Higher Education Quality Assurance: Sustainable Development Policies

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Abstract. Higher Education Quality Assurance, which aims to promote continuous improvement and accountability in universities, places a strong emphasis on proper resource allocation that aligns with strategic management and leadership. Furthermore, the role of higher education institutions in preparing a skilled workforce through the provision of reliable study curricula and fostering innovation has experienced significant growth within the context of integrated development policy-making processes. Over the past few years, the National University of Mongolia (NUM) has implemented several organizational changes and quality policy reforms. This paper delves into specific aspects regarding how higher education quality assurance should encompass sustainable development goals and objectives, particularly in relation to the resource allocation at the National University of Mongolia. To accomplish this, we conducted an exploratory study that involved content analysis of NUM's strategic plan for 2016-2024, along with the examination of the annual plans and reports from the past three years, and the corresponding documents from the Quality Assurance Department of NUM. The study has yielded the following results: While the sustainable development goals have not been directly integrated into the plans and reports, elements of accountability such as the establishment of sustainable and competitive positions for professors, an increased employment ratio of alumni, and enhanced stakeholder involvement have been highlighted in these documents. This study contributes to the existing body of knowledge for both scholars and practitioners by shedding light on how sustainable development goals and their associated objectives are being addressed within university management.

Keywords: Quality assurance in Higher education · Sustainable Development Goals · Case of National University of Mongolia · Content analysis · Strategic and annual plan

1 Higher eduation quality assurance: Sustainable development goals

Enhancing the quality and competitiveness of higher education organizations through a comprehensive analysis of training, research, and the social standing of universities offers several advantages for the social and economic development of countries. The long-term development goals of countries include the following objectives: providing equal opportunities for citizens to access quality education, instituting necessary systemic changes, developing research and evidence-based policies, enhancing planning, monitoring, and evaluation processes, and establishing a higher education system that equips graduates with knowledge and skills meeting international labor market requirements.

Higher Education Quality Assurance, which focuses on continuous improvement and accountability in universities, places a strong emphasis on proper resource allocation that aligns with strategic management and leadership. A well-structured management system is essential for higher education institutions to achieve operational and organizational excellence. It is crucial for universities to effectively manage their resources in alignment with their vision, mission, and strategic objectives. Furthermore, senior management leadership plays a key role in setting suitable strategic directions, defining clear missions and visions, and striving to achieve performance goals and objectives effectively. Another crucial success element is university governance, which encompasses policy and legal regulations as well as the rights and responsibilities of stakeholders.

1.1. Sustainable development goals - Role of universities

The role of universities, which prepare a skilled human resource by providing reliable study curricula and fostering innovation, has experienced exponential growth in the integrated development policy-making process. Universities have become essential stakeholders in the economic development of countries.

The involvement of universities in the processes of formulating sustainable development goals began in 1992 during the UN Conference on Environment and Development (UNCED) [1]. Furthermore, initiatives such as the Sapporo Sustainability Declaration in 2008 and the People's Sustainability Treaty on Higher Education in 2012 have further underscored the importance of universities in achieving the Sustainable Development Goals (SDGs).

In 2021, leaders from 56 global universities representing UN member states highlighted the significance of collaboration between universities through a "joint statement of global university leaders on the 2030 Agenda for Sustainable Development." This joint statement provides a shared blueprint for addressing economic, social, environmental, and governance challenges, aiming for peace and prosperity for both people and the planet [2].

According to the leaders of the 56 universities' statement, universities, as key stakeholders in sustainable development goals, can achieve five main outcomes:

- Implementing the concept of sustainable development across all their activities and operations.
- Enhancing the sustainable development competence of students, faculty, and staff.
- Supporting a broader spectrum of scientific research, including blue-sky discovery and transdisciplinary research, to address global challenges.
- Collaborating with global partners to offer innovative solutions and leverage technology.
- Promoting open science to facilitate productive cross-border collaboration for solving specific problems.

Sustainable development goals have ushered in a paradigm shift for universities, compelling them to address social, economic, and environmental issues [3]. From this perspective, it is imperative for universities to align their activities with the long-term development of the country. Consequently, university leaders aim to establish a flexible management system to adapt to these changes [4].

The roles of universities in implementing sustainable development goals encompass the following areas [5]:

- Building knowledge, fostering innovation, and providing support for the realization of development goals.
- Developing public policy formulations, policy instruments, and implementation strategies.
- Equipping graduates and students with the knowledge and skills necessary through their curricula and programs.
- Raising awareness among society members and providing training for them.

1.2 Higher education quality assurance

Higher education quality assurance is essential in both planning and implementation. Depending on one's understanding and concept of quality, quality and quality assurance can be differently defined. Quality is defined as fitness for purpose for a product or service; as a threshold where quality is seen as meeting minimum requirements; as added value, which emphasizes the quality of output, such as students' GPA; as value for money, focusing on efficiency and effectiveness; and as the satisfaction of stakeholders.

Quality assurance is a management instrument that aims to sustain the service quality of higher education organizations and provide continuous improvement. It focuses on quality policies, processes, planned procedures, and activities. The quality assurance framework adopts the following principles, including internally driven self-assessment, complementing and strengthening existing internal quality systems, continuous self-learning, and improvement. It serves as a holistic framework and development tool for enhancing the quality of higher education institutions, helping them improve their systems and structures to ensure alignment with their mission.

To create a proper quality assurance framework, higher education institutions focus on five main areas: (i) governance and leadership, (ii) management and strategic planning, (iii) academic quality management, (iv) industry engagement, and (v) internal and external services. Higher education institutions have developed a 4-step approach to developing a quality assurance framework:

1. Define the institution's responsibilities and goals with respect to focus areas, including governance and leadership, management and strategic planning, academic quality management, industry engagement, and internal and external services.
2. Design the institution's measures and approaches to address these focus areas.
3. Determine the relevant quality indicators with respect to the focus areas.
4. Develop the appropriate institution-wide policy guidelines, processes, and measures to meet these focus areas.

The quality assurance framework aims to create an opportunity for universities to fulfill their long-term strategic goals by focusing on principles such as accountability, transparency, and continuous improvement.

For higher education institutions, self-assessment, peer-review, and external review methods are often used. Self-assessment encourages universities to review and measure their performance and quality indicators themselves, whereas

external review involves appointed experts. In the end, the quality assurance review report, follow-up procedures, evidence, data, and documents are integrated to measure the quality assurance of the universities.

1.3 Sustainable Development Goals - Quality assurance

Higher education institutions shall adhere to the fi-for-purpose and the whole institutional approach principles in reading to sustainable development goals [6]. "Fit-for-purpose" principle is a management instrument which focuses on leadership, open processes and learning programs: whereas "the whole institutional approach" promotes collaboration in institutional agenda and in future sustainable development challenges. Furthermore, both principles are based on innovation and effective leadership for university governance.

Recent years vision, mission and strategic goals and objectives of higher education institutions have been linked with sustainable development goals of countries. It brings universities to adjust changes in both structural and operational processes and needs to have a flexible management system.

According to the Waas.T and Huge.J definition, higher education quality assurance in aligning with sustainable development goals is required to meet with the criteria of being normative, stakeholders' participation, adjusting in changes [7]. Many stakeholders who collaborated with universities on the vertical and horizontal level aim to ensure accountability and transparency. A holistic integrated approach of higher education quality assurance aims to assure continuous improvement of higher education institutions based on resource allocation and performance management.

2   Research method: Content analysis

The study employed content analysis based on works by Berke, Gods Chalk (2009), Berke, Smith, and Lyres (2012), and Dola and Noor (2012). Content analysis is a widely used method for evaluating plan quality and subject matter. It aims to draw valid inferences from text by identifying key terms under consideration and developing a coding system to measure the extent to which a document employs these terms.

This content analysis encompasses the strategic plan for 2016-2024 of NUM, as well as the annual plans and reports of NUM from the past three years. Additionally, it includes the annual plans and reports of the Quality Assurance Department of NUM over the same period. The analysis unfolds in two dimensions:

1. **The "what" level:** Examining the issues addressed by the documents concerning sustainable development goals and objectives.
2. **The "how" level:** Scrutinizing how these documents specifically tackle elements of sustainability and responsibility within quality assurance processes.

3   The case of National University of Mongolia

The National University of Mongolia (NUM) was established in 1942 and holds a distinguished place in Mongolia's modern history. It serves as the first university in the country and has been a parent institution to many of Mongolia's premier universities. Several of the country's higher education institutions can trace their roots back to the faculties and sub-institutes of the National University of Mongolia, including the University of Science and Technology, University of Life Sciences, University of Medical Sciences, and the University of the Humanities.

NUM's vision is to meet international standards and improve its global ranking. It aims to become a leading research university in the region, based on a foundation of liberal arts education, with the ultimate goal of being among the top 100 universities in Asia by 2024 [8]. The mission of NUM is to disseminate knowledge, providing research and teaching on a sustainable basis through a "liberal arts" program covering key issues in natural sciences, economics, and social development.

NUM is a major intellectual center comprising six schools, two local schools, three national institutes, and various research centers. It hosts undergraduate and graduate students, as well as a diverse community of scholars and faculty staff. NUM aims to achieve a competitive standing with other regional institutions by adapting its policies to meet the changing global educational and scientific demands. This includes aligning with evolving national and international criteria and standards to reach an international level.

In the 2021-2022 academic year, a total of 316 programs were conducted at NUM, comprising 116 bachelor programs, 94 master programs, and 49 doctorate programs. The institution boasted a faculty of more than 600 professors and lecturers across six main faculties and two branch schools [9]. During the 2020-2021 academic year, approximately 25,000 undergraduate students, around 300 master's students, and 500 doctoral students participated in classes.

Table 1. Number of academic programs of NUM

Schools	Bachelor program	Master program		Doctor program
		Research	Professional	
Business school	10	10	11	1
SIRPA	2	3	4	2
School of Law	1	2	2	1
School of Engineering and Applied Sciences	22	24	2	12
School of Arts and Sciences	67	47	31	33
Zavkhan school	5	3	3	
Erdenet school	9	5	4	
Total	116	94	57	49

Source: Annual reports of the Quality Assurance Department of NUM from 2021-2022 academic year

NUM features two types of departments: those within the main faculties and branch schools responsible for managing and guiding all levels of training programs, and administrative departments, such as the Human Resource and Quality Assurance Departments, which hold specific functions throughout the university. Both professional departments overseeing training programs and the Quality Assurance Department share responsibility for ensuring the quality of university activities [10].

Professional departments are tasked with:
- Developing and implementing curricula, syllabuses, and study programs in accordance with policies and procedures.
- Providing training according to approved curricula, syllabi, and study plans.
- Conducting statistical analysis of student grades and working to enhance the quality of training based on results.
- Evaluating students in a timely and objective manner, monitoring training output (grades and student satisfaction surveys), and conducting regular teaching and classes.

The Quality Assurance Department of NUM not only sets quality policies but also provides guidance to professional departments regarding quality assurance processes. Additionally, it carries out the following duties:

- Establishing a legal framework by ratifying policies and regulations for developing, approving, and implementing training programs.
- Bearing responsibility for quality assurance management throughout the university.
- Conducting student satisfaction surveys and external evaluations of the professional departments.
- Monitoring and evaluating training programs in collaboration with other stakeholders, and preparing performance indicators and reports.
- Conducting regular analyses on performance indicators and reports.

In this context, the Quality Assurance Department serves as the main and only unit bridging the gap between professional departments and the General Program Committee. The latter is responsible for granting permission to create, modify, and even discontinue training programs, as well as managing programs and courses in the SISI system, and generating necessary data and information for quality assurance processes.

In line with ongoing changes at NUM, the Office of Academic Affairs and Curriculum Policy has been structured under the Vice President for Academic Affairs, as per Resolution No.08 of the Board of Trustees dated 30th December, 2022. Since 2022, this office has assumed all tasks and responsibilities formerly held by the Quality Assurance Department regarding quality management and curriculum development processes.

4   Research result

The content analysis utilized Adobe Acrobat PDF software and/or Microsoft Word versions of the strategic plan for 2016-2024 of NUM, as well as the annual plans and reports of NUM from the past three years, along with the annual plans and reports of the Quality Assurance Department of NUM. The analysis focused on key terms such as sustainable development goals and objectives, accountability and responsibility, resource allocation, stakeholder engagement, and

related key performance indicators, which were searched for and identified. The findings of the content analysis are presented in Table 2.

Table 2. Sustainable development goals, objectives, related terms in the selected documents of NUM

Category	Items	Strategic plan	Annual report of NUM	Quality Assurance Department Report	Total	Number of items
Sustainable Development Goals	Social goals	4	3	7	14	26
	Economic goals	3	2		5	
	Environmental goals	1			1	
	Governance goals	2	4		6	
Accountability, Responsibility	Research and survey	8	5		13	73
	Academic Training	14	11		25	
	Project and Innovation	7	5	5	17	
	Social and community activities	4	4	1	9	
	Students, club, activities	3	3		6	
	Financial and university autonomy	1	2		3	
Resource Allocation	Efficiency	4	5	3	12	28
	Effectiveness	1	2	2	5	
	Material resources	5	6		11	
Stakeholders' Engagement	Senior Management	1	4	1	6	51
	Professors and lecturers	9	7	3	19	
	Students	5	4	8	17	
	Employees	2	3	1	6	
	Government's organization	2	1		3	
Key Performance Indicators	Goals and objectives	2	3		5	27
	Accountability, responsibility	3	2	1	6	
	Resource allocation	2	3		5	
	Stakeholder engagement	5	5	1	11	

SDGs and main terms were illustrated in the strategic plan 2016-2024 of NUM, annual plan and its reports of NUM from last 3 years, and annual plan and reports of the Quality Assurance Department of NUM in the last three years.

1. Sustainable development goals and objectives - **26 times.** In particular:
   - Aiming to solve social problems, conducting policy research works;
   - Providing quality assurance;
   - Getting proper management and structure at the university.
2. Accountability and responsibility - **73 times.** In particular:
   - Implementing project and programs which intends to solve social problem;
   - Ensuring the governance and independence of NUM;
   - Ensuring job stability of staffs;
   - Ensuring the academic training quality.
3. Resource allocation - **28 times.** In particular:
   - Strategic allocation and efficiency;
   - Qualified and skilled professors and lecturers;
   - Enhancing skills of the staffs
4. Stakeholder engagement - **51 times.** In particular:
   - Engagement of professors and staffs;
   - Engagement of students;
   - Regular - satisfaction survey;
   - Employees engagement;
   - Government organizations engagement
5. Key Performance Indicators of above-mentioned elements - **27 times.** In particular:
   - Measuring properly accountability and stability;
   - Cohering/ integrating program outcome/result with labor market;

- Student satisfaction survey result;
- Participation of curriculum and quality assurance policy department;
- Implementing administrative order.

Based on the content analysis results, it is evident that sustainable development goals and objectives are seldom the focus in these documents. Conversely, accountability and responsibility in training, research, and social activities are deemed more significant, with an emphasis on increasing the employment rate of alumni and ensuring job stability. Stakeholder engagement, highlighted 51 times, encompasses participation from students, professors, lecturers, employees, and government organizations. However, while these elements are outlined in the strategic and annual plans, specific key performance indicators have not been established.

Notably, neither the strategic nor the annual plans of NUM, nor the Quality Assurance Department, address sustainable development goals and objectives. Nevertheless, NUM aspires to contribute to resolving social, economic, environmental, and governance issues through theoretical and empirical research, assuring the quality of training programs, and emphasizing the proper management structure of the university. It is advisable to integrate sustainable development goals into the strategic and annual plans within the framework of the "fit for purpose" concept.

It is evident that an all-encompassing institutional approach has been adopted to address social, economic, and environmental problems, with a particular focus on stakeholder engagement. However, further examination is required to determine the extent of collaboration between NUM's administrative offices and departments with the professional departments in matters of quality assurance.

NUM has taken significant steps to bolster both external and internal quality assurance in the context of the 21st-century educational transition. In light of the constantly evolving educational landscape, there is a pressing need to align efforts with sustainable development goals and long-term development objectives. Operating under an integrated holistic approach, the Quality Assurance Department, alongside the Office of Academic Affairs and Curriculum Policy, oversees all processes related to quality assurance, including curriculum development, approval, and implementation, as well as faculty development to ensure the quality of academic training. This restructuring of the Quality Assurance Department represents a pivotal strategic decision in pursuit of fulfilling the long-term goals and objectives.

5   Conclusion

It is imperative for higher education institutions to actively engage in the processes of sustainable development goals. As Nobel laureate O.E. Williamson from the University of California, Berkeley, asserts, the success of institutions hinges on the collaboration among diverse stakeholders, each playing distinct roles in this collective effort. Universities, as primary stakeholders, play a crucial role in furnishing robust curricula for human resources and driving innovation.

Drawing on the expertise of university professors, the institution ensures continuous improvement in long-term policy coherence, the establishment of a legal regulatory framework, and methodological refinement. Within the ambit of sustainable development goals, lies the potential to forge an integrated approach that unites individuals, universities, and societal development, bolstering the competitiveness of the nation and enhancing the quality of life for its citizens.

The study utilized content analysis, identifying key terms and establishing a coding system to assess the strategic plan for 2016-2024 of NUM, along with the annual plans and reports of NUM from the past three years, and those of the Quality Assurance Department over the same period.

The findings reveal that sustainable development goals and objectives are infrequently integrated into these plans. In contrast, core elements such as accountability and responsibility, resource allocation, and stakeholder engagement are prominently identified. Notably, accountability and responsibility in training, research, and social activities hold paramount importance. NUM endeavors to contribute to the resolution of social, economic, environmental, and governance challenges through both theoretical and empirical research. This includes ensuring the quality of training programs and focusing on the university's management structure. The emphasis on stakeholder engagement is evident, encompassing students, professors, lecturers, employees, and government organizations.

While elements of sustainable development goals find a place in the strategic and annual plans, specific key performance indicators have yet to be defined. For NUM to establish itself as a platform for long-term development goals, it must champion both the "fit-for-purpose" approach and the "whole institutional approach." This entails a concentrated focus on university governance and leadership, management and strategic planning, academic quality management, industry engagement, and internal and external services. In doing so, NUM will pave the way for the integration of ongoing structural and academic program development reforms, solidifying its role as a catalyst for sustainable progress.

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