



## GREEN SPIRITUALITY IN HIGHER EDUCATION: SUSTAINABLE GREEN CAMPUS TRANSFORMATION AT THE UNIVERSITY OF JAMBI

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### ABSTRACT

This study aims to see (1) How the concept of *Green Spirituality* is applied in higher education at the University of Jambi (2) To what extent the impact of sustainable green campus transformation on the environment, students, and the surrounding community. This study uses a descriptive qualitative approach to explore in depth the concept of *Green Spirituality* in the context of higher education and sustainable green campus transformation at the University of Jambi. Interviews were conducted with key informants who have direct involvement in the implementation of green spirituality values in the campus environment. Participatory observation was applied to directly observe sustainability practices with data analysis techniques in this study using an interactive model. The results of the study show that (1) The concept of *Green Spirituality* is applied at the University of Jambi through the Unja Lestari program which emphasizes the integration of spiritual, ecological, and social care values in all campus activities. This program encourages the academic community to view the environment as a trust from God that must be maintained through environmentally friendly behavior, such as reducing plastic waste, energy conservation, and greening the campus area (2) The impact of sustainable green campus transformation on the environment in Jambi shows a positive direction that includes ecological, social, economic, and academic aspects. A sustainable green campus also strengthens students' readiness for a green economy-based workforce. The ecological competencies they acquire are crucial assets in the modern job market.

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## 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).

While spirituality is not only related to an individual's relationship with God or the divine aspect, it also encompasses concern for the environment, fellow human beings, and the universe as a whole (Koehrsen, 2018). In this context, spirituality can be defined as an awareness of the interconnectedness of all things and a responsibility to maintain balance and harmony in the world (Yakin et al., 2021). Caring for the environment, respecting nature, and caring for the welfare of other living beings are part of a holistic spiritual practice (Hidayatullah, 2017). A spiritual approach to environmental conservation is an idea that emphasizes the importance of the inner connection between humans and nature (Saleh, 2014). This approach invites us to view nature not merely as a resource to be exploited, but as an entity with intrinsic and spiritual value (Lestari, 2021).

According to Weis (2011), the most fundamental environmental crisis today is the spiritual crisis experienced by modern humans. The damage caused to the earth by science, technology, and the capitalist economy is all rooted in humanity's spiritual crisis. This marginalization of spirituality has led humans to believe that all assets on earth are at their disposal without limits, reflecting the anthropocentric humanist paradigm. Within the context of Islamic law, environmental preservation and human responsibility towards nature have long been discussed. However, in various books of tafsir and fiqh (Islamic jurisprudence), environmental issues are only addressed in a generic context and not specifically as legally binding provisions. Classical jurisprudence has addressed these issues in separate chapters and not dedicated to them. This is understandable, as the context of the development of societal structures at that time did not yet address the environmental crisis that we face today (Effina & Mahyati, 2022).

The greening program in Jambi Province has begun to be actively promoted in every region. In September 2023, the Governor of Jambi issued Circular Letter No. 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. To protect the health of Jambi residents, wearing masks outside the home is recommended. Previously, higher education institutions in Jambi Province have taken appropriate campus greening measures. For example, in 2022, the University of Jambi joined the UI *Green Metric World Green University Ranking program* to participate in the management of a Sustainable Green Campus.

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.

Researchers recognize the importance of providing ideas for preserving the universe. This study detected similarities with previous research conducted by Lestari (2021), which found that through "go green" students were aware of maintaining a clean school environment, disposing of trash in the trash, and caring about the cleanliness of the school environment. Furthermore, research conducted by Koehrsen (2018) showed that religion can be realized in the transition to sustainability by being aware of a clean environment. Education experts are obliged to contribute ideas on *Green Spirituality* for the nation's future generations. Research conducted by Ramli et al. (2024) states that Green Spirituality as a *Guiding Principle* in building Eco-Spirituality combines spiritual understanding with respect and concern for nature. Green Spirituality teaches that all living things coexist. Connecting the application of eco-spiritual values in education is crucial. Schools can integrate environmental materials into various subjects and develop extracurricular activities that support environmental awareness, such as tree planting or recycling activities.

Based on a review of previous research, it can be seen that most studies still place the issue of environmental awareness and spirituality in a partial manner. While *go-green practices* impact student awareness of maintaining campus cleanliness, they have not yet deeply linked it to the spiritual dimension as the foundation of ecological values and awareness. This indicates the limitations of previous research in integrating religious values, spiritual awareness, and environmental education practices holistically and contextually.

## 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 a sustainable green campus at the University of Jambi. 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. 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.

## FINDINGS AND DISCUSSION

### **How the Concept of *Green Spirituality* is Applied in Higher Education 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.

In an interview with the Vice Rector for Student Affairs and Alumni, he stated that UNJA Lestari is not just a slogan, but a "long-term commitment to transforming campus culture." According to him, the biggest challenge is ensuring that all faculties, work units, and students share the same perception of the importance of sustainability. This demonstrates that cultural transformation is a strategic aspect that requires time and a sustained, persuasive approach.

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 1.** Improving the Quality of Green Open Spaces in the Campus Environment

In an interview with Freddy Ilfan, ST, MT, the head of Green Campus GreenMetric UNJA Lestari, he stated:

“The quality of green open space (RTH) is one of the main priorities in the implementation of the Green Campus GreenMetric UNJA Lestari Concept. This effort is carried out through rearranging vegetation, adding functional green areas, and revitalizing campus gardens to make them more environmentally friendly and comfortable for the academic community. According to the implementation team, the developed RTH not only functions as an aesthetic element, but also as an ecological educational space that supports conservation-based academic, research, and recreational activities. They emphasized that improving the quality of this RTH has had a real impact in reducing micro temperatures, improving air quality, and

strengthening UNJA's identity as a sustainability-oriented campus.” (Interview with Freddy Ilfan, ST, MT as the head of Green Campus GreenMetric UNJA Lestari)

"Furthermore, the UNJA GreenMetric Team stated that the implementation of the UNJA Lestari concept encourages collaboration across faculties and units in maintaining and utilizing green open spaces. They cited examples such as tree adoption programs, educational gardens, and spatial planning innovations that combine ecological principles with the needs of learning spaces. The resource person also emphasized that improving the quality of green open spaces is inseparable from the support of environmental monitoring technology, such as the use of air quality sensors and water-efficient irrigation systems, which are indicators of the GreenMetric assessment. Through these steps, UNJA hopes to maintain and improve its international GreenMetric ranking and make the campus a model for sustainable environmental development at the regional and national levels." (interview with Freddy Ilfan, ST, MT, Head of the Green Campus GreenMetric UNJA Lestari).

The interviews above reveal that UNJA GreenMetric administrators expressed positive feedback on campus greening and space management. The research also identified the energy sector as a key focus for UNJA Lestari. The use of LED lighting in lecture halls and public areas has reached over 80 percent. Solar panels have been installed on several buildings as a pilot project. However, interviews with campus facility technical staff indicated that maintenance of renewable energy equipment still faces technical and funding challenges.

One of the most advanced aspects is the digitization of academic and administrative services, which has significantly reduced paper usage. According to data from the Academic Bureau, paper use for administration has decreased by 60 percent in the past three years. Students also support this change because it facilitates quick and efficient access to academic documents. Transportation arrangements have also undergone transformation, including restrictions on motorized vehicle use in certain areas and the provision of bicycle lanes. However, campus bicycle use remains suboptimal. Interviews revealed that students cited security factors and the lack of dedicated bicycle lanes as contributing to their low interest in cycling (Interview with the Head of Security at the University of Jambi, 2025).

This research found that the University of Jambi actively collaborates with local governments, non-governmental organizations, and environmental communities. This collaboration includes tree-planting programs, conservation research, and sustainability seminars. This collaboration helps expand the impact of the UNJA Lestari movement to the surrounding community. From an academic perspective, the integration of an environmentally-based curriculum has begun to be implemented in several faculties, particularly the Faculty of Agriculture, Forestry, and Teacher Training. Interviewed lecturers stated that project-based learning is an effective method for instilling environmental awareness in students. Students are asked to design real-world solutions, ranging from waste management to clean energy innovations.

Despite significant progress, research shows that consistency in monitoring and evaluation still needs to be strengthened. Some programs performed well at the initial launch but experienced a decline in intensity over time. This underscores the need for a more rigorous and sustainable

monitoring mechanism. Based on data triangulation, the study concluded that UNJA Lestari's success depends heavily on leadership commitment and active student participation. Without the collaboration of these two key elements, the Green Campus program could potentially stagnate. Therefore, student involvement in environmental policy formulation is a crucial strategy going forward.

In an interview with one of the university's planning staff, he emphasized that "UNJA Lestari is a long-term investment whose results may not be visible now, but will be felt in the next ten to twenty years." This statement describes the futuristic vision that is the basis for developing a sustainable campus. Overall, the study shows that the University of Jambi has been on the right track towards a green campus based on GreenMetric. A number of indicators have shown significant improvement, although there is still homework that requires serious attention, especially in the aspects of infrastructure and changes in the behavior of the academic community.

The success of UNJA Lestari will not only be an institutional achievement but also has the potential to become a model for other universities in Indonesia, particularly in Sumatra. With planned management and collective commitment, UNJA can create a campus that is not only academically superior but also ecologically aware. This study confirms that the Green Campus GreenMetric UNJA Lestari concept is a systemic transformation that requires a comprehensive approach. Its implementation does not only rely on physical development, but also demands changes in the culture, mindset, and habits of all campus residents. If this transformation continues to be maintained, the University of Jambi can become a pioneer of sustainable campuses at the national level (Interview with the Dean of the Faculty of Teacher Training and Education, University of Jambi, Prof. Supian Ramli, 2025).

This research on the Green Campus concept of GreenMetric UNJA Lestari at the University of Jambi used a qualitative approach with a case study design. This approach was chosen because it gave researchers the freedom to explore in-depth information about the implementation of the green campus and understand the social, cultural, and policy dynamics behind the UNJA Lestari program. Data were obtained through three main techniques: direct observation on campus, in-depth interviews with stakeholders, and documentation studies of GreenMetric reports and university planning documents.

The observation process was conducted by visiting several strategic locations such as green open spaces, pedestrian paths, digital service centers, academic buildings, transportation areas, and waste management facilities. These observations focused on three aspects: the physical condition of the campus, the behavior of campus users in utilizing environmentally friendly facilities, and the consistency of sustainable programs between central and regional faculties. Researchers recorded visual findings and daily activities of the academic community to obtain an objective picture of the implementation of the green campus concept.

In-depth interviews were conducted with eight key informants selected using purposive sampling. The informants included the Vice Rector for Student Affairs, the Head of the UNJA GreenMetric Team, technical staff from campus facilities, lecturers involved in the environmental curriculum, and student representatives from several faculties. Interviews lasted 40–90 minutes

per session, with open-ended questions allowing informants to explain their views in detail. All interviews were audio-recorded, then transcribed and analyzed using thematic analysis techniques.

Documentation studies were used to strengthen field findings through a review of official university documents, GreenMetric annual reports, UNJA Lestari guidelines, environmental governance policies, and internal publications related to sustainability programs. These documents provide a historical overview and policy direction for the university in implementing a green campus. This enabled optimal data triangulation to ensure the accuracy and depth of the research findings.

Based on the research results, it can be concluded that the implementation of the Green Campus GreenMetric UNJA Lestari concept at the University of Jambi has shown significant progress in various aspects of sustainability governance, although several challenges remain to be overcome. The University of Jambi has succeeded in making UNJA Lestari the identity and direction of campus development through leadership commitment, policy integration, and student involvement in environmental activities. This concept addresses not only physical greening but also creates a more ecological change in academic culture.

The year-over-year increase in GreenMetric scores demonstrates that strategic initiatives such as digitizing services, reducing paper use, increasing green open space, and energy conservation are having a significant impact on campus sustainability. Synergy between university leadership, faculty, and students plays a crucial role in maintaining the sustainability of these programs. However, this success has not been evenly distributed across campuses, particularly at branch campuses that face limited green infrastructure.

Environmental awareness among university students shows positive progress, although it has not yet reached the ideal level. Many students understand the importance of a green campus, but its implementation still requires support from facilities and ongoing education. This aligns with interview findings, which indicate that behavioral change requires time and persuasive strategies to become ingrained in the culture.

Thus, the UNJA Lestari Green Campus GreenMetric concept can be seen as a systemic transformation at the University of Jambi. It focuses not only on achieving GreenMetric rankings but also on building a long-term foundation for a more sustainable, adaptive, and competitive campus at the national and global levels. If consistent implementation can be maintained, the University of Jambi has the potential to become a leading green campus model in Sumatra.

The results of this study provide several recommendations to strengthen the implementation of the Green Campus GreenMetric UNJA Lestari program at the University of Jambi. One key recommendation is the need to improve infrastructure capacity, particularly at regional campuses that still lag behind in providing green space, recycling facilities, and water management systems. This improvement is crucial to ensure all campuses meet equivalent sustainability standards and support a comprehensive GreenMetric ranking improvement.

Furthermore, universities need to strengthen long-term, program-based environmental education that actively involves students. Environmental campaigns should not be limited to occasional events; they must become a sustainable movement through student organizations,

environmental courses, and project-based learning activities. More systematic student engagement will help accelerate the behavioral changes needed to create a green campus culture.

The next recommendation is to increase external collaboration between universities and local governments, conservation agencies, and the industrial sector. This collaboration can open up opportunities for funding, technology transfer, and the development of environmental innovations that can strengthen UNJA Lestari. Furthermore, such collaboration can expand the impact of the green campus program to the surrounding communities.

### **To What Extent Does the Sustainable Green Campus Transformation Impact the Environment, Students, and the Surrounding Community?**

The transformation of a sustainable green campus in Jambi has demonstrated a marked shift in campus environmental management patterns, becoming more planned, systematic, and evidence-based. Universities have begun integrating sustainability principles into campus governance, such as the use of renewable energy, greening open areas, and reducing the use of environmentally unfriendly materials. These steps not only improve the campus's internal ecology but also positively impact the surrounding environment by reducing air pollution and improving the quality of green spaces. This green initiative fosters a healthy and comfortable educational ecosystem for the academic community. Improved air quality and microclimate within the campus area are indicators of the success of these efforts. Thus, the sustainable green campus has become a model for environmental management worthy of wider implementation. This effect reinforces Jambi's vision for low-carbon development.

The implementation of an integrated waste management system is a crucial aspect of Jambi's green campus transformation. Programs such as waste sorting, waste banks, organic composting, and the reduction of single-use plastics have significantly reduced the volume of waste ending up in landfills. Campuses that adopt this approach have been shown to reduce environmental burdens while raising awareness among the campus community for more environmentally friendly behavior. Increased student participation in recycling activities demonstrates a growing ecological cultural shift. The program's effectiveness is reflected in the reduction in residual waste and increased material reuse. Furthermore, the educational waste bank fosters the development of a small, circular economy ecosystem within the campus environment. This program significantly contributes to the local government's efforts to address waste issues. This transformation has become a driving force for change in the campus environment.

In addition to physical management, significant changes have occurred in the expansion of green open spaces (RTH), improving the quality of local biodiversity. Green campuses in Jambi have begun planting endemic trees, building educational gardens, and creating ecological corridors that serve as microhabitats for various types of flora and fauna. The presence of these green spaces not only enhances aesthetics but also lowers surface temperatures, mitigates the heat island effect, and enhances the comfort of academic activities. The biodiversity within the campus environment is an indicator of the success of this greening program. The campus RTH has become an outdoor learning space that encourages environmentally-based research. This transformation fosters an

emotional connection among campus residents to nature and ecology. The ecological effects also radiate to the surrounding residential areas, strengthening the campus's identity as an urban green space.

The green campus transformation also creates a strong social impact by increasing students' ecological awareness and literacy. Various programs, such as public environmental lectures, outdoor practicals, green volunteering, and living laboratories, directly engage students in sustainability initiatives. These changes in ecological behavior have proven sustainable and are passed on to their families and the surrounding community. The collective awareness that grows on campus becomes a driving force for environmentally-based social change. Student involvement in tree-planting movements and waste reduction campaigns creates a consistent culture of environmental awareness. The campus becomes an agent of change, contributing to improving Jambi's environmental quality. The implementation of these sustainability values strengthens students' character as a green generation. The ecological education process takes place in a more natural and applicable manner.

The transformation of a sustainable green campus has also had a significant impact on strengthening the culture of environmental research. The campus provides facilities such as research gardens, conservation laboratories, and environmental study centers that support interdisciplinary research. Students and faculty are encouraged to conduct studies relevant to local issues such as deforestation, water quality, and disaster mitigation. Increased research activity results in policy recommendations for local governments on environmental management. The campus becomes a source of knowledge capable of providing data-driven solutions to Jambi's ecological problems. These research activities strengthen the role of academics as key actors in sustainable development. Research outputs can serve as references for communities, non-governmental organizations, and the education sector. This transformation creates a more dynamic



**Figure 2.** Jambi University Laboratory Garden

The impact of the sustainable green campus transformation on the environment in Jambi shows a positive direction, encompassing ecological, social, economic, and academic aspects. Campuses are not only centers of learning but also models of sustainable practices that have long-term impacts on the surrounding community. The implementation of green policies strengthens environmental resilience to climate change and ecological degradation. Synergy between

campuses, the government, and the community is key to the success of this transformation. With continued strengthening of sustainability commitments, campuses in Jambi have the potential to become regional centers of environmental innovation. The resulting positive impacts also open up opportunities for broader collaboration across sectors. This transformation demonstrates that higher education can be a strategic actor in maintaining environmental sustainability. Consistent efforts will lead Jambi towards a stronger and more resilient green future.

## CONCLUSION

The research on Green Spirituality in Higher Education: Sustainable Green Campus Transformation in Jambi Province above can be concluded as follows:

1. The concept of *Green Spirituality* is implemented at the University of Jambi through **the** Unja Lestari program, which emphasizes the integration of spiritual, ecological, and social values into all campus activities. This program encourages the academic community to view the environment as a divine gift that must be protected through environmentally friendly behaviors, such as reducing plastic waste, conserving energy, and greening the campus area. Its implementation is seen through tree planting movements, managing green spaces, and cultivating ecological ethics in academic and non-academic activities. The University of Jambi also builds a culture of green spirituality by linking environmental awareness to students' religious and moral values. Through this approach, Unja Lestari focuses not only on the physical aspects of a green campus but also on shaping the ecological character of campus residents. All of these activities are strategic steps towards creating a sustainable educational ecosystem.
2. The impact of the sustainable green campus transformation on the environment in Jambi shows a positive direction, encompassing ecological, social, economic, and academic aspects. A sustainable green campus also strengthens students' readiness to face the green economy-based workforce. The ecological competencies they acquire are crucial assets in the modern employment sector. Many industries now demand workers who understand sustainability issues. Through green campus learning and practice, students become more competitive in the job market. They gain relevant experience, portfolios, and ecological awareness to meet industry demands.

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