

Optimizing University Social Responsibility for a Sustainable Education Ecosystem: A CESI-Based Case Study of Udayana University

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ABSTRACT

Universities have a strategic role not only as educational institutions, but also as actors that contribute to the development of cultural, social, and environmental spaces in the surrounding areas. This research aims to explore how the Cultural Ecosystem Services in University (CESI) framework is used to understand University Social Responsibility (USR) practices at Udayana University and examines university social responsibility at the institutional level using the CESI framework. This research employs a qualitative approach, using participant observation combined with direct observation, document analysis, and secondary data analysis collected during 2018–2022. The research focuses on three main dimensions, namely economic value, cultural value, and environmental value. The research results indicate that Udayana University strengthens interactions among campus spaces, cultural practices, and public participation through certified internship programs, community service, cultural preservation, and green campus initiatives. These findings confirm that CESI is a relevant analytical framework for understanding the role of universities in local context-based sustainable development.

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1. INTRODUCTION

Universities should not only serve as academic institutions but also be strategic participants in the development of sustainable education. UNESCO has proposed the concept of building sustainable education, namely *University Social Responsibility* (USR). According to UNESCO's definition, USR emphasizes that higher education has moral and social responsibilities and is committed to fostering social justice, social solidarity, and sustainable development. Universities should function as knowledge centers and act as promoters of social change, actively responding to challenges of social inequality and the development needs of the surrounding environment, and work to build a sustainable educational ecosystem (Regional Centre for Higher Education in Latin America and the Caribbean and UNESCO, 1998; Kiezel et al., 2021).

The implementation of USR at universities encompasses various programs that strengthen institutional-community ties while simultaneously building a sustainable educational ecosystem. Understanding and evaluating the role of USR is crucial for identifying how universities can make a more optimal contribution to sustainable development. Research from European and UK campuses indicates that implementing USR strengthens the relationship between universities and their surrounding communities (Peicheva, 2019). This is achieved through the development of a sustainability-based curriculum, active student participation in social activities, equality-oriented policies, sustainable environmental management, and the creation of a sustainable educational ecosystem.

The concept of a sustainable education ecosystem highlights the importance of synergy among universities, communities, stakeholders, and the surrounding environment to create an inclusive, sustainability-oriented learning system (Sterling, 2021; Bridwell-Mitchell et al., 2023). Indonesia, a country with rich cultural diversity and abundant natural resources, has significant potential to develop its cultural values through an integrated approach to sustainable education. In implementing a sustainable education ecosystem, Indonesia has the concept of the "Tri Dharma" of higher education, which serves as an integrative basis for science, development, and community service, and holds that universities are responsible as agents of change and community empowerment (Fitriana et al., 2021).

In this context, it is essential to understand how universities in Indonesia are developing sustainable education ecosystems to address global challenges through a contextual approach. One university with a strategic location is Udayana University (UNUD) in Bali, a region renowned globally for its rich culture and tourism (Sulaksana et al., 2024). Founded on September 29, 1962, as the first and oldest university in Bali Province, it was initially a branch of Airlangga University in 1959. Since then, it has played a significant role in advancing science, technology, and the arts in eastern Indonesia (Pramartha and Mimba, 2020; Universitas Udayana, 2021; Lesmana, 2016). This uniqueness makes Udayana University an ideal example for analysis. This is due to its supportive environment for academic activities, scientific development, research, and cultural preservation.

Through the Cultural Ecosystem Service Innovation (CESI) approach, Udayana University can explore and integrate its potential to provide educational and cultural ecosystem services, including local wisdom values, public participation, and economic and cultural development strategies. CESI emphasizes cultural and environmental values as the foundation for sustainable education development (Yan, 2021; Yan and Wu, 2024; Yan et al., 2019). In this role, Udayana University acts not only as an educational institution but also as a guardian and initiator of cultural services that directly impact the Balinese community. This concept helps to understand how Udayana University can optimize its contribution to strengthening the sustainable education ecosystem, primarily through its USR programs, such as the Community

Empowerment Community Service Program (KKN-PM), internship program, and other USR programs, as a form of implementing social responsibility that directly contributes to the development of a sustainable education ecosystem. This study examines university social responsibility at the institutional level using the CESI framework. Analyses at the level of student engagement are beyond the scope of this paper.

This research has two main questions:

1. What environmental and cultural potentials and values of Udayana University can be analyzed using the CESI Framework?
2. How can the contribution of Udayana University's USR Program be optimized to support the development of a sustainable education ecosystem?

Using the keywords "university social responsibility," "sustainable education ecosystem," "Udayana University," and "CESI framework" as the primary keywords, this research aims to enhance the academic discussion on the strategic role of universities in achieving real change through sustainable, culturally based approaches, primarily through the implementation of USR. In addition, this research aims to use the CESI framework to describe the potential and strategic value of Udayana University and to identify and optimize the USR program's contribution to the development of a sustainable education ecosystem.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. University Social Responsibility, Education Systems, and Sustainable Development.

University Social Responsibility (USR) refers to a university's policy and strategy for fulfilling its educational, social, and research roles through active engagement with the surrounding community. USR evolved from the concept of Corporate Social Responsibility (CSR). The primary difference lies in their focus: USR emphasizes the social responsibility of educational institutions, whereas CSR focuses on corporate social responsibility within the business context (Sung et al., 2022).

In general, USR encompasses four main pillars. First, organizational management requires that universities be governed in a participatory and inclusive manner, fostering a fair educational environment that supports social development across all groups. Second, universities have a responsibility to integrate ethical, sustainable, and social values into their curriculum so that students not only possess academic competence and cognitive knowledge but also develop social and environmental awareness. Third, research and knowledge production encourage universities to conduct relevant research that addresses society's real needs. Fourth, community engagement involves communities actively supporting the development of educational activities (Huang and Do, 2021; Wigmore and Ruiz, 2012). USR is not merely a trend but a strategic element within a university's sustainability strategy for the execution of its core functions.

In Indonesia, the *Tri Dharma Perguruan Tinggi*, or *Tri Dharma Higher Education*, serves as the primary framework for the responsibilities of higher education institutions, encompassing education and teaching to produce intelligent, competent, and character-driven graduates; scientific research and development; and community service as a tangible contribution to public welfare. The *Tri Dharma* emphasizes that universities are not only learning spaces but also agents of social and environmental development at various scales (Fitriana et al., 2021). Meanwhile, the Balinese people adhere to the *Tri Hita Karana* philosophy of life, which encompasses harmony between humans and the Divine (*Parahyangan*), among fellow humans (*Pawongan*), and with nature (*Palemahan*) (Mayoni et al., 2023). Although originating from different domains, the *Tri Dharma* of the education system and the *Tri Hita Karana* of

culture and spirituality both prioritize social responsibility and balance in life. This interconnectedness is evident in the practice of university social responsibility (USR). For instance, when a university in Bali organizes an environmental conservation program rooted in local wisdom, such as reforestation based on *Tri Hita Karana*, the institution is carrying out community service through the Tri Dharma while simultaneously applying USR principles contextualized to local cultural values.

USR research in Indonesia has been widely discussed. Muhammadiyah University of Yogyakarta implemented community empowerment programs, including waste banks, pepper-cultivation counseling, and waste-management initiatives supported by education and technology, during the pandemic, involving both students and lecturers (Rosilawati et al., 2022). IPB University has developed the innovative Suritech (a palm oil transport machine) and a community livestock school to increase the productivity and independence of livestock farmers, thereby strengthening the local economy through agriculture and technology. UIN Syarif Hidayatullah Jakarta has implemented community service programs to enhance the quality of life by fostering moral values, ethics, spirituality, and social service (Atiqah, 2019). From these various programs, it can be concluded that the main objectives of USR include empowering and improving community welfare, implementing the Tri Dharma Perguruan Tinggi, strengthening ethics and morals, contributing to sustainable development, and involving all internal and external stakeholders to achieve the university's social and moral responsibilities to the community (Leniwati et al., 2022).

To advance university social responsibility, universities must have a robust education system aligned with UNESCO's vision for Sustainable Development Goal (SDG) 4, which aims to ensure inclusive and equitable quality education and to support lifelong learning opportunities for all (Severino-González et al., 2025). This vision aligns with the goals of Education for Sustainable Development (ESD). This educational approach aims to equip students with the knowledge, skills, values, and ethics needed to address the challenges of our time. ESD encourages students to think critically, act responsibly, and become socially and environmentally conscious individuals. It is not limited to formal education but also integrates life values into the learning process (Adipat and Chotikapanich, 2022; Perwitasari et al., 2023).

Recognizing ESD and creating a high-quality educational environment begins with individuals. As individuals acquire knowledge, they have a responsibility to positively impact their environment, starting with their immediate circle of friends, family, and school, and extending to society, the nation, and the world (Vioreza, 2023; Deutzkens et al., 2022; Ferguson et al., 2022). Therefore, achieving the goals of university social responsibility (USR) requires a sustainable and adaptable education system that can respond to changing times. The fourth Sustainable Development Goal, which emphasizes inclusive and quality education, is closely related to the concept of USR. USR represents the university's concrete contribution to sustainable development through programs such as community service, training, empowerment, and community literacy enhancement.

2.2. Sustainable Education Ecosystem

A sustainable education ecosystem is an education system that integrates social, economic, environmental, and community aspects in a sustainable manner, where educational actors, structures, and processes are interconnected to support and create a quality, inclusive, and adaptive learning ecosystem for long-term change (OECD, 2025; Reid and Scott, 2006). The term sustainable education ecosystem emphasizes the integration of education with social, economic, environmental, and community dimensions to ensure

sustainable educational development. This concept combines two main ideas: sustainable education and the education ecosystem.

Sustainable education emphasizes that education is not only about managing and transmitting knowledge but also about fostering social, ethical, and environmental awareness. This aims to ensure that future generations can address global challenges and changes in a sustainable manner (Fadееva and Mochizuki, 2010). An education ecosystem is an education system that combines various aspects, namely actors, structures, and processes that interact and are integrated to produce quality, inclusive, and sustainable learning (OECD, 2025).

These two concepts are interrelated within the Education for Sustainable Development (ESD) framework, in which individuals and groups can integrate social, economic, and environmental aspects into learning (UNESCO, 2020). This approach emphasizes systems thinking, namely, understanding cause-and-effect relationships, so that the long-term impact of each educational decision can be identified and analyzed. Referring to Sterling (2021), continuing education must be viewed systematically, with all elements interconnected and contributing to the formation of individuals and groups that produce critical, caring, and ethical perspectives.

In its implementation, building sustainable education requires a healthy ecosystem that not only focuses on the curriculum but also integrates the university with its environment and real practices. Universities serve as agents that connect to resources, the environment, and the community (Aleixo et al., 2018; Žalėnienė & Pereira, 2021). A sustainable education ecosystem supports continuous learning processes that are integrated with local and global values, benefiting both individuals and communities, and encouraging the application of knowledge in real-world solutions to social, environmental, and economic challenges.

2.3. Culture Ecosystem Service Innovation (CESI)

Culture Ecosystem Service Innovation (CESI) is a concept that integrates cultural ecosystem services to generate sustainable societal value. Figure 1 shows that CESI emphasizes integrating local knowledge with academic education through cooperation, collaboration, and community participation, taking into account cultural and environmental contexts. This goal is to build a holistic, relevant, and contextual ecosystem that encourages individuals to care about the condition of their surroundings, environmental conservation, and social sustainability (Yan, 2021).

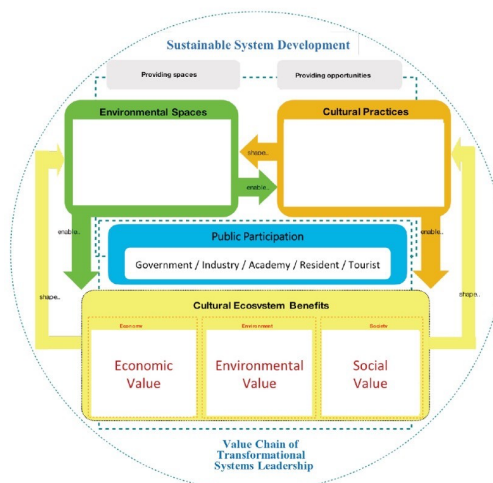


Figure 1. Cultural Ecosystem Service Innovation Framework

Source: 2022 Min-Ren Yan

CESI cannot stand alone; rather, it is the result of integrating four main concepts: Cultural Ecosystem Services (CES), Cultural Service Innovation (CSI), Corporate Social Responsibility (CSR), and Creating Shared Value (CSV). CES is an approach to the non-material services that nature provides to humans, grounded in ecology and culture. CES plays a role in ensuring that interactions between humans and nature can produce positive cultural and social benefits. CSI is a service approach that centers on cultural values and human needs, employing a creative and strategic approach to developing culture-based service innovations, with a focus on creativity and quality of life with a focus on creativity and quality of life, serving as a mechanism to transform cultural ecosystem values into innovative services and experiential practices (Yan et al., 2019; Yan and Wu, 2020).

Meanwhile, CSR is an approach that demonstrates a company's commitment to its social responsibility by considering the social impact on the surrounding environment. CSR focuses on social activities beyond business and emphasizes the foundation of social ethics, moral values, and corporate responsibility. CSV is a transformational approach that integrates social and economic values into business strategy. This concept was developed by Porter and Kramer, who emphasized that companies can create shared value by increasing the value of products that can directly contribute to social welfare (Porter and Kramer, 2006). This aims to create sustainability and balance between the economy and society in a region. These four components interact and are integrated within the CESI framework to form an innovative, structured, sustainable, and holistic approach to designing and optimizing the management of cultural ecosystems (Yang and Yan, 2020).

The CESI framework has been actively implemented in Taipei City, Taiwan, as a community-participation-based sustainable urban development strategy. One form of implementation is the development of five urban eco-museum zones, including the Beitou area with its hot spring cultural heritage; Dadaocheng as a center for commerce, history, and cultural activities; Bangka (Wanhua) as a historical area; North Taiwan as a space for cultural and artistic expression; and South Taiwan, which includes National Taiwan University as a center for education and a learning community (Yan and Wu, 2024). Meanwhile, in the Kaohsiung City Dome, the CESI framework has also been implemented through the establishment of a cultural ecosystem that encourages sustainable interactions between people and the urban environment. Routine and varied cultural activities can foster an inclusive social ecosystem, enabling interactions across community groups. In this context, CESI serves as a bridge between economic value and community needs through a shared value approach, which is not only profit-oriented but also considers social and cultural impacts. Concrete implementation is evident in the management of community-friendly programs, price adjustments for local activities involving schools and universities, and the promotion of local culture at national and international events (Yan et al., 2019).

In the context of this research, CESI offers a more explicit, contextual analytical framework for understanding USR than other frameworks, as it integrates cultural, educational, ecological, environmental, and community values. CSR and CSV emphasize social or economic contributions, while Triple Helix focuses on institutional collaboration. The Triple Helix concept is an analytical model that links universities, industry, and government to create a dynamic innovation environment in which each actor plays a dual role in producing innovation through complex, continuously evolving collaboration (Etzkowitz and Leydesdorff, 2000). CESI positions universities as a bridge between knowledge, society, and cultural values that shape more holistic USR practices. The CESI framework is more appropriate for analyzing how Udayana University can interact with students, society, and surrounding communities to

produce cultural and educational ecosystem services that align with the broader objectives of USR and support a sustainable form of USR.

3. METHOD

This research employs a descriptive qualitative case study at Udayana University, Bali, Indonesia. Data were collected through direct and participant observation, document analysis, and secondary data sources, including statistics, internal meeting records, and organizational meeting records (**Table 1**). Observations were conducted during 2018–2022, the period when the author was a student. During these four years, the researchers were directly involved in various activities, including community service programs (KKN) and other student programs organized by the university, its faculties, and student organizations at the university and faculty association levels. This involvement provided contextual understanding of cultural practices, social dynamics, and patterns of student and community participation.

Observations were conducted through field observations of various student and university activities. Specifically, the activities observed included: Community Service Program activities in 2021; internal meetings and university-level BEM program meetings in 2021; direct participation in several BEM activities in 2018–2019; student activity unit events during 2018–2020; and official university activities such as the Annual Graduation, Professor Inauguration, Udayana University Anniversary (*Dies Natalis*), as well as social services organized by BEM, the Faculty of Humanities, and the Student Representative Council. Additionally, the “One Day to Serve” program organized by BEM in 2018 was observed. Observations focused on public participation, cultural practices, social interactions, and student engagement with the community. All observations were systematically recorded in field notes to ensure data consistency and reliability.

Although the author was directly involved, the data collection process was designed to ensure objectivity. The objectivity of the research is guaranteed through triangulation of sources, methods, and time. Data from field observations were matched with secondary data from various official campus documents, individual and group reports from KKN, meeting minutes, statistical data, academic journals, institutional websites, and the academic guidelines (**Table 1**). The use of multiple sources ensures that the findings do not rely solely on the researchers’ personal experiences. The combination of long-term participant observation and comprehensive document analysis is consistent with qualitative case study practice. It strengthens the credibility, reliability, and depth of analysis within the CESI framework. While students are involved in many of the observed USR-related activities, this study does not examine individual learning outcomes or student engagement dynamics, as these require a different level of analysis and analytical framework beyond the scope of the present research.

Table 1. The Secondary Data

No	Data Type	Data Source
1	Policy Document or official institutional policy	Mayor of Denpasar, 2021; Udayana University, 2019-2020
2	Journal	Pramartha & Mimba, 2020; Netra et al., 2023; Lesmana, 2016
3	Published institutional documents	QS Top Universities, 2025; EduRank, 2025; National Taiwan University, 2024; Udayana University, 2023; Biro Akademik, Kerja Sama, dan Hubungan Masyarakat

		Universitas Udayana, 2023; Udayana University, 2020; LPPM Universitas Udayana, 2021
4	Statistics	BPS of Bali Province, 2025; Udayana University, 2018-2024; Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi; 2019-2023
5	Official Udayana University website and other supporting websites	Tim Kompas.com and Putri, 2025; Faculty of Economics and Business, 2023; Udayana University, 2025; Fakultas Pertanian, Universitas Udayana, 2022

As the primary analytical method, this research employs the CESI Framework, which identifies the contributions of culture, local knowledge, and social interaction in strengthening an inclusive and sustainable education system. CESI is an approach that combines cultural values, local knowledge, and community involvement in sustainable education and environmental management. This framework emphasizes the importance of integrating social, environmental, and cultural systems to build an adaptive, innovative, and community-oriented educational ecosystem.

Using the CESI approach, this framework is divided into several steps. The first step is to explain the existing environmental context, cultural practices, and public participation, and, in the context of this research, to present a case study of Udayana University. After identifying the environmental and cultural spaces, the analysis then examines the relationship between cultural practices and environmental space. The second step is to utilize the available data derived from the environmental and cultural contexts. The analysis is conducted in depth by examining cultural ecosystem benefits, namely economic, environmental, and cultural values.

After completing this stage, the third step is to determine the steps required to build and strengthen this ecosystem. This can take the form of policies and solutions that ensure the ecosystem continues to operate and becomes sustainable. In this stage, the analysis examines the extent to which Udayana University's university social responsibility (USR) programs affect these three dimensions. Furthermore, the research aims to identify ways to optimize USR's contribution to supporting the development of a sustainable education ecosystem through community collaboration and the preservation of local cultural values.

Therefore, using the CESI framework and a descriptive, qualitative method, this research not only maps the contributions of Udayana University's USR but also offers optimization strategies informed by data and local values. The goal is to support the development of a sustainable, inclusive, and culturally rooted higher education ecosystem.

4. RESULTS AND DISCUSSION

Discovery Environmental Space and Cultural Practice

Based on observations from the CESI Framework, the author identified important values at Udayana University—first, historical and educational values. The establishment of UNUD in 1962 reflects its significant role in education, and it continues to operate in its 63rd year in 2025. UNUD is also recognized as a center for the study and preservation of Balinese culture, language, and traditions, and it plays a vital role in the development of education in eastern Indonesia (Netra et al., 2023). According to the 2025 Asian University Rankings (QS Top Universities, 2025), UNUD is ranked 581st–600th. In the Southeast Asia category of the same ranking, UNUD ranks 100th. According to EduRank (2025), UNUD ranked fifth in medicine in Indonesia, with research areas in pathology, public health, surgery, psychiatry, and immunology. This data shows that UNUD's long history reflects its credibility and high

educational quality. Furthermore, Bali, a renowned tourist destination, further enhances the university's appeal.

In environmental value, UNUD has a total land area of 1,644,227 m² and three campus locations: the Nias Campus, also known as the Faculty of Humanities, located on Pulau Nias Road near Sanglah Hospital; the Sudirman Campus, located in the center of Denpasar City; and the Jimbaran Campus, located on Jimbaran Hill, precisely on *Kampus UNUD* Jimbaran Road, in southern Bali. The Sudirman Campus features Central Park UNUD at its center, while the Jimbaran Campus is in a hilly area with abundant green open spaces. The Jimbaran Campus is conveniently located near several popular tourist destinations, including Jimbaran Beach, Garuda Wisnu Kencana, a renowned icon of Bali, and Melasti Beach, thereby ensuring strategic accessibility. The proximity between faculties and the green, open campus environment greatly supports the comfort and well-being of the Udayana University academic community. This also fosters a close relationship between humans and their surroundings, enabling students and the community to engage freely in activities such as walking, cycling, and other outdoor pursuits.

In terms of cultural values, UNUD was the first campus in Bali to develop knowledge based on local and Balinese culture. The preservation of local culture in education is reflected in several study programs, such as Balinese Literature, Anthropology, Tourism, History, and Archaeology. Courses offered include Hindu Religion and Ethics, Balinese Culture, Introduction to Philosophy, and Ancient Balinese Language, thereby strengthening cultural integration within the curriculum. Hindu students and lecturers actively participate in religious rituals, such as the Piodalan Ceremony, Saraswati Day, Galungan, Kuningan, and Nyepi, which reflect the spiritual values inherent in academic life. Udayana University also boasts a cultural heritage site within the Faculty of Humanities, recognized by the City of Denpasar. Being listed as a cultural heritage site demonstrates that Udayana University, through the Faculty of Humanities, holds significant historical value (Mayor of Denpasar, 2021).

Environmental space and cultural practices are closely related. In this case study, environmental spaces that support cultural practices are evident in the physical environment and in campus management that supports the implementation of cultural practices, student learning, and campus activities that integrate local and spiritual values. Conversely, cultural practices at UNUD also shape and influence the campus environment through the development of culture-based curricula, religious rituals and activities, and the recognition of cultural heritage. Cultural practices are not only accommodated by the campus environment but also influence the spatial layout, facilities, and campus management, thereby creating synergy and integration between the physical and cultural environments (**Figure 2**).

Therefore, the relationship between the physical environment and cultural practices at Udayana University is not merely one of mutual accommodation, but rather a reciprocal process of mutual integration. This shows that the management of campus space makes local values the campus's identity and ensures that Balinese culture and its values endure and remain relevant amid the development of modern education.

Based on the author's observations, public participation at Udayana University involves the campus, the rectorate, students and their organizations at both university and faculty levels, as well as the surrounding community, including residents and Balinese community organizations.

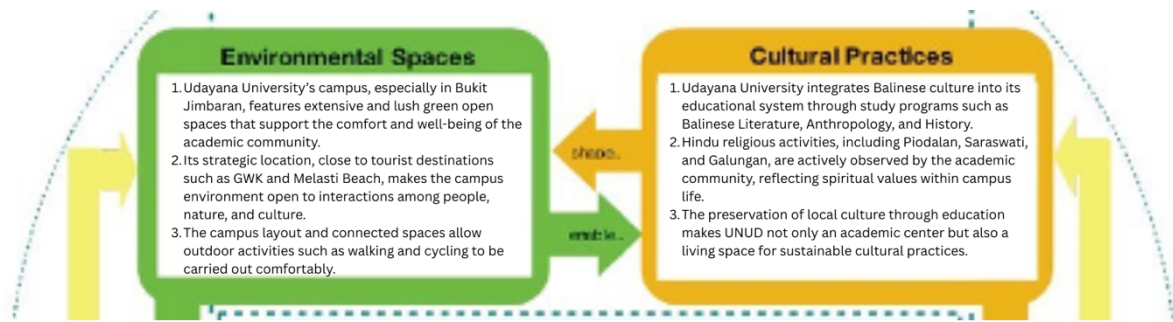


Figure 2. The correlation between environmental space and cultural practices in Udayana University

Analyzing The Cultural Ecosystem Benefits in Udayana University

After identifying the environmental, cultural, and public participation values at Udayana University, a cultural ecosystem benefits analysis can be used to more comprehensively assess the positive impact of the relationship between public participation and its environment. The related values encompass environmental, economic, and cultural aspects. Therefore, mapping these values and participation provides a basis for understanding the interactions between society and its environment, generating concrete benefits in support of sustainable development. Through the CESI approach, the contribution of Udayana University's USR can be analyzed in greater depth to determine the extent to which its role can be optimized to support the development of a sustainable education ecosystem.

A. Economic Value

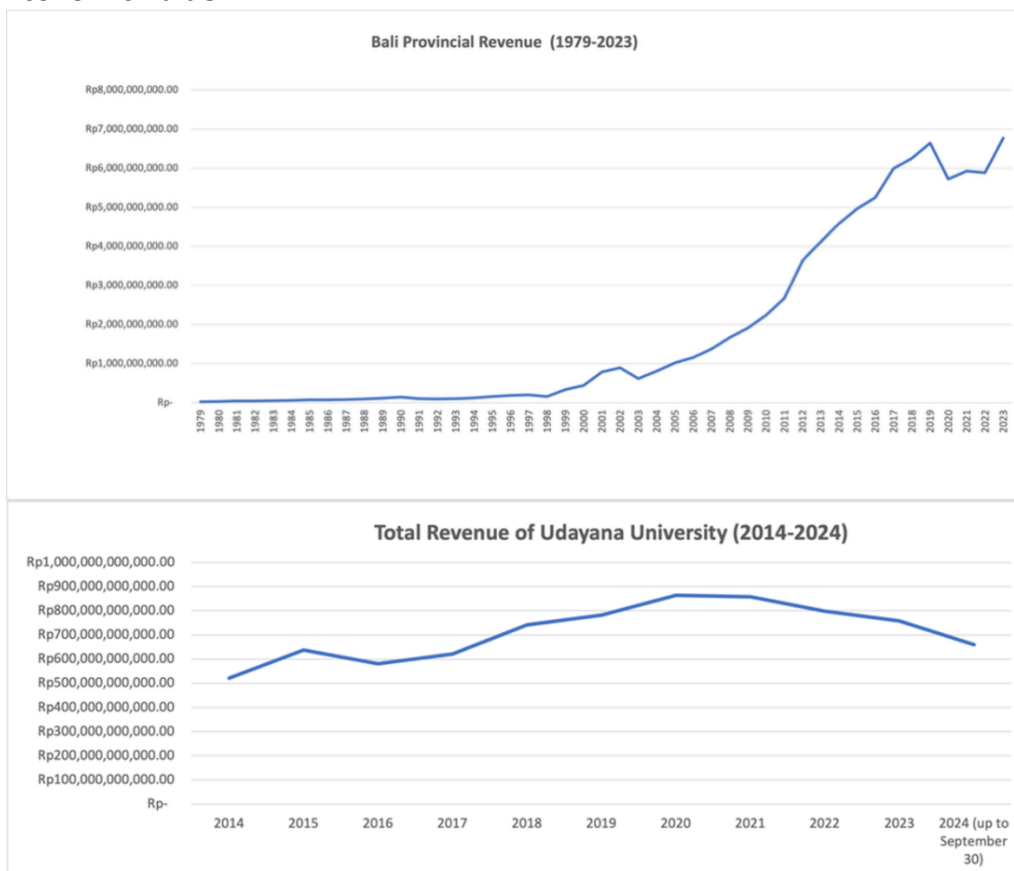


Figure 3. Revenue of Bali Province and Udayana University

Source: 2025, Badan Pusat Statistik of Bali Province; 2019-2024, Udayana University

Data from the Badan Pusat Statistik (BPS) of Bali Province for 1979–2023 (2025), as shown in **Figure 3**, indicate that Bali's economic condition shows a significant, positive upward trend, reflected in the growth of Bali Province's income. Despite being impacted by the COVID-19 pandemic from 2020 to 2022, Bali's economy has successfully recovered and returned to growth. This trend is also reflected in Udayana University's revenue growth from 2019 to 2024 (Udayana University, 2018–2024), which shows an overall upward trend despite the global crisis (**Figure 3**).

As a follow-up to this positive economic condition, Udayana University has a strategic role not only as an educational institution, but also as a contributor to Bali's economic growth. Recognizing its potential and strategic value, Udayana University not only serves as an educational institution but also contributes to Bali's growth through campus activities that enhance human resource quality, foster collaborations with diverse business actors, and strengthen community skills. By leveraging the educational ecosystem's potential through cultural ecosystem benefits, the university's role is reinforced through the integration of concrete USR programs that support sustainable economic development in Bali. This analysis shows that Udayana University's contributions are not only academic and theoretical but also have an impact on local economic growth. The university's involvement in enhancing community skills and collaboration with the business and financial sectors underscores the strategic role of educational institutions in sustainable development, not merely in formal education. The implementation of the 2023 Monitoring and Evaluation (Monev) involving 78 partners and hundreds of active collaborations shows that Udayana University's contribution has been carried out in a structured manner and has received broad support from various stakeholders (Udayana University, 2023; Biro Akademik, Kerja Sama, dan Hubungan Masyarakat Universitas Udayana, 2023).

Based on this contribution, another strategic opportunity is the development of experience-based education, such as certified internship programs. Udayana University's strategic location in Bali offers significant opportunities for the development of educational tourism involving higher education institutions, and this potential can be optimized through collaboration among the university, local businesses, and the tourism industry via a certified internship program. This strengthening encompasses developing an internship curriculum tailored to field needs, providing pre-internship training, and monitoring and evaluating student performance to ensure effective outcomes.

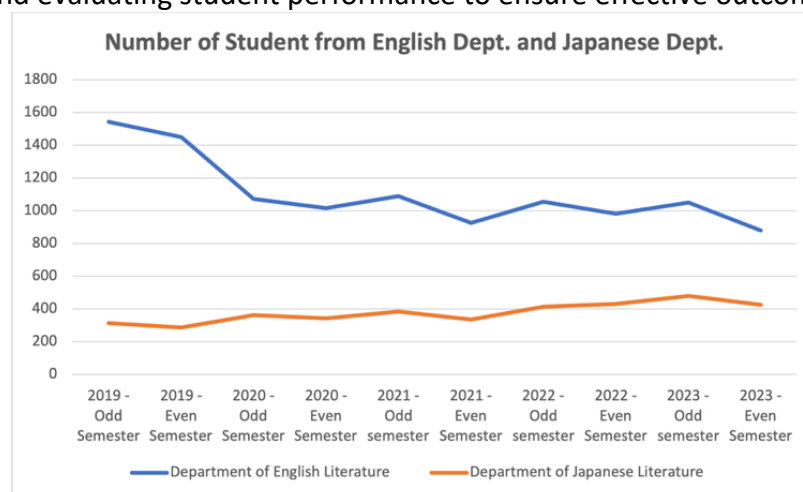


Figure 4. Number of Students from the English and Japanese Departments of Udayana University

Source: 2019-2023, Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi

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The students' supervisors can conduct the pre-internship training, monitor, and assess student performance. This is reinforced by data from Udayana University students ([Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi; 2019-2023](#)), which show that the campus offers foreign-language study programs, such as Japanese Literature and English Literature, which can contribute to students' language skills in implementing internship programs (**Figure 4**). Students bring new perspectives to problem-solving while also developing the character, mindset, and cognitive capacity to become agents of change.

The presence of student interns fluent in foreign languages such as English, Japanese, and Mandarin also attracts tourists. It serves as a bridge to introduce Balinese and Indonesian culture more broadly. The more students involved, the greater the opportunity for the university's image to be indirectly promoted internationally. The internship program not only develops students' individual competencies but also strengthens the capacity of business partner organizations. Furthermore, students' ability to adapt and think critically is a key indicator of the USR program's effectiveness in developing agents of social and economic change.

Furthermore, this program creates opportunities for cross-disciplinary collaboration, as students from various majors can participate, provided they receive relevant training aligned with the needs of the business world. Project-based credits, interdisciplinary internships, replacing undergraduate thesis defenses with final projects, and collaborative initiatives with industry partners and local governments are integral components. In this manner, the USR transitions from being temporary or reliant solely on informal partnerships to an essential component of a learning system that fosters an educational ecosystem driven by the local economy.

Additionally, through another USR program, the Faculty of Economics and Business at Udayana University, in collaboration with the Faculty of Economics Student Executive Board, has conducted digitalization training for rural communities. The goal is to empower rural communities through Customer Relationship Management (CRM) based digital marketing training, which is expected to enhance local product marketing and drive sustainable economic growth in villages. Furthermore, other programs aimed at improving digital literacy and community self-efficacy, which aim to build the knowledge and confidence of Micro, Small, and Medium Enterprises (MSMEs) in managing digital-based businesses, must be continued because they have a tangible impact on strengthening the business capacity of local communities while simultaneously enhancing the economic and social value of Udayana University as an educational institution supporting sustainable development ([Faculty of Economics and Business, 2023](#)).

To sustain its impact, this digital training program should be enhanced through cross-faculty collaboration and transformed into a permanent social laboratory based in the villages it has fostered. This will create a continuous learning cycle and broaden the scope of the USR program in developing a village economic ecosystem connected to the higher education ecosystem. Furthermore, if the educational ecosystem is consistently developed, the number of prospective students from various regions in Indonesia choosing Udayana University is expected to continue to increase. This growth in student numbers will have a ripple effect on increased consumption, housing, transportation, and the informal sector around the campus. In the long term, this will strengthen Udayana University's position as a key player in Bali's economic ecosystem.

B. Cultural Value

Bali is internationally recognized for its natural beauty, tourism, and unique traditions and local wisdom. One of Bali's enduring cultural strengths is the arts, particularly dance. Udayana University, located in Bali, also features distinctive dances, such as the Prabu Udayana Dance and the Cendrawasih Dance, which its performers often present at critical ceremonial events (Udayana University, 2025). Based on the author's observations at the 2019 Udayana University Anniversary Event (*Dies Natalis*), the Prabu Udayana dance was performed as part of the official opening, and its use was described as a strategic step toward cultural preservation through academic activities. These dances are not merely entertainment, but can also serve as a medium for preserving Balinese culture for future sustainability. In this context, the uniqueness of Balinese culture and the cultural identity of Udayana University are key to building cultural values, which, in turn, strengthen the cultural ecosystem. This contributes to the development of an educational ecosystem in which cultural preservation extends beyond symbolic activities and is integrated into the learning system and community service, becoming an integral part of the academic institution's identity.

With this strong cultural foundation, universities can leverage the USR program to broaden the introduction of Balinese culture to students and the community. Existing USR programs, such as KKN-PPM (*Kuliah Kerja Nyata Pembelajaran Pemberdayaan Masyarakat*), can be a strategic means of introducing Balinese culture to students. KKN-PPM is a community empowerment, learning, and community service program (LPPM Universitas Udayana, 2021a). However, some still view these programs as mere formalities due to their only lasting one to two months, often resulting in a lack of sustainable impact. The author's observations in Village X in 2021, during a meeting with village partners, indicated that the short-term duration of KKN, such as one to two months, produced only short-term programs and had a less sustainable impact. This shows that the program's duration and structure directly influence the sustainability of its impact. Short-term programs without academic integration and student organizations tend to be less effective in building deep cultural understanding. Therefore, the development of KKN-PPM at Udayana University reflects a community-based approach to KKN-PPM as part of formal academic policy, and the long-term collaboration with partner villages is key to enhancing the program's sustainability and social relevance.

Furthermore, the development of KKN-PPM should involve student organizations to ensure that social and cultural impacts are more optimal and sustainable. KKN-PPM is a crucial platform for conveying social responsibility values among universities, students, and the community. Therefore, KKN-PPM should be further developed by involving student organizations as implementing partners (LPPM Universitas Udayana, 2021b). Student organizations at the university, faculty, and student association levels can collaborate with individual villages in Bali to promote sustainable village development. To optimize its contribution, a student-organization-based KKN-PPM should be established as part of the university's academic policy and integrated into a contextual learning ecosystem through long-term collaboration with village partners. Thus, KKN-PPM is not merely a temporary activity but also part of an institutional work program with a more sustainable direction and socio-cultural impact.

Through this collaboration, the program's benefits are felt not only by students but also by the local community, which receives a real contribution. The benefits are two-way. For students, this provides a real-life learning space for problem-solving, critical thinking, building learning relationships, and applying knowledge in the field. For the community, the presence of students can be instrumental in fostering innovation and knowledge. This interaction can serve as a shared learning space that promotes a sustainable educational ecosystem by

encouraging genuine collaboration among students, the university, and the community. This program can also be evaluated annually, following changes in the organization's management. The routine evaluation can be reinforced by official policies issued by the rectorate or the dean's office to ensure that the program has a clear legal basis.

In addition, KKN-PPM serves as a means of cross-cultural learning that enriches students' and village communities' understanding. This organization, based on the KKN-PPM Program, also creates a space for cross-cultural learning. Students will learn about village life, local values, and local culture. The presence of students from various religious, ethnic, and tribal backgrounds makes KKN-PPM a space for cultural encounters that enrich shared understanding. Cultural values are not limited to art, dance, or painting; they also encompass perspectives, life values, and social practices that communities and students can learn.

Furthermore, Udayana University has a rich cultural heritage, exemplified by the Faculty of Humanities building, which is historically significant. Through a decree issued by the Mayor of Denpasar, the Faculty of Cultural Sciences of Udayana University was designated a Cultural Heritage Site (Mayor of Denpasar, 2021). This cultural heritage building can be a crucial asset in supporting the educational ecosystem's cultural value. With the potential of study programs such as archaeology, history, and various literatures, this faculty can initiate a USR program to strengthen cultural education, such as a multicultural exchange program that positions the faculty as a site for cultural study, for example, by creating an invitation program for students from Bali, outside Bali, and internationally to come to campus to learn about Balinese culture firsthand. This cultural heritage can serve as an attraction or even a brand mark that strengthens Udayana's position nationally and internationally.

Therefore, the Faculty of Humanities will not only serve as a space for academic learning. Still, they can also serve as a strategic hub for building an educational ecosystem that integrates culture, science, and community service. Synergy between the academic community and local cultural figures needs to be strengthened to ensure effective and sustainable knowledge transfer. Therefore, cultural initiatives must be integrated into the faculty's strategic plan and synergized with local cultural institutions, ensuring they are not dependent on leadership changes. As a result, Udayana University can become a model for adaptive and impactful culture-based education.

C. Environmental Value

A strategic study location is an essential factor in improving the campus environment. Having three distinct study locations, with the campus and rectorate center located on Jimbaran Hill, is a desirable added value. The Jimbaran campus, with its green open spaces and hillside location, offers many advantages. Based on the latest data from 2025, air quality in Bali is generally in the moderate category in many areas, such as Gianyar, Kuta, Singaraja, Badung, Denpasar, Nusa Dua, and Tabanan, although some locations, such as Buleleng, show good quality according to the latest monitored AQI (Tim Kompas.com & Putri, 2025). To maintain this, policies are needed. If the rectorate could issue a USR policy and program that regulates or prohibits motorized vehicles, including cars, for academic and general public access to the campus area, this could be a significant step toward maximizing environmental value and making Udayana University a green, open-space campus. Similar policies have been implemented at several overseas universities, including National Taiwan University (NTU) in Taiwan, which encourages students and the campus community to use environmentally friendly transportation, such as bicycles, while on campus (National Taiwan University, 2024).

Considering the importance of policies that support sustainability, Udayana University has implemented various concrete USR programs through student organizations and campus

policies. Based on observational results, Udayana University, through student organizations and campus policies, has implemented several programs to support the preservation of the campus environment. The policy includes the Waste Bank (*Bank Sampah*) Program run by the Student Executive Board of Udayana University, the Waste Bank from the Faculty of Agriculture ([Fakultas Pertanian, Universitas Udayana, 2022](#)), the One Day To Serve Program by the Student Executive Board of Udayana University ([Kementerian Sosial dan Lingkungan Hidup BEM Universitas Udayana, 2018](#)), and the Environmental Care and Conservation Action Program. If these programs are implemented sustainably, the environment of Udayana University will be better protected, and awareness of the importance of environmental preservation among the academic community can continue to increase. Other USR programs, such as tree planting, clean-up activities, and the Green Campus Action campaign, which the Student Executive Board and faculty have implemented, should be sustained. The suggestion to make the Green Campus program an official policy through a rector's or dean's regulation is urgently needed. In this way, all Udayana University students will be encouraged to participate actively.

In addition, these programs must be accompanied by concrete, daily actions that encourage student and staff participation, rather than by seminars or short-term activities alone. Seminars should be reduced and replaced with concrete actions, such as encouraging students to use bicycles or electric bicycles for daily campus travel, implementing waste-sorting systems, providing supporting facilities for these systems, and enforcing a smoking prohibition on campus. While transformation cannot happen instantly, initial actions are necessary to ensure the long-term sustainability of the campus ecosystem.

The role of the faculty dean is also critical to ensuring the sustainability of this environmental program through official policies and guidelines that support the regular implementation of activities, for example, by issuing circulars stipulating that each study program association has an annual environmental-themed work program. This policy could take the form of routine activities, such as reforestation, waste recycling, plastic reduction, and eco-friendly transportation initiatives. Furthermore, faculties can provide incentives or recognition to associations that consistently and innovatively implement environmental programs. These approaches not only increase awareness but also encourage a sense of collective responsibility for protecting and preserving the campus environment.

If this policy is implemented consistently, it will impact not only the campus's reputation but also the broader environmental sustainability of Bali. Suppose the university is sustainably and consistently implementing the vehicle restriction policy and the strengthening of the green campus program. In that case, the impact will be very positive, not only for Udayana University's reputation as an environmentally friendly campus with strong Balinese cultural values, but also for Bali's overall environmental sustainability, particularly in efforts to reduce air pollution. The success of environmental programs depends on the consistency of policies and the participation of the entire academic community. The integrated implementation of Green Campus can influence the social behavior of students and staff, shape an environmentally friendly campus culture, and contribute to the mitigation of local-scale environmental issues. This indicates reciprocal interactions between institutional policies and social behavior that support a sustainable education ecosystem.

Based on the explanation of each value in cultural ecosystem benefits, namely economic, environmental, and cultural value at Udayana University, through the CESI Framework, a brief explanation and interpretation of the analysis of several components can be presented, namely CSV, CSR, CSI, and CES, which are summarized in the table below.

No	Evidence	Component	Category	Interpretation of analysis
1	Bali's economic growth and Udayana's income	CSV / CSR	Economy	Universities contribute to local economic growth through academic activities and collaboration.
2	Certified internship programs and pre-internship training	CSI / CSR / CSV	Education / Economy	Internship programs develop students' skills and provide economic value to business partners.
3	Village Digitalization Training (CRM) and MSME Digital Literacy	CSR / CSV	Community / Economy	Empowering local communities through increasing digital-based business capacity.
4	Preservation of Prabu Udayana and Cendrawasih local Dances	CES	Culture	Dance art as an instrument for cultural preservation and education.
5	KKN-PPM and village empowerment programs	CES / CSR	Culture / Community / Education	KKN integrates culture, community empowerment, and student learning.
6	Faculty of Humanities and Cultural Exchange Program	CES / CSI	Culture / Education	Cultural heritage is used as a hub for cross-cultural learning and internationalization.
7	Green Campus Policy: greenery, bicycles, smoking ban	CSR / CSV	Environment / Education / Community	Environmental policies encourage student participation and build an ecological campus culture.

USR, Public Participation, and Policy Integration in Building a Sustainable Education Ecosystem

To optimize the USR program's contribution to supporting the development of a sustainable education ecosystem, Udayana University needs to ensure that its programs are not merely symbolic but also integrated into the learning system, campus culture, and institutional policies. For example, programs such as Green Campus should not stop at cleanup activities; they should also be integrated into the curriculum, final assignments, and cross-departmental student projects. These will foster a sustainable mindset among students and faculty. Furthermore, collaboration across faculties, work units, and the surrounding community is needed to ensure that sustainability values truly become a shared ecosystem, not just the responsibility of one party.

The potential and optimization of USR in building a sustainable education ecosystem at Udayana University cannot be realized effectively without public participation. The 2021 KKN-PPM Guidelines and outreach to field supervisors state that KKN and village supervisors are responsible for providing facilities and support for students, highlighting the importance of collaboration between the university and the community (LPPM Universitas Udayana, 2021a; 2021b.). Students, as key actors, play an active role in strengthening campus relationships with the surrounding community through community service programs (KKN-PPM), MSME training, and contextual community service. Furthermore, Udayana University serves as a key driver in integrating the *Tri Dharma Perguruan Tinggi* with sustainability through the USR

program, collaborative research, and the development of fostered villages. Support from the Denpasar City government is provided through the development of spatial planning policies and regulations, the integration of regional programs, and the development of sustainable educational infrastructure. Furthermore, the community surrounding the campus plays an active role as a partner in village development programs, providing student housing, and engaging in collaborative environmental conservation efforts. Community organizations and students continue to promote social and environmental initiatives through campaigns, training, and cross-sector collaboration to support sustainability within Udayana University.

Udayana University integrates the economy, culture, and environment to form a unique sustainable education ecosystem. Economic activities, such as educational tourism involving students, can support local income while also providing opportunities for cultural preservation. Preserving Balinese culture, through community service programs (KKN-PPM) and arts activities, strengthens cultural and environmental awareness. Environmental initiatives such as the green campus also promote economic efficiency and reflect local cultural values. When implemented in an integrated manner and managed through CESI-based USR programs, such as structured internships and community-based KKN, these three dimensions can optimize the university's contribution to the development of a relevant, contextual, and sustainable education ecosystem. With this approach, USR becomes not only a social activity but also an institutional strategy for delivering tangible impact in the transformation of higher education.

5. CONCLUSION

This research demonstrates that Udayana University has significant environmental, cultural, and economic potential and values, as evidenced by the development of a sustainable educational ecosystem in Bali. Using the Cultural Ecosystem Service Innovation (CESI) framework for analysis, this research confirms that integrating environmental spaces, cultural practices, and public participation creates synergies that strengthen educational, social, and economic values. CESI provides a more comprehensive understanding of how cultural and local values can be implemented and used to deliver real, contextual, and sustainable educational ecosystem services.

Based on the research questions, the answer to the first research question indicates that the historical, educational, and cultural values of Udayana University, including culture-based study programs, preservation of cultural heritage, and involvement in local religious and ritual practices, can be analyzed in depth through CESI to assess its contribution to the development of a sustainable education ecosystem. For the second question, the findings indicate that University Social Responsibility (USR) programs, such as KKN-PPM, village digitalization training, certified internship programs, and campus environmental management, make fundamental contributions to the development of an inclusive, adaptive, and locally value-based educational ecosystem at Udayana University. Optimizing this program through curriculum integration, cross-faculty collaboration, and long-term partnerships with the community has been shown to increase social, cultural, and economic impact sustainably.

This research confirms that CESI is a practical analytical framework for understanding the implementation of culture-based USR, because it connects cultural, educational, environmental, and public participation values in building a sustainable education ecosystem. This research also guides universities in designing USR programs that are contextual, sustainable, and capable of strengthening relationships with communities and improving the quality of education and cultural preservation in accordance with the existing cultural context and values. This research opens up opportunities for further studies related to quantitative

evaluation of the impact of the USR program on community well-being, the development of more effective cross-faculty collaboration models, and the influence of cultural value integration through CESI on students' ability to become agents of social and economic change and the responsibility of the university and community in maintaining the campus environment and the surrounding area.

6. REFERENCES

- Adipat, S., & Chotikapanich, R. (2022). Sustainable development goal 4: an education goal to achieve equitable quality education. *Academic Journal of Interdisciplinary Studies*, 11(6), 174-183. DOI: <https://doi.org/10.36941/ajis-2022-0159>
- Aleixo, A. M., Leal, S., & Azeiteiro, U. M. (2018). Conceptualization of sustainable higher education institutions, roles, barriers, and challenges for sustainability: An exploratory study in Portugal. *Journal of cleaner production*, 172, 1664-1673.
- Atiqah. (2019). Tanggung jawab sosial universitas dan tata kelola universitas terhadap citra UIN Syarif Hidayatullah Jakarta. *Akuntabilitas: Jurnal Ilmu Akuntansi*, 12(2), 169-178. DOI: <https://doi.org/10.15408/akt.v12i2.12862>
- Badan Pusat Statistik (BPS) of Bali Province. (2025). *Summary of the regional revenue and expenditure budget (APBD) of Bali Province (in thousand rupiah), 1979-2023*. Regional Financial Statistics Survey. Bali Provincial Statistics Office. (in Indonesian)
- Biro Akademik, Kerja Sama, dan Hubungan Masyarakat, Universitas Udayana. (2023, 26 Oktober). *78 mitra kerja sama Universitas Udayana hadir pelaksanaan monitoring dan evaluasi kerjasama 2023* [78 Cooperation Partners of Udayana University Attend the 2023 Cooperation Monitoring and Evaluation]. Universitas Udayana.
- Bridwell-Mitchell, E. N., Jack, J., & Childs, J. (2023). The social structure of school resource disparities: How social capital and interorganizational relationships matter for educational equity. *Sociology of Education*, 96(4), 275-300. DOI: <https://doi.org/10.1177/00380407231176541>
- EduRank. (2025). *Udayana University rankings*. Retrieved June 26, 2025, from <https://edurank.org/uni/udayana-university/rankings/>
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: from National Systems and "Mode 2" to a Triple Helix of university-industry-government relations. *Research policy*, 29(2), 109-123.
- Fadeeva, Z., & Mochizuki, Y. (2010). Higher education for today and tomorrow: university appraisal for diversity, innovation and change towards sustainable development. *Sustainability Science*, 5(2), 249-256.
- Fakultas Ekonomi dan Bisnis. (2023, September 21). *Utilizing digitalization to improve the village economy: The PPK Ormawa team of BEM FEB Unud holds digital marketing training based on customer relationship management*. Universitas Udayana, Bali.
- Ferguson, T., Roofe, C., Cook, L. D., Bramwell-Lalor, S., & Gentles, C. H. (2022). Education for sustainable development (ESD) infusion into curricula: influences on students' understandings of sustainable development and ESD. *Brock Education Journal*, 31(2), 63-84. DOI: <https://doi.org/10.26522/BROCKED.V31I2.915>
- Fitriana, A. D., Mutmainnah, I., & Halifah, S. (2021). Penyelenggaraan Tridharma Perguruan Tinggi Sesuai Bidang Keilmuan Sebagai Upaya Personal Branding Dosen. *KOMUNIDA*, 10(2), 195-215.
- Huang, Y. F., & Do, M. H. (2021). Review of empirical research on university social responsibility. *International Journal of Educational Management*, 35(3), 549-563.

- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2019–2023). *Pangkalan Data Pendidikan Tinggi (PDDikti): Universitas Udayana* [Higher Education Database (PDDikti): Udayana University]. <https://pddikti.kemdikbud.go.id>
- Kementerian Sosial dan Lingkungan Hidup; Badan Eksekutif Mahasiswa Pemerintahan Mahasiswa Universitas Udayana. (2018). *Proposal sponsorship transplantasi terumbu karang 2018: Rescue the colours under the sea* [Unpublished internal document]. Universitas Udayana.
- Kiezel, M., Piotrowski, P., & Wiechoczek, J. (2021). Perception of social responsibility strategy in higher education: Empirical study in Poland. *Sustainability*, 13(16), 9417. <https://doi.org/10.3390/su13169417>
- Leniwati, D., Wahyuni, E. D., & Ulum, I. (2022). Local community values based university social responsibility (USR): In Indonesia context. In Sukmana, D., Suryono, E., & Hasan, H. (Eds.), *Social and political issues on sustainable development in the post Covid-19 crisis* (pp. 292–298). Taylor & Francis.
- Lesmana, P. S. W. (2016). Perkembangan Dua Lokasi Kampus Universitas Udayana terhadap Perkembangan Fasilitas Wilayah Sekitarnya. *Jurnal Teknik Gradien*, 8(2), 199-212.
- LPPM Universitas Udayana. (2021a). *Buku pedoman KKN Universitas Udayana 2021* [Guidelines for Community Service Program (KKN) 2021, Udayana University]. Bali: Universitas Udayana.
- LPPM Universitas Udayana. (2021b). *Laporan kegiatan Kuliah Kerja Nyata (KKN) Tahun 2021* [Community Service Program Report 2021]. <https://kkn.unud.ac.id/individu>
- Mayoni, K., Widhiyaningsih, I. H., Dharnendri, L. Y., Semaranatha, I. K., & Wiryanjaya, M. T. (2023). Implementasi Ajaran Tri Hita Karana dalam Pembangunan Masyarakat Bali. *Gudang Jurnal Multidisiplin Ilmu*, 1(5), 90-95.
- Mayor of Denpasar. (2021). *Keputusan Walikota Denpasar Nomor 188.45/2059/HK/2021 tentang Penetapan Kampus Fakultas Ilmu Budaya Universitas Udayana sebagai Situs Cagar Budaya Peringkat Kota Denpasar* [Decree of the Mayor of Denpasar No. 188.45/2059/HK/2021 on the Designation of the Faculty of Cultural Sciences Campus, Udayana University, as a City-Level Cultural Heritage Site]. Denpasar: Pemerintah Kota Denpasar.
- National Taiwan University. (2024). *Directives for the management of traffic on campus (Promulgated on August 13, 2024; 3,174th Administrative Meeting)*. Office of General Affairs, National Taiwan University.
- Netra, I. M., Pramatha, C. R. A., & Eddy, I. W. T. (2023). Digitizing Cultural Practices: Efforts to Increase Students' Cultural Knowledge and Reading Interest in Bali. *Journal of Language Teaching and Research*, 14(1), 142-152.
- OECD. (2025). *OECD Teaching compass concept note – Section 7: Teachers as integral to a learning ecosystem for collective impact*. OECD Publishing.
- Peicheva, M. (2019). Social Responsibility of the Universities in Europe—Research of Diversity of Practices. *Economic Alternatives*, 2, 235-250.
- Perwitasari, S. I., Hariyono, E., & Susantini, E. (2023). Implementation of ESD (education for sustainable development) in climate change learning: a literature review. *IJORER: International Journal of Recent Educational Research*, 4(4), 399-415.
- Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard business review*, 84(12), 78-92.
- Pramatha, C. R. A., & Mimba, N. P. S. H. (2020). Udayana University International Student Management: a Business Process Reengineering Approach. *ComTech: Computer, Mathematics and Engineering Applications*, 11(2), 57-64.

- QS Top Universities. (2025). *Udayana University*.
<https://www.topuniversities.com/universities/udayana-university>
- Regional Centre for Higher Education in Latin America and the Caribbean (CRESALC), & UNESCO. (1998). *Higher education in the XXI century: View of Latin America and the Caribbean (Vols. 1–2) [F. Mayor, Preface]*. Responses series (Vol. 5). UNESCO.
<https://unesdoc.unesco.org/>
- Reid, A., & Scott, W. (2006). Researching education and the environment: Retrospect and prospect. *Environmental Education Research*, 12(3-4), 571-587.
- Rosilawati, Y., Rafique, Z., & Winarsih, A. S. (2022). University social responsibility during the Covid-19 pandemic: Lessons from the Indonesian context. *Jurnal Hubungan Internasional*, 11(1), 44–56.
- Severino-González, P., Acuña-Moraga, O., Miranda-Navarro, L., Zurita-Uteau, A., Silva-Navarro, C., Dote-Pardo, J., ... & Romero-Argueta, J. (2025). University social responsibility and sustainable development goals: challenges and opportunities from the perspective of students from a catholic university. *Interciencia*, 50(1), 47-54.
- Sterling, S. (2001). *Sustainable education: Re-visioning learning and change (Vol. 6)*. Totnes: Green Books for the Schumacher Society.
- Sulaksana, I. G. C. P., Kohdrata, N., & Semarajaya, C. G. A. (2024). Identifikasi ruang lanskap budaya masyarakat Sanur, Denpasar - Bali. *Jurnal Arsitektur Lanskap*, 10(1), 19–28.
- Sung, W. Y., Lee, H. C., & Liu, W. H. (2022). Strategies and practices of co-creating value in fishing village revitalization through USR and CSR collaboration: A case study of a fishing village in Pingtung. *National Development Studies*, 22(1), 133–170.
- Tim Kompas.com, & Putri, G. S. (2025, 24 Maret). *Kualitas udara di Bali: Data AQI tanggal 24 Maret 2025* [Air quality in Bali: AQI data on 24 March 2025]. Kompas.com.
<https://denpasar.kompas.com/read/2025/03/24/090146878/kualitas-udara-di-bali-data-aqi-tanggal-24-maret-2025>
- Udayana University (Universitas Udayana). (2018–2024). *Financial report of the Public Service Agency (BLU) of Udayana University for fiscal year 2020 (audited)*. Jimbaran, Bali: Udayana University. <https://ppid.unud.ac.id/pages/view/dokumen-keuangan-universitas-udayana>
- Udayana University (Universitas Udayana). (2019–2020). *Buku pedoman akademik Universitas Udayana [Academic Guidelines of Udayana University]*. Bali: Universitas Udayana.
- Udayana University (Universitas Udayana). (2020). *Laporan Keuangan Badan Layanan Umum Universitas Udayana tahun anggaran 2020 (Audited)* [Financial Report of Public Service Agency, Udayana University, Fiscal Year 2020 (Audited)]. Jimbaran, Bali: Universitas Udayana.
- Udayana University (Universitas Udayana). (2021). *Laporan Kinerja Universitas Udayana 2020 [2020 Performance Report of Udayana University]*.
https://ppid.unud.ac.id/img/admin/page_attc/018e1718df27c359aa4aa5a30995cc72.pdf
- Udayana University (Universitas Udayana). (2023). *Laporan monitoring dan evaluasi kerja sama 2023 [Monitoring and Evaluation Report of 2023 Cooperation]*. Bali: Biro Akademik Kerja Sama dan Humas, Universitas Udayana.
- Udayana University (Universitas Udayana). (2025, 29 September). *Unud gelar puncak Dies Natalis ke-63, menuju Udayana berdampak dan berdaya saing global* [Unud Holds the 63rd Dies Natalis Celebration, Toward a Globally Impactful and Competitive Udayana]. Universitas Udayana.
- UNESCO. (2020). *Global Education Monitoring Report 2020: Inclusion and education: All means all*. Paris, France: UNESCO.

- Vioreza, N., Hilyati, W., & Lasminingsih, M. (2023). Education for Sustainable Development: Bagaimana Urgensi dan Peluang Penerapannya pada Kurikulum Merdeka?. *PUSAKA: Journal of Educational Review*, 1(1), 34-48.
- Wigmore-Álvarez, A., & Ruiz-Lozano, M. (2012). University social responsibility (USR) in the global context: An overview of literature. *Business & Professional Ethics Journal*, 475-498.
- Yan, M.-R. (2021). *Handbook of sustainable system development for strategic management and business innovation*. Taipei: Taiwan Institute of Industrial Innovation Asian Society.
- Yan, M.-R., & Wu, F.-C. (2024). Transformative impact of sustainable system education with cultural ecosystem service innovation—A case study of livable city in Taipei. *Journal of Research in Education*, 2(1), 1–15.
- Yan, M.-R., Chi, H.-L., Yang, J.-Y., & Chien, K.-M. (2019). Towards a city-based cultural ecosystem service innovation framework as improved public-private-partnership model—A case study of Kaohsiung Dome. *Journal of Open Innovation: Technology, Market, and Complexity*, 5(4), 85. <https://doi.org/10.3390/joitmc5040085>.
- Yang, T. K., & Yan, M. R. (2020). The corporate shared value for sustainable development: An ecosystem perspective. *Sustainability*, 12(6), 2348.
- Žalėnienė, I., & Pereira, P. (2021). Higher education for sustainability: A global perspective. *Geography and Sustainability*, 2(2), 99-106.