

Capturing The Readiness of Atma Jaya Makassar University Toward Sustainable Campus

Kunradus Kampo

Accounting Department Universitas Atma Jaya Makassar

Jl. Tanjung Alang No. 23, Makassar

first_author@email.com¹⁾

ABSTRACT

The purpose of this study is to capture and reflect on the readiness of sustainable higher education through a green campus. The case study was conducted at Atma Jaya University Makassar (UAJM) using a qualitative descriptive method. The research data was obtained through observations on the policies listed in the Statute, the direction of development according to the Master Development Plan (RIP), Strategic Plan (Renstra), annual Operational Plan (Renop), and annual budget, as well as the current real conditions on campus according to the criteria. - Green campus criteria. The results show that although substantially all study programs at Atma Jaya Makassar University have adopted a sustainability curriculum and there have been scientific works on sustainability, overall Atma Jaya Makassar University is not ready to become a sustainable university because there are still many green campus criteria that have not been met.

Keywords: green campus, sustainable, university.

1. INTRODUCTION

The issue of sustainability has become a global concern that has attracted the attention of world leaders. Global warming is an increase in temperature on the earth's surface caused by the trapping of CO₂, CH₄, N₂O, and CFC gases in the atmosphere that must be addressed immediately because it is considered to endanger the sustainability of the universe. Some of the impacts that can be produced by global warming are an increase in the earth's temperature, climate change, sea level rise, ecological disturbances, and socio-political impacts.

The impact of global warming has also been felt in Indonesia. Several institutional studies, both from within and outside the country, show that the climate in Indonesia has changed since 1960, although scientific analysis and data are still limited (Supangat, 2013). Jabbour (2010) states that like other organizations, universities create social environmental impacts, for example, some universities produce expressive environmental impacts such as small towns (Alshuwaikhat and Abubakar, 2008).

Therefore, it is necessary to analyze how universities have contributed to sustainable development (Leal Filho, 1997). This contribution can occur in the context of education, research, counseling, and management of higher education administration (Alshuwaikhat and Abubakar, 2008; Jabbour, 2010).

The government as a policy maker in Indonesia has an agreement with other countries in the world to be able to play an active role in reducing the impact of global warming that occurs. One of the efforts made by the government is to invite the academic community to play an active role in efforts to reduce the impact of global warming that has occurred (KLHK, 2017).

As an effort to invite the academic community to reduce the impact of global warming, in 2013 the government established 5 (five) campuses in Indonesia as pilot campuses for the green campus program. The green campus program is one of the movements that have been carried out on various campuses in both developed and developing countries to help reduce the effects of global warming. The existence of the green campus program is expected to create awareness and concern for the campus community to participate and be responsible for reducing global warming. The green campus movement is all efforts to manage campus resources for sustainable use. Management of campus resources includes mindset, the behavior of the academic community, the learning process, facility management, use of resources, research, and community service.

The academic community is one element of society that has a strategic function in the management, preservation, and protection of the environment. Through tri-dharma activities, the academic community becomes agents of saving the environment by applying their knowledge in research and community service.

Many universities in Indonesia have actively participated in the green campus movement and in the context of sustainability, the University of Indonesia (UI) has assessed the UI GreenMetric 2021 based on three pillars; environmental, economic, and social. The indicators and assessment weights consist of: state and campus infrastructure (15%), energy and climate change (21%), waste management (18%), water use (10%), transportation (18%), and education and research (18 %). The results of the assessment show that the University of Indonesia ranks first, the University of Diponegoro ranks second, and the University of Gajah Mada ranks third.

The green campus movement is the foundation for the sustainability of higher education so it needs to be built and developed through tri-dharma activities, but on the other hand, higher education activities can harm the community and the surrounding environment through people, management, equipment, and facilities, as well as buildings used in universities. Some negative impacts such as pollution, water pollution, garbage, and the greenhouse effect pose a threat to the sustainability of universities because they are considered environmentally unfriendly. The problem is how to manage campus resources including mindset, the behavior of the academic community, learning process, facility management, use of resources, research, and community service as a portrait of higher education sustainability.

Based on the problems described previously, the objectives of this study are to (1) identify the policies, planning, and activities of the higher education tri dharma, (2) analyze the policies, planning, and activities of the higher education tri dharma according to green campus indicators, (3). Determine the direction of management intervention on a green campus as a portrait of university sustainability.

This research is important to do because university activities have an impact on a beautiful, comfortable, and safe social environment through the Green Campus so it is expected to boost the reputation of the university. The implementation of the concept of sustainability in universities is a tertiary intervention in the SDGs and can be a reputation promotion if the environmental management system is well designed and implemented by involving the entire university academic community.

2. THEORETICAL BASIS

Many Higher Education Institutions today can produce significant environmental and social impacts. This impact occurs because of the expressive circulation of people and vehicles as representatives of material consumption and development which is emphasized by complex activities, which can be considered as "small towns" (Alshuwaikhat and Abubakar, 2008).

Although some actions to reduce environmental and social impacts can be observed in some universities, a more complete understanding of how the main activities in teaching, research, service, and management can contribute towards a more sustainable campus is still lacking (Alshuwaikhat and Abubakar, 2008; Jabbour, 2010) and they face several challenges to

incorporation into the reality of their activities (Leal Filho, 1997). Thus, Lozano (2006a,b) asserts that in reality, universities face several obstacles to incorporating the concept of sustainable development in their routines, and making universities more sustainable requires the involvement of various stakeholders such as lecturers, management, and students in the process.

The United Nations (UN), recognized the important role that universities play in the success of sustainable development by launching the “Decade of Education Projects for Sustainable Development” in December 2002. This decade lasted from 2005 to 2014 and emphasized the indispensable role of education in achieving sustainable development, especially to improve social and environmental conditions (DESD-UN, 2010).

There are several frameworks to evaluate how universities have contributed to the theme. For example, in the Graphical Assessment of Sustainability in University (GASU) framework proposed by Lozano (2006a,b), the aim is to compare university progress on several sustainability variables that are easily visualized through graphical tools. Another sustainability framework is the Sustainability Tracking, Assessment & Rating Systems (STARS) which allows university executives to state and compare their performance in sustainability in a transparent manner. Roorda (2001) introduced the Auditing Instrument for Sustainability in Higher Education (AISHE), focusing on the dominant assessment of the incorporation of environmental dimensions in universities. And Saadatian et al. (2013) introduced the Campus Sustainability Assessment Framework (CSAF), following Malaysian conditions. Among these frameworks, the most relevant one is proposed by Alshuwaikhat and Abubakar (2008). Such a framework has been cited many times (on the ISI Web of Knowledge and Scopus) and was chosen because it was developed by researchers from developing countries. In addition, the framework includes not only the environmental dimension of sustainability but also social issues.

According to this framework, the sustainability of higher education is considered to depend on three main axes of action (Alshuwaikhat and Abubakar, 2008): a. The Higher Education Environment Management System (EMS) concerns the management of the practical environment on campus to reduce environmental impacts and for the development of a greener campus; b. Public Participation and Social Responsibility, regarding access to and external media partnerships with universities, services offered to the community, and managing equality and diversity on campus; c. Sustainability Teaching and Research: concerns learning and training on sustainability, as well as research and service offered to stakeholders in the area.

There are few studies on sustainability in India (Jain and Pant, 2010), although the country's universities are constantly transforming (Altbach, 2009). Jain and Pant (2010) examined the case at TERI University, concluding that only energy efficiency and water rationing practices were implemented effectively. The difficulty of sustainability action is also observed in Business Schools in the Asia-Pacific region (Naeem and Neal, 2012), and it is relevant to consider the importance of including sustainability issues in the community in universities (Saadatian et al., 2011).

However, Jabbour and Santos (2006) warn that organizations are not at the same level of sustainability. They tend to develop, generally into three stages. The study also considers that universities can be at three different levels of compliance with Alshuwaikhat and Abubakar (2008) sustainability framework: (1) non-existent compliance; (2) partial/ incomplete compliance; and (3) full compliance. Castro and Jabbour (2013) research evaluating the sustainability of universities in India found that universities in India have not fully followed the framework.

3. RESEARCH METHODS

This research is a qualitative descriptive study that captures and expresses green campus activities for academics in higher education in the context of sustainability. The research design targets the initiation of higher education sustainability by identifying green campus indicators that have been implemented through various university tri-dharma activities.

The research data was collected through the observation method with the documentation technique. Observations were made to obtain an overview of the basic policies and planning of higher education activities sourced from documents such as Statutes, Master Development Plans (RIP), Strategic Plans (RENSTRA), Operational Plans (RENOP), and university budgets. Observations are also carried out directly on the condition of the infrastructure and facilities at the university.

Analysis of research data using the triangulation method to describe a qualitative portrait of the sustainability of higher education using green campus indicators consisting of 1. Condition of Infrastructure and Facilities a. Environmental management and improvement (minimization of negative impacts of operations, pollution prevention, energy efficiency, resource conservation, environmental improvement, waste reduction, etc.). b. Green campus (buildings, transportation, environmental sustainability). 2. Sustainability Teaching and Research a. Curriculum and teaching b. Seminars, conferences, and workshops c. Research and Community Service 3. Public Participation and Social Responsibility a. Public participation (campus community, alumni association, partnership) b. Community services (public lectures, outreach, community projects, other services). c. Social justice (equity, caring, etc.).

The steps of data analysis were carried out as follows: 1. Observations are made on the Statute, RIP, RENSTRA, and university budget documents 2. Presentation and processing of data and interpretation of data. 3. Data analysis is carried out based on green campus criteria.

4. RESULT AND DISCUSSION

The research results are divided into two main groups namely UAJM Profile and UAJM values.

4.1. UAJM Profile

UAJM has 5 faculties and 9 undergraduate study programs and 1 master study program consisting of:

1. Faculty of Economics and Business:
 - a. Accounting Study Program
 - b. Management Study Program
2. Faculty of Law: Legal Studies Program
3. Faculty of Engineering:
 - a. Electrical Study Program
 - b. Mechanical Studies Program
 - c. Civil Engineering Study Program
4. Faculty of Information Technology:
 - a. Informatics Engineering Study Program
 - b. Information Systems Study Program
5. Faculty of Psychology: Psychology Study Program
6. Postgraduate: Master of Accounting

Study Program The Faculty of Economics, the Faculty of Law, the Faculty of Engineering, and the Faculty of Information Technology have their buildings. The Faculty of Psychology is still attached to the library building and the Postgraduate is still attached to the Head Office Building or the rectorate. All faculty buildings are two-story and the Head Office Building is six-story.

4.2. UAJM Campus Policy and Planning

UAJM campus policy and planning refers to the Statute, Master Development Plan (RIP), Strategic Plan (RENSTRA), and Operational Plan (RENOP) UAJM.

4.2.1 Statute UAJM 2021 Statues

Statutes: - Article 9: UAJM Values, Compassion – compassion: a virtue of a heart that always cares and is responsive to the needs of others and the environment. - Article 11 paragraph 1- curriculum; Education organized and managed by the university is based on a curriculum that is in accordance with: the vision, mission, and goals of the university; university values; rip univ.

4.2.2 Development Master Plan (RIP)

In the 2017–2036 RIP UAJM it is stated that the direction of UAJM development is divided into 2 10-year periods with a gradual development direction, namely:

1. The period 2017-2021 with the direction of developing into a university with healthy governance. The 2017-2021 period will become a healthy university with 8 standards of achievement indicators for the fulfillment of the national higher education standards.
2. The 2021-2026 period will become a very healthy university with achievement indicators exceeding the national standards of higher education, which are more than 8 standards.
3. The period 2027-2031 becomes a university with learning renewal with achievement indicators: the availability of academic policies and university research master plans; the academic community is highly motivated and proactive in the learning process and masters research methods, has experience in conducting research and real practice in the field.

The 2031-2036 period will lead to the development of learning with indicators of achievement of the development of scientific thinking patterns and evidence-based learning or scientific evidence; the academic community experienced the development and improvement of higher capabilities and competencies.

4.2.3 Strategic Plan (RENSTRA)

The direction of development according to the 2017-2036 RIP UAJM is revealed in 4 strategic plans: 2017-2021 UAJM becomes a university with healthy governance, 2022-2026 UAJM becomes a very healthy university, 2027-2031 UAJM becomes a university with learning renewal, In 2032-2036 UAJM becomes a university with learning development. The 2017-2021 Strategic Plan to become a healthy university means having the ability to manage higher education according to the National Higher Education Standards (SNP), which includes:

1. Education policy aims to improve the quality of education with 8 standards.
2. Policy in the field of research aims to increase the quantity and quality of research work with 8 standards.
3. Policies in the field of community service aim to increase the quantity and quality of service results to the community with 8 standards.

The Strategic Plan for 2022-2026 aims to become a very healthy university, meaning that UAJM can implement SNPT and be able to independently increase standards that exceed SNPT Program.

4.2.4 Budget

The 2019-2020 budget for the park is IDR 25,000,000 of the total budget of IDR 18,221,435,926 or 0.14% of the total budget. There is no budget post regarding drainage and water absorption. The 2021-2022 budget contains a garden and cleanliness budget item of IDR 45,000,000 where the total budget is IDR 19,413,239,500 or 0.23% of the total budget and there are no other budget items related to the development of a green campus.

4.3. Condition of Campus Infrastructure and Facilities

4.5.1 Infrastructure

1. **Campus road** The roads within the campus are quite good, only the roads in and out of the campus have not been designed properly so the roads are bumpy and can endanger two-wheeled riders. There is no pedestrian path yet. infrastructure such as gates and entrances and exits to the campus are still artistically inadequate and have not gone through good planning because the entrances and exits of the campus have been built twice but are still bumpy until now. Trees are planted on the side of the campus entrance, but now a parking lot is being built, meaning trees that have only been planted for a few months will soon be evicted because they are blocking the entrance to the parking area.
2. **Campus Drainage** There is no campus drainage design so during the rainy season almost the entire campus is inundated, even the multi-purpose hall/hall building is often submerged in water.
3. **Parking area.** The parking lot is quite spacious, it's just not well laid out. d. **Sports venues** in the open field are minimal, there is only one field for basketball and futsal. The condition of the field is apprehensive because during the rainy season the field is flooded so it cannot be used for sports activities. The sports field can only be used during the dry season and its condition is not well maintained.

4.5.2 Building

Buildings owned by the Atma Jaya Makassar University Campus a. **Head Office Building** All buildings have not been equipped with adequate security facilities (minimum fire extinguishers and no control and check for eligibility). Energy saving efforts, such as the use of energy-saving balloons, there is no campaign and socialization of energy saving. The basketball and futsal courts are not well maintained and are too low so they are flooded in the rainy season.

The campus entrance and exit facilities are not wide enough, bumpy due to the uneven ground conditions even though the paving blocks have been dismantled and reassembled, the outside of the campus exit road was previously planted with trees but now the trees will be removed because a temporary parking lot is being built along the path. off-campus.

4.5.3 Green Area

The green area is still quite wide because about 30% of the campus land is still green. After all, it is overgrown with weeds with various types of trees. However, the green areas have not been well laid out and cared for, for example creating a special space for trees, a special space for landscaping with flowers and ornamental plants, and a special space for grass with a certain tree interlude.

4.5.4 Drainage

The condition of the campus which is still low and adjacent to the canal triggers the occurrence of puddles on campus when it rains heavily and coincides with the tide of seawater making the canal full so that it does not accommodate the flow of water from the campus. Moreover, the campus has not made drainage or special water catchment areas to prevent puddles during the rainy season.

4.4. Curriculum and Scientific Activities

Atma Jaya Makassar University has implemented the Independent Learning Campus Curriculum (MBKM) since the First Semester of 2021-2022. The results of observations regarding the curriculum content of each study program obtained information that the sustainability program had been accommodated by the study program through various names of courses included in the curriculum.

1. Accounting Study Program: Sustainability Accounting.
2. Management Study Program: Sustainable Business Management.
3. Legal Studies Program: Environmental Law.

4. Electrical Engineering Study Program: Installation and Lighting Engineering, Environmental Management, and Renewable Energy.\
5. Civil Engineering Study Program: Water Resources Development, Environmental Management, Environmental Economics, Installation and Lighting Engineering.
6. Mechanical Engineering Study Program: Environmental Management, Installation and Lighting Engineering, Renewable Energy.
7. Information Engineering Study Program: Smart City Technology, Cloud Technology.
8. Information Systems Study Program: Digital Marketing and Social Media Strategy, E-Commerce Design.
9. Psychology Study Program; Environmental Management, Environmental Psychology.
10. Master's Degree Program in Accounting: Contemporary Issues in Management Accounting.

Scientific studies regarding green campus activities are found in research or research activities, seminars, workshops, and services to the community through community service activities. The results of the study indicate that several research titles have been carried out by lecturers:

1. Application of Image Subtraction in Detecting Garbage at Canal Doors.
2. The role of social media and Qris technology as a means of developing sustainable tourism business in Betysum Outbound Management.
3. Reflecting the Readiness of Sustainable Higher Education Through Green Campuses.
4. Credit Union Management's Perceptions and Interests on Sustainable Development and Sustainable Reporting.
5. Classification Model of Organic Waste Into Biomass Raw Material Using Deep Learning Method.
6. Planning of Solar Cells as a Source of Electrical Energy in the Sapak'Bayo-Bayo Water Installation.
7. Potential Liquid Waste in WTP Karua TPA as the Main Material for POC Production.
8. Study of Sa'pak Bayo-Bayo Water as Raw Water for Clean Water Facilities Service to the community through community service activities.

There are several titles of community service carried out by lecturers:

1. Utilization of Small-Scale Enumerators for Waste Processing at the Sapak' Bayo-Bayo Tourism Object.
2. Provision of Solar Cell-Based Power Sources at the Church of St. Yohanis, Hamlet of Sangkuang Lembang Dewata, Mappak District, Tana Toraja Regency.
3. Training on Using Phocell to Control Lights in the Catholic Church of St. Yohanis Sangkuang.
4. Solar Panel Control at Sangkuang Catholic Church Station.
5. Construction of Biogas Inlet, Dome, and Outlet in Derivative Village, Kec. Sangalla Kab. Tana Toraja.
6. Integration of Planning for Water Purification Installations and Water Distribution Networks in PZKKN-SBT.
7. Survey of Livestock Waste Treatment at Bolu Rante Pao Market, North Toraja.
8. Installation of Biogas Channels at Installations in Derivative Village, Sangalla Tator District.
9. Construction of a Wall of a Biogas Reactor with a Capacity of 4 Cubic Meters at a Biogas Installation in Derivative Village, Sangalla Tator.
10. Planning the Use of Solar Sell for the Needs of Water Purification Installations and Distribution Networks in PZKKN-SBT.
11. Planning of Water Purification Installation and Water Distribution Network for PZKKN-SBT Church.

12. Planning of Water Purification Installation and Water Distribution Network for Wisma Aula in PZKKN-SBT.

Research activities and community service are still dominantly carried out by lecturers even though they involve students but student involvement is still very minimal. There are also several results of student thesis research concerning sustainability, but the exact data has not been obtained.

4.5. Discussion

4.5.1 UAJM Campus Policy and Planning

The 2021 UAJM Statute contains the mission and underlying values, one of which is the value of compassion (compassion). Furthermore, in the 2017-2036 RIP UAJM it is stated that the goal of establishing UAJM is to provide opportunities for the younger generation to continue their studies in higher education so that they can develop themselves and strive to advance public welfare and educate the nation's life which is imbued with Christian values.

In this case, the RIP describes the value of compassion through the ideals of the establishment of UAJM, but the 2017-2021 UAJM Strategic Plan and the 2022-2026 UAJM Strategic Plan do not explicitly include programs and measurable achievement indicators regarding the value of compassion depicted in campus activities.

The objectives of the UAJM for the 5 years as determined by the 2017-2021 UAJM RENSTRA are: "to become a university with healthy governance" and the objectives of the 2022-2026 UAJM RENSTRA are: "to be a very healthy university" should be stated in the following objectives: short term every year through an operational plan (RENOPP) and needs to be supported by the funds contained in the annual Expenditure Budget.

There are several programs contained in the 2022-2026 UAJM RENSTRA regarding the implementation and internalization of the value of compassion (compassion):

1. Fulfillment of adequacy, convenience, smoothness, security, and stability of network/electricity installation, internet (WiFi), telephone and airphone, clean water, drainage, and renovation of pedestrian bridges in canals.
2. Arrangement of cleanliness, beauty, and aesthetics of the campus environment: Tanjung Alang such as vehicle parking lots and traffic signs, campus map maps, installation of banners, parks, and trees, cleanliness, and garbage.

From the observations on the UAJM RENOP, it seems that it has not been designed systematically and integrated into the faculties and study programs. Likewise yet periodic evaluation of the achievement of the indicators is carried out. In terms of financial support through the budget, it is also still very minimal and only includes the garden and cleanliness budget posts.

4.5.2 Campus Infrastructure and Facilities Development

The concept of sustainability of the Triple Bottom Line (3P) from John Elkington (1997), namely: economy (profit), environment (planet), and social (people) is the basis for developing a green campus. The sustainability of higher education is considered to depend on three main axes of action (Alshuwaikhat and Abubakar, 2008): University Environmental Management System (EMS), concerning environmental management practices on campus to reduce environmental impact and the development of greener campuses; public participation and social responsibility, regarding access to and external media partnerships with universities, services offered to the community and managing equality and diversity on campus; sustainability teaching and research: concerns learning and training on sustainability, as well as research and service offered to stakeholders in the area.

The construction of infrastructures such as gates and campus entrances and exits, arrangement of canteens, sports fields, and campus parks should consider artistic aspects and go

through good planning because they show a picture of the character and impression of a green campus that will have a long-term impact in the eyes of stakeholders. Campus buildings and equipment need to minimize the negative impacts that can trigger global warming by seeking economic use, creating comfort and safety, and supporting the creation of a beautiful environment.

Construction of drainage and water infiltration to prevent puddles during the rainy season, provision of security facilities such as adequate fire extinguishers in every building, efforts to save electrical energy, reduce paper use and maintain cleanliness, arrangement of sports fields, canteens, parks, and the green area is a form of implementation of the activities of the green campus. The development of a green campus does not only include operational activities but also requires various long-term programs such as; curriculum support, seminars, workshops, research, and community service.

Substantially all study programs have adopted sustainability in their curriculum. Likewise, research and community service have adapted the sustainability program although it is still limited in number. However, because the green campus is a movement, it needs broad support from the entire academic community. Lozano (2006a,b) asserts that in reality, universities face several obstacles to incorporating the concept of sustainable development in their routines, and making universities more sustainable requires the involvement of various stakeholders such as lecturers, management, and students in the process.

The green campus movement is an effort to manage resources including mindset, the behavior of the academic community, the learning process, facility management, use of resources, research, and community service. The involvement of the academic community as one of the elements of society has a strategic function in efforts to manage, preserve and protect the environment. The academic community becomes agents of saving the environment by applying their knowledge in research and community service.

The aspect of compassion for the community is still incidental and cooperates with alumni bonds. The form of compassion which is social responsibility is carried out through social service activities in the form of distributing basic needs to the community. However, these activities have not been part of the Atma Jaya Makassar University RENSTRA and RENOP programs which should be reflected in the annual budget.

5. CONCLUSION

This study aims to capture the readiness for sustainable higher education through a green campus. Based on the results of observations regarding the fulfillment of the green campus criteria, the general conclusion is that UAJM is still not ready to become a sustainable tertiary institution even though the curriculum of all study programs seems to be ready to implement sustainable learning. There are several reasons why UAJM is still not ready to become a sustainable university because there are still many criteria for a green campus that have not been met:

1. The campus policies contained in the 2021 UAJM Statute regarding the vision based on the virtues of UAJM in particular about the value of compassion have not been strategically planned and programmed in real terms in the 2017-2021 and 2022-2026 UAJM RENSTRA even though it is in the 2022-2020 UAJM RIP. 2026 already contains the direction of sustainable development.
2. Funding support for green campus programs through the budget is still very low with only one budget item regarding parks and cleanliness, only 0.2% of the total annual budget, with budget realizations that are also minimal.
3. The condition of campus infrastructure and facilities, roads, buildings, and other facilities that have received less attention to be managed and maintained, have not met security, and comfort and the parks have not been properly and beautifully arranged.
4. There is no culture of the academic community that shows that the green campus is a massive joint movement and demands the involvement of all parties through real

activities such as saving electrical energy, reducing paper use, maintaining cleanliness, and using symbols and attributes that lead to sustainable higher education.

5. Scientific studies such as seminars and workshops on green campuses or sustainability are rarely carried out, except for seminars on research results and community service. Sixth, the participation of stakeholders from outside the campus has not been programmed in the Strategic Plan and Renop, social responsibility has so far been carried out only because of cooperation with alumni associations.

The research has implications for the design of an environmental management system, which includes: policies, planning, and the construction of a green campus as the responsibility of universities in ensuring sustainability through various campus activities, for example, research on the use of solar cells on campuses that are environmentally friendly and economical. energy and other studies, especially for the welfare of campus residents and the community.

This study has limitations stemming from the limitations of obtaining data on policies, planning, budgets, and scientific works which are important data in analyzing research results. Another limitation was not being able to conduct interviews because the respondents who were originally targeted did not understand the concept of a green campus and the concept of sustainability.

Suggestions for future research so that researchers can design an environmental management system that integrates the Statute, RIP, RENSTRA, RENOP, and Budget to prepare sustainable universities. Research can also be developed, for example analyzing the benefits and costs of using solar cells on the UAJM campus.

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