

Green Spirituality Approach to Realizing a Smart Sustainable Campus Based on Digital Transformation in Higher Education Institutions in Jambi Province

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Abstract

This study aims to analyze the implementation of the Green Spirituality concept and strategies for integrating it into Green Campus policies and practices at higher education institutions in Jambi Province. A qualitative approach with a case study design was employed, focusing on three institutions: UIN Sulthan Thaha Saifuddin Jambi, Universitas Jambi, and Institut Islam Muaro Jambi (INISMA). Data were collected through observation, interviews, and documentation, then analyzed interactively through the stages of data condensation, data display, and conclusion drawing. The findings indicate that Green Spirituality is implemented by integrating Islamic spiritual values with environmental sustainability practices. UIN Sulthan Thaha Saifuddin Jambi developed this through the "Green Sutha" program, Universitas Jambi through "Unja Lestari," and INISMA Jambi through its Green Innovation Center and the strengthening of a green literacy-based curriculum. This implementation is realized through greening initiatives, environmental management, ecological education, and the active involvement of the academic community, all grounded in the view of the environment as a trust that must be safeguarded. The study concludes that Green Spirituality serves as a strategic approach to strengthening Green Campus initiatives by linking spiritual, educational, and policy dimensions with ecological action.

Keyword: Green Spirituality, Smart Sustainable Campus, Jambi Province

INTRODUCTION

Green Spirituality is a spiritual approach that combines religious or spiritual values with environmental awareness and sustainability (Camorrino, 2018). This concept emphasizes the harmonious relationship between humans and nature, as well as the importance of maintaining ecosystem balance as part of spiritual responsibility (Becker et al., 2010). In *Green Spirituality*, nature is viewed as a sacred entity or as a manifestation of divine power, and preserving it is considered a spiritual act. Its followers often engage in practices such as organic farming, nature conservation, and sustainable lifestyles that align with the teachings of their religion or beliefs (Karmilasari et al., 2020). *Green Spirituality* is also often associated with ecofeminist movements, animism, and spiritual traditions that respect nature (Weis, 2011).

The Smart Sustainable Campus concept demonstrates that the sustainability of higher education institutions no longer relies solely on the development of green infrastructure, but also requires the integration of values, technology, and sustainability-oriented governance (Aparecida et al., 2026). Digital transformation is a crucial factor in supporting this change because it can provide a more efficient, adaptive, and data-driven system for campus management. Through the use of digital technology, universities can develop various innovations such as digital-based learning, paperless administrative services (*paperless campus*), energy monitoring systems, and more effective resource management (Kisahwan et al., 2025). However, the existence

of technology is insufficient without the support of ecological awareness and values from the entire academic community.

In line with the development of the digital era, the transformation of higher education institutions into sustainable campuses is increasingly influenced by the use of digital technology. The Smart Sustainable Campus concept emerged as an approach that combines information technology, intelligent systems, and sustainability principles to improve the efficiency and quality of campus services (Chigbu & Makapela, 2025). The implementation of technologies such as academic information systems, digital administrative services (*paperless office*), the Internet of Things (IoT), energy monitoring, and data-driven resource management are essential in building a smart and sustainable campus ecosystem. Studies on smart campuses show that digital transformation in higher education develops through the integration of intelligent technology, data-driven systems, and digital ecosystems that support institutional sustainability.

Previous research indicates that the Smart Sustainable Campus concept entails the integration of digital technologies, smart systems, resource management, and doctrinal principles to enhance the efficiency and quality of higher education services. Digital transformation has also focused on implementing digital learning, paperless services, energy monitoring, the Internet of Things (IoT), and data-driven resource management. However, these studies have primarily emphasized technological, systemic, and operational efficiency aspects, while dimensions such as spiritual values and ecological awareness which serve as foundations for behavior have not been a primary focus.

This gap highlights the need for a study that integrates Green Spirituality, digital transformation, and the Smart Sustainable Campus concept within the framework of higher education doctrine. This research addresses this need by examining the application of spiritual values in environmental practices and sustainable campus transformation at higher education institutions in Jambi Province. Consequently, the desired outcomes are achieved not merely through technology and infrastructure, but also through the cultivation of awareness, responsibility, an ecological culture, and spiritual values among the academic community. This aligns with research findings suggesting that the success of a sustainable campus is determined not only by green facilities but also by shifts in the awareness, behavior, and commitment of the entire academic community.

The implementation of *Green Spirituality* in higher education still faces various obstacles, creating a gap between the ideal concept and the reality on the ground. This study aims to identify shortcomings in sustainable green campus transformation and offer solutions to close this gap. A massive restructuring of sustainable campus greening is necessary. This is an effort to educate the public about environmental issues through higher education. This research arose from the aforementioned problems. Where is the implementation of *Green Spirituality* in Higher Education: Sustainable Green Campus Transformation in Jambi Province? will address the environmental crisis that is occurring through higher education in Jambi province.

METHOD

This study uses a descriptive qualitative approach to explore the concept of *Green Spirituality* in the context of higher education and the transformation of sustainable green campuses in Jambi Province. This approach was chosen because it allows researchers to understand the phenomenon holistically through the experiences, perceptions, and practices of various stakeholders, such as students, lecturers, educational staff, and campus administrators. Data collection was conducted through in-depth interviews, participant observation, and documentation studies (Sugiyono, 2019). Interviews were conducted with key informants who have direct involvement in the implementation of green spirituality values on campus grounds. Participatory observation was applied to directly observe the sustainability practices carried out, such as environmental management, greening programs, and environmentally friendly campus policies. In addition,

documentation studies were used to analyze campus policies, sustainability reports, and related academic documents.

The data analysis technique in this study uses an interactive model (Priatmoko, 2019) , which includes data reduction, data presentation, and conclusion drawing. Data obtained from various sources were categorized, coded, and analyzed thematically to find patterns, relationships, and meanings that support an understanding of *Green Spirituality* in higher education. Data validity was guaranteed through triangulation techniques of sources, methods, and theories to obtain credible and accountable research results. Research subjects were selected using a purposive sampling technique, where the selected informants were individuals or groups who had experience and in-depth understanding of the application of green spirituality values in the campus environment. Criteria for selecting informants included involvement in green campus programs, sustainability-based curriculum development, and environmental policies and initiatives in higher education. Using this qualitative approach, this research is expected to provide in-depth insights into the role of *Green Spirituality* in shaping a culture of sustainability in higher education. The results are expected to contribute not only academically but also provide practical recommendations for universities in designing more holistic policies and programs to support sustainable green campus transformation.

RESULT AND DISCUSSION

How the Concept of Green Spirituality is Applied in Higher Education in Jambi Province

The implementation of *Green Spirituality* in higher education is evident through various policies, programs, and campus environmental cultures that prioritize harmony between science and spirituality. Observations and interviews revealed that several universities in Jambi have developed greening initiatives, integrated waste management, and the practice of rituals and spiritual reflection that instill gratitude and ecological awareness. This approach has been shown to foster more consistent environmentally friendly behavior. This study also found several obstacles, such as limited funding, minimal ecological literacy among some students, and a lack of continuous evaluation of campus green policies. These challenges have an impact on the uneven implementation of *Green Spirituality* across universities. However, the existence of environmentalist communities and lecturers who are driving forces are quite significant driving factors in maintaining sustainability programs. This study has three green campus pilots located in Jambi Province. The campuses that are relevant to the green campus policy in Jambi Province are (1) UIN Sulthan Thaha Saifuddin Jambi (2) Jambi University (3) Muaro Jambi Islamic Institute.

Green Spirituality at UIN Sulthan Thaha Saifuddin Jambi with the Green Sutha Movement

Sultan Thaha Saifuddin Jambi State Islamic University (UIN STS Jambi) as an Islamic-based higher education institution has a moral and spiritual responsibility to participate in mainstreaming environmental education (Naglik et al., 2018). As an institution that prioritizes not only academic excellence but also Islamic values, UIN STS Jambi is in a strategic position to develop a holistic environmental education approach, which is not only rational and empirical, but also spiritual and ethical.

In this context, UIN STS Jambi responded to this challenge through the "Green SUTHA" movement, a green campus initiative aimed at creating an environmentally friendly, sustainable, and Islamic-based academic environment. Green SUTHA is an acronym for "Green Sulthan Thaha," reflecting the spirit of realizing a campus that is not only physically clean but also clean in its actions and thoughts regarding ecological responsibility (Ramli, 2022).

The implementation of environmental education through Green SUTHA encompasses various programs and activities designed to build an environmentally conscious campus ecosystem. These include

reducing the use of single-use plastics, implementing waste management based on the 3Rs (*reduce, reuse, recycle*), greening the campus area, using renewable energy, and developing a curriculum that integrates sustainability issues. Furthermore, activities such as seminars, training, environmental clean-up activities, and digital campaigns are part of efforts to increase academic literacy and participation in environmental protection (Ramli et al., 2024).

Observations show significant changes in the physical appearance of the campus. Previously barren areas are now covered by lush foliage and young trees. Students stated that the campus atmosphere has become cooler, shadier, and more comfortable for outdoor study. A student from the Faculty of Tarbiyah said, *"Previously, it was very hot on campus during the day, but now we can sit under the trees and discuss things. It feels closer to nature."* In addition to the physical impact, this movement also fosters values of responsibility and a love for the environment.



Figure 1. Tree Planting Movement

The campus leadership stated that *Green Sutha* is now part of the Campus Development Master Plan (RIPK) to realize a sustainable green campus. Despite its success, the movement also faces several challenges. One of these is the lack of long-term awareness among some students regarding the care of planted trees. Some trees are not properly maintained and die due to lack of water or physical disturbances. Furthermore, there are still areas that are untouched due to budget and human resource limitations. To address this, the campus has partnered with Student Activity Units (UKM) nature lovers and environmental communities to serve as tree monitoring and maintenance teams. Efforts to involve the surrounding community are also being made to ensure the movement has a broader social and ecological impact.

The Green Campus-Green Metric UNJA Lestari Concept at the University of Jambi

Research on the UNJA Lestari Green Campus Green Metric concept at the University of Jambi shows that the implementation of sustainability principles has become an institutional focus over the past decade. The University of Jambi strives to develop a green campus, measurable through UI GreenMetric indicators covering governance, energy, waste management, transportation, and education. This effort aims not only to improve the university's ranking at the national and global levels but also to create a healthier, cleaner, and more supportive academic environment for the entire academic community. Research findings show that the UNJA Lestari concept serves as an umbrella for various integrated environmental programs. These programs promote energy conservation, tree planting, digitalization of services, and student engagement in ecoliteracy activities (Hutagalung et al., 2025). Observations indicate that these programs have been implemented systematically, although they still face challenges related to implementation consistency and resource constraints.

The research also found that Jambi University has integrated GreenMetric indicators into its annual planning and budgeting system. Each faculty is required to submit programs that support GreenMetric scores, such as increasing green open space, using energy-efficient lighting, and providing bicycle facilities. This strategy is considered effective in ensuring that sustainability is not solely the responsibility of the central government but also a collective effort across all work units. One interesting finding emerged from an interview with the Head of the UNJA GreenMetric Team. He stated that "improving scores cannot be achieved solely through physical development; it must also address behavioral and awareness aspects." This statement reinforces the importance of environmental education as a key pillar of the Green Campus. Thus, policies oriented toward behavioral change are considered to have a more significant long-term impact.

In addition to governance aspects, the study found improvements in the quality of green open spaces on campus. Parks, pedestrian paths, and biodiversity hotspots continue to be expanded to promote comfort and environmental conservation. However, researchers noted that there remains an imbalance between central and regional faculties, particularly on geographically separated campuses. This leads to significant variations in environmental quality across campus locations.



Figure 2. Improving the Quality of Green Open Spaces on Campus

Based on research results through observation, interviews, and documentation studies, the implementation of the Green Campus GreenMetric UNJA Lestari shows positive developments in supporting the realization of a Smart Sustainable Campus at the University of Jambi. The UNJA Lestari program is not only oriented towards physical environmental management, but also reflects the application of Green Spirituality values, namely the formation of awareness, responsibility, and concern for environmental sustainability among the academic community.

Based on an interview with Freddy Ilfan, ST, MT, Head of Green Campus GreenMetric UNJA Lestari, the development of green open spaces (RTH) is one of the main strategies in building a sustainable campus. Vegetation management, park revitalization, and improving the quality of green spaces serve not only as aesthetic elements but also as ecological educational spaces that encourage interaction between the academic community and the environment. This demonstrates that campus sustainability is not only built through green infrastructure but also through the formation of a culture and values of caring for nature as part of the Green Spirituality approach.

In terms of energy management, Jambi University has implemented various initiatives, including the use of LED lighting in campus facilities and the development of renewable energy through the installation of solar panels as a pilot project. However, challenges remain in maintaining renewable energy technologies, particularly related to technical aspects and funding. This demonstrates that a successful green campus requires an integration of technological innovation, institutional policies, and sustainability commitments.

Digital transformation is a crucial factor in supporting the implementation of a Smart Sustainable Campus. The digitization of academic and administrative services at the University of Jambi has resulted in a reduction in paper use (*a paperless campus*) and increased service efficiency. The use of digital learning systems and technology-based services demonstrates that digital transformation not only improves the quality of educational services but also serves as a strategy for reducing resource consumption and supporting environmentally friendly practices.

In addition to digitizing services, campus transportation management is also beginning to shift toward a more sustainable system by restricting motorized vehicles in certain areas and providing bicycle lanes. However, optimizing these programs still requires infrastructure support and increased awareness among campus users. This demonstrates that the shift toward a sustainable campus requires not only facilities but also behavioral changes among the academic community, which are a crucial component of Green Spirituality.

In the academic field, the integration of sustainability values has begun to be implemented through environment-based learning and project *-based activities*. Students are encouraged to generate solutions to various environmental problems, such as waste management and clean energy innovation. This approach strengthens the role of universities as institutions that not only produce knowledge but also build character and ecological awareness in the younger generation. Research results also show that the success of UNJA Lestari is supported by collaboration between university leaders, faculty, students, local government, and environmental communities. However, several challenges remain, such as the equitable distribution of green facilities, consistent program monitoring, and the need to strengthen a culture of sustainability throughout the campus environment. Therefore, a sustainable strategy that combines aspects of values, technology, and governance is needed.

Overall, the implementation of UNJA Lestari's Green Campus GreenMetric demonstrates that the Green Spirituality and Digital Transformation approaches can be the foundation for realizing a Smart Sustainable Campus. Green Spirituality plays a role in building ecological awareness and culture, while digital transformation provides innovation and systems that support efficiency and resource management. The integration of these two approaches makes the campus not only physically greener but also more intelligent, adaptive, and sustainable in facing future challenges.

Green Innovation Center Concept at INISMA Jambi

The Muaro Jambi Islamic Institute (INISMA Jambi) is an Islamic religious college that continues to grow in meeting the needs of higher education in Jambi Province. Its presence is an answer to the community's need for Islamic higher education that focuses not only on the scientific aspect, but also on spiritual and moral values. As an educational institution, INISMA Jambi has a strong commitment to producing graduates who are superior, have integrity, and are able to compete in the world of work. The curriculum implemented combines modern science with Islamic values so that students are equipped not only with academic skills but also with a strong religious character. Academic development efforts are carried out through improving the quality of lecturers, developing a curriculum based on *Outcome Based Education* (OBE), and innovation in the learning process (Interview with the Head of LPMA INISMA Jambi Abdul Wahid, SH, M.Pd, 2025).

INISMA Jambi also provides a conducive academic environment by providing educational support facilities and establishing partnerships with various government agencies, the industrial sector, and other educational institutions. This collaboration is a strategic step to strengthen academic networks, improve the quality of research and community service, and open opportunities for students. Furthermore, the Muaro Jambi Islamic Institute continues to strive to become a modern, progressive, and nationally competitive Islamic

educational institution. This campus not only pays attention to a curriculum that is relevant to today's times but is also involved in a campus greening movement as a movement to care for nature (Interview with the Head of LPMA INISMA Jambi Abdul Wahid, SH, M.Pd, 2025).

In this context, INISMA Jambi, in developing a green campus, implemented the INISMA Green Innovation Center policy as a strategic response to the need for campus transformation into a sustainability-based higher education institution. This innovation center was born from the realization that universities are not only places for transferring knowledge, but also laboratories for implementing environmentally friendly solutions. The Green Innovation Center concept is seen as a concrete step to facilitate an integrated campus green movement (Interview with the Head of LPMA Abdul Wahid, SH, M.Pd INISMA Jambi, 2025).

Research reveals that the establishment of the Green Innovation Center stems from the need for a more integrated environmental research facility. Activities such as tree planting and campus waste banks can be consolidated through this innovation center, thereby increasing their effectiveness and impact. This aligns with the global trend of *green campus development*, which emphasizes the integration of research, education, and community service within a single sustainable system. The Green Innovation Center's basic concept places multidisciplinary collaboration as its primary foundation. INISMA Jambi offers various study programs with the potential to synergize in developing green solutions, ranging from education and economics to law and psychology. Through this collaboration, the innovation center focuses not only on technical environmental aspects but also on green values, ethics, and culture relevant to the character of Islamic institutions (Interview with the Head of Study Program at INISMA Jambi, 2025).

Field observations indicate that the Green Innovation Center is designed as a collaborative learning space that fosters student creativity. Co-working spaces, a green campus park, and an educational garden are part of the proposed facility concept to support research and the development of innovative, environmentally-based projects. The Green Innovation Center also serves as a hub for industry and the community through collaboration with local governments, local industries, and non-governmental organizations to develop environmental programs based on campus research. This innovation center can serve as an incubator for environmentally friendly projects such as waste management and the development of green MSMEs.

Research has found that curriculum integration is a crucial element in the Green Innovation Center concept. A *green literacy-based curriculum* encourages each study program to incorporate sustainability topics into its teaching. This concept aligns with the vision of Islamic education, which emphasizes humanity's role as caliphs in preserving the earth. Therefore, environmental values are not only conveyed theoretically but also internalized through hands-on practice at the innovation center. Data shows that student and faculty research activities have the potential to significantly increase through the existence of this innovation center. The Green Innovation Center can provide internal funding, project guidance, and sustainable research publications. This strengthens the scientific culture and improves the quality of campus research. With an organized research system, the resulting impact becomes more measurable and relevant to the needs of sustainable regional development. The research findings of INISMA Jambi lecturers on green campuses are as follows:



Figure 3. Research results of INISMA Jambi lecturers

Research findings indicate that green innovation at INISMA Jambi requires a strategic management approach. The Green Innovation Center's governance system is designed to involve the research coordinator, program developers, partnership division, and public education division. This structure ensures that all activities are planned and aligned with INISMA Jambi's green campus vision. Good management is crucial to ensuring that innovation programs are not fleeting but sustainable. The Green Innovation Center concept has significant potential to support the achievement of green campus indicators such as energy management, sustainable transportation, green open spaces, and waste management. The center serves as both a research laboratory and a catalyst for concrete action. Students have welcomed the planned innovation center. They believe the concept provides greater space for creativity, opportunities for scientific competitions, and the development of ecologically based work skills. Furthermore, students feel that their participation in green activities directly contributes to the campus environment, fostering a sense of ownership and ecological responsibility.

From a socio-cultural perspective, the discussion shows that the Green Innovation Center promotes the internalization of ecological values from an Islamic perspective. This concept links the principle of *rahmatan lil 'alamin* (*blessing for all the worlds*) with the practice of nature conservation. Studies on environmental ethics in Islam, environmental jurisprudence, and the sharia green economy are part of the educational program. This approach strengthens INISMA Jambi's identity as an Islamic university relevant to global issues.

Overall, the research and discussion conclude that the INISMA Green Innovation Center concept represents a comprehensive strategy to establish INISMA Jambi as an innovative, collaborative, and sustainable green campus. This concept focuses not only on the construction of physical facilities but also on strengthening a research culture, curriculum integration, strategic partnerships, and strengthening ecological Islamic values. Thus, the Green Innovation Center has the potential to become a driving force behind the green campus movement, with a broad impact on the academic community and the community.

What Strategies Can Be Implemented to Integrate *Green Spirituality* into Green Campus Policies and Practices in Jambi Province

Currently, the environment is always a major topic in national and international debates. This is due to the awareness that human behavior is also responsible for the phenomenon of natural changes and disasters that have occurred recently. Therefore, the public must be educated about environmental issues to face environmental challenges on this Earth (Asmanto, 2015). There are many environmental problems

currently in Indonesia and throughout the world. Waste remains a major problem. Flooding is then a second problem. The third rank includes water pollution such as lakes, rivers, and seas. More and more islands and cities around the world are sinking as a result of global warming. The fifth rank for air pollution is an annual subscription. Damage to marine ecosystems is ranked next. Followed by the difficulty of obtaining clean water. After that, forest damage is given a score of eight. Coastal abrasion is ranked ninth. In addition, the level of land pollution is ranked tenth (Ahad & Auliahadi, 2019).



Figure 4. Ten Major Environmental Problems in Indonesia

Wise management means adequate knowledge of the environment and the potential consequences of human interference. Wise management also means that people must be aware of and responsible for the survival of future generations. Education is one way to acquire this knowledge and awareness about environmental management. Therefore, preparing students to become active members of society in building a healthy world is a major challenge for teachers (Al-Anwari, 2014).

The reforestation program in Jambi Province has begun to be actively promoted in every region. In September 2023, the Governor of Jambi issued Circular Letter Number 1377/SE/DLH-3/2023 concerning anticipation of deteriorating air quality in Jambi Province. The Jambi Provincial Government recognizes that air quality caused by forest fires and air pollution must be monitored. Anticipation in maintaining the health of Jambi residents is encouraged to wear masks outside the home. This also triggered the equitable distribution of reforestation in several areas such as the Muaro Jambi temple site. This reforestation was carried out by 200 students from several universities in Jambi Province and was incorporated into the Ready for Environmental Awareness (Siap Darling) movement by the Bakti Lingkungan Djarum Foundation (BLDF). A total of 11,920 trees and shrubs were planted to reforest the Muaro Jambi National Cultural Heritage (KCBN) in Muaro Jambi Regency, Jambi Province (Maharani & Alexander, 2023).



Figure 5. Greening of the Muaro Jambi Temple KCBN in Muaro Jambi Regency through the Ready to Be Environmentally Aware (Darling) action of the Djarum Foundation (BLDF) Environmental Service (Maharani & Alexander, 2023)

At the higher education level, the greening program carried out by the State Islamic University of Sultan Thaha Saifuddin Jambi is being implemented more extensively. Officially, to facilitate the greening platform, the State Islamic University of Sultan Thaha Saifuddin Jambi created the official Green Sutha account <https://greensutha.uinjambi.ac.id/photo>. The State Islamic University of Sultan Thaha Saifuddin Jambi holds various events to implement greening on campus. This is based on the belief that awareness of caring for the environment and the universe is mandatory. The following is documentation of the Green Sutha program:



Figure 7. Documentation of efforts to maintain greenery in the environment of the Sultan Thaha Saifuddin Jambi State Islamic University (Green Sutha, 2023).

The above data demonstrates that religious interests also play a role in environmental conservation. A spiritual character that values environmental stewardship must be developed and harmonized through concrete actions. According to researchers, this constitutes a mental revolution in environmental protection. According to (Weis, 2011) Islamic spirituality advocates the significance of a resacralization of the universe as a replacement for the mechanized worldview that serves as the basic framework for environmental care through reforestation. Religion can reconstruct a new cosmology based on meaningful religious spiritual traditions and rich in natural wisdom. Religion, in turn, can provide vision, inspiration, and motivation for environmentalists to construct ethics. The motivation of all components of society, including educators and students, must be united within a framework of love for religion, which requires a love for nature. Thus, a mental revolution in environmental awareness will soon be implemented evenly.

Discussion

The strategy of integrating *green spirituality* into Jambi's green campus will result in a transformation that extends beyond the physical to the mental and spiritual dimensions of the academic community. When spiritual values become the foundation, sustainability will become part of the campus' character and culture. This transformation will transform the campus into an educational space that fosters ecologically conscious and morally upright individuals. Jambi holds great potential due to its religious local culture and close connection to nature. With the implementation of a systematic, comprehensive, and participatory strategy, a spirituality-based green campus can become a national model. This integration can affirm that higher education is a space for the birth of a generation that loves the earth as part of God's mandate (Ramli, 2022).

The study results show that the Green Spirituality approach is an important aspect in building ecological awareness in the Jambi Province higher education environment. This concept is not only interpreted as a form of concern for physical environmental conditions, but also as a value that can shape attitudes, ethical responsibilities, and institutional culture in managing resources sustainably. At the University of Jambi, the

implementation of Green Spirituality values is reflected in the Green Campus GreenMetric UNJA Lestari program which is realized through the development of green open spaces, greening the campus environment, resource management, energy efficiency, and increasing awareness of the academic community regarding the importance of protecting the environment. Meanwhile, UIN Sulthan Thaha Saifuddin Jambi applies sustainability values through strengthening campus culture based on Islamic values, concern for the environment, and the integration of ecological values in educational activities and community service. Unlike these two universities, INISMA Jambi developed the INISMA Green Innovation Center as a form of institutional commitment to encouraging the green campus movement through greening activities, environmental management, sustainability-based research, and strengthening Islamic values regarding human responsibility as *caliphs* in preserving the earth. Based on these findings, the success of implementing a sustainable campus is not only determined by the availability of green facilities or infrastructure, but is also influenced by changes in awareness, behavior, and commitment of the entire academic community.

In addition to strengthening environmental values, universities in Jambi Province have also begun digital transformation as an effort to improve the effectiveness of governance and academic services. The University of Jambi, through its i-LMS UNJA, has developed a digital learning system that supports online and *blended learning processes*, while UIN Sulthan Thaha Saifuddin Jambi has introduced SPIDOL SUTHA as a digital-based learning platform to support academic activities. The use of this technology contributes to increasing service efficiency, reducing the use of printed documents (*paperless campus*), accelerating administrative processes, and providing easy access to learning for students and lecturers. Meanwhile, INISMA Jambi has begun optimizing the use of information technology to support the development of academic services and university governance. The integration of Green Spirituality values and digital transformation shows that technology not only plays a role as a means of modernizing services, but can also be a strategy to support the efficient use of resources and accelerate the realization of a Smart Sustainable Campus oriented towards sustainability, innovation, and environmental awareness.

IMPLICATIONS RESEARCH

This study demonstrates that Green Spirituality holds significant implications for strengthening the implementation of Green Campus initiatives in higher education institutions. The application of spiritual and ecological values is evident in programs such as Green Sutha at UIN Sulthan Thaha Saifuddin Jambi, UNJA Lestari at the University of Jambi, and the Green Innovation Center at INISMA Jambi. These programs link environmental concern with education, environmental management, greening efforts, resource management, and the active participation of the academic community. Furthermore, the study indicates that digital transformation can facilitate the realization of a Smart Sustainable Campus through the digitalization of learning and administrative services, reduced paper usage, improved service efficiency, and more effective resource management. The integration of Green Spirituality and digital transformation highlights that campus sustainability requires not only technology and infrastructure but also the awareness, behavior, values, and commitment of the entire academic community.

LIMITATIONS RESEARCH

This study is limited in its geographical scope, as it was conducted at only three higher education institutions in Jambi Province: UIN Sulthan Thaha Saifuddin Jambi, Universitas Jambi, and INISMA Jambi. Consequently, the findings do not reflect the implementation of Green Spirituality and Smart Sustainable Campus concepts at institutions in other regions that possess different institutional and environmental

characteristics. Another limitation is the use of a qualitative approach, which did not quantitatively measure the impact of implementing Green Spirituality on changes in the ecological attitudes and behaviors of the academic community. Furthermore, the study did not provide quantitative measurements regarding the effectiveness of implementing Green Spirituality in achieving a sustainable campus; instead, the results emphasize an understanding of the practices, experiences, and conditions observed in the field.

FUTURE AND SUGGESTION RESEARCH

Future research is encouraged to broaden its scope by involving a larger number of higher education institutions, thereby allowing for a more extensive understanding of how Green Spirituality is applied in the development of sustainable campuses. Subsequent studies should also develop indicators to measure Green Spirituality and ecological behavior more systematically. Furthermore, future research is advised to employ quantitative or mixed-methods approaches to assess the effectiveness and impact of implementing Green Spirituality on the achievement of sustainable campus goals. Research efforts could also focus on integrating spiritual values, education, governance, environmental management, and digital transformation, enabling a more measurable and comprehensive analysis of the Smart Sustainable Campus concept.

CONCLUSION

This study demonstrates that the concept of Green Spirituality has been implemented in higher education institutions in Jambi Province through the integration of Islamic spiritual values with eco-tourism practices. This integration is manifested in initiatives such as the "Green Sutha" program at UIN Sulthan Thaha Saifuddin Jambi, "Unja Lestari" at the University of Jambi, and the Green Innovation Center alongside a green-literacy-based curriculum at INISMA Jambi. These efforts involve greening initiatives, environmental management, educational activities, and the active participation of the academic community, all grounded in the view of the environment as a sacred trust (*amanah*) that must be preserved. The findings suggest that Green Spirituality can serve as a viable approach to strengthening Green Campus policies and practices by linking spiritual, educational, and ecological dimensions. However, the study is limited by its geographical scope and a qualitative approach that did not quantitatively measure the impact of Green Spirituality implementation on behavioral changes or environmental attitudes within the campus community. Future research should expand the scope to include more higher education institutions, develop indicators to measure Green Spirituality and ecological behavior, and employ quantitative or mixed-methods approaches to assess the effectiveness and impact of these implementations on achieving a sustainable campus.

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REFERENCES

- Ahat, M., & Auliahadi, A. (2019). Islamisasi Suku Anak Dalam di Kabupaten Sarolangun Provinsi Jambi (2005–2013). *Khazanah: Jurnal Sejarah dan Kebudayaan Islam*, 9(18), 174–188. <https://doi.org/10.15548/khazanah.vi.237>
- Asmanto, E. (2015). Revitalisasi spiritualitas ekologi perspektif pendidikan Islam. *Tsaqafah*, 11(2), 333–354. <https://doi.org/10.21111/tsaqafah.v11i2.272>
- Becker, F. (2010). “Green spirituality”: Towards an ecological ethic in theological reflection and praxis [Master’s thesis, Stellenbosch University]. <http://hdl.handle.net/10019.1/5286>
- Camorrino, A. (2018). Green spirituality and physical culture: Extreme sports and the imagery of wilderness. *Societies*, 8(4), 96. <https://doi.org/10.3390/soc8040096>
- Chigbu, B. I., & Makapela, S. L. (2025). AI in education, sustainability, and the future of work: An integrative review of Industry 5.0, Education 5.0, and Work 5.0. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(4), 100645. <https://doi.org/10.1016/j.joitmc.2025.100645>
- de Moraes, P. A., Pisani, F., & Borin, J. F. (2026). SDGreen: A computational framework for advancing sustainable development goals in smart universities using IoT. *Internet of Things*, 38, 101952. <https://doi.org/10.1016/j.iot.2026.101952>
- Hutagalung, W. L. C., Ilman, D., Rinaldi, R., Viareco, H., Galih, I., Alfernando, O., Dwina, D. O., Kumalasari, D., Bahar, F. F., & Nurdin, A. (2025). Potensi reduksi timbulan limbah padat kampus Universitas Jambi. *Nata Palembang: Journal of Environmental Engineering Innovations*, 2(1), 22–29. <https://doi.org/10.38043/natapalemban.v2i1.6464>
- Karmilasari, V., Putri, D. S., & Faedlulloh, D. (2020). Strategi program eco-school dalam menghadirkan karakter peduli lingkungan. *Administratio: Jurnal Ilmiah Administrasi Publik dan Pembangunan*, 11(2), 129–139. <https://doi.org/10.23960/administratio.v11i2.165>
- Kisahwan, D., Komar, D., Roswinna, W., Winarno, A., & Hermana, D. (2025). E-HRM framework for sustainable performance in higher education. *Sustainable Futures*, 10, 101347. <https://doi.org/10.1016/j.sfr.2025.101347>
- Mukminin, A. (2014). Strategi pembentukan karakter peduli lingkungan di sekolah Adiwiyata Mandiri. *Ta’dib: Jurnal Pendidikan Islam*, 19(2), 227–252. <https://doi.org/10.19109/td.v19i02.16>
- Naglik, B., Kosmowska-Ceranowicz, B., Natkaniec-Nowak, L., Drzewicz, P., Dumańska-Słowik, M., Matusik, J., Wagner, M., Milovsky, R., Stach, P., & Szyszka, A. (2018). Fossilization history of fossil resin from Jambi Province (Sumatra, Indonesia) based on physico-chemical studies. *Minerals*, 8(3), 95. <https://doi.org/10.3390/min8030095>
- Priatmoko, S. (2019). The internalization of Wasathiyah values in inclusion madrasah: A case study of Integrated Madrasah Ibtida’iyah of Ar-Roihan Malang. *Al-Bidayah: Jurnal Pendidikan Dasar Islam*, 11(2), 358–378. <https://doi.org/10.14421/al-bidayah.v11i2.521>
- Ramli, S. (2021). Green spirituality: Environmental savings based on spiritual ecology. *Islamic Quarterly*, 65(2), 145–178.
- Ramli, S., Rahman, K. A., Muspawi, M., Sobri, M., Mustofa, A. M. Z., Hasani, S., & Sari, N. N. (2024). Eco-spiritual based green spirituality: A systematic literature review of environmentally conscious mental revolution in education. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, 10(4), 1732–1741. <https://doi.org/10.33394/jk.v10i4.13318>
- Sugiyono. (2019). *Metode penelitian pendidikan: Kuantitatif, kualitatif, kombinasi, R&D dan penelitian pendidikan*. Alfabeta.