

Transforming Ethiopian Applied Science Universities: Integrating SDGs for a Sustainable Future

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Executive Summary

The global push to achieve the Sustainable Development Goals (SDGs) by 2030 has placed higher education institutions (HEIs) at the forefront of transformative change. Ethiopia, a country facing significant development challenges such as environmental degradation, gender inequalities, and poverty, is looking to its Universities of Applied Sciences (UASs) to address these issues through practical, application-based education. However, integrating the SDGs into the curricula, research, and community engagement activities of UASs remains a challenge that requires targeted efforts and institutional support. This policy brief emanates from a pilot study conducted at Jigjiga University and Wolaita Sodo University, two institutions that have made initial attempts in aligning their educational practices with the SDGs. The study provides valuable insights into the successes and challenges these universities have faced in integrating sustainability into their programs. It also highlights the potential for UASs to be powerful agents of change by tailoring their educational offerings to directly address national and global development priorities. Based on the findings, the policy brief outlines strategic recommendations for enhancing the role of Ethiopian UASs in SDG implementation. Key proposals include aligning curricula with SDG-related themes, establishing dedicated sustainability centers for research and outreach, strengthening partnerships with industries, and fostering interdisciplinary research. These recommendations are designed to guide Ethiopian UASs in becoming key contributors to the country's sustainable development goals, demonstrating the potential of higher education to drive meaningful change at both local and national levels.

1. Introduction

The adoption of the United Nations 2030 Agenda for Sustainable Development in 2015 marked a global commitment to building a more inclusive, equitable, and sustainable world through the achievement of 17 Sustainable Development Goals (SDGs) (United Nations, 2015). These goals offer a convergent strategy to address global challenges, emphasizing the need for integrated solutions. Universities of Applied Sciences (UASs) are mandated to contribute to these solutions, with their core missions of teaching, research, innovation, and community service providing a platform for translating SDGs into practical, localized actions (Hunde et al., 2023). In Ethiopia, the urgency of integrating SDGs into UASs is even more pronounced, given the country's challenges with youth unemployment, environmental degradation, and inadequate alignment between education and labor market needs (Zewdie & Dibaba, 2022; Moges et al., 2023).

Despite national and international commitments to sustainable development, the operationalization of the SDGs within Ethiopia's higher education system remains limited, with Ethiopian UASs yet to fully align their curricula, research, and community programs with SDG objectives (Federal Democratic Republic of Ethiopia, 2016). This policy brief emphasizes the barriers and opportunities for SDG integration in these institutions and providing actionable recommendations to enhance their role in advancing sustainability.

2. Policy Problem Statement

The integration of the SDGs into Ethiopian UASs remains limited, hindering their potential to address the nation's pressing challenges. A pilot study conducted at Jigjiga University and Wolaita Sodo University revealed significant barriers, including a lack of institutional frameworks, inadequate interfaculty collaboration, and insufficient alignment between academic programs, research agendas, and the SDGs. These challenges contribute to the misalignment between education outputs and labor market demands, exacerbating graduate unemployment. Therefore, a targeted policy intervention is crucial for addressing the challenges and unlocking the full potential of UASs in advancing sustainable development in Ethiopia.

3. Opportunities of integrating SDGs in UASs

The opportunities (Table 1) provide ways for UASs to contribute significantly to Ethiopia's sustainable development agenda and improve the alignment of higher education with the SDGs.

Table 1: SDGs integration opportunities with associated descriptions

Opportunity	Description
Curriculum alignment with SDGs	Opportunities to revise and align university curricula with the SDGs to foster a more sustainable, multidisciplinary, and practical approach to education.
Inter-faculty collaboration	Encouraging collaboration across departments to integrate SDG-focused research, teaching, and community engagement, fostering cross-disciplinary solutions.
Research innovation for sustainable development	UASs can serve as hubs for research aimed at addressing local and global sustainability challenges, providing innovative solutions to Ethiopia's ecological and social issues.
Increased industry partnerships	SDG integration can attract partnerships with international organizations, NGOs, and the private sector, creating funding opportunities and practical learning experiences.
Student empowerment for SDG leadership	Engaging students with SDG-related projects empowers them to become leaders of sustainable change, addressing challenges like unemployment and social inequality.

Community engagement and outreach	Universities can leverage their outreach programs to engage local communities in SDG initiatives, promoting environmental stewardship and social development.
International recognition and collaboration	Aligning with the SDGs can enhance the global standing of Ethiopian UASs, enabling collaboration with international universities and organizations.

4. Challenges of SDGs integration in UASs

The challenges (Table 2) indicate the institutional, structural, and operational barriers that need to be addressed to unlock the transformative potential of UASs in contributing to Ethiopia's sustainable development.

Table 2: Challenges on SDGs integration with associated descriptions

Challenge	Description
Limited institutional awareness of SDGs	Many academic and administrative staff lack sufficient knowledge about the SDGs, their relevance, and how to integrate them into university functions.
Absence of clear national guidelines	There are no specific national frameworks or operational guidelines directing UASs on how to implement SDG-focused activities in curriculum, research, and outreach.
Fragmented coordination structures	Lack of coordination among university departments, and between universities and external stakeholders, limits coherent SDG implementation.
Inadequate funding and resource allocation	Financial limitations hinder the development of SDG-aligned programs, interdisciplinary research, and community-based sustainability projects.
Low integration in curriculum and research	Most programs remain discipline-specific, with limited incorporation of sustainability concepts and cross-sectoral research linked to the SDGs.
Weak university–industry–community linkages	UASs have limited engagement with industries and communities, reducing the practical application of SDG initiatives and local impact.
Lack of monitoring and evaluation mechanisms	Universities lack tools and systems to track SDG-related performance, assess outcomes, or inform strategic planning and improvement.

5. Policy Recommendations

The recommendations (Table 3) offer practical policy options based on insights from the pilot study and associated experiences. They aim to integrate the SDGs into the core functions of Ethiopian UASs: teaching, research, governance, and community service.

Table 3: SDG integration policy options for Ethiopian UASs

Policy Option	Key Action	Pros	Cons	Stakeholders
Develop a national SDG integration framework	Issue a framework aligning SDGs with UASs functions	Provides national direction; ensures consistency across UASs	May require significant time and resources to develop and disseminate	MoE along with Development Partners
Establish SDG coordination units in UASs	Create dedicated offices or focal persons responsible	Enhances coordination, monitoring, and	Could face resistance or resource constraints	MoE, UASs

	for SDG mainstreaming	institutional ownership	from institutions	
Revise and harmonize curriculum to include SDG content	Embed interdisciplinary sustainability and SDG content into programs	Builds student competencies in real-world sustainability issues	Curriculum revision can be lengthy and requires capacity building	MoE, UASs
Promote SDG-aligned research and innovation	Allocate funding and recognition for SDG-focused interdisciplinary research	Encourages innovation and relevance to national development needs	Risk of overburdening faculty without adequate incentives	UASs, Granting Agencies,
Strengthen university–community–industry linkage	Facilitate platforms for UASs collaboration with local actors on SDG projects	Enhances real-world impact, relevance, and employability of graduates	May require new partnership models and outreach structures	UASs, Local Governments, Industries, NGOs
Implement SDG monitoring and evaluation systems	Introduce M&E tools for tracking SDG-related teaching, research, and service	Supports evidence-based planning and continuous improvement	M&E systems require technical expertise and initial investment	MoE, UASs, Development Partners

6. Conclusion

Integrating the SDGs into the Ethiopian UASs presents a transformative opportunity to align higher education with national and global development priorities. The pilot study conducted at Jigjiga and Wolaita Sodo Universities reveals both institutional potential and existing gaps in SDG integration. With the right policy interventions including clear guidelines, curriculum reform, strengthened partnerships, and vigorous monitoring mechanisms, UASs can become agents of sustainable innovation, employment, and community impact. Urgent and coordinated action from government, academia, and development partners is essential to realize this vision and ensure that UASs contribute meaningfully to Ethiopia's sustainable future.

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