

# UNIVERSITY LIBRARIES IN THE BRAZILIAN AMAZON: CONTRIBUTIONS TO SUSTAINABLE DEVELOPMENT

Bibliotecas de universidades federais da Amazônia brasileira: contribuições ao desenvolvimento sustentável

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#### **ABSTRACT**

**Objective:** The study demonstrates how libraries can be essential in raising awareness, understanding, and achieving the Sustainable Development Goals (SDGs) outlined in the 2030 Agenda of the United Nations. It specifically focuses on the role of federal university libraries in the Brazilian Amazon in contributing to SDG 4 (quality education) through practices aligned with their institutional goals and within the framework of professional training systems and scientific production.

**Methods:** The study involves identifying and analyzing the actions undertaken by federal university libraries in the Brazilian Amazon that contribute to achieving the SDGs.

**Results:** The study highlights how libraries democratize public access to information, foster literacy and information competence, promote conscious citizenship, and contribute to transforming reality and enhancing living conditions. It also shows that by participating in scientific communication management, libraries support research, technology development, and innovations that benefit social development and promote inclusive, equitable, and quality education.

**Conclusions:** Libraries play a crucial role in achieving the SDGs by supporting research, fostering literacy and information competence, and promoting quality education, which in turn contributes to social development and improved living conditions for communities.

**KEYWORDS:** University libraries. 2030 Agenda. Sustainability. Sustainable development. Information science.

#### **RESUMO**

**Objetivo:** Demonstrar como as bibliotecas podem ser essenciais para aumentar a conscientização, compreensão e alcance dos Objetivos de Desenvolvimento Sustentável (ODS) estabelecidos na Agenda 2030 das Nações Unidas. O foco está no papel das bibliotecas universitárias federais na Amazônia brasileira em contribuir para o ODS 4 (educação de qualidade) por meio de práticas alinhadas aos seus objetivos institucionais e dentro do contexto dos sistemas de formação profissional e produção científica.

**Método:** O estudo envolve a identificação e análise das ações realizadas pelas bibliotecas universitárias federais na Amazônia brasileira que contribuem para o alcance dos ODS.

**Resultados:** O estudo destaca como as bibliotecas democratizam o acesso público à informação, promovem a alfabetização e a competência informacional, incentivam a cidadania consciente e contribuem para a transformação da realidade e melhoria das condições de vida. Também mostra que, ao participar da gestão



da comunicação científica, as bibliotecas apoiam a pesquisa, o desenvolvimento tecnológico e inovações que beneficiam o desenvolvimento social e promovem uma educação inclusiva, equitativa e de qualidade. **Conclusões:** As bibliotecas desempenham um papel crucial no alcance dos ODS ao apoiar a pesquisa, promover a alfabetização e a competência informacional e incentivar a educação de qualidade, o que, por sua vez, contribui para o desenvolvimento social e a melhoria das condições de vida das comunidades. **PALAVRAS-CHAVE:** Bibliotecas universitárias. Agenda 2030. Sustentabilidade. Desenvolvimento sustentável. Ciência da informação.

### 1 INTRODUCTION

We are subjects who, through access to information and knowledge about the world, can position ourselves and act more effectively concerning our destiny. This perspective is one of the primary purposes of science, universities, and libraries. In this sense, and alluding to the concept of global citizenship and a terrestrial identity, Morin (2005) advocates principles that guide us towards a sense of responsibility, not only as individuals but also as members of communities and as part of the human species.

Within the broader scope of general citizenship, local and global environmental citizenship, and social responsibilities, these responsibilities are commonly included in universities' Institutional Development Plans (IDPs). By strategic alignment, they should also be reflected in the objectives of their subunits, including their library systems.

In this context, as part of scientific processes and higher professional training, university libraries bear responsibilities related to the possibilities of social change, encompassing commitments to the ideals of sustainability and, consequently, to the Sustainable Development Goals (SDGs) and their targets. According to the International Federation of Library Associations and Institutions (IFLA, 2015, p. 3): "The UN 2030 Agenda is a political commitment, which means that everyone, including libraries and civil society, will have a role in ensuring that governments are held accountable for the implementation of the SDGs."

In this context, the SDGs are present in the strategic planning of libraries, in their vision for the future, mission, and values, considering the needs of the users they serve. This is fundamental for the services that are made available, for conducting user studies, and for offering access to technology, among other specificities of the library (Geraldo, 2021).

This study is exploratory and employs both quantitative and qualitative approaches. Data collection methods included a questionnaire with open and closed questions and documentary research. The study identifies and analyzes the practices of university libraries that impact SDG 4 targets 4.3, 4.4, 4.5, 4.7, 4.a, and 4.c, as described in Table 1 in the next

section. We aim to answer what the examined university libraries are doing regarding issues related to reducing inequalities and improving the quality of life for individuals and communities through scientific development, universal education, and inclusive actions facilitated by access to information.

We were additionally interested in examining the intentionality behind these actions. To this end, we analyzed their inclusion in the IDPs of the studied institutions, understanding that, through strategic alignment, the library systems should reflect the same provisions.

The paper consists of this introduction, which presents the topic, the justification for the study, the research question, and the methodology employed. Following this, we develop a section about the SDGs approved at the United Nations (UN) climate conferences, succeeded by a section addressing the social function of university libraries in relation to the climate agenda.

The conclusions offer reflections on the main findings, the potential for these findings to generate innovation in professional practice, and suggest further research possibilities at the intersection of Information Science and Environmental Sustainability.

#### 2 THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Between September 25 and 27, 2015, the United Nations General Assembly convened in New York City, United States, with the participation of representatives from 193 UN member states, including Brazil. During this assembly, the 2030 Agenda – "Transforming our world: the 2030 Agenda for Sustainable Development" - was announced. This agenda consists of 17 new global Sustainable Development Goals (SDGs), designed to broaden the scope and complete the work that the Millennium Development Goals (MDGs) did not achieve between 2000 and 2015.

This is an action plan encompassing economic, environmental, and social development, aimed at people – especially those in vulnerable situations – planet, and prosperity. It seeks to strengthen universal peace with greater freedom and achieve sustainable development. It is a declared commitment by all involved countries, through the adoption of comprehensive, transformative, and essential measures to improve quality of life, envisioning a world free of poverty, disease, hunger, inequalities, and depletion of natural resources, among other issues. The agenda aims to advance, by 2030, in areas

related to five crucial aspects: people, planet, prosperity, peace, and partnership, coming into effect from January 2016 (Nações Unidas, 2015).

The 17 SDGs include 169 integrated, collective, and indivisible targets, of universal nature and application, taking into account different national realities and respecting the policies and priorities of each country. The incorporation of these targets into planning processes, policies, programs, and strategies is the responsibility of each government, recognizing that sustainable development must be linked to all existing actions in the economic, social, and environmental fields. Figure 1 provides an overview of all 17 SDGs that comprise the 2030 Agenda.

Figure 1 - The 17 SDGs of the 2030 Agenda

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Source: United Nations (2023, p. 40).

Among the described goals, this research focuses on SDG 4 - Quality Education, which aims to "Ensure inclusive, equitable, and quality education, and promote lifelong learning opportunities for all" (IFLA, 2016, p. 7). This SDG is divided into specific targets, from which the following were selected for this study: 4.3, 4.4, 4.5, 4.7, 4.a, and 4.c, as outlined in Table 1:

Table 1 - Selected Targets of SDG 4 and their descriptions

	SDG 4 - Quality Education
Target	Description
4.3	Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university
4.4	Increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship
4.5	Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations
4.7	Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development
4.a	Build and upgrade education facilities that are child, disability, and gender-sensitive and provide safe, non-violent, inclusive, and effective learning environments for all
4.c	Increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

Source: Author's elaboration based on United Nations (2019).

Improving the quality of life extends beyond eradicating hunger and poverty and ensuring access to adequate housing and healthcare—basic requirements for survival. Regardless of race, color, gender, religion, and nationality, human rights encompass a broad range of issues essential for ensuring freedom and social justice for all. Governments have responsibilities to promote and protect the right to life, freedom of opinion, freedom of expression, and education for their populations (Sustainable [...], 2020).

Education, by providing essential tools for the development of individuals and communities, has a direct impact on social, economic, and cultural contexts globally, given that education is the key to ensuring sustainable development, as it enables the creation of innovation-based solutions for the major challenges faced by contemporary society (Sustainable [...], 2020).

Murillo and Duk (2017) assert that ensuring every individual access to education, particularly those traditionally excluded or facing greater difficulties such as persons with disabilities, indigenous peoples, and vulnerable children, represents a significant advance. However, this alone is insufficient. Inclusive education necessarily demands that every child and adolescent not only have access to education but also participate and learn.

Through their diverse functions and resources, university libraries significantly contribute to the goals established within SDG 4, including equal access to education, the promotion of relevant skills for employment and entrepreneurship, the elimination of gender

disparities in education, the advancement of sustainable development, and the enhancement of physical facilities and teacher qualifications.

For target 4.3, university libraries provide an inclusive and accessible learning environment for all students. They offer access to a wide range of academic resources, including books, journals, online databases, audiovisual materials, and more, helping to level the playing field and ensuring that all students, regardless of socioeconomic background, have access to the materials necessary for their education.

Regarding target 4.4, university libraries contribute not only by providing academic resources but also by offering opportunities for skill development. Many libraries host workshops, training sessions, and capacity-building programs that help students develop technical and professional skills essential for job market.

University libraries play a vital role in promoting gender equality and the inclusion of marginalized groups, supporting target 4.5. They offer safe and welcoming spaces for all students, regardless of gender, ethnicity, or socioeconomic status. Additionally, many libraries actively work to diversify their collections and promote the representation of different groups in the literature and academic resources available.

Target 4.7 is supported by university libraries through their active role in raising awareness and engaging students in sustainability initiatives. They organize lectures, exhibitions, and events related to sustainability topics.

Target 4.a emphasizes the importance of building and improving educational facilities that are inclusive and effective for all students. University libraries play a crucial role in this aspect by providing safe, inclusive, and accessible learning spaces. They also strive to ensure that their facilities meet the needs of various groups, including children, individuals with disabilities, and marginalized communities.

Finally, target 4.c highlights the need to increase the number of qualified teachers. University libraries can contribute to this goal by offering resources and support for the professional development of teachers and educators. They can provide access to teaching materials, training opportunities, and workshops on effective teaching practices, helping to improve the quality of education at all levels.

#### 3 THE ROLE OF UNIVERSITY LIBRARIES IN THE SCIENTIFIC PROCESS

As the years went by, a new paradigm has emerged: libraries, including university libraries, have transitioned from being mere custodians of knowledge to taking a more participatory role in society. They have evolved into cultural and informational hubs that contribute to scientific, social, technological, economic, cultural, and industrial development, and, importantly, social inclusion.

The rapid pace at which science has advanced and renewed itself has led to a constant flow of new research, resulting in a vast amount of available data. This presents a significant challenge for educational and research institutions, which must filter and identify the pertinent information needed to sustain ongoing studies and research within universities.

The IFLA aims to represent the interests of libraries, information services, and their users. According to IFLA (2016), libraries contribute to SDG 4 - Quality Education, which seeks to ensure inclusive, equitable, and high-quality education, as well as lifelong learning opportunities for all. Libraries achieve this by providing: committed staff to support early childhood education (continuing education); access to information and research for students worldwide; and inclusive spaces where cost is not a limiting factor for acquiring new knowledge and skills.

Given this context, the selection and organization of relevant information and sources for university researchers is critical, presenting an ideal scenario for libraries to assist throughout the knowledge production process. "Academic libraries are instrumental in advancing the Sustainable Development Goals (SDGs). Primarily, they participate to education by providing valuable and reliable information resources." (Lahyania; Diab; Moukhliss, 2024, p. 567).

As Costa, Moreira, and Oliveira (2021, p. 89) state: "It is understood that libraries, regardless of their type, have a significant social role and can contribute to the construction of a more equitable, just, and fair society."

Similarly, Bracchi *et al.* (2016, p. 2) explain that these information units, particularly university libraries, "[...] play a fundamental role, as it is their responsibility to collect, organize, and disseminate content that is relevant to the development of research, teaching, and extension activities." According to Damásio (2004, p. 1), due to their role concerning the knowledge produced in universities, "University libraries hold an essential role in the country's research and technological innovation processes," highlighting the pivotal role of

these information units in mediating between users and scientific and technological knowledge.

As Sala *et al.* (2020) elucidate, libraries can contribute to raising awareness and expanding actions in favour of sustainable development in the community where they are located, by having an agenda that addresses topics such as social progress and sustainability, to make people more active in the process of building a more sustainable lifestyle and mindset.

Leading these informational spaces should be the professional Librarian, who establishes best practices, strategies, and plans actions to enable libraries to support scientific investigation. This support is not limited to researchers within the community where the library is located but extends to anyone expressing interest and needing information. By doing so, libraries transcend the boundaries of the university, contributing to the dissemination of research that is of public interest and utility.

According to the IFLA Secretary General in 2019, Gerald Leitner, "Libraries are vital in ensuring that everyone can benefit from access to information, making stronger, fairer societies a reality for all" (IFLA, 2019a, p. 2). This perspective is reinforced by Missingham (2021, p. 391), who states that "Libraries are a key element in the economic, social, and educational structure within nations. They deliver public, educational, health, and state services that enhance community well-being and economic outcomes."

Gama and Zaninelli (2023) emphasize that to effectively contribute to the 2030 Agenda, university libraries must develop inclusive services that comprehensively and integrally meet the informational needs of their users, going beyond traditional lending services, research, training, and academic guidance.

Therefore, it is crucial for the Librarian to be knowledgeable about the SDGs and to have an interest in this area. As the manager of the information unit where they work, the Librarian plays a key role in transforming the library into a cultural hub and an inclusive learning space that promotes the SDGs through initiatives that have a positive impact on their reality. By facilitating access to information produced within and outside the universities, at regional, national, and global levels, libraries can contribute to local development and beyond, in all SDGs.

In the context of the SDGs established by the 2030 Agenda, the university library presents itself as a partner institution by developing and offering informational services to the academic community, especially after the implementation of affirmative action policies

in 2012, which enabled the democratization of access to higher education, thus aligning with the objectives of the global plan (Gama; Zaninelli, 2023).

At the international level, to contribute to SDG 4, the Malmö City Library, located in Sweden, promotes work that seeks to minimize digital inequality, promoting social inclusion and sustainability. "The library's Learning Centre offers courses called 'Get Started!', where digitally inexperienced users learn how to open email accounts, get better acquainted with the Internet and adjust privacy settings" (IFLA, 2019b, p. 8).

In Table 2 it is possible to see some initiatives adopted by the University Library of the Federal University of Santa Catarina (UFSC) that meet SDG 4:

Table 2 - Actions of the UFSC university library in favor of SDG 4 of the 2030 Agenda

	ctions of the UFSC university library in favor of SDG 4 of the 2030 Agenda
SDG	SERVICES AND ACTIONS
SDG 4: QUALITY EDUCATION	<ul> <li>offers courses, workshops, and provides instructional and support materials, as well as reference materials for standardization;</li> <li>provides access to databases and other online information sources, including institutional ones, such as the UFSC Journal Portal and the UFSC Institutional Repository;</li> <li>makes printed information resources available;</li> <li>supports Distance Education (EaD) users;</li> <li>promotes events;</li> <li>has spaces for events and exhibitions;</li> <li>has a dedicated team for general and specialized assistance in guiding research in scientific and patent databases;</li> <li>offers tips on time management;</li> <li>promotes services through BiblioCentros and BU Divulga;</li> <li>disseminates services, educational videos, event invitations, among others, through Web TV;</li> <li>has the BU/UFSC Publications service for publishing works;</li> <li>performs cataloging at the source and provides a form for elaborating the Work Identification Sheet;</li> <li>encourages legal deposit of written publications, edited and published and/or printed by UFSC;</li> <li>provides guidance to publishers on ISBN and ISSN;</li> <li>promotes mandatory curricular internships, especially in the field of Library Science;</li> <li>publishes texts on topics of interest to the university community through Fala Biblioteca;</li> <li>promotes guided visits;</li> <li>has various commissions, study groups, work and research teams;</li> <li>conducts process mapping and unifies management documents.</li> </ul>

Source: Developed by the research authors based on Rossi (2023).

Many of these initiatives can be replicated in other locations, always taking into account the reality of the library and adapting to the needs of its audience. Publicizing these services that are aligned with the SDGs is important to inspire other libraries in their actions

and to give visibility to the potential that libraries have to collaborate with sustainable development.

It is clear that university libraries, while playing a prominent role as integral parts of the Teaching, Research, and Extension processes, pillars of the university's social function, also organize and disseminate the knowledge produced in universities as scientific institutions, which feeds back into the education systems and science itself.

#### **4 METHODOLOGY**

This exploratory research employs a quantitative and qualitative approach, with the prevalent data collection technique being a questionnaire containing both open-ended and closed questions in electronic format. Documentary research was used as a complementary technique.

The study universe consisted of all libraries of federally-maintained universities located in the Brazilian Amazon, a territory encompassing the states of Acre (AC), Amazonas (AM), Amapá (AP), Pará (PA), Rondônia (RO), Roraima (RR), Tocantins (TO), and partially the states of Mato Grosso (MT) and Maranhão (MA).

A careful survey identified a total of twelve Federal Universities in this territory, all with their respective central libraries, to which an electronic "Google forms" questionnaire was sent via email between February 21 and May 21, 2024. The form contained ten questions designed with attention to the study's objectives, relating to knowledge about the SDGs, their incorporation into institutional strategic plans, the provision of educational products and activities in the library, as well as its contribution to the operationalization of social responsibility policies in their communities. Additionally, there were questions about the support provided for scientific research, the impacts generated by initiatives on the academic community and the region where the university library is located, and the main challenges faced in integrating the SDGs into university library practices.

The initial response was limited, but after additional contacts via telephone and messaging applications, a total of nine responses were obtained. This resulted in a sample of nine information units, as shown in Table 3 below, corresponding to 75% of the total. We emphasize that the questionnaire was directed to librarians working in management or coordination roles in these libraries.

Table 3 - Research Sample

REGION	STATE	FEDERAL HIGHER EDUCATION INSTITUTIONS
	AC	Federal University of Acre
		Federal University of Western Pará
	PA	Federal University of South and Southeast Pará
NORTH		Federal University of Pará
		Federal Rural University of the Amazon
	TO	Federal University of Tocantins
		Federal University of Northern Tocantins
	RO	Federal University of Rondônia Foundation
	RR	Federal University of Roraima

Source: Developed by the research authors (2024).

The following section presents the results obtained from the conducted research, emphasizing the main findings and analyses performed, describing in detail the collected data and interpreting them in light of the objectives defined for this study. The revealed information aims to provide an in-depth understanding of the investigated phenomenon and serve as a basis for further discussions.

## 5 THE DEMOCRATIZATION OF INFORMATION AND EDUCATION IN FEDERAL UNIVERSITY LIBRARIES OF THE BRAZILIAN AMAZON

One of the initial questions addressed the professionals' familiarity with the SDGs, and 100% of the responses were affirmative. When asked whether the University Library where the librarian works incorporates the SDGs into its institutional goals or strategic plans, eight responses (88.9%) indicated that they do, while only one response (11.1%) was negative.

It was noted that if the previous response was affirmative, there was a follow-up question about the specific areas where the SDGs are integrated. The options included aspects such as access to information, quality education, environmental sustainability, and "other," allowing respondents to specify areas not listed. Of the eight responses, only one selected the "other" option with the following information: eradication of poverty; zero hunger; health and well-being. Table 4 presents the data:

Table 4 - Areas of SDG integration in university libraries

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INTEGRATION AREA	L1	L2	L3	L4	L5	L6	L7	L8	
Access to information	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	
Quality education	Χ	Χ	Χ	Χ		Χ	Χ	Χ	
Environmental sustainability		X	Χ	Χ			Χ		
Poverty eradication							Χ		



Zero hunger				Χ	
Health and wellness				Χ	

Source: Developed by the authors (2024).

Regarding the provision of educational activities or Information Literacy development in the routine of university libraries, the responses included the following options: user training, reading promotion projects, environmental education projects, actions promoting civic engagement, projects aimed at the inclusion of vulnerable groups, and the option "other," allowing respondents to specify actions not covered by the previous alternatives. Among the additional actions listed under "other," the following were mentioned: institutionalized projects focused on traditional communities and extension projects aimed at providing access to information and audiovisual materials, each offered by a different university library. Table 5 presents the obtained results:

Table 5 - Educational activities or development of Information Literacy in the university library

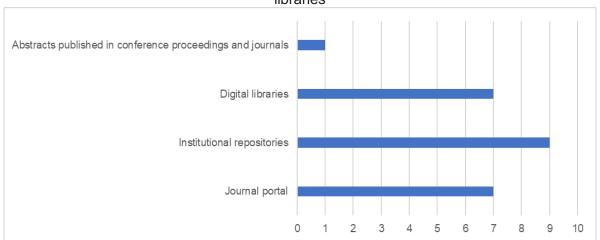
ACTIONS DEVELOPED	L1	L2	L3	L4	L5	L6	L7	L8	L9
User training	Χ	Χ	Χ	Χ	Χ	Х	Χ	Χ	Χ
Projects to encourage Reading	Χ	Χ	Χ	Χ	Χ	Χ	Χ		Χ
Projects focused on Environmental Education		Χ	Χ	Χ			Χ		
Actions in favour of the exercise of citizenship	Χ	Χ	Χ	Χ	Χ	Х			
Projects aimed at the inclusion of vulnerable groups		Χ	Χ		Χ	Х	Χ		
Institutionalized projects aimed at traditional communities				X					
Extension projects focused on access to information and audiovisual media					Х				

Source: Developed by the authors (2024).

It is observed that all nine university libraries (100%) provide user training; eight (88.9%) develop reading promotion projects; four (44.4%) conduct projects focused on environmental education; six (66.7%) have actions supporting civic engagement; five (55.6%) implement projects aimed at the inclusion of vulnerable groups; one (11.1%) executes institutionalized projects focused on traditional communities; and one (11.1%) engages in extension projects aimed at providing access to information and audiovisual materials.

When asked about the development and provision of products that facilitate and enhance the dissemination/democratization of information by the university library, options such as institutional repositories, journal portals, digital libraries, and "other" were listed, with the possibility of selecting more than one response. Under the "other" option, one of the university libraries added "summaries published in conference proceedings and journals."

Chart 1 - Examples of products that enhance the democratization of information in university libraries



Source: Developed by the authors (2024).

Another question sought to determine whether the university library has guidelines, facilitates, or contributes to the implementation of social responsibility policies or the inclusion of vulnerable groups. Of the responses, eight (88.9%) selected "yes," and one (11.1%) selected "no." If the response was affirmative, a follow-up question was asked to specify these initiatives. The options included: existence of accessible infrastructure, availability of assistive technologies, trained professionals in service provision, gender-directed customization, and "other." One of the university libraries listed the use of alternative materials (reusable), citing as an example a battery collection container made from recycled materials. These initiatives are presented in Table 6.

Table 6 - Initiatives adopted by university libraries

INITIATIVES	L1	L2	L3	L4	L5	L6	L7	L9
Existence of accessible infrastructure	Χ	Χ	Χ			Χ	Χ	Χ
Availability of assistive technologies	Χ	Χ	Χ		Χ	Χ	Χ	Χ
Professionals trained to provide services	Χ	Χ	Χ		Χ	Χ	Χ	
Gender-specific customizations	Χ		Χ		Χ			
Use of alternative (reusable) materials, i.e. the used				Χ				
battery collector, built with recycled material								

Source: Developed by the authors (2024).

Regarding the contribution provided by the university library to academic research, all nine (100%) libraries offer assistance in locating relevant information sources, as well as access to specialized databases and support in developing effective search strategies. The "other" option was also present among the responses to this question, selected by two

university libraries, each including an additional action: user training and workshops on information search skills for both physical and digital collections.

When well planned and executed, all these initiatives can generate immeasurable positive impacts for the academic community and the region where the university library is located, reinforcing the social role that the library should play. As Trindade *et al.* (2023, p. 142) state: "The development of actions related to the SDGs in university libraries constitutes a promising strategy to ensure innovation processes and positive social impacts in the face of societal and informational urgencies."

Regarding the impacts generated by the initiatives, responses included: the provision of comprehensive services enables the inclusion of users, respecting diversity and promoting the dissemination of scientific knowledge produced within the University; availability of information for the academic and external communities; social inclusion, architectural and literary accessibility; better reception and interaction with internal and external communities, based on the provision of the same human resources, materials, equipment, accessible environment, products, and services to all, indiscriminately, respecting the needs and specificities of users, with positive reflections in terms of information dissemination, education, knowledge, entertainment, and citizenship.

The existence of institutional repositories and journal portals contributes to facilitating access to academic and scientific information, promoting the democratization of knowledge, which benefits not only the academic community but also the general public, who gain access to content relevant to their education and development.

Another mentioned consequence, caused by these initiatives, is equal opportunity in accessing information based on the implementation of social responsibility policies and the inclusion of vulnerable groups. This is done, for example, through digital inclusion actions, free access to educational resources, training for users in vulnerable situations, among other actions, with the observation that the existence of accessible infrastructure and assistive technology in the library, such as elevators, adapted restrooms, appropriate furniture for people with special needs, equipment for visually impaired accessibility, and other resources, makes the space more inclusive and accessible for everyone, regardless of their physical condition.

Furthermore, one response highlighted the gain in notoriety in producing texts and articles for publication with the library's support and the enhancement of the collection on Environmental Education, as well as artistic production (various exhibitions of reusable

materials in the library space) and discussion circles on various topics, both inside and outside the library.

Another respondent emphasized promoting users' autonomy concerning the various means and mechanisms available for accessing information, resulting from all actions and projects provided by the System. This factor contributes to making them independent and critical informational subjects, which challenges us to a professional practice aligned with the ever-relevant concept of Information Literacy. In this regard, improving aspects of Information Literacy and combating misinformation within the academic and external communities, particularly among people and groups in vulnerable social conditions, especially women and young people, are aspects corresponding to the impacts observed in one of the university libraries.

Academic initiatives that promote the development of research skills are, therefore, fundamental for generating new knowledge. They not only reinforce intellectual production within institutions but also contribute significantly to regional advancement, such as in the Amazon region. The public nature of these institutions allows such actions to benefit a broader audience, extending beyond academic boundaries and reaching the general community, resulting in a positive impact on the intellectual development of individuals, especially students from other institutions, and supporting the formation of a well-informed and enlightened society. Additionally, they foster sustainable and inclusive growth in the region, improving people's lives.

From the obtained responses, some recurring aspects are noticeable, such as social inclusion and democratization in access to information and knowledge, especially academic production, through wide and free access that meets the informational needs of internal and external communities, paying attention to the specificities of each individual or group, reducing barriers, and promoting equal opportunities.

Thus, it is possible to consider that the availability and dissemination of information, whether in digital form or through accessible physical spaces and assistive technology equipment, enable the diffusion of scientific knowledge and support individuals' critical capacity and autonomy to transform their realities. They develop informational competencies that allow, for instance, the analysis of sources, identification of fake news, combating misinformation, and constructing new knowledge within the university. This ensures that the three dimensions of sustainable development—economic, social, and

environmental—are present in people's daily lives. Figure 2 shows the words with the highest representation in the responses to the question.

interaction resources search inclusion projects opportunity accessibility accessibility accessibility accessibility accessibility accessibility accessibility accessibility accessibility institutional repositories of the production social institutions sustainable institutions sustainable institutions sustainable institutions periodical portals of the projects of the projects of the production scientific diffusion institutions of the projects of the project of the projects of the project of the projects of the project of the project

Figure 2 - Terms that appeared most as impacts generated by university library initiatives

Source: Developed by the authors based on research data (2024).

Among the main challenges faced in integrating the SDGs into the practices of university libraries, the following were mentioned: increasing budget constraints in public universities; the political will to implement and carry out actions that provide access to quality education for all citizens, in addition to eradicating hunger and poverty; investments in infrastructure, technology, and human resources, as integrating the SDGs requires a review and adaptation of the library's services and activities to ensure they are aligned with the SDGs and their targets; and recognition of the importance of environmental literacy, which will enable behavioral changes and learning in ethical, social, and environmental dimensions.

Other mentioned challenges included: ensuring access to financial resources that enable the implementation and continuity of actions and projects, as well as raising awareness about the SDGs and their importance in all university units, aiming for effective support from administrative management; infrastructure and financial investment; lack of financial and human resources, awareness, and team support, which, despite receiving training and encouragement to pursue professional development, shows resistance; and measuring the impact of library practices in promoting the SDGs is a challenge, especially if there are no clear indicators and adequate monitoring systems.

It is worth noting that the challenges faced by these libraries largely stem from their dependence on public resources in times of scarcity within the federal power that maintains them. However, in addition to these difficulties that affect essential factors for their better performance, they need to overcome natural and infrastructural constraints peculiar to the region. These include problems such as vast distances inaccessible by land transport, poor internet signal coverage, and even the lack of specialized human resources from the localities themselves.

## 5.1 Institutional Development Plan for the Federal Universities of the Brazilian Amazon

When examining whether the mission, vision, and values of the federal universities in the Brazilian Amazon included in this study encompass environmental issues, it is possible to observe their commitments to sustainable development and environmental preservation, as demonstrated in Table 7 below:

Table 7 - Presence of environmental issues in federal universities' IDPs

INSTITUTION	MISSION	VISION	VALUES
Acre Federal University			X
Federal University of Western Pará		X	X
Federal University of Southern and Southeastern Pará			
Pará Federal University	X	X	X
Federal Rural University of the Amazon	X		X
Tocantins Federal University	X		X
Federal University of Northern Tocantins	X		X
Rondônia Federal University Foundation			X
Roraima Federal University	X		

Source: Developed by the authors (2024).

The actions of the Acre Federal University should be guided by respect for nature as a fundamental value, adopting and practicing sustainable measures to protect the environment (Universidade Federal do Acre, 2019). The Federal University of Western Pará aims to be recognized for its excellence in producing scientific, technological, interdisciplinary, and intercultural knowledge, promoting sustainable development, and reducing inequalities through education for citizenship in the Amazon. Its values include sustainability, ethics, transparency, and autonomy, aligning with the principles guiding the institution's actions and its responsibilities towards the environment, society, and public management (Universidade Federal do Oeste do Pará, 2024).

"To produce, socialize, and transform knowledge in the Amazon for the formation of citizens capable of promoting the construction of an inclusive and sustainable society" (Universidade Federal do Pará, 2016, p. 31) is the mission of the Federal University of Pará, which seeks to be nationally and globally recognized through quality teaching, knowledge production, and creative and innovative sustainable practices, defending human rights and environmental preservation. Notably, this was the only institution in the study's sample that included environmental issues in its mission, vision, and values.

The Federal Rural University of the Amazon has the mission "To train qualified professionals, share knowledge with society, and contribute to the sustainable development of the Amazon" (Universidade Federal Rural da Amazônia, 2015, p. 12), with values of social and environmental responsibility, emphasizing the environmental services provided by nature for social well-being.

The mission of the Federal University of Tocantins is "To train citizens committed to the sustainable development of the Legal Amazon through innovative, inclusive, and quality education" (Universidade Federal do Tocantins, 2021, p. 35), with sustainable development as one of its values.

The Federal University of Northern Tocantins has the mission to prepare conscious individuals and skilled professionals to generate knowledge that promotes the region's sustainable growth. Its values include respect for socio-environmental diversity, which implies recognizing and valuing the connection among a given region's social, cultural, and environmental aspects, seeking to promote sustainability and equitable and inclusive development (Universidade Federal do Norte do Tocantins, 2022).

The principles and values of the Federal University of Rondônia Foundation include the defense of social transformation, emphasizing the promotion of ethnic, cultural, and biodiversity diversity (Fundação Universidade Federal de Rondônia, 2019). This means that the institution is committed to contributing to constructing a more just and inclusive society, where different ethnic, cultural, and biological groups are respected and valued. Federal University of Rondônia seeks, therefore, to promote equity, respect for differences, and the preservation of the cultural and biological richness present in the region where it operates.

The Federal University of Roraima has the mission "To produce, integrate, and socialize knowledge to form citizens committed to cultural, social, economic, and environmental development" (Universidade Federal de Roraima, 2023, p. 29).

Although the Federal University of Southern and Southeastern Pará does not explicitly include environmental issues in its mission, vision, and values, the other institutions demonstrate a significant commitment to sustainability and environmental preservation in their academic and institutional activities.

#### 6 CONCLUSIONS

The 2030 Agenda and the 17 SDGs established by the UN highlight various areas where humanity needs to dedicate attention and care, especially to improve the quality of life for those who need it most. Universities, as institutions that train professionals and shape conscious and critical individuals regarding their actions and realities, develop strategies to achieve desirable goals and objectives within a set timeframe through their IDPs.

In the 21st century, it is imperative to address sustainable development themes in aspects such as the mission, vision, and values of Higher Education Institutions, guiding their conduct both politically and ethically, and representing a pressing concern for the preservation of biodiversity and natural resources, as well as the continuation of life on the planet.

This study emphasized the importance of federal university libraries located in the Brazilian Amazon region, especially in the context of promoting SDG 4 - Quality Education, as inclusive spaces for democratizing access to information and empowering individuals. By serving as centers of access to reliable information for everyone, including people in vulnerable situations and/or with disabilities, university libraries play a crucial role in fostering transformative and equitable education, supporting research, teaching, and extension activities in universities, particularly in public institutions that provide quality and free education.

Furthermore, by offering accessible resources, infrastructure, services, and products, libraries contribute to reducing inequalities by facilitating access to knowledge for all social groups, without distinction. This aspect is particularly noteworthy in the Amazon region, where territorial extension and socioeconomic barriers often hinder access to education, especially higher education.

However, the research revealed that despite the progress made by some institutions, there is still much to be done to maximize the potential of university libraries in achieving the SDGs. This includes more investment in infrastructure, assistive technology,

and professional training, as well as expanding access to the internet, digital libraries, and journal portals, with special attention to more remote areas. The topic needs to be frequently discussed in libraries, seeking the best strategies for a broad-reaching emancipation process.

In this context, the Librarian needs to appropriate this knowledge to be able to implement actions and manage the university libraries of federal higher education institutions in the Brazilian Amazon, to contribute to the fulfillment of the Agenda. It is essential that this professional is active in the environmental cause and sees their work as a crucial factor in eradicating extreme poverty and hunger, positioning the library as a support for providing quality education not only at the higher education level but throughout people's lives, striving to contribute towards the protection of the planet and the promotion of peaceful and inclusive societies by 2030, as the universal plan stipulates.

An alternative to overcome the identified challenges is to seek to sensitize, raise awareness, and motivate the team working in the university library and the institution where it is integrated to know and support the 2030 Agenda, incorporating a culture of sustainability in the library and the university. Additionally, it is necessary to implement actions in their IDPs that relate to the SDGs, as well as establish partnerships for creating projects and obtaining resources with civil society, public and private entities.

These attitudes in the scope of planning, management, and organizational culture need to be complemented by sensitivity, creativity, and an additional differentiated effort from the public power, federal in this case, in supporting scientific institutions in the Amazon. There is a need to improve the means that allow overcoming the difficulties pointed out. Some effort in this direction must be recognized, such as the Distance Learning Librarians training being developed through a project involving the Open University of Brazil, the Ministry of Education, UFPA, and the Federal University of Amazonas (UFAM), with the monitoring of the Federal Council of Library Science.

Another initiative with the potential to contribute to overcoming the mentioned challenges and which already shows some results was the implementation of postgraduate programs in the area of Information Science at UFPA in 2016 and in Information and Communication at the UFAM in 2022. By favoring reflection and scientific production on issues related to information in its interconnections with fundamental strategic issues for the region, as in the case of this study, these initiatives are already redefining the professional standard within university libraries.

In summary, this research sought to highlight the importance of federal university libraries in the Brazilian Amazon in achieving the SDGs, as they are agents of social transformation and contribute significantly to sustainable development. It is hoped that this topic will become increasingly present in research, in Information Science debates, and in the daily operations of libraries, as there is still much to be done. The recognition and strengthening of these spaces promote the appreciation of their role in ensuring a fairer, more inclusive, and sustainable future for present and future generations, from both the Amazonian and global perspectives.

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