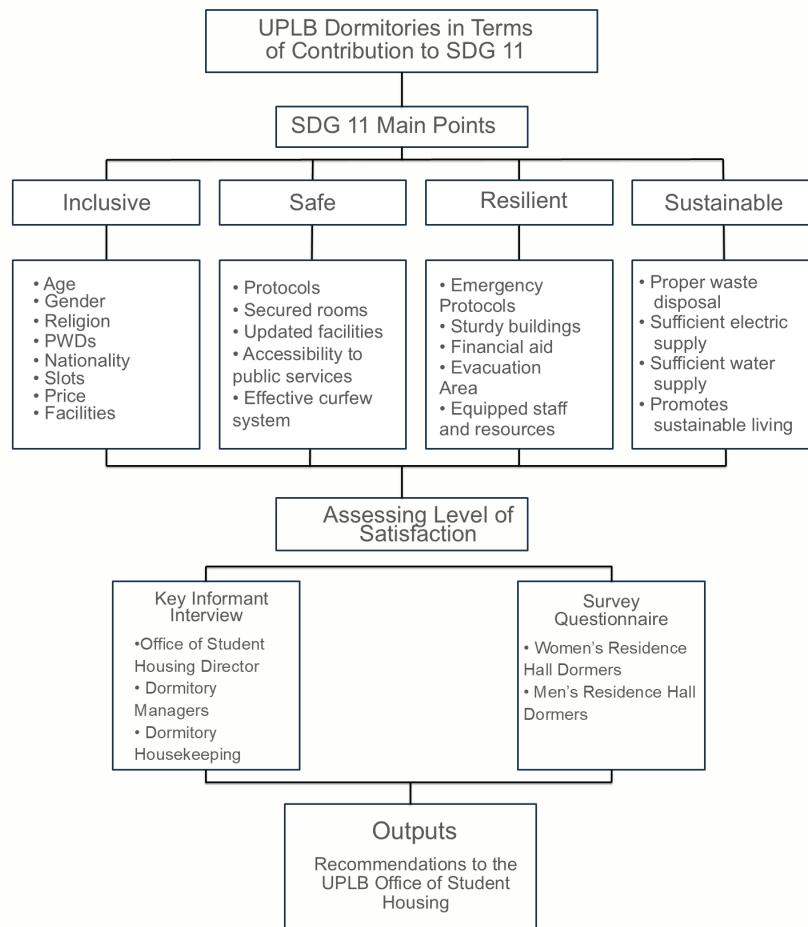
**Figure 1.**  
Location of Selected Dormitories within UPLB Campus

### 2.3 Data Collection

The data collection methods for this study were implemented in two phases. Firstly, a series of KII was conducted with the dormitory management team, including the dormitory managers and the director of the UPLB Office of Student Housing. This was done to assess the existing measures and protocols, as well as the challenges UPLB dormitories face in addressing the four main points of SDG 11. The second phase entailed distributing the survey questionnaires among the selected UPLB dormitories, namely Men's Residence Hall and Women's Residence Hall, where twenty (20) respondents were selected through non-probability sampling based on the following criteria: (a) a bona fide undergraduate student of the University of the Philippines Los Baños; (b) a UPLB dorm resident who had been staying at a UPLB dormitory (Women's Dorm, Men's Dorm) for at least one semester; and (c) a UPLB dorm resident who had been actively using the facilities and amenities available in the UPLB dormitory. The dorm residents were asked to rate their satisfaction on a five-point Likert scale (1 = lowest, 5 = highest) for survey items related to factors influencing SDG 11.

### 2.4 Data Analysis

The study used thematic analysis to highlight responses from UPLB dormitory management. This method aimed to analyze participants' answers and offer relevant interpretations and assumptions. Descriptive statistics were used to assess responses from the survey questionnaires. It aimed to summarize dorm residents' satisfaction with the extent to which UPLB dormitories contributed to meeting the four main points of SDG 11 and to gather recommendations for dormitory management. The data were translated into tabular and graphical presentations, from which findings and recommendations for the Office of Student Housing were formulated and presented to enhance the contribution of UPLB dormitories to SDG 11.



**Figure 2.**  
Research Design of the Study

## 2.5 Ethical Considerations

The study involved a range of participants, including students and management, who provided informed consent and were informed that the collected data would be handled with care and security, solely for this research. Confidentiality of participants' personal information and responses was ensured, and their right to withdraw at any time was upheld. The study respected participants' diversity and avoided discrimination or bias on the basis of factors such as gender, race, ethnicity, or socioeconomic status. It complied with all relevant ethical guidelines, institutional policies, and legal regulations concerning research involving student participants.

## 3 Results and Discussion

### 3.1 Contribution of Dormitories to Inclusivity

The contribution of UPLB dormitories to inclusivity is reflected in both the admissions process and the facilities and services available, as shown in Table 1. The dormitory management emphasized that no prioritization system is used during admissions and that the office remains accommodating regardless of the dorm resident's age, gender, nationality, or religion, provided that requirements are submitted on time. Dormitory rates were also described as affordable, with further discounts available to students under the Student Assistance Learning System (SLAS) bracket. Feedback mechanisms are maintained throughout residents' stays to encourage suggestions and the expression of concerns. Facilities are also designed to be inclusive; each room is equipped with basic

furnishings, such as bed frames, mattresses, tables, chairs, and cabinets. Common areas such as study lounges, kitchens, and computer rooms are accessible, and dormitories also function as academic and recreational hubs.

**Table 1.** Inclusivity Measures of UPLB Dormitories by the Management

Main Theme	Sub-theme
Admission System	Status is not given importance in the Admission System
Amenities and Facilities	Affordable rates
	Feedback System
	Well-equipped rooms
	Common areas and facilities
	Academically conducive spaces
	Recreational areas

Significant discrepancies are noted regarding the availability and adequacy of facilities. Dorm administrators reported that dorms are well equipped with bed frames, mattresses, chairs, tables, cabinets, and sockets. However, survey respondents, primarily from Men’s Residence Hall (MRH), reported dissatisfaction with essential room items and amenities, indicating a gap between the standards of provision and the actual conditions. Another area of divergence concerns PWD inclusivity, as survey results from both MRH and Women’s Residence Hall (WRH) showed dissatisfaction due to the absence of ramps and limited handrails, pointing to infrastructural barriers. Dormitory administrators cited the presence of recreational and common areas, yet survey respondents reported limited personal and recreational spaces, suggesting communal facilities may not meet expectations or needs. Residents also expressed dissatisfaction with the availability of slots, particularly in MRH, but administrators did not address this issue. Limited slots hinder access for disadvantaged students from distant provinces and from financially constrained backgrounds, thereby reducing overall inclusivity (see Table 2).

**Table 2.** Satisfaction Score of UPLB Dorm Residents on Inclusivity

Category	MRH	WRH	Average
Religion	4.75	4.70	4.725
Age	4.50	4.70	4.6
Nationality	4.20	4.55	4.375
Rent	4.20	4.55	4.375
Gender	4.10	4.50	4.30
Feedback to the Management	4.10	4.30	4.20
Room Essential Items	3.85	4.25	4.05
Spacious Rooms	3.85	4.15	4.00
Academical Conducive	3.70	4.00	3.85
PWDs	3.40	3.60	3.50
Fair Admission System	3.35	3.55	3.45
Personal/Recreational Spaces	3.30	3.50	3.40
Sufficient Slot	2.85	3.00	2.92
<b>Overall</b>	3.86 (Neutral)	4.10 (Satisfied)	3.98 (Neutral)

These findings reveal a disjunction between policy-level inclusivity and lived accessibility conditions. While management policies promote open access, the absence of PWD-supportive infrastructure and limited room availability weaken the dormitories’ practical inclusivity. This gap

aligns with the global literature, which stresses that inclusivity must be evaluated through both institutional commitments and users' lived experiences [16, 17]. Within the SDG 11 framework, UPLB dormitories demonstrate progress in equitable admissions but fall short on universal design, indicating the need for more holistic implementation strategies.

### 3.2 Contribution of Dormitories to Safety

UPLB dormitories implement various safety protocols and features to ensure the well-being of their residents as presented in Table 3. Safety equipment includes CCTVs in common areas, with additional cameras planned to enhance monitoring further. Monthly inspections of dormitory infrastructure are conducted to ensure compliance with safety standards. Security is enhanced by structural safeguards such as window grilles and perimeter fencing, and the management keeps spare keys to secure rooms. A monitoring system through entrance logbooks tracks the movement of dorm residents, and compliance with the university-wide 10:00 PM curfew is enforced, with exceptions permitted through dorm manager approval. Proximity to public services such as clinics, food establishments, and transportation is considered in assessing safety, and security personnel are stationed at dormitory entrances. Staff are equipped with basic emergency medical supplies and are trained to respond to health-related emergencies. Dorm managers are also expected to be on call during crises to ensure a physically and psychologically safe living environment.

**Table 3.** Safety Measures of UPLB Dormitories by the Management

Main Theme	Sub-theme
Safety Measures and Protocol	Safety Equipment Monitoring of residents Proximity to services Instructed Staff and Personnel

However, dormitory residents reported a neutral level of satisfaction with safety. This indicates that while some safety measures are acknowledged, they do not fully address resident concerns. For instance, despite the presence of security personnel, respondents raised issues about staff responsiveness and expressed the need for regular safety drills and awareness programs. While many noted well-lit pathways and common areas, some felt maintenance of security systems, such as CCTV cameras, was neglected, leading to a sense of vulnerability. Dorm residents also underscored that the physical condition of facilities undermines reliance on these systems. Many reported concerns about the age and maintenance of dormitory amenities, insufficient locks on doors and windows, and outdated infrastructure that may not support safety protocols, affecting overall dormitory safety as shown in Table 4.

The neutral safety ratings indicate that, although protocols are in place, they do not translate into perceived safety. SDG 11 underscores the importance of safe built environments. The findings suggest that inconsistent implementation weakens residents' confidence. This is consistent with a study that argues that inadequate maintenance of safety infrastructure significantly affects occupant well-being [18]. The dormitory context, therefore, mirrors broader urban safety challenges, demonstrating how micro-scale residential systems also require continuous monitoring and participatory oversight.

### 3.3 Contribution of Dormitories to Resiliency

Resilience in UPLB dormitories is promoted through disaster-preparedness programs and community-based support systems (see Table 5). Dormitory staff and residents are trained in emergency procedures, which are communicated through posters and regular drills. Each dormitory is as-

**Table 4.** Satisfaction Score of UPLB Dorm Residents on Safety

Category	MRH	WRH	Average
Well-equipped Security Personnel	4.05	4.0	4.03
Well-functional Surveillance System	3.95	3.85	3.90
Safe Walk Path	3.80	3.80	3.80
Reasonable Curfew System	3.65	3.80	3.73
Well-lit Areas	3.65	3.75	3.70
Health-emergency Protocols	3.55	3.75	3.65
Safe and Secured Rooms	3.40	3.30	3.35
Near Public Services	3.35	3.25	3.30
Safety Measures/Protocols	3.35	3.10	3.23
Updated Facilities	2.65	2.90	2.78
<b>Overall</b>	3.54 (Neutral)	3.55 (Neutral)	3.55 (Neutral)

signed an evacuation area, such as Freedom Park or nearby open courts, depending on its location. Earthquake and fire drills are conducted regularly, and dormitory staff are assigned roles such as conducting headcounts and overseeing emergency exits. Emergency equipment, such as lights, exit signs, and first-aid kits, is readily available. While dorm buildings are generally considered structurally sound based on prior assessments, management emphasizes the importance of instilling responsibility among dorm residents to ensure their own safety proactively. In terms of post-disaster support, although financial assistance is constrained by budgetary limitations, dormitory organizations and staff mobilize food aid and establish community kitchens and pantries.

**Table 5.** Resiliency Measures of UPLB Dormitories by the Management

Main Theme	Sub-theme
Disaster Preparedness	Information awareness Calamity assistance and relief

In contrast to management’s perspective, residents’ perception of dormitory resilience is generally unsatisfactory, as reflected in a neutral average rating (see Table 6). Many students expressed dissatisfaction with the absence of clear evacuation routes, insufficient emergency training, and limited access to essential resources during crises. While dormitory management asserted that efficient systems were in place, residents remained skeptical, citing previous emergencies in which poor communication had led to confusion and distress.

Despite claims of having well-defined protocols, residents reported feeling unprepared for emergencies. They pointed to the lack of clearly communicated procedures and the absence of essential supplies, such as first-aid kits and emergency food provisions, particularly during extreme weather events. These findings highlight the need for management to enhance resilience measures by providing more comprehensive training, organizing participatory emergency drills, ensuring appropriate resource allocation, and conducting regular feedback sessions that both inform residents and integrate their recommendations.

The disconnect between administrative assertions of preparedness and residents’ feelings of uncertainty highlights a critical gap in resilience-building. SDG 11 positions resilience as both a structural and social capacity; however, the limited communication, infrequent drills, and insufficient disaster resources indicate that resilience mechanisms are not yet institutionalized. This echoes patterns in broader urban-resilience studies [19], in which preparedness is often documented in

**Table 6.** Satisfaction Score of UPLB Dorm Residents on Resiliency

<b>Category</b>	<b>MRH</b>	<b>WRH</b>	<b>Average</b>
Sturdy Structural Buildings	3.55	3.80	3.68
Emergency-preparedness Protocols	3.10	3.15	3.13
Ensures Reduced Adverse Effects of Calamity	3.10	3.10	3.10
Training or Resources Provided to Staff	3.0	2.90	2.95
Well-known Designated Evacuation Area	2.50	2.75	2.63
Provision of Financial Assistance	2.20	2.75	2.48
<b>Overall</b>	2.90 (Unsatisfied)	3.08 (Neutral)	2.90 (Unsatisfied)

policy documents but poorly translated into practice. Therefore, strengthening dormitory resilience requires both infrastructural improvements and more participatory disaster governance.

### 3.4 Contribution of Dormitories to Sustainability

As shown in Table 7, UPLB dormitories integrate sustainable practices into daily operations to contribute to the long-term goals of SDG 11. Waste management is a key aspect: solid waste is segregated and collected by the University Maintenance Office, while food waste is composted on-site by housekeeping staff. Electronic waste is collected through student-led drives, and residents are provided with waste bins for proper disposal. Green initiatives include reminders to conserve electricity and water and to promote the use of shared spaces, such as kitchens, to reduce single-use plastic waste. Community gardening using repurposed materials, such as bottles, is also practiced, reflecting creative efforts toward sustainability. Moreover, dormitory management supports student-led sustainability projects, fostering an inclusive and collaborative culture of environmental responsibility. Plans include expanding the use of water tanks for alternative water systems, exploring solar energy through partnerships, and standardizing compost bins across dorms.

**Table 7.** Sustainability Measures of UPLB Dormitories by the Management

<b>Main Theme</b>	<b>Sub-theme</b>
Sustainable Practices	Waste management Green initiatives

A disconnect between administrative intentions and students' perceptions of dormitory sustainability practices: students generally rated these practices as neutral, with many expressing concerns about inconsistent implementation (Table 8). Recycling participation, for example, was notably low, attributed to insufficient information and motivation provided by management. Residents also questioned the administration's ability to effectively educate dorm residents on the importance of sustainability and how to participate actively. A lack of clear communication emerged as a barrier, with students expressing a preference for structured programs that provide information and encourage participation in eco-friendly initiatives. Suggested improvements included regular sustainability workshops and more visible signage on recycling and conservation practices, indicating a need for clearer, more engaging frameworks. While administrators demonstrated strong commitment and enthusiasm for sustainability efforts, students did not consistently observe

these efforts in practice. The absence of scheduled activities or prominent recycling systems suggested that despite shared goals, implementation falls short, ultimately limiting the effectiveness of sustainability initiatives in the dormitory setting.

**Table 8.** Satisfaction Score of UPLB Dorm Residents on Sustainability

Category	MRH	WRH	Average
Sufficient Water Supply	4.20	4.15	4.18
Sufficient Trash Bins	4.10	4.10	4.10
Consistent Housekeeping	4.0	4.10	4.05
Consistent Waste Collection	3.75	4.0	3.88
Access to Transportation System	3.55	3.75	3.65
Access to Green Spaces	3.45	3.40	3.43
Proper Waste Disposal	3.25	3.30	3.28
Sufficient Electricity Supply	3.20	3.25	3.23
Encourages a More Sustainable Lifestyle	3.0	2.90	2.95
Protocols to Save Electricity	2.90	2.90	2.90
Promotes Green Architecture	2.80	2.85	2.83
Protocols to Save Water	2.75	2.85	2.80
Renewable Energy Sources	2.00	2.25	2.13
<b>Overall</b>	3.30 (Neutral)	3.37 (Neutral)	3.34 (Neutral)

Although management expresses a strong commitment to sustainability, resident perceptions reveal inconsistent implementation and limited engagement. SDG 11 stresses citizen participation in sustainability efforts, and the lack of structured programs appears to hinder residents’ motivation to participate in waste management and conservation practices [20]. This gap mirrors global findings showing that sustainability initiatives are most effective when co-created with stakeholders [21, 22]. The dormitory system thus serves as a microcosm of the challenges of promoting environmentally responsible behavior within urban communities.

### 3.5 Potential Contribution of Dormitories to SDG 11

This study demonstrates that campus-based dormitories have the potential to contribute meaningfully to achieving SDG 11 by functioning as micro-scale human settlements where inclusivity, safety, resilience, and sustainability can be operationalized. By incorporating diverse stakeholder perspectives, particularly those of students, dormitory management, and institutional administrators, dormitory planning and operations can support more inclusive decision-making processes and foster shared responsibility for sustainable campus living [23]. These characteristics position dormitories as adequate testing grounds for sustainable urban practices within an institutional setting (see Table 9).

**Table 9.** Contribution of UPLB Dormitories to SDG 11

Main Theme	Sub-theme
Overall Positive Contribution	Promoting community development through adequate resources in dormer-centered needs and sufficient budgetary support for future management initiatives

The findings further highlight this study’s academic contribution to addressing gaps in the existing SDG 11 literature. While previous research has predominantly focused on cities, housing

systems, and large-scale urban infrastructure, limited attention has been given to campus-based residential facilities, particularly in developing-country contexts [14]. By foregrounding dormitories as micro-scale representations of urban systems, this study extends the discourse on SDG 11 beyond conventional urban environments. It provides empirical evidence on how sustainability principles are experienced in everyday residential settings. The generally neutral satisfaction ratings across inclusivity, safety, resilience, and sustainability indicate that, while minimum standards are met, dormitories have not yet fully realized their potential as sustainable and resilient living environments.

Despite this potential, the study identifies significant structural and operational constraints that limit the realization of SDG 11 within dormitory settings. Among these is the limited budget available to dormitory management, which restricts the implementation of critical improvements such as expanded housing capacity, improved surveillance and safety systems, enhanced disaster preparedness programs, and the integration of alternative energy solutions [24]. These financial limitations compel administrators to prioritize routine operational needs over long-term sustainability investments, resulting in gaps between planned initiatives and actual implementation [25]. Whereas, the study affirms that while UPLB dormitories exhibit the foundational characteristics needed to support SDG 11, their contribution remains constrained by financial, infrastructural, and institutional limitations. Therefore, strengthening the role of dormitories in advancing SDG 11 requires sustained institutional commitment, more strategic resource allocation, and greater integration of resident perspectives into planning and evaluation processes. Addressing these challenges is essential for transforming dormitories from basic residential facilities into more inclusive, safe, resilient, and sustainable campus communities aligned with the broader objectives of SDG 11.

#### **4 Conclusions and Recommendations**

This study examined the contribution of selected campus-based dormitories to SDG 11, focusing on inclusivity, safety, resilience, and sustainability, using the UPLB dormitories as a case study. First, the study identified factors that contribute to and hinder the attainment of SDG 11 in campus dormitory settings. Contributing factors include equitable and non-discriminatory admission policies, relatively affordable dormitory fees, basic safety and security measures, and existing environmental initiatives such as waste segregation and resource conservation practices. In contrast, factors that hinder the achievement of SDG 11 include inadequate infrastructure for PWDs, limited disaster preparedness and response mechanisms, inconsistent implementation of sustainability programs, insufficient communication of safety and emergency procedures, and financial constraints that limit infrastructure upgrades and long-term improvements.

Second, the assessment of dorm residents' satisfaction revealed varied perceptions across the four dimensions of SDG 11. Inclusivity received a generally satisfactory rating, reflecting positive perceptions of admissions accessibility and affordability. Safety and sustainability were rated as neutral, indicating that although basic measures are in place, they are insufficient to build strong confidence among residents. Resilience recorded the lowest level of satisfaction, highlighting concerns related to emergency preparedness, clarity of evacuation procedures, and access to resources during crises.

Overall, the findings indicate that while UPLB dormitories partially contribute to the objectives of SDG 11, gaps remain across all four dimensions. Addressing these gaps is necessary for campus dormitories to function more effectively as inclusive, safe, resilient, and sustainable human settlements. In light of these findings, the following recommendations are proposed to enhance the role of dormitories as active contributors to inclusive, safe, resilient, and sustainable communities:

## Inclusivity

- Provide PWD-accessible infrastructure such as ramps, handrails, and accessible pathways.
- Improve dormitory capacity and slot allocation mechanisms.
- Strengthen student participation in dormitory planning and feedback systems.

## Safety

- Expand and maintain CCTV coverage and security systems.
- Conduct regular safety inspections and audits.
- Clearly post evacuation plans and safety guidelines.
- Institutionalize regular safety drills and orientations.

## Resilience

- Develop dormitory-specific disaster preparedness and response protocols.
- Improve emergency communication and alert systems.
- Allocate contingency resources for post-disaster assistance.

## Sustainability

- Standardize waste segregation, composting, and e-waste management systems.
- Conduct regular sustainability orientations for dorm residents.
- Prioritize energy- and water-efficient infrastructure improvements.

## Institutional Measures

- Improve transparency through regular communication with residents.
- Establish partnerships with academic units, LGUs, and external organizations.
- Implement periodic monitoring aligned with SDG 11 indicators.

The mixed-method case study design enabled an in-depth understanding of inclusivity, safety, resilience, and sustainability through both management perspectives and dorm residents' satisfaction. The focus on only two UPLB dormitories and a small, non-probability sample limits the generalizability of the findings. The reliance on self-reported satisfaction measures also means that results reflect perceptions rather than objective performance indicators of SDG 11. These limitations suggest that future studies should expand coverage to more dormitories, incorporate larger, more representative samples, and include measurable indicators, such as infrastructure audits or energy and safety metrics, to strengthen the evidence. Nevertheless, the findings remain valuable in informing context-specific recommendations and underscore the importance of incremental, resource-sensitive interventions in campus housing policy and planning.

## Statements and Declarations

### Acknowledgment

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### Conflict of Interest

The authors declare no conflicts of interest.

### Ethical Considerations

This study was conducted following the formulation of the 17 Sustainable Development Goals. Free, prior, and informed consent (FPIC) was sought from the participants, which included explaining the purpose of the study, their voluntary participation, and how the data collected would be used.

### Data Availability

The data presented in this study are available from the authors upon request.

### Disclosure on the Use of Generative AI

Generative artificial intelligence tools were used solely to assist with language refinement and clarity. The authors take full responsibility for the content, interpretations, and conclusions presented in this article.

### Author Contributions

**K.J.C.F.:** conceptualization, methodology, formal analysis, investigation, writing original draft preparation, visualization. **J.A.E.C.:** conceptualization, validation, writing, review and editing. **E.D.R.:** conceptualization, validation, writing, review, and editing. **A.B.T.:** conceptualization, methodology, writing original draft preparation, supervision.

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