

# Sustainability In Education And Research In Public Sector Universities Of AJ&K

Saira Farooq Shah<sup>1</sup>, Razia Rizve<sup>2</sup>, Nasim Akhtar<sup>3</sup>, Shagufta Ashraf<sup>4</sup>, Maryam Sultana<sup>5</sup>

\*Assistant Professor<sup>1</sup>, Assistant Professor<sup>2</sup>, Assistant Professor<sup>3</sup>, Assistant Professor<sup>4</sup>, M.Phil. Scholar<sup>5</sup>

<sup>1,2,3,4</sup>Department of Education, <sup>3</sup>Department of Economics, Mirpur University of Science and Technology (MUST) Allama Iqbal Road, Mirpur Azad Jammu & Kashmir, Pakistan (10250)

<sup>5</sup>Department of Banking and Finance, University of Kotli Azad Jammu and Kashmir, Pakistan.

\*<sup>1</sup>Corresponding Author: [saira.edu@must.edu.pk](mailto:saira.edu@must.edu.pk)

---

## ABSTRACT

Sustainability in higher Education can be viewed as a piece of international regulation. This research paper examines the sustainable development in AJK universities and how the concept of sustainability is being incorporated into universities. This study utilizes mix method and triangulation design and from the result obtained, it is possible to build canvas of the main institution that have significantly contributed to the concept of the sustainability in higher education. This study also provide an insight nto emerging trends themes and patterns of research in the area of sustainability in AJK universities. Terms such as regional planning and environmental protection social awareness innovation and guidance to achieve sustainability goals in higher education institutions as well as in the society.

**Keywords:** Education for Sustainable Development (ESD) Higher Education Institutions (HEI) Sustainable Development Goals (SDGs)

## INTRODUCTION

In recent time, Higher education sectors facilitate education and also do effective researches for world development. As far as this, many countries are playing an immense role in the education field. Higher Education Institutions (HEIs) are also responsible for meeting global challenges in an effective holistic manner. The purpose is to provide possible solutions to meet the desired challenges. Sustainable Development (SD) is nowadays a trending topic in the last few decades. However, it has an important role in societal issues, HEIs is working towards sustainability. The underpin results for SD is that it facilitated the higher education sectors to tackle the societal norms in society. Accordingly, the sustainability concept underlines three primary elements: Environmental Sustainability, Social Sustainability & Economical Sustainability. As a

consequence, a large portion of populations and various activities are taking place on various campuses.

First delivered in 1987, the sustainable development (SD) principal idea, has ended up as a vital part of the dialogue about attempts to cope with challenges and ensure a stable destiny (WCED, p. 11). At the worldwide level, sustainable development has been seen as vital by the United Nations (UN), their modern-day timetable plan for 2030 named the Sustainable Development Goals (SDGs). One street for drawing near sustainable development is through training.

This study is an investigation into what type of content is teaching in university research regarding sustainability and the overall level of awareness among students and the community with respect to sustainable development. The case of SEE approached two major universities of the Mirpur division which have national and local influence. The administration interviewed represent ways that faculty might choose to work towards sustainability through their content, teaching research and develop reflective habits, despite uncertainty. Their descriptions of ESD and its purposes are important and give insight into valid approaches to pursuing sustainability in universities.

Education for sustainable improvement is a rising but dynamic concept that encompasses a brand new imaginative and prescient of education that seeks to empower people of all ages to count on obligation for creating a sustainable future. Thus this examines investigated in element approximately the position of universities in selling sustainable improvement. This research helped in identifying the position of better training in promoting sustainability it additionally indicate the modern-day state of affairs of universities mainly studies sports being carried out in establishments. This research offers proof to the higher government how universities are operating to satisfy goals of sustainable development that have to complete till 2030 as directed by UNO.

This study approached two major universities of the Mirpur division which have national and local influence. This research provide ways that faculty might choose to work towards sustainability through their content, teaching research and develop reflective habits, despite uncertainty. Their descriptions of ESD and its purposes are important and give insight into valid approaches to pursuing sustainability contribute to a deeper understanding of the underlying purposes and processes in the pursuit of sustainability through education.

## **STATEMENT OF THE PROBLEM**

Most of the people within the world these days have proximate and visceral attention to the immediate demand to construct a sustainable destiny. They may not be ready to stipulate a punctilious explanation of ‘sustainable improvement’ or ‘sustainability’ - certainly, even experts argument that difficulty but they really deliver sense the hazard and the requirement for recommended action. For many1.2 of years, human groups have proved dwelling and healthy sustainability possible by supplying important needs of human groups and by using developing harmony with nature. The lengthy-run sustainability of indigenous cultural and most economical machines is the impact of the indigenous scheme of schooling which implanted a human

and earthy environment absolutely for each one. The Summit in Rio de Janeiro in 1992 resource educators approximately the awareness that schooling considered necessary be reoriented to once again meditate any such modality of sustainability, which links cultural and not pricey nicely-being in appreciate for the world and its sources. Education, regarding ceremonial training, public cognizance and universities ought to be recognized as a procedure by means of which humans and societies can reach their fullest capability. Education is critical for attaining environmental and moral understanding, perception, skills, behavior, and attitudes regular with consistent improvement and for successful public involvement in choice-making. To gain this goal education is critical to ever-changing society, s mental attitude so that they have the capability to cope with sustainability improvement. The role and significance of better schooling in sustainable development may be very vital inside the discipline of education, want to installation a special degree to assist Sustainable Development. In this scenario higher education may be very essential they must be principal areas at national degrees and worldwide stage to fulfill their standards as they've joint with global affiliation.

Education for sustainable improvement is a rising but dynamic concept that encompasses a brand new imaginative and prescient of education that seeks to empower people of all ages to count on obligation for creating a sustainable future. Thus this examines investigated in element approximately the position of universities in selling sustainable improvement. This research helped in identifying the position of better training in promoting sustainability it additionally indicate the modern-day state of affairs of universities mainly Studies sports being carried out in establishments. This research offers proof to the higher government how universities are operating to satisfy goals of sustainable development that have to complete till 2030 as directed by UNO.

### **OBJECTIVES OF THE STUDY**

1. To investigate the sustainability of the content taught in public universities of AJK.
2. To explore the sustainability element of research carried out in public sector universities in AJK.
3. To identify the role of different events conducted in public sector universities.

### **PURPOSE OF THE STUDY**

The aim of this research was to investigate the sustainability ratio in course content which is teaching in universities in each discipline research funding and research publication regarding sustainability moreover how frequently events organized in different departments of universities for awareness among students in regard to sustainability.

### **SIGNIFICANCE OF THE STUDY**

Although SD and ESD have become progressively perceptible at every level of education, because of the promotion from worldwide organizations such as the UN and UNESCO, these are

still static processing concepts. There is a little state men to how ESD should been forced, dislike an evident statement that sustainability is something that should be chased through with education. Moreover, sustainability represents tangled, difficult issues. A movement to environmental and developmental difficulties are fixed in uncertainty, though the i n v i t i n g of uncertainty and capriciousness are seldom accepted by worldly and national organizations, such as the UNESCO and UNO. Therefore, as professional educators at the national and local level work towards sustainability, their concepts to ESD are varying. Social control is sporadic; mostly count on the attempt of the individual or local organization (Nikel, 2007). It is momentous to increase insight profound penetration about the experiences which ability and Teach move to broad entailment of their intention of what property should be in this way instructors transmit to students (Sund, 2008).

### **LITERATURE REVIEW**

In the course of the maximum current thirty years, the opportunity of maintainable improvement has to turn out to be seen in method hovers over the globe as a pressing response to a scope of ecological troubles that undermine the human prosperity, training, and especially superior education, steadily supposedly has a pivotal job in possible development as became investigated via the growing writing audit (Scott 2007). Manageable advancement cannot be accomplished via modifications in a single segment alone; as needs are the superior training is considered as a point of convergence to help worldwide guide potential and to make affordable competitive solutions regarding the future. Support potential associated with advanced training (SHE) illustrates on exceptional teaches, for example, advanced instruction, arrangement Research, monetary factors, the executives, human technology, environment, studies and principle. In spite of a few accomplishment of SHE studies thus far, Scott contended that the widespread community has an absence of union among experts and he has required the advancement of a much achieving SHE studies planning mechanism (Scott 2007).

### **HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT: ROOTS AND CHARACTERISTICS**

In reaction to the critical scenario depicting inside kingdom of the associated arena where we are residing and this cause the idea of sustainable development has emerged at the devastating political schedule since the past thirty years. Likewise, it facilitated into modifying such that agreed upon at the United Nations Conference on Environment and Development Earth Summit held in 1992 in Rio de Janeiro. Education is viewed as vital in attaining overall extra sustainable development. As the direct consequence, scholastic establishments are taken into consideration as a key promoter sustainable improvement idea. The endings of the Rio agreements promulgated at worldwide locations should do to achieve sustainable improvement. SD and the 21st century (Jadoon et al., 2022; Kanbar 2012;) reflecting global dogmatic pledges toad here to the sustainable development for underlined reason of Rio. Earth Summit in 1992. Teaching

for Sustainable Development “ESD” has attained a progressively excessive outline within better schooling during the last a long time. The fundamental stage on this track got here in year of 1990, while college front runners from more than 320 higher education establishments in almost 47 international locations engaged the “Tallies Declaration”, obligating to ecological sustainability in higher optimal training. An analogous series of obligations to Education for Sustainable Development can be located within the UK, where in year of 1993. Likewise, the “Toyne Report “emphasized to enhance conversational concern inside the better education zone (Cottona 2009). From 1998, simply it’s been an growing cognizance regarding studying inside the targeted parties of UN related to priority areas for movement that have been all deep-rooted by means of the “Earth Summit” for primarily descriptive and speaking viable improvement thoughts. Secondly, it helps in go through country wide schooling guidelines and reorienting practices, together with instructor education and enhanced training teaching and research. Thirdly, it helps in integrating schooling interior domestic sustainable growth techniques; further to promoting sustainable intake and manufacturing via training; which include to endorsing deal in education sector; allocation of progressive follows; and elevating general cognizance (Scott 2006). Thus, become found in 2008 through a tactical examination to allow a generic visualization of better schooling such as chief contributor to society’s efforts to attain sustainability via developing curricula, pedagogy and additional-curricular sports that guide college students to broaden the values, capabilities and knowledge to contribute to sustainable improvement (Cottona 2009; Ullah et al., 2022).

Since the launching of the Decade of Education for Sustainable Development DESD, many sustainability issues have been included in schooling that specialize in encouraging residents to live sustainably; reorienting education application to recognition at the development of understanding, capabilities, and values associated with sustainability; in addition to building cognizance of the idea of SD; providing practical education and persevering with education to teacher walking shoes. In putting forward those global initiatives, the global network honestly recognizes that an exchange within the route of SD and a better exceptional of lifestyles begin with schooling. Thus, in line with Kanbar, attaining SD requires the popularity of the undertaking of Sustainability” studying to apprehend”; the performing with strength of will “reading to do”; the communal duty along with nice alliances “learning to live together”; human dignity the indivisibility, reading to be; with the person & net collective movements “reading to convert oneself and society” (Kanbar 2012). In the long run, high rank universities with better schooling organizations. HEIs have been viably integrating net sustainable development, core values and necessary option and gauging practices into their center coaching activities and studies, institutional control for making prepared college students to enter the difficult paintings marketplace with abilities to useful resource.

Likewise, the education sector for Sustainable Development grows from pretty extends and it's far brought via both techniques including formal and informal alliances. General interviews imply and views as human beings see scientists because associated supply of the maximum steadfast Eco-friendly records (Pearson 2005). The major records and topics of sustainable improvement

need attention in accessing better schooling platforms range as variety of restraints together with war tenacity, tackling human rights, ethics and moral conduct, the unbiased gender fairness, poverty alleviation, soundness and peaceful environment, the scenario human protection, the concerned citizenship, democratic environment and rule of law with governance bodies.

## **HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT, OBJECTIVES AND FUNCTIONS**

Globalization views that viable improvement is impractical until troubles of socio - monetary and the agenda of globalization need first to be addressed. As the direct consequences, the associated paradigm shift views deliberate sustainable improvement via depending on a simple minor changing in society's middle beliefs and values which better schooling can help to manual it (Katayama 2008). Education for sustainable improvement help human beings to increase the know-how, values and competencies to participate surely in picks approximately the manner they do subjects personally and together, in addition to locally and globally which will beautify the pleasant of life without destructive the planet for the future (Davidson 2003). The needs of the twenty-first century require the colleges to strive in the direction of the improvement of globally minded residents able to successfully feature within the context of increasingly complex, pluralistic global (Sherren, 2008). Today, the importance of voluntary work inside the community is recognized through every governments and higher schooling institutions. The global tiers enable to turn out to be responsible residents who're aware about their rights and obligations that consist of duties to environmental sustainability (Haigh 2006). As come to be mentioned before, the major universities roles in sustainability training encompass its offerings to the several additives related to sustainability primarily grounded on research and technology improvement toward sustainability issues (Pearson 2005). The underline importance pertaining to sustainable development is associated through the core instructional way. Moreover, it is major underpins that young generation are adapted for adaptation of sustainable improvement because of the major fact they may be our destiny. The effective training will state that the young generation should have an immense consideration about the major areas surrounding them. The underpinning roles and related functions of the colleges may be apparent as a hyperlink among information technology and switch of recognize- a way to society in method. First, universities tend to prepare via coaching, schooling, and research the destiny of society. Secondly, the major universities dynamically make an impact to the societal development via rendering services to the society. In the same vein, the pertaining challenges about maximum training is via creating a rich gaining knowledge of surroundings that prepares sustainability about numerous roles in the world (Abu 2010) Similarly, the .higher rate of schooling can feature to exercising ethical and medical along with tackling issues regarding several sports, along with to make sure equality irrespective of race discrimination, language, religion or monetary or social variations, or bodily disabilities.

## **HIGHER EDUCATION FOR SUSTAINABLE DEVELOPMENT**

The international environmental disturbing situations have grown to be noteworthy boundaries to human properly being similarly to a state of affairs that urgently requires the redirection of country wide development policies to highlight sustainability issue. As stated in advance whilst the UN followed the developments of Education for Sustainable Development era, the cause is to mix the core ideas, ethical values, and the prevalent practices related to sustainable improvement assimilate into all factors of teaching and attainment of knowledge of to encourage adaptation associated with behavior shaping so as to create extra justifiable future for coming generations.

In general, be familiar with that human demeanor can be altered to restriction devastating effects at the situations. In the same vein, sustainable improvement notion has advanced and encompass extra, without reprocessing and building homes with sun panels. However, to cover fundamentally how people and competition with agencies want to act and have interaction with the globe (Johnston 2007).As the direct consequences, higher schooling is measured vital as the approach for attaining the core sustainability in the environments. Evidently, the developing green worrying situations related to global are more adversely impacting the overall sustainability in any respect stages due to the short growth in populace, collectively with the changing consumption styles, in turning developing extra problems on infrastructure endowments and subsequent to overfull and terrible dwelling situations in parts of countries. Prominently, water scarcity, terrible gauging water incredible are the most momentous and challenging situations that confront well- being within the nearly all developing nations. The majority of countries distinct kind of issues which include lands are lead via dry area of lands, leads to bargain in agrarian production, undernourishment, bad fitness and well-being, scarceness and that's therefore once in a while growing social and political conflicts.

Moreover most of the nations within the international going through air pollutants degree usually surpasses the “World Health Organization” termed as (WHO) requirements and negatively impacts monetary association with fitness of population. Accordingly, the climate exchange might additionally motive glitches in lots of techniques, which include deteriorating of the water scarcity trouble, decreasing agricultural manufacturing, with dangerous well-being of human (Kanbar 2012). Similarly, in addition to the above environmental issues which are facing by using international as element within the entire vicinity, growing countries also suffers continual gasoline and electricity shortages, similarly to the hazard of high level of sea and of course global warming. In the same vein, it is frequently observed that the solutions proposed for developing countries’ power demanding situations, consists of a pressing want for renewable strength. Thus, majority of universities are discovering, education organizations are playing crucial position in selling sustainable development. Due to this fact they teach future choice alliances and supplying them with foremost talents to contribute extra modernizing society and thus a sustainable future (Barth, 2010).

Thus, tackling issues that increasingly more vast eco-friendly issues and which will attain Education for Sustainable Development goals meeting in global, the UNESCO Regional Bureau for the stated education made inside Beirut (Lebanon) of the Arab States. It has finished a look

at, the duration 2006 & 2007 to discover mechanisms to be followed with the intention to make certain sustainability within the vicinity. However, the check diagnosed many challenges inside the area and found that Higher Education Systems in the vicinity are dealing with crucial issues which can be harmfully upsetting their competency to attain growth and long term sustainability (Kanbar, 2012).

### **Methodology**

The underway research has been carried out with the purpose of exploring sustainability ratio in university course content and research publications and funding. The researcher used mix methods and triangulation strategy to collect data and analyze data. The mix methods have significant position in social science and investigators took interest in this design by naming it third paradigm according to Creswell, different writers gave different name to mixed methods, but the major concept is to integrate and combine the various methods to get powerful mix of data information.

### **POPULATION AND SAMPLING**

Population of this research was five public sector universities of AJK and two universities of Mirpur division Mirpur University of science and technology and University of Kotli.

### **DATA COLLECTION**

Data collection is one very important aspect of research. According to Leary, gathering reliable data is a hard task, and it is value recalling that one method of data gathering is not intrinsically better than other. Researcher gather data through documents and interviews.

### **DATA ANALYSIS**

This study focuses on course content which is teaching in these universities. Moreover, research funding on the promotion of sustainable development and how frequently different activities events, seminars are conducted in universities for sustainability awareness. In the same vein, to depict and find out the current situation in the existing campus ensures sustainability in both regions as mentioned. The purpose of this study was to investigate the sustainability ratio in course content which is teaching in universities in each discipline research funding and research publication regarding sustainability moreover how frequently events organized in different departments of universities for awareness among students in regard to sustainability. The Main research questions are to depict the curriculum role regarding sustainable development, the effect of research publications in universities; impact of events on for sustainability development in MUST and KOTLI universities; the net role of students' bodies in sustainable development.

The study indicates theme of courses and subjects that is related to sustainability offered. The number of courses means content relates to sustainability offered at universities. Moreover, some universities are being traced and their content courses /subjects are, monitored. This defines that



the extent to which a course can be stated in modality related to sustainability management, environment and economic in nature. It is specific according to universities listed situation. If a course is more worthy and pass knowledge then its counted in context of sustainability. It is determined by key words. The total no of courses offered means this mean the total number of courses /subjects provided at your universities yearly. This is supposed to be the information to match the extent of environment and sustainability. It is major thing tracking in teaching and learning. Programs, total course and sustainability ratio and calculated ratio.

**Table 1: Data Analysis including Sustainability Ratio of Kotli Universities**

Degree/Dep.	Program	Total course	ratio	Calculation	Ratio
CS/IT	BS	44	1%-3%	1%/3%=0.33	0.33/44*100/100=0.0075
CS/IT	M.Phil.	8	1%-3%	1%/3%=0.33	0.33/8*100/100=00.4125
Comp. Eng.	BS	44	1%-3%	1%/3%=0.33	0.33/44*100/100=0.0075
Banking and finance	M.com	24	1%-3%	1%/3%=0.33	0.33/24*100/100=00.1375
Banking and finance	BS Commerce	44		3%÷8%=0.375	0.375/44*100/100=0.00875
Banking and finance	MBA 1.5 Year	20	1%-3%	1%/3%=0.33	0.33/20*100/100=0.0165
Banking and finance	MBA 3.5 years	34	1%-3%	1%/3%=0.33	0.33/34*100/100=0.0097
Banking and finance	BBA (4 years)	44	1%-3%	1%/3%=0.33	0.33/44*100/100=0.0075
Law	LLB 5Yprogram	59	1%-3%	1%/3%=0.33	0.33/59*100/100=0.00559
Mathematics	BS	44	1%-3%	1%/3%=0.33	0.33/44*100/100=0.0075
Mathematics	MSC	20	1%-3%	1%/3%=0.33	0.33/20*100/100=0.0165
Mathematics	M.Phil.	12	1%-3%	1%/3%=0.33	0.33/12*100/100=0.0275
Biotechnology	BS 4 years	46	1%-3%	1%/3%=0.33	0.33/46*100/100=0.00717

<i>Biotechnology</i>	M.Phil.	12	1%-3%	$1\%/3\%=0.33$	$0.33/12*100/100=0.0275$
<i>Botany</i>	BS	35	1%-3%	$1\%/3\%=0.33$	$0.33/35*100/100=0.00916$
<i>Botany</i>	MS	21	1%-3%	$1\%/3\%=0.33$	$0.33/21*100/100=0.00517$
<i>Botany</i>	M.Phil.	8	1%-3%	$1\%/3\%=0.33$	$0.33/8*100/100=0.004125$
<i>Education</i>	BSc	47		$3\%\div 8\%=0.375$	$0.375/47*100/100=0.00985$
<i>Education</i>	MS	24	1%-3%	$1\%/3\%=0.33$	$0.33/24*100/100=0.01375$
<i>Education</i>	B.Ed. 1.5Y	18	1%-3%	$1\%/3\%=0.33$	$0.33/18*100/100=0.01875$
<i>Education</i>	M.Phil.	8	1%-3%	$1\%/3\%=0.33$	$0.33/8*100/100=0.004125$
<i>Physics</i>	BS (4 Y)	47		$3\%\div 8\%=0.375$	$0.375/47*100/100=0.00797$
<i>Physics</i>	MSC 2Y	24	1%-3%	$1\%/3\%=0.33$	$0.33/24*100/100=0.01375$
<i>Physics</i>	M.Phil.	12		$3\%\div 8\%=0.375$	$0.375/12*100/100=0.03215$
<i>Zoology</i>	BS 4y	44		$3\%\div 8\%=0.375$	$0.375/44*100/100=0.00985$
<i>Zoology</i>	M.Phil.	8	1%-3%	$1\%/3\%=0.33$	$0.33/8*100/100=0.004125$
<i>Business</i>	BS	44	1%-3%	$1\%/3\%=0.33$	$0.33/44*100/100=0.0075$
<i>Business</i>	M.com	24	1%-3%	$1\%/3\%=0.33$	$0.33/24*100/100=0.01375$
<i>Business</i>	commerce	44		$3\%\div 8\%=0.375$	$0.375/44*100/100=0.00852$
<i>English</i>	M.A 2 Y	21		$1\%*100/100=$	$0.01/21*100/100=0.000476$
				0.01	
<i>English</i>	BS Hns4 Y	46		$1\%*100/100=$	$0.01/46*100/100=0.000217$
				0.01	
<i>English</i>	M.Phil.	8		$1\%*100/100=$	$0.01/8*100/100=0.00125$
				0.01	
<i>Islamic Studies</i>	M.A	22		$1\%*100/100=$	$0.01/22*100/100=0.00045$
				0.01	
<i>Software Eng.</i>	BS	44	1%-3%	$1\%/3\%=0.33$	$0.33/44*100/100=0.0075$

Moreover, the sustainable ratio of Mirpur universities is shown below: There are different ratio of sustainability according to university subjects such as 1%-3%, 17%, 8%-17%. The ratio of sustainability courses divided by total courses/subjects: Moreover, total Research is facilitated and is indicated in sustainability ratio. It last for 3 years per annum. Moreover, total research funding is indicated in context to ratio of sustainability and is calculated with formula. The below illustration shows the Data analysis that includes following: Degree/Department, Programs, Total course and Sustainability ratio and calculated ratio. The total ratio is also calculated, and a trend is analyzed to see the performance rate of universities. However, it has an important role in societal issues, HEIs is working towards sustainability.

**Table 2: Sustainability Ratio of Mirpur University**

<i>Degree/ Dept.</i>	<i>Program</i>	<i>Total course</i>	<i>sustainability ratio</i>	<i>Total ratio</i>
<i>Computer Systems Engineering</i>	B.S (Hons.)	42	0.0089285714	0.0728573285
	M.Phil.	08	0.0089285714	
	P. HD	6	0.055	
<i>Software Engineering</i>		42	0.0089285714	0.008985714
<i>Mechanical Engineering</i>	B.S (Hons)	42	0.0112	0.058075
	M.Phil.	8	0.046875	
	P. HD			
<i>Faculty of Science</i>				
<i>Biotechnology</i>	B.S (Hons.)	48	0.002256	0.004806
	M.Phil.	8	0.0003	
	P. HD	6	0.00225	
<i>Botany</i>	B.S (Hons.)	44	0.0085227273	0.1336188426
	MSc	13	0.0288461538	
	M.Phil.	8	0.04125	
	P. HD	6	0.055	
<i>Computer Science &amp; IT</i>	BSCS	44	0.0085227273	0.0449807273
	BSIT	45	0.0083333	
	MCS	24	0.015625	
	MS/M. Phil	8	0.0125	
	BS	44	0.0085227273	
<i>Zoology</i>	M.Sc.	24	0.0195833	0.07498103
	M.Phil.	8	0.046875	
	MSc	21	0.02230809524	
<i>Physics</i>	M.Phil.	8	0.046875	0.1242559524
	P. HD	6	0.055	
	MSc	24	0.0195833	
<i>Chemistry</i>	M.Phil.	8	0.046875	0.0000000413939
	Ph.D.	6	0.0625	
	MSc	24	0.0195833	
<i>Mathematics</i>	B.S (Hons.)		0.0075	
	MSc		0.0165	
	M.Phil.		0.0275	
	P. HD			

<i>Faculty of Arts</i>				
	B.A	44	0.000044	0.000072
	M.A	20	0.00002	
<i>Islamic Studies</i>	M.Phil.	8	0.000008	
<i>Education</i>	B.S (4 years)	45	0.00733	0.0747580103
	ADE Program	24	0.01375	
	B. Ed secondary 1.5 years	18	0.00056	
	B.Ed. Elementary 2.5 years	29	0.0113793103	
	M.A Education	24	0.0004167	
	M.Phil.	8	0.04125	
<i>Economics</i>	B.S. Economics	44	0.0085227273	0.0241477273
	M.Sc. Economics	24	0.015625	
	Total		0.0241477273	
<i>English</i>	B.S English	46	0.000217	0.000457
	M.A. English	24	0.00024	
<i>Home Economics</i>	B.S. (4 years)	44	0.0075	
<i>Law</i>	LLB 5yrs	57	0.001881	0.001881
	Total			
<i>MUST Business school</i>	BBA	42	0.009285714	0.0914732137
	BABF	42	0.009285714	
	MBA (3.5 YEAR)	32	0.0103125	
	MBA (1.5 YEAR)	21	0.0157142857	
	MS MANAGEMENT SCIENCES	8	0.046875	
<i>International Relation Department</i>	B.S	46	0.007173913	
<i>Sociology</i>	M.S	7	0.0471428571	
	BS	44	0.00767	

Moreover, the sustainable ratio of Mirpur universities is shown below: There are different ratio of sustainability according to university subjects such as 1%-3%,17%, 8%-17%. The ratio of sustainability courses divided by total courses/subjects: Moreover, total research is facilitated and is indicated in sustainability ratio. It last for 3 years per annum. Moreover, total research funding is indicated in context to ratio of sustainability and is calculated with formula. The below illustration shows the Data analysis that includes following: Degree/Department, Programs, Total course and Sustainability ratio and calculated ratio. The total ratio is also calculated and a trend is analyzed to see the performance rate of universities. However, it has an important role in societal issues, HEIs is working towards sustainability.

## Findings

Findings of this study give a clear view of current situation of public universities of AJK sector in the area of sustainable development. If we see these results in the light of objectives of this

study first we analyzed course content or curriculum employed in universities. As results shows ratio of sustainable based content is not appreciated in both universities although in departments of sciences sustainable development courses are being taught in various disciplines like chemistry, botany, bio technology and zoology. Moreover, results revealed that in engineering field sustainable content had under observation. But unfortunately, in other disciplines of arts especially in English, Education Islamic studies, Law there was no commendable evidence regarding sustainability concept.

Now moving to next objective according to results that is role of research publication and research funding in universities related to sustainable development. After interviewing from head of departments they gave details about research funding and publications meeting with all respected heads of departments of both universities revealed that in both universities mostly disciplines of sciences using research funding as well publications as compared to departments of humanities.

By face to face interviewing of heads showed that in Mirpur University of science and technology in department of chemistry in previous three years they received 3.3 million from HEC in 2017 .4.1 million 3 million from ORIC . 1 million for lab .1.3 million in 2018 for research purpose from HEC. Similarly other departments no of amount respectively as following Bio technology 2 million, Botany 0.5 million, Physics 2.5 million. Computer system 0.5 Million, software engineering 10 million. Computer system and IT had utilize 14.5 million research fund and worked on different projects. Moreover, in Kotler university facts tell us about research funding in university department wise Botany 866000 in 2017, 0.5 million in 2018. Biotechnology 650 USD. Physics 1 million and education 44500 respectively.

Research publications are important in respect to invent new knowledge contribute in existing body of knowledge and try to solve scientific, environmental, economic, social and educational problems. Thus, in this respect according to findings in both universities number of publications seen. In MUST details of research publications are as following 176 publication in different department most of them found in sciences department. Similarly, in university of Kotler findings are as;

Total no publication published	46
Total no HEC recognized publication	30
Total number of NO category publications	16
Total no impact factor publication	24
Total impact factor achieved from 24 publications	37.27
Department with highest no of impact publications:	Chemistry (9)

Another objective of study was existence of student bodies of student's organization that are contributing in creating awareness among community regarding sustainability. Moreover, events like seminar, workshops etc. how frequently conducted in universities for the propagation of sustainability In this respect as researcher gathered data through interviews and documented data that revealed there is existence of students organizations but they are not contributing in such a manner to aware people about sustainability.

## DISCUSSION

The report concludes that a full appreciation practice of the sustainability challenges that are faced by Mirpur universities and also make consideration of the most effective practices being informed by evidence. This reveals that using data result in better appreciate with the Kotli universities are prone to greatest future sustainability risk factors. This helps and facilities initiating discussions and thus government is exploring for mitigate risk factors. However, there are several factors that make understand sustainability risk across institutions is in decade. Enrolment growth is one of the most principal strategy for enhancing increasing revenues. More Specifically, government is under phenomena of renewing key policy instruments that mainly includes the review of ongoing colleges and university funding formulas. More urgently, government is reviewing the process of depicting key indicators.

Past review of sustainability is undertaken at the systematic level. A well approach canvassed is process over the years via dissection of funding per student in Mirpur universities as compared to other provinces. But the universities in Mirpur are subjected to differentiated challenges are more equally to understand .As far as demographic threats are concerned, for instance how the various province with divergent implications for institutions depending on where they draw their students. The report is made in the light of financial circumstances and also the sustainability outlook of the universities in Mirpur .However, it establish the viability thresholds and also make criteria to flag institutions that might crossed them. However, there is no suggestion that any Mirpur university also unsustainable at this time. The goal of undertaking results an investigation of sustainability is depict inform actions that cause avoidance in panic fluctuations in the future Moreover, the idea of sustainable improvement (SD) also gains significance as to elevate the response to satisfy the large and very risky effects and implications within the context of converting civilization direction (Czapla 2011). As the effects, with the selection made to run the UN Decade on the scope of tutorial context for sustainable improvement (2005-2014). Similarly, the United Nations acknowledged the various needs and take appropriate projects, additionally implemented techniques and strategies to satisfy the information requirements on sustainable development. However, the promotion is taken into consideration and is complex process.

As far education is concerned , it's a major sustainable development (ESD) tools ,an effective for raising and creating awareness that is death to cope with environmental issues in the wide context of sustainable development. However, there are nonetheless many problems associated with its execution. However, a first-rate underpinning project of higher schooling is to discover the best diverse approaches for generating sustainability literate graduates on the alternative hand, Program like Youth for Sustainable Development are desirable examples of education for sustainable improvement. The methods used within the program are transferable to any ESD programmed together with colleges' tasks and community development paintings. Moreover, the improvement of practical capabilities which includes teamwork, communication abilities and critical wondering is likewise advocated. The local to international measurement is likewise

crucial to any ESD assignment to promote understanding that local moves can have worldwide effect. In essence, the underpinning results for SD is that it facilitated the higher education sectors in order to tackle the societal norms in society. Accordingly, the sustainability concept underlines three primary elements: Environmental Sustainability, Social Sustainability & Economical Sustainability. As a consequence, a large portion of populations and various activities are taking place on various campuses this is significantly applied for considering evolution and thus results in preparing future strategies.

## **RECOMMENDATIONS**

There are some recommendations for future researcher regarding sustainability in higher education.

### **1. Sustainability in decision making**

First of all it is highly recommended that sustainability must be a fundamental priority of higher education institutions. It should be align in education policy of the country and figure out the need of sustainable development. It need to update and re plan education policy and integrate sustainable development with university goals.

### **2. Transform course content according to need of sustainability**

There must be needed to modify content on priority bases. The need for both technological and social political innovation and the responsibilities and holistic role of technology education for sustainable citizenship.

### **3. Pedagogical transformation**

Along with content transformation pedagogical transformation is also necessary. Need to use alternate method of teaching include community service learning and particularly group learning focus on critical thinking.

### **4. Emphasize on research**

Research is the need of the day. Need to allocate more funds to universities for research purpose. Secondly encourage faculty and students towards research.

### **5. Focus on personal and social sustainability**

Another recommendation that could lead to university environment become more socially sustainable workplace including more community involvement in teaching.

### **6. Change the nature and functions of organization in university**

It is recommended that universities need to channelize direction of organizations working in universities and monitor either their work including for the awareness of sustainable development.

## REFERENCES

- Barth, M., & Timm, J. (2011). Higher education for sustainable development: Students' perspectives on an innovative approach to educational change. *Journal of Social Science*, 7(1), 13-23.
- Cotton, D., Bailey, I., Warren, M., & Bissell, S. (2009). Revolutions and second-best solutions: education for sustainable development in higher education. *Studies in Higher Education*, 34(7), 719-733.
- Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The counseling psychologist*, 35(2), 236-264.
- Jadoon, A.I., Khan, F., Syeda Tehmina Naz Bukhari, N.T.S., Gilani, S.Z., Ishfaq, U., Ullah, M., (2022). Effect of Teacher-Student Relationship on Pro-Social Behavior and Academic Achievement of Secondary School Students. *Indian Journal of Economics and Business*, 21(1), 331-337.
- Johnston, P., Everard, M., Santillo, D., & Robèrt, K. H. (2007). Reclaiming the definition of sustainability. *Environmental science and pollution research international*, 14(1), 60- 66
- Kanbar, N., Bassil, C., & Raad, M. (2012, November). Sustainability initiatives in developing countries: Green buildings in Lebanon. In *2012 International Conference on Renewable Energies for Developing Countries (REDEC)* (pp. 1-7). IEEE.Kandel. (1933). *Studies in Comparative Education*. Boston: Houghton Mifflin.
- Katayama, J., & Gough, S. (2008). developing sustainable development within the higher education curriculum: Observations on the HEFCE strategic review. *Environmental Education Research*, 14(4), 413-422.
- Mahout, M. E. S. M., van Steen, N. P., Abu-Zaid, K., & Varvara Mouthy, K. (2010). Towards sustainability in urban water: a life cycle analysis of the urban water system of Alexandria City, Egypt. *Journal of Cleaner Production*, 18(10-11), 1100-1106.
- Nikel, J. (2007). Making Sense of Education 'Responsibly': Findings from a study of student teachers 'understanding(s) of education, sustainable development and Education for Sustainable Development', *Environmental Education Research*, 13(5), pp.545-564, DOI:10.1080/13504620701430778.
- Pearson, S., Honey wood, S., & O'Toole, M. (2005). Not yet learning for sustainability: The challenge of environmental education in a university. *International Research in Geographical & Environmental Education*, 14(3), 173-186.
- Scott, D., Mc Boyle, G., Minogue, A., & Mills, B. (2006). Climate change and the sustainability of



- ski-based tourism in eastern North America: A reassessment. *Journal of sustainable tourism*, 14(4), 376-398.
- Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of management review*, 20(4), 936-960.
- Sund, P. &P.-O. Wickman (2008). Teachers 'Objects of Responsibility: something to care about in education for sustainable development? *Environmental Education Research* , 14(2), pp. 145-163,DOI:10.1080/13504620801951681.
- Ullah, M., Alam, W., Khan, Y., Joseph, V., Farooq, M.S., Noreen, S. (2022). Role of Leadership in Enhancing Employees Performance: A Case Of Board of Intermediate and Secondary education, Peshawar. *Journal of Contemporary Issues in Business and Government*, 28(1), 183-193.
- United Nations (UN) (2015): Resolution70/1.Transforming our world: the 2030 Agenda for Sustainable Development. New York: United Nations.