

The contribution of research, teaching, and extension at UFMS to the Sustainable Development Goals (SDGs) of the 2030 Agenda

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Introduction

From the middle of the twentieth century the connection between the exploitation of natural resources and development has become a subject of discussion as society has started to perceive itself as an integral part of the environment and susceptible to the consequences of its actions. At this juncture, a new collective awareness has emerged, uniting the concept of economic development with nature preservation. One of the significant milestones of this era was Rachel Carson's book "Silent Spring" (1962)¹, which addressed the hazards of synthetic agricultural pesticides, and the report "The Limits to Growth" (1972)², a collaboration between the Massachusetts Institute of Technology – MIT and researchers from the Club of Rome, which issued a warning about the risk of planetary collapse if economic and population growth rates were to be sustained.

Created in 1945, the United Nations – UN began organizing international meetings to discuss economic growth and the environment. The first one, held in Stockholm in 1972³, led to the creation of the United Nations Environment Programme – UNEP, established to chart the future course of the environmental agenda, and to be the highest authority in global environmental protection. In 1983, the World Commission on Environment and Development – WCED, under the leadership of former Norwegian Prime Minister, Gro Harlem Brundtland, produced the report "Our Common Future" (1987)⁴, which brought the concept of sustainable development as one that meets the needs of present generations without compromising the ability of future generations to meet their own needs.

This concept was consolidated after the UN Conference on Environment and Development – UNCED, held in Rio de Janeiro in 1992, also known as the "Earth Summit", "Eco-92" or "Rio-92". One of the main products of this event was the creation of "Agenda 21"⁵, a comprehensive action plan for implementation at the local, national, and global levels, encompassing all areas where human activities impact the environment. In addition, other smaller conventions took place in parallel during these meetings, at Rio-92, one of them discussed biological diversity and desertification in countries that are affected by drought. Subsequently, in 1997, the "Earth Summit +5" assembly reviewed the ways of implementation and evaluated the progress of Agenda 21 since 1992.

¹ Rachel Carson. *Primavera Silenciosa*. Translated by Claudia Sant'Anna Martins. São Paulo: Gaia, 2010.

² Donella H. Meadows *et al.* *The Limits to Growth*. New York: Universe Books, 1972.

³ United Nations. "United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm". Accessed July 31, 2023, <https://www.un.org/en/conferences/environment/stockholm1972>.

⁴ Gro H. Brundtland *et al.* *Our common future*. Oxford: Oxford University Press, 1987.

⁵ United Nations. *Agenda 21*. Translated by Ministry of Foreign Affairs. Brasília: Chamber of Deputies, 1995.

In the following years, the concern shifted to identify and plan for the socio-environmental challenges that arose at the beginning of a new millennium. At the UN headquarters in New York the “Millennium Summit” took place in the year 2000. The meeting was attended by representatives of 189 countries and culminated in the “Millennium Declaration”⁶. This document established the 8 Millennium Development Goals – MDGs with validity until 2015: 1. Eradicate extreme poverty and hunger; 2. Achieve universal primary education; 3. Promote gender equality and empower women; 4. Reduce child mortality; 5. Improve maternal health; 6. Combat HIV/AIDs, malaria, and other diseases; 7. Ensure environmental sustainability and 8. Global partnership for development.

The 2002 World Summit on Sustainable Development – WSSD, known as “Rio+10”, held in Johannesburg, represented an opportunity to assess the achievements made so far and establish the instruments to reach the goals not achieved⁷. The emphasis was placed on multilateral partnerships between countries, with the presence of different segments of society, including heads of state, non-governmental organizations, private companies, and other stakeholders. The “Implementation Plan” and the “Johannesburg Declaration on Sustainable Development” were the outcomes delivered after the meeting.

In 2012, the “Rio+20” aimed to measure the progress of countries in the last decade and renegotiate commitments with states. The conference had two main themes: green economy in the context of sustainable development and poverty eradication; and the institutional framework for sustainable development. The document “The Future We Want”⁸ marked the beginning of a new agreement, leading to the establishment of the United Nations High Level Forum – HLPF and initiating discussions for the creation of the well-known Sustainable Development Goals – SDGs in succession to the MDGs.

After Rio+20, the UN General Assembly began planning the future of the environmental agenda. At the UN Headquarters, in New York, between 25 and 27 September 2015, 193 countries signed the action plan entitled “Transforming Our World: the 2030 Agenda for Sustainable Development”. The document established 17 SDGs and 169 targets for implementation on a global scale by 2030 in crucial areas: people, planet, prosperity, peace, and partnership, to achieve what the MDGs have not accomplish⁹. Now, in the year 2023, we have reached the midpoint between 2015 and 2030, and due to insufficient progress or setbacks, we must reevaluate our actions in pursuit of the SDGs to come as close as possible to what we desire for society and the environment.

The website of the UN Statistics Division of the Department of Economic and Social Affairs - UNSD/DESA gathers data from hundreds of indicators and countries, areas, or regions towards the achievement of the SDGs¹⁰. However, it is important to highlight that since the start of the implementation of the 2030 Agenda, the quantity and quality of data provided have been insufficient for a reliable analysis of reality. These pieces of information are consolidated in reports, with the most recent being “The Sustainable Development Report

⁶ United Nations. “United Nations Millennium Declaration”.

Accessed July 31, 2023. <https://www.un.org/en/conferences/environment/newyork2000>

⁷ United Nations. “World Summit on Sustainable Development (WSSD), Johannesburg Summit”.

Accessed July 31, 2023. <https://sustainabledevelopment.un.org/milestones/wssd>.

⁸ United Nations. “Rio+20 outcome document The Future We Want”.

Accessed July 31, 2023. <https://www.unep.org/resources/report/rio20-outcome-document-future-we-want>.

⁹ United Nations. “Transformando Nosso Mundo: A Agenda 2030 para o Desenvolvimento Sustentável”.

Accessed July 31, 2023. <https://brasil.un.org/pt-br/91863-agenda-2030-para-o-desenvolvimento-sustentavel>.

¹⁰ United Nations. “SDG Indicators Database”.

Accessed July 31, 2023. <https://unstats.un.org/sdgs/dataportal>.

2023: Special Edition”¹¹, published in July 2023. This report marks the halfway point between 2015 and 2030 and will serve as the basis for discussions at the 2023 SDG Summit.

Based on the assessment of the SDGs against current trends, this report has found that only 15% of the SDGs are on track to achieve the desired path by the year 2030. Despite some progress, 48% of the SDGs are moderately or severely off track from their targets, and the remaining 37% have stagnated or regressed compared to the 2015 baseline data. Another issue, as previously discussed, lies in the limited availability of information regarding the indicators measuring the progress of the 169 targets. Data is scarce, scattered, and fragmented, making it challenging to continuously monitor progress and conduct comparisons between countries.

UFMS and 2030 Agenda

The Federal University of Mato Grosso do Sul – UFMS is the largest higher education institution in the state of Mato Grosso do Sul, has sustainability as one of its most important institutional values and is committed to sustainable development. Its mission is to develop and socialize knowledge to form qualified professionals for the transformation of society and the sustainable growth of the country¹². Since 2018, research, teaching, and extension projects, when registered at the university, are linked to at least one of the 17 SDGs of United Nations' 2030 Agenda. Therefore, project coordinators are required to reflect on the contribution of actions from the perspective of sustainability, helping to raise awareness among the academic community about the importance of sustainable development.

The University Council – COUN, through Resolution COUN No. 76/2020¹³, has approved the new organizational structure of UFMS and created the Sustainable Development Board – DIDES, responsible for coordinating and articulating the university's sustainability actions. The inclusion of the term "sustainability" in the Statute, the highest institutional norm, was carried out with Resolution COUN No. 93/2021¹⁴, which strengthened the regulatory framework for sustainable development activities within the institution. Furthermore, the Board of Directors – CD through Resolution CD No. 260/2022¹⁵, approved the UFMS Sustainability Policy, which provides that the SDGs must be observed in the actions promoted by the university in accordance with the policy guidelines.

In 2021, the Institutional Development Plan – PDI was realigned and integrated with the Institutional Pedagogical Project – PPI of UFMS for the quadrennium 2020-2024¹⁶. As part of this realignment, the indicator "programs and projects of extension, research, entrepreneurship, teaching, innovation, sustainability, and institutional development linked to the SDGs" was included into the axis "qualify and internationalize scientific research, technological development, entrepreneurship, and innovation", demonstrating the institution's commitment in meeting the SDGs.

¹¹ United Nations. "The Sustainable Development Goals Report 2023: Special Edition".

Accessed July 31, 2023. <https://unstats.un.org/sdgs/report/2023/>.

¹² Federal University of Mato Grosso do Sul. "Missão, Visão e Valores".

Accessed Aug 1, 2023 <https://www.ufms.br/missao-visao-e-valores/>.

¹³ Federal University of Mato Grosso do Sul. "Resolução nº 76-COUN/UFMS, de 29 de dezembro de 2020".

Accessed Aug 1, 2023. <https://boletimoficial.ufms.br/bse/publicacao?id=413303>.

¹⁴ Federal University of Mato Grosso do Sul. "Resolução nº 93-COUN/UFMS, de 28 de maio de 2021".

Accessed Aug 1, 2023. <https://boletimoficial.ufms.br/bse/publicacao?id=426373>.

¹⁵ Federal University of Mato Grosso do Sul. "Resolução nº 260-CD/UFMS, de 20 de abril de 2022".

Accessed Aug 1, 2023. <https://boletimoficial.ufms.br/bse/publicacao?id=454467>.

¹⁶ Federal University of Mato Grosso do Sul. "PDI/PPI 2020-2024".

Accessed Aug 1, 2023. <https://pdi-ppi.ufms.br/>.

Results

According to data provided by the Information and Communication Technology Agency - AGETIC of UFMS, between 01/01/2018 and 31/12/2022, 15,377 projects were registered in the Project Management System - SIGPROJ specifying which SDGs the proposal addresses. These projects were subdivided into three categories: 7,846 of extension, culture, and sports; 5,906 of research, graduate, internationalization, and innovation; and 1,625 of undergraduate and student affairs. The most assigned SDGs considering all projects were: SDG 4 at 39.06% of total (6,006 projects), followed by SDG 3 at 36.36%, SDG 8 at 13.46%, SDG 15 at 13.01%, and SDG 16 at 12.89%.

By category, among the 7,846 projects in extension, culture, and sports, SDG 4 appeared in 43.65% of the registered projects (3,425 projects), followed by SDG 3 at 37.97%, SDG 16 at 14.92%, SDG 8 at 14.47%, and SDG 10 at 11.99%. In the 5,906 research, graduate, internationalization, and innovation projects, SDG 3 was most frequently assigned at 35.86% (2,118 projects), followed by SDG 4 at 26.16%, SDG 15 at 15.76%, SDG 2 at 13.24%, and SDG 12 at 12.97%. In the 1,625 undergraduate and student affairs projects, SDG 4 predominated in 63.75% of the projects (1,036 projects), followed by SDG 3 at 30.40%, SDG 16 at 15.02%, SDG 10 at 12.49%, and SDG 5 at 12.12%.

Conclusion

The relationship between economic development and the use of natural resources has been a debated issue as society perceives its interdependence with the environment. The UN has held several conferences to discuss the environmental issue in the world, for example, Stockholm (1972), Eco-92 (1992), Millennium Summit (2000), Rio+10 (2002) and Rio+20 (2012). There have been decades of consolidation of the international commitment to sustainable development. The 2030 Agenda was constructed, and the 17 SDGs were defined. UFMS is committed to seeking sustainable development within its activities, considering the need to form qualified professionals for the transformation of society and sustainable growth of the country. According to the available data, 15,377 projects were registered with the specification of at least one SDG that they meet. The most representative SDGs were respectively SDG 4, SDG 3, SDG 8, SDG 15, and SDG 16.