Social And Educational Scenario For Adopting Sustainable Development Goals (SDGs)

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Abstract

The purpose of this study is to explore the usefulness and adoption of Sustainable Development Goals (SDGs) at social and higher educational (HE) level. Further, it's based on the results of published university impact rankings that have taken sustainable development goals into consideration. The institutions that are making the most effort to address issues such as high-quality education for all people, equality for all people, the fight against climate change, and the achievement of economic success are the ones that have received high scores. The researchers employed theoretical analysis approach in this study that is presented in comparative form. Moreover, in this observes the social and official spending on higher educational level for adopting SDGs and investigated the efficacy of the resources that are employed to obtain high rankings in different domains of SDGs. The data analysis of this study reveals that universities tried to achieve various domains of SDGs 2030 but not more than few countries have completely efficient in this process. As a result, they might produce some improvement that have approximately 30 to 40 percent that have increased the university rankings but without raising the amount of money educational institutions could not be able to attain desired goals, the role of government and social sectors involved for adopting the true soul of SDGs. Moreover, in Pakistan the observations on local scale result that only from the overall population only 10% of universities may be considered effective for adopting main themes of SDGs. Without raising the inputs institutions may not be able to perform better particularly in terms of advocating the practices for achieving goals and have need to support nations in reaching the standards of sustainable development goals (SDGs).
Keywords: Universities, Pakistan, Analysis, Social, Education, Sustainable Development Goals (SDGs).

Introduction

In multiple sectors at national and international level, United Nations (UN) programs helped to develop blocks for achieving targets. The demanding scenario of social and education sectors UN disseminate the 17 Sustainable Development Goals (SDGs) in 2015 throughout the Northern and Southern hemispheres, even if not all national programs have made this priority in education policy. Educator preparation institutions have been included SDGs into their programs, despite the fact that education in Pakistan is currently implementing a number of such initiatives, such as the UNESCO Associated Schools Network (ASP net), a master's degree in Educational Sciences with a concentration in ESD, such as the University of Punjab, in the International Network of Teacher Training Institutions (Palomares et al., 2021). More than sixty ASP net schools have launched peace and sustainable development education programs to educate their staffs, students, and parents on the importance of respecting and appreciating cultural diversity (Del Cerro Velazquez & Lozano Rivas, 2020).

Education for Sustainable Development (ESD) also worked and this course was developed to aid future educators in gaining a deeper understanding of Sustainable Development (SD) and ESD (Education for Sustainable Development) in order to better serve the needs of their future students. Participants in this programed spent the first 11 weeks of their training doing fieldwork in the areas where they grew up. Sustainability issues that needed to be researched for this project included the effect of parental income on children's academic success, the challenges faced by female college students, the environmental consciousness of pre-service teachers, and the long-standing customs of institutions that offer teacher preparation programs (Ufua et al., 2021).

Moreover, one of the UN agenda from 17 Sustainable Development Goals ensure that everyone has access to quality education (SDGs). The quality measure self-knowledge, sources of information, learning situations, priorities, impact of personal life, and career planning of students at different order to better understand their knowledge, learning motivation, and social readiness regarding the SDGs. Both the amount of availability of resources and adoption level the understanding of SDGs have not clear access.

In this regards, Allen (2017) gave a iterative framework for the national scenario
modelling for the Sustainable Development Goals (SDGs) where suggest that institutions have to inform about the SDGs through formal education and traditional media, and spread the awareness of SDGs' at all sectors of the countries for which they formulated (Perovic, 2020). From geography and biology to Chinese and indigenous studies, the SDGs are currently discussed in many disciplines, response and popularity rates indicated that gender equality, an excellent education, fewer injustices, the elimination of poverty and hunger, and good health and well-being are the most important issues for society (Adhikari & Shrestha, 2022). The identification about the promotion of gender equality, improving education standards, and ensuring access to clean water and sanitation as the top three issues that have most influence (English & Mayo, 2019).

Further, observed that future career choices of society frequently align with the SDGs and extensive formal and informal education, publicity campaigns, and curriculum integration are a few ways to improve the implementation and adopting the standards of Sustainable Development Goals. Further, various template and themes for implementing SDGs in the social and educational institution need to provide. This study's provide observations and suggestions for strengthening the institutions for comprehending the sustainability and encouraging their participation at global level for attaining sustainable development goals (Palomares et al., 2021).

**Literature Review**

The dropping role of ESD has reportedly led to the emergence of two problems, as stated by Padda, & Hameed (2018) there are two challenges: first, not enough research is done on ESD issues, and second, teachers are not given enough time or resources to learn about and adopt sustainable practices in the classroom. Both of these issues need to be addressed. The research team of Kalsoom (2018) looked at a collection of academic articles written by Pakistani writers on the topic of ESD. These publications were all related to ESD in some way. The academic databases Springer and Taylor & Francis, along with four national education magazines, were subjected to an investigation. On environmental sustainability and development (ESD), about 250 papers were examined, but none of them gave any concrete evidence to substantiate their assertions.

In addition, the researchers tried to observe near 353 publications that were published in national journals between the years of 2000 and 2018, but they came up empty. In the event that this is the case, it demonstrates that Pakistani academics have barely dipped their toes into the disciplines of sustainable development research and
teaching. The topic of this dissertation is education for sustainable development in Pakistan, and it does so using two different theoretical frameworks. In the first place, it makes the claim that education for sustainable development has a direct influence on the state of children's health, as well as on issues related to the environment and nutrition. As a consequence of this, there is a chance that Pakistan's educational system will profit from the execution of the Sustainable Development Goals (SDGs) (Khan, Jamshaid & Ramzan, 2019). SDGs-7 clean energy system have positive impact on country development; as SDG-8-9-12 Corporate social responsibilities, consumer pricing and exchange rate enhance Organization sustainability and economic development (Jamil 2022, Jamil, Rasheed et al. 2022).

Both Sustainable Development Goal 1 (to eradicate poverty) and Sustainable Development Goal 4 (to guarantee that all people enjoy the benefits of sustainable consumption and production) are interconnected in important ways (improve educational opportunities for everyone). According to a calculation made by the United Nations Development Programme (UNDP) in 2018, based on government socioeconomic statistics and 15 criteria, 39% of Pakistanis were considered to be living in poverty, with the vast majority of those residing in rural areas (Aziz et al., 2020). In Pakistan, 49.1 percent of the population is considered to be poor and does not have access to even the most fundamental requirements for survival. According to the hypothesis of a positive feedback loop, raising educational standards can contribute to the alleviation of poverty, which in turn raises educational standards all over the world (Diemer & Faheem, 2020).

Education on sustainable development for the most impoverished nations in the globe. The three pillars of education for sustainable development are health (in terms of sanitation, access to water, and access to health services), environmental (in terms of population density in urban areas and waste), and food security (Rehman et al., 2018). In conclusion, the United Nations makes the statement that "investments in the health and nutrition of early children will convert into investments in equity and sustainability throughout the lifetimes of those children (Brollo, 2021)," while simultaneously bringing up the subject of education. This recommendation has already been incorporated into the core curriculums of a great number of national programmes as well as the SDGs (Rehman et al., 2018).

**Research Methodology**

Journal of the Chronicle of Higher Education The performance of Pakistani institution of higher learning can be evaluated in relation to the Sustainable Development Goals
(SDGs). Traditional metrics of performance in domains such as education, research, knowledge dissemination, and international cooperation are still a part of this revision; however, this update also incorporates metrics based on the Sustainable Development Goals (SDGs) that are most important to educational institutions. The following is a list of some of the more granular goals: Good health and well-being, Gender equality and decreased inequalities, Climate action), and Peace, justice, and strong institutions are all part of the Pakistan's Sustainable Development Goals (SDGs). Our evaluation of universities will be based both on their overall score as well as the score. The data has been collected by the database UNESCO through following link (https://uis.unesco.org/).

The variables to include in our empirical analysis on prior research and the opinions of experts in the field. Since there is little agreement on which inputs and outputs should be included in a study of educational efficiency, we base our decision on prior research and the opinions of experts in the field. During this initial phase of our research, we will consider two inputs and one output. The amount of money that the government spends on higher education and the number of people who work as teachers in higher education (both of which can be obtained from Pakistan specifically and from UNESCO Institute for Statistics of world universities). All of these numbers represent seven-years of period from 2012 to 2016. The overall score of universities on the University Impact Rankings and the score on SDG are two of the outcome indicators that are used to proxy the value of higher education (both variables were explained in more detail earlier). There was a significant disparity between countries in terms of the number of participating universities. As a result, we base our performance on the score that is achieved on average across all of the colleges and institutions in each country generally and in Pakistan specifically.

### Data Analysis

For the data analysis with the average total score as the dependent variable. A high aggregate score indicates that an organization or nation is making strides toward its stated goals of ending gender inequality, educating all of its citizens, slowing the effects of climate change, creating peaceful and prosperous communities, and growing its economy. In the end, your grade will be determined by these elements.

### Table no. 1 Summary statistics for country-level analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average score</td>
<td>17</td>
<td>2.8</td>
<td>15</td>
<td>27</td>
<td>80</td>
</tr>
<tr>
<td>Average SDG score</td>
<td>31</td>
<td>2.5</td>
<td>15</td>
<td>16</td>
<td>55</td>
</tr>
</tbody>
</table>
Technically, the higher education budgets of the sample nations were 80% efficient when accounting for the ratio of professors to students. When compared to what they could have generated at full capacity, the sample countries’ output dropped by 20%. As a result, the sample countries may potentially raise their university impact rankings by roughly 19 percent without raising their spending on higher education. To the extent that higher education institutions are making strides toward achieving the Sustainable Development Goals (SDGs) and seeing positive results in their rankings, much credit is due to them. When establishing an overall score, in addition to the score based on SDG, additional aspects are also taken into consideration as part of the computation.

Each of the three SDGs corresponds to a distinct set of educational establishments. It is possible for a university’s total score to be affected by its progress toward Sustainable Development Goal. A few examples are using low-carbon energy, creating a climate action plan for the entire institution, and working with regional, state, and federal governments on climate change preparation. It is feasible that shifting some of the monies currently spent on higher education to other areas, such as infrastructure and faculty wages, will increase both the overall and environmental scores of the university or country in question. Only four of the countries that we looked at could be considered completely efficient. Hungary, Ireland, Italy, and Sweden are just some of the countries that have been taken into consideration. The governments of these nations have made financial commitments toward achieving the Sustainable Development Goals (SDGs) of providing
all inhabitants with a quality education (measured by University Impact Rankings). The DEA only provides comparative data on efficiency, so the findings can only be applied to the specific countries and institutions that were used in the analysis. According to some survey results, Cyprus is the least productive country in the world, with an efficiency rate of just 43.32 percent. A recent study found that Cyprus was wasting 56.68 percent of its potential output due to inefficiencies in its application of this output-based technique. In other words, it has the ability to achieve the same results in terms of the SDGs while making far more efficient use of available resources. The Netherlands, the United Kingdom, Romania, Germany, Portugal, Greece, and Spain all have efficiency scores over the mean of 80.01, but they are not included in the group considered efficient (Ndubuka et al., 2019).

Moreover, the outcome indicator for SDG17, improvements in can be utilized to evaluate a solution's technical efficacy. The only countries that can truly declare they've realized their full potential right now are Bulgaria, Hungary, Ireland, and Sweden. Since the start of the crisis, Cyprus' efficiency rating has dropped precipitously, and at 22% it is worse than it was before the global economic calamity. At the moment, technology is only able to maximize efficiency by a mean of 72 percent. It is reasonable to predict that increasing public spending will not have a unifying, positive effect on all aspects of sustainability due to the narrow focus of SDG17. Government, business, and NGO cooperation is prioritized in Sustainable Development. This is the one and only Sustainable Development Goal (SDG) target that needs to be achieved in order to gain a passing grade, and it has already been decided on. There is some thought given to the research (28%), interpersonal connections (22%), and SDG reporting (52%). Notable features of the first category include the high proportion of non-U.S. authors and the high proportion of SDG-related works within their output. The second group of SDGs focuses on strengthening partnerships between traditionally separate institutions and organizations (SDGs). The term "publication of SDG reports" refers to the dissemination of detailed information on the current state of universities in relation to the remaining 10 SDGs (SDGs). Our research suggests that most European countries have yet to overcome this efficiency hurdle, and as a result, they are moving far more slowly in the right direction. They can improve their SDG17 score without increasing government spending on higher education if they engage more closely with other countries, share and promote best practices, and disclose statistics through collaboration with international writers.

In addition to the sanity test we already mentioned, we also select only the most prominent university in each country for our robustness assessment (rather than the
average of all universities in that country). Countries with flawless efficiency scores include only Italy and the United Kingdom. It would appear that most nations have much room for development. These large inefficiencies are to be expected, considering that this database only contains a portion of the universities in a given country. The increased focus on the SDGs by governments and academic institutions is promising, yet they represent a relatively new objective. However, the tide has finally turned.

**University-level results**

According to the investigation of the study, overall average level of technical efficiency at educational side was not satisfactory. This indicates that there were few educational institutions that operate below the efficiency frontier and have room to improve their overall output. To put it another way, universities that are part of the sample group have the potential to improve their overall rating on the university impact rankings by 20 percentage points with the same amount of work (number of students per staff, number of international students, and number of FTE students). In spite of the fact that have comparable student populations, faculty-to-student ratios, foreign and FTE enrollments, these educational institutions may do better in the University Impact Rankings.

However, Swain (2018) addressed a critical analysis of the sustainable development goals where discussed that the environment of the countries need to be flexible for adopting social and educational change. Whereas, only three of the universities received scores that were lower than 20%. It should not come as a surprise that the findings deteriorate when only one Sustainable Development Goal (SDG) is taken into consideration because it is extremely unlikely that all of the SDGs, when evaluated collectively, will be effective in reaching all of the SDGs. For example, the University of Bergen in Norway could improve its score on SDG17 by 3.77% if it participated in policy development with government or non-governmental organizations (NGOs), encouraged cross-sectorial dialogue with government or NGOs, collaborated with government or NGOs, published more work with international co-authors, and/or focused on the 11 Sustainable Development Goals (SDGs). According to the findings of our investigation, further, reveals that universities in Europe are not as effective as they have the potential to be in achieving SDG17.

**Conclusions**

The results of this research assess the contributions made by social and educational sectors for adopting the SDGs particularly at universities, the achievement of the Sustainable
Development Goals (SDGs). In this regard, combine this information with the recently disclosed university impact rankings that take SDGs into consideration. In addition, the opinion of Pedercini et al., (2018) stated that various techniques used adopting the good rankings as some as non-parametric technique that assigns weights to inputs and outputs without implying any underlying functional structure. Only three or four of the 25 countries that we analyzed are making considerable progress toward the Sustainable Development Goals (SDGs). This spectrum's upper and lower limits are established by the output variable.

Although researches of Ashraf (2019) and Zimm (2018) identified that some nations have already attained the maximum level of productivity, the majority of others still have a long way to go. This indicates that there is potential for inefficient public spending on higher education to be reduced. In addition, it appears from the findings that only a small fraction of educational institutions are actively working toward the achievement of SDG17. On efficiency criteria, the vast majority of the 115 institutions that were evaluated fared worse than the average performance shown across the country. The findings of this study imply that universities are not properly utilizing their resources to adopt the SDG rankings. These based on the student-to-staff ratio, the population of international students, and full-time equivalent enrollments all matters in educational rankings. Cooperation with other countries, the dissemination of data in partnership with international writers, and promotion of best practices are all ways in which they might be able to significantly improve their performance, particularly in terms of their support for the Sustainable Development Goals (SDGs) (Aleixo, 2021)

In summing up observed that there is room for advancement across the board in political structures as well as educational institutions. It is possible for to improve performance in a variety of domains, such as education equality, universal access to education of a high standard, the fight against climate change, the development of peaceful societies, and the promotion of economic growth. It is now imperative that the world's governments and academic institutions rise to the occasion and meet the emerging global problems (Seto-Pamies & Papaoikonomou, 2020).

Sustainable development goals mean a variety of things that provide better scenario for the individuals, but in general the promotion of Sustainable Development 2030 Agenda is a plan that was issued by the United Nations in 2015 with the intention of improving and securing the future of humanity. The 17 goals of SDGs address the most trending problems facing the world today. Therefore, it is of the utmost importance for
the global policymakers as well as the general public, to boost the efficiency with which these goals are accomplished at the national and tertiary levels. Furthermore, some of the institutions have not published their data, due to that all the social and educational scenarios have not been included in this research but with time in coming future that be compared in equitable manner.

References


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