

Leadership Role in Higher Education for Sustainable Development Goal: Reflections from Tribhuvan University

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Abstract

This study aims to seek the answer to the question of how to lead higher education institutions to incorporate sustainable development goals_4.7, especially to work as transformation agencies. It applied the qualitative research methodology to conceptualize the underlying educational mechanism. It generates facts from open-ended questions and policy documents. The analysis is based on in-depth interviews with the university's high-ranking officials. The result reveals that central-level policy and TU Vision are yet to be embedded to acknowledge the goal in these three areas: research, curriculum revision on meeting labor market demands, and collaboration. Therefore, the incorporation of the goal into the university's system is becoming an extra project. Moreover, it explores that institutional memory and transforming the national priority into a university extensively depends on the leader's role. As none of the executive leaders express the concept of goal in the higher education system, it is revealed that existing leadership practices are unstructured. This study raises the issue regarding the role of leadership and existing leadership practices in fostering SDG culture. This study will be one of the research documents for sensitizing leaders to improve higher education institutions' national and global arena. This research is Nepal's first study of its type with a broad understanding of the context and concept of Sustainable Development Goals at Tribhuvan University from the aspect of leadership.

Keywords: National priority, sustainable development goal, role of leadership, higher education institutions

Introduction

The Sustainable Development Goals (SDGs) serve as a global framework for advancing social, environmental, and economic development. It is more critical than ever for the global community today than when it was introduced by the United Nations (UN), encompassing a total of 21 agendas as action plans, which were developed in 1992, herald a new phase of a concerted effort by the world to realize this plan of action for people, the planet, and prosperity. In this regard, Leal Filho et al. (2019) argue that that of educationists is paramount” and, further, that they have a “social responsibility” to foster competencies for sustainable development amongst and within their students and communities. Similarly, Leal Filho et al. (2019) present that universities have a “moral duty to contribute to the society in which they thrive”. They have highlighted that Higher Education Institutions (HEIs) have been integrating sustainability into their curricula, management and operational systems, and community outreach efforts for years.

The authors, Filho et al. (2019) further posit that “Universities influence local communities by serving as models for sustainability and by providing socio-economic contributions to their host communities through the graduates that are employed in the local region or creating living laboratories in cooperation with stakeholders within their communities”. The research revealed that higher education institutions play a key role in the achievement of the SDGs as agents. In the World, there is a wide range of debates, undergoing for embedding sustainable development goals in Higher Education Institutions (HEIs) (*MoEST, 2019a; Giesenbauer & Müller-Christ, 2020; IAU, 2017; Weber & Dudarstadt, 2012*). According to UNESCO IIEP (2017), “Higher education is a cornerstone for the Sustainable Development Goals.” In the early decades of the 21st century, Higher Education for Sustainable Development (HESD) initiatives were introduced and adopted by more than 3 hundred universities worldwide. Higher Education for Sustainable Development Initiatives (HESDI) also emphasizes the responsibility and commitment of leaders and stakeholders in HEIs to teach sustainable development concepts, encourage research on sustainable development issues, curriculum design for sustainable design, and most importantly, support sustainability efforts in communities and share results through international frameworks (Décamps et al., 2017).

In this context, higher-level education is divergent across universities worldwide. There are different approaches and systems in universities, so it is difficult to identify a “one-size-fits-all”. Previous studies (Adhikari & Shah, 2020, 2022, Adhikari, & Shrestha, 2023) show that despite the inadequacy of coordination of both government institutions’ commitments to implement Education for Sustainable Development (ESD) in higher education and documents linked to

Sustainable Development (SD), autonomy structure of the university and their social responsibility have led them to develop several initiatives and policies towards ESD". Adhikari and Shah, (2020) especially, argue that "the Nurturing Excellence in Higher Education Program builds on Nepal's previous successful higher education projects supported through results-based financing. It helps the government of Nepal align its higher education sector with labor market needs, boost collaborative research and entrepreneurship, and improve governance." Further, Adhikari and Shah (2021), left the conclusion that the concept of sustainability is yet to be known how far Nepalese HEIs are engaged in activities to support SDGs in Nepal.

The Nepalese 15th Plan (2019/2020–2023/2024) envisaged internalizing and localizing SDGs through the public sector, federal, provincial, and local governments, private sector, cooperatives and non-government organizations, and civil societies and communities (NPC, 2019). Similarly, Thapa (2024) highlighted that Nepalese universities should be able to respond to SDG, especially, poverty, inequality, unemployment, challenges caused by climate change, mental illness, and other complications in the society. In this regard, Adhikari and Shah (2021) raise the question: "How do executive leaders determine their own sustainability needs and address the pertinent issues with higher education development?" All this is based on their leadership practices with the main issue being the sustainable development goals being implemented in the Nepalese higher education formative offer with the role of an executive leader.

The relationship between the leadership role and SDG in higher educational systems is studied for stepping to find potential answers to the questions, does the leadership role lead to the implementation of the concept of sustainable development goal SDG in policies? and does existing leadership practice effective enough to incorporate the SDG? Based on the research questions, the general purpose of the study is to evaluate how higher education institutions' leaders can incorporate the concept of sustainable development goal; SDG4.7 in its system.

Review of Literature

The Sustainable Development Goals, also known as the Global Goals, were embraced by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity (UN, 2015). The 57th session of the United Nations General Assembly in December 2002 adopted resolution 57/254 announcing the United Nations Decade of Education for Sustainable Development (UN-DESD; 2014-2025) for the period between 2005 and 2014. This resolution aimed to highlight education's critical role in bringing about a more sustainable world (Wals, 2014). Considering the new UN-DESD

(2014-2025), it is time to identify the extent to which higher education institutions (HEI) have introduced sustainable development (SD) in all their activities through a “top-down” process starting with planned activities from the governing body and then involving all stakeholders. To this end, SDGs are included in the 2030 Agenda for SD, launched in September 2015, aimed at promoting the acquisition of knowledge and skills for SD. The agenda is an action plan for SD. Leal Filho et al. (2017a) noted that the sustainable development goals (SDGs) could provide an opportunity to overcome the barriers to achieving sustainability in HEIs. HEIs have an obligatory responsibility to implement the goal because it is an institution that produces manpower and brings the think tank to society. HEIs is the agency to implement national and international policy, indeed. In the context of Nepal, The Nurturing Excellence in Higher Education Program builds on Nepal’s previous successful higher education projects supported through results-based financing. It helps the government of Nepal align its higher education sector with labor market needs, boost collaborative research and entrepreneurship, and improve governance which are basic themes of SDG4 (Adhikari & Shrestha, 2023).

Higher Education Institution and SDG Target 4

Among the 17 goals, SDG4 focuses on “Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all” (United Nations, 2015), prescribing Higher Education Sustainability Initiatives that flow the information regarding higher education with an interface between policy level and HEIs by indicating the profile of the higher education sector in supporting SDG. (United Nation, 2012). (UNESCO, 2012), explores the theme “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” with the sustainability indicators (Table 1).

Table 1
SDG4 Indicators

Indicators	Description
SDG_4.1	Ensure that all girls and boys complete free, equitable, and quality education leading to relevant and effective learning outcomes.
SDG_4.2	Ensure that all girls and boys have access to quality early childhood development, care, and pre-primary education.
SDG_4.3	Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university.
SDG_4.4	Substantially increases the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.

SDG_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
SDG_4.6	Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.
SDG_4.7	Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

Note. Elaborated by the Authors with Public Information from (UNESCO, 2012)

The importance of implementing SDG4 through HEIs is an emerging issue especially for achieving SDG4 and its indicator 7 because target 4.7 aims to focus on mainstreaming (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, in (a) national education policies, (b) curricula, (c) teacher education, and (d) student assessments (*MOEST, 2019*).

Role of Leadership and SDG

There are 3 hundred universities across the globe, accepted and adopted in 2012 and emphasized the roles of all academics, executive leaders, and stakeholders in HEIs to embed sustainable development concepts (Therese & Carmel, 2020). Similarly, some other researchers explored (Machado & Davim, 2022) that while leadership from administrators/managers is important, no less important is institutional leadership from faculty and staff. In the role of leadership in promoting sustainability goals, especially in HEIs, Hueske, & Pontoppidan, (2020) conclude that there has been increasing emphasis on higher education institutions as agents promoting and advancing sustainability and address how sustainability is integrated into management education at higher education institutions. They introduced key indicators that tease out (GEROCO) for embedding sustainability in education, such as Governance, Education, Research, Outreach, and Campus operations.

The role of leadership can be taken as a powerful key to embedding the national level policy into higher education and transforming them into the society at large. Adhikari and Shrestha, (2023) explore that in the absence of HESD literacy and a persuasive strategy, university leadership is less active in lobbying for SDG 4.7 with the government and funding agencies, university faculties, and trade unions. Both insights and initiatives to conceptualize HESD are lacking.

Table 2*Key Findings for Leadership Role*

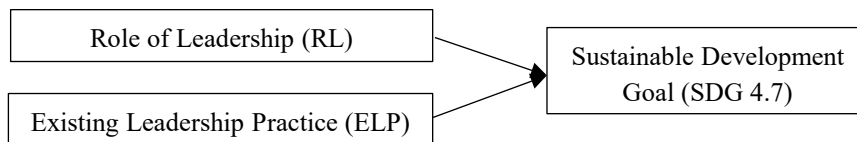
SN	Findings	Author's Name	Theory
1	<i>"It made us realize how difficult and therefore vital it is to cooperate beyond national borders". -Leadership Level, Japan.</i>		
2	<i>"It reduced the attention to SDGs, however, it opened new opportunities, like discussions about the need for a civil dialogue". - Head of Institution, Slovenia.</i>	(IAU, 2023, 27)	Interconnectedness and Interdependence of the globe
3	<i>"It shifted attention and resources away from sustainability to deal with other more imminent crises. It brought into tangible relief the interconnectedness and interdependence of the globe. It accelerated discussions about how equitable partnerships and collaborations will need to be". -Deputy Vice-Chancellor, United Kingdom.</i>		
4	<i>"Because we are a Higher Education Institution, our focus is on the research aspects of the SDGs. We make the university's resources available to nearby communities, and we are part in the making of the next generation of consumers of natural resources."</i> - Leadership Level, India	(IAU, 2023,30)	Social Leader
5	<i>"Collaborate with other universities in research activities for climate change, engaging with communities in terms of the protection of biodiversity lives, and training the public in terms of gender equality". Leadership Level, Fiji.</i>	(IAU, 2023, 31)	Engaging with communities
6	<i>"Leadership is key to advancing universities' engagement with the UN 2030 Agenda and networking and mainstreaming activities and broader initiatives undertaken at the Academic Staff level".</i>	(IAU, 2023, 49)	Role of Leadership

Source. Elaborated by the Authors

Research Gap

In Nepal, the National Planning Commission declared various planning documents and the government's dedication to achieving goal 4.7 can be seen in many programs and budgets. However, Goal 4.7 has been becoming complex and considered difficult, cross-cutting, and qualitative, yet it is quite helpful in achieving HESD. Throughout the literature, it seems that the lack of SDG literacy, financial support, and knowledge of the government's development goals appear to be delaying the progress of HESD at Nepalese HEIs (UNESCO, 2020; Leal Filho et al., 2017; Leal Filho, 2020). Adhikari & Shrestha (2023) presents the scenario regarding SDG4.7 and its potential in HEIs that, as of now, it is unclear among a few university officials whether SDGs are periodic or perennial goals. Moreover, the research concluded that HEIs are not evaluating their teaching–learning goals considering the SDGs' targets and reporting the ESD performance, it is apparent that the HESD roadmap for universities is unclear (Mallow et al., 2020 and UNESCO, 2020). There is a lack of understanding on how to embed and implement these global agendas into HEIs with a holistic approach (Lozano et al., 2015 and O'Malley, 2021), hence, HESD is objectively not understood in Nepalese HEIs. Many Researchers (Adhikari & Shah 2021, 2022; Adhikari & Shrestha, 2022, 2023) in Nepal identified the problem regarding the SDG4.7 implementations that Nepalese universities have been facing problems in funding, behavioral changes, and leadership to incorporate SDGs in their policy, planning, budget, and curriculum. Even after the ratification of SDGs by the Government of Nepal, universities are not involved in academic discourse to conceptualize SDGs. Since, Adhikari and Shah (2021) left the floor for further research, this study aims to analyze the leadership role in Nepalese higher education for the sustainable development goal (Figure 1).

Figure 1
Conceptual Model



Source. Adhikari and Shah (2021)

Methods and Materials

This study relied on a multiple realities method that utilizes several qualitative approaches to data collection. At first, a systematic review of the literature was carried out using Qualitative Evidence Synthesis (QES) that assesses the current status of leadership practice in the university. Secondly, in-depth interviews were

conducted for the opinions of executive leaders of the university. 50 articles, published in peer-reviewed in years 2023 and 2024 were selected for the review.

The researcher discussed and reviewed with the keywords such as; Responsibility of leader or Influence of Leader or Impact of Leader or Duty of Leader or Decision of Leader or HE leaders Contribution or Leaders Empowerment for the role of leader and for SDG4.7, Quality Education or Inclusive Education or Knowledge Transformation or Education for Sustainable Development; or University Culture and Sustainability terms are used.

Further, a purposive sampling technique was used to include executive leaders following the rule of Tribhuvan University (TU, 2050). The researcher engaged in discursive and consultative dialogue with key executive leaders from the University, one of the big universities in Nepal, covering 80% of space in higher education (TU Program and Budget 2024) in Nepal. Executive leaders are purposefully considered as authentically leading Tribhuvan University (TU) in the designation. Semi-structured interviews were conducted 6 hours long with four academic executive leaders including deans and Director of Planning Directorate and two executive Division Chiefs.

Result and Discussion

This study is based upon a descriptive–qualitative approach (Elliott & Timulak, 2021) to contextualize and conceptualize the leader’s role, which was analyzed from leadership and sustainability perspectives. In this research paper the result section is grouped into two segments 1) the context of the existing condition of HESD, and 2) the conceptualization of leadership practice in TU.

The Context of Higher Education for SDG

The theme of the HESD context in Nepalese HEIs is evaluated by the national framework and national education policy for higher education. The following are arguments and key findings that show the expected role of academic leaders as six ring-faced strategies for the Future of Higher Education, especially for one of the large universities in Nepal; TU. To focus on leadership skills to embed the SDG4.7 concepts in the Nepalese educational system, Bhusal, (2023), Thapa, (2024), (Dhamala, 2024) and Joshi, (2024) argue on the following area:

- The Vice-Chancellor and other top leaders have to pay special attention as a top leader to these three aspects which are in line with SDG implementation.
 - Role of Manager; Should be an efficient manager by making the best use of

resources, academically excellent, materially prosperous and environmentally beautiful.

- Role of Guardianship; Should be able to take tough decisions in the current complex situation to transform the youth power of students into creativity.
- Role of Leadership; For the educational upgradation, study and research the latest and priority areas of the nation should be made.
- Leadership, who can pull leadership tactics for evolving academic landscape should be able to take tough decisions for fair, honest and reliable leadership along with a comprehensive transformation strategy.
- The leader has to be committed to connecting the national priority through HEIs, however, executive leaders are failing to use the government grant to promote the SDG4.7.
- First and foremost, the leaders should be engaged in the discourse of what type of education is essential for national development, how the state-funded university should work to achieve that goal, and what type of person can perform well in that direction.
- The university can ensure that the chosen leader is equipped to navigate the challenges of the evolving academic landscape and contribute significantly to the institution's continued success and development.

In the context, of transferring knowledge regarding SDG_4.7 to the teaching-learning process, TU requires leadership skills that explore the competency in terms of academic and administrative efficiencies for effective incorporation of the goal.

The Conceptualization Role of Leaders for SDG

To conceptualize the concept of a leadership role and existing leadership practice, Seven- open-ended questions to the university's deans and directors were asked.

Regarding the questions about The Role of Leaders in SDG, the main issue lies in leadership roles pertaining to the goals in Nepalese HEIs as it has its distinct education system, social networks, student population, societal structures, and universities. However, one of the Deans argued on the role that within this context, effective leadership is crucial, yet it has often failed to establish meaningful

connections with society. All the respond All the respondents express their views on the following statements;

“In the context of Nepalese culture, where the system itself has not been working effectively, it needs continued follow up motivation in every step. Thus, for implementing SDG, the primary responsibility of leadership is to formulate the policies and plans to connect the national level priority to University’s policy to not only impart knowledge but also cultivate practical skills in students.”

The opinions explore that leadership roles are crucial to connecting the national-level priority to the university’s system. Like the research, Adhikari and Shah (2021), The opinion also revealed that the institutional memory and transforming the national priority into a university extensively depends on the leader’s role because SDG4.7 is a new fruit and there is no permanent mechanism in TU’s structure.

In response to existing leadership practice about answering the questions that in line with the national education framework for SDGs, to what extent has the institution integrated HESD into its plans and preparations? and how has existing leadership practice been working?, university’s leaders have stated that although industries and societal sectors eagerly anticipate graduates who possess qualities regarding labor market, the academic plans and policies are not directly related to program and budget. Director of planning explicitly expressed that existing leadership practice yet to be framed mechanically in the line of Plans and Preparations for HESD. Concerning to the answer to the qu to what extent has extent has the institution integrated HESD into its plans and preparations? the director stated:

“For the development of nations, each university and college is established to create new knowledge, provide knowledge, transfer knowledge and skills, and generate knowledge through research and publication. It is the main scope of higher education institutions, indeed. However, TU is yet to be framed and connected with national priority in the line of SDG”

The statement clarifies that the existing leadership practice for plans and preparations for HESD has remained unstructured and undirected. They argue that they are working as movers and shakers for teaching learning structure in a whole-institution approach; however, it is not going well as per expectations in line with SDG, even though they agree that universities cannot stay just as observers which is likely to the research (Weisser, 2017).

Regarding the issue of embedding SDGs' in a whole institutional approach, basically for curricula, research and teaching-learning process (Table 3), university authorities have observed that they are trying to embed the concept of the goal with a collaborative model but lack of clear vision and directions in unification line, they couldn't tie up the national priority in those basic programs.

Table 3

Opinion of TU Leaders on the Leadership Practice for the SD Project

Leaders	Statements
Dean_1	<i>"In addition to the aforementioned programs, a centralized program, wherein a standardized curriculum is established and implemented across all colleges in Nepal, irrespective of their faculty or resources. This approach aims to provide a consistent framework, but there remains a concern regarding the interpretation of this framework regarding SDG4.7."</i>
Dean_2	<i>"Over the last 2 years, demand-driven courses have been introduced by focusing on national priorities. In the line, 30 students are taking benefits from the collaborative student-research program and theoretical knowledge is imparted, however, it is lacking in the practical sector with integrated decisions "</i>
Director	<i>"As it is national and international concerns, university should coordinate jointly with Government, Public Organizations, NGO/ING, Business Companies for implementing SDG in a project form"</i>
Chief	<i>"As it remains unable to work regularly for SDG with central policies. It needs a project-based collaboration with partnering agencies"</i>

Source. Opinions of HEIs' Leaders

The above opinions explored that as SDG is a national and international agenda, Government, Private sector, Non-Government-Organization (NGO), and International Non-Government Organizations (INGO) are obligatory to support in carrying out the projects, leaders should focus on collaborative efforts. This reality is accepted by Adhikari and Shah (2021) in their research.

This research has some limitations, as the result could be approximate because the views of experiences of executive leaders and qualitative reviews are considered to explore the result. Additionally, it incorporated information from scattered sources and policy documents, which can lead to apparent knowledge.

Conclusion and Implications

This research paper incorporated a leadership concept for implementing the SDGs. TU has understood that the Government of Nepal (GoN) formulated the national-level development policy and again forecasted additional SDG indicators, rather than incorporating it as their sectoral responsibility to ensure the quality of education for future generations. In line with the coordination gap, this study explored that leadership roles are crucial in connecting the national level priority into the University's system. Only through the clear realization of SDG4.7 by TU leaders, it can be imposed in the higher education system through research, curriculum revision and the teaching-learning process.

The opinions disclosed that although leaders are aware and feel more responsible for incorporating the national planning to HEIs, it is yet to be disseminated in usable terms. Foremost, the university is yet to be framed and officially structured, as NPC did not authoritatively coordinate with HEIs leaders while formulating the policies. Aligning academic and research efforts with the SDGs is pivotal for addressing pressing global challenges. Curriculum revision should focus on meeting labor market demands, ensuring graduates possess skills and knowledge relevant to current workforce needs. Research outcomes should be oriented towards addressing social needs, ensuring that research initiatives contribute meaningfully to addressing societal challenges and advancing sustainable development. Besides, the major conclusions of this study are;

1. The role of leadership is an inevitable aspect for HESD, as here TU, individual influence, rather than system, matters for even regular activities, so for implementation the SDG4.7, leadership counts a lot.
2. Existing leadership practice is unstructured for SDG4.7. None of the executive leaders formatively state the context and concept of the goal.

This research explored the state of the art of leadership and existing leadership practices in unification and integrated approach. Thus, in the everlasting phenomenon, the best leadership might be a perfect engine for incorporating the agendas through the higher education system by producing high-quality people in society. Moreover, this study will be one of the research documents that provide great insight for sensitizing academic leaders and other TU officials to improve higher education institutions' national and global arena. It broadens the view of HEI leaders, allowing them to see HEIs as a full institution.

Considering the issue of the role of HEIs in sustainability into account in TU, this research work provides practical insights on how to implement HESD in the university by connecting the national-level plans and policies to the university context and embedding them at all levels within its HEIs.

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