Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 7, July 2021: 11014 – 11026

Research Article

Climate Change and Higher Education in Pakistan

Abdul Malik[a], Tiyba Ghafur[b], Azra Abdul Majeed[c], Arooj Arshad[d], Majida Khatoon[e]
Wajahat Naseeb Khan[f]

[a,b,c,d,]University of Management and Technology, Lahore, Pakistan
e. Institute of Education and Research, University of the Punjab, Pakistan
f. National College of Business Administration, Lahore, Pakistan

Abstract

This study was aimed at climate change and higher education in Pakistan. To know climate change and higher education. Educational sector to tackle climate change. Core subject values of climate change. Is it for knowledge enrichment or information acquisition climate change and higher education? This study was based on qualitative research methods. Purposive sampling techniques were used in this study. Most teachers were described the, for more than a decade technology has altered the whole education system. We concluded by this research that a few people are aware of the increasing issues of the environment and think about climate change's impact on the community.

Keywords: climate, higher education, organization, environmental, scientific and social problem.

Introduction

In this article, we will discuss questions of how and what teachers should be taught and how students can take part in learning about the dangers of climate change and the ambiguous future formed by human and environmental impact. As we know, climate change has a direct influence on education. The main effects of climate change on education stem from the sound effects of severe weather actions, for instance, heavy rain with heavy thunder, strong wind with a hail storm, which have short and long tenure magnitudes. Deficiency and rising temperatures lead that negatively affect educational attainment. Life-threatening weather conditions decrease the accessibility of clean drinking water that compromises hygiene and enhance the occurrence of weather-related diseases for example malaria and diarrhea leading to children being absent from school. In addition to the primary effects, climate change has secondary effects on the educational system, rising from the habits in which households respond or the choice to deal with and adapt to climate change. This is evidenced by the relocation of family members and the activities of the child marriage ceremony. Fahey, S. J. 2012).

Review of the literature

A brief overview of the relevant literature on teacher and student understanding of the concept of climate change and its effects on education. Educate students for future climate change extenuation and adaptation measures and the potential for adversity. Opportunities for climate change mitigation and adaptation education are critically examined in Australian schools. The climate change issue should be considered as a difficult scientific and social problem described by uncertainty and contextual knowledge. It requires teachers to engage in research and co-learning with students. Limited time in the classroom to deal with climate change and the described curriculum and communal initiatives to help students to investigate and learn. So that teachers should buoy up students to think analytically and creatively about ways to mitigate and adapt to climate change and

increase their ability to respond with purposeful action. (Hess, D. J., & Collins, B. M. 2018). In light of the best practices in the United State identified by the data set, the research authors talk over strategies that may make it more likely that climate science and climate change will be included in the core curriculum. Education included in the study promotes comprehensive research literature on sustainability in higher educational programs, both in interaction with research on the college's core curriculum and in the particular problems of climate change education. (Molthan-Hill, P., Worsfold, N., Nagy, G. J., Leal Filho, W., & Mifsud, M. 2019).

Today in higher education, institutions facing several challenges, containing the challenges of making future-orientated graduates. However, higher educational institutions have special instruction to develop decision-makers and future leaders who are capable of understanding climate change issues and delivering solutions related to complex global issues. Educational programs which focus on multi-functional critical thinking need to organize future leaders to address issues that are not up till now known. By using a postgraduate climate change program case study, the current study demonstrates the challenges faced by curriculum reform and the reward that result. Two models of the theoretical curriculum re-imagined the program. Goal-oriented and action research after the action analysis exemplary. The teachers related to the program consider researchers in their training, made this correction. For future proof-graders, this article discusses, how curriculum intent is aligned with the ability of an institution to change. When faced with complex, political and global issues namely climate change and avoiding a business routine necessitates both constant evaluation and revision of the program and course syllabus. Association with internal such as university and faculty level goals and external guidance are essential. (Allen, D. K. 2003).

Universities play an important role in climate change education (CCE). It is crucial if the environmental, social, scientists and political challenges that the world facing today are met. However, future leaders will have to make knowledgeable decisions and the public determination need to incorporate climate change mitigation implements into their personal life as well as on work. Therefore, it is important to understand the scope of the CCE strategies that are being pursued globally by Higher Education Institutions (HEIs) to review the challenges through which higher institutions can meet this challenge. According to literature, research suggested an analysis extent to which top institutions in 45 countries are approaching the CCE and deliver a theoretical framework to find out that how HEIs are incorporating CCE into their curriculum. Furthermore, the expert perspectives for example when students decide on study for a degree to adapt to climate change and become experts in mitigation tools, the CCE framework identified and highlighted three additional approaches. Using data collected from a research international survey that involves participants working in senior management and academics, this paper provides an example of the different methodologies taken and analyzes daily life practical examples of practice. (Beck, A., Sinatra, G. M., & Lombardi, D. 2013)

This research article introduces the theoretical organizational climate that helps to understand the repetitive relationship between organizational climate and strategic change initiatives. It was recognized in the 1990s that higher education around the world was undergoing a period of quick change. Research in the external environment revises the traditional principles of universities as they reflect on how they improved their early research activities through traditional ascendency and administrative arrangements about education and learning. Adopting or changing a common vision has been done with a balanced emphasis on strategic planning. There were also mental commitments and unbelievable beliefs rooted in the legitimacy of a particular brand of corporate management. The study focused on one such methodology to strategy change. One of research in the UK develop informational strategies in 12 Higher Education Institutions by using the theory of generational perfection, it highlights the effect of different styles of organizational climate. We discuss the impact of one of the aspects of organizational climate identification such as insecurity and security. Literature reveals that a climate of insecurity or security mat exists within an HEI and divide it at the organizational level, or infiltrate subcultures. They identified six issues that affect environmental insecurity or security in different HEIs. Issues are associated with exchange management and its frequency, openness, predictability, degree of proportion, increasing characteristic of proportionality or change, and the use of influential force and coercive force to enforce a decision or not. This research article discusses the multifaceted nature of uncertainty or insecurity. According to literature, a note states that "irrational" behavior is tantamount that emphasizes a spiteful circle that staff is motivated, cautious, not willing to communicate or engage in the explicit practice. While it's happened and is likely to fight change. On the other hand, environments where multiple "collective" approaches

have been used to create a virtuous cycle, with openness and willingness to share information, have been a major source of controversy and these were more positive relationships. Hence, these factors lead to compromise, a broad understanding of resolutions such as acceptance of their approval, and a guarantee to both university and ideological decisions. (Burandt, S., & Barth, M. 2010). In this paper, we discovered the affiliation between university teachers' knowledge, apprehensions, and mental state of responsibility about climate change and the possibilities for this subject to identify this topic in their tutorial room curriculum. We focused on research survey questions. The universities' faculty and students differ in their knowledge, concerns, and particular accountability related to climate change, also teachers are different from students 'extrapolations and students' alleged knowledge related to climate change. Understood knowledge and concern about climate change are very important. However, concern, perceived knowledge, personal responsibility, the responsibility of teachers about climate change, and comfort in teaching related to climate change have to do concern with the degree to which teachers demonstrate climate change in classrooms. Hence, teacher's ranking and disciplines differentiate comfort with how they perceive knowledge, personal responsibility, concern, responsibility to teach about climate change and education about change. Calm climate change education and sensation of responsibility for climate change education were both important precursors to the degree currently being educated. On the other hand, professors of science were comparatively high in both comfort and responsibility to teach about climate change, while liberal arts college faculty members were less satisfied and sensed less responsible for incorporating the subject into their classrooms. Therefore, identifies prospects where professional improvement can be targeted to promote literacy regarding climate change. Leal (Filho, W. (Ed.). 2010). Facing the many challenges associated with climate change places high demands on distinct competencies. Preparing performers for such kinds of challenges requires learning settings in higher education that are appropriate for their purpose. Theoretical structure for appropriate key capabilities can be found in the Sustainable Development Education (SDE) discussion. In this article, we discuss and introduce two educational situations that use an adaptive science approach. A syndrome methodology and consequence analysis. These two lines of attack are discussed in relatives to promote the acquisition of the same qualifications. Experimental studies have demonstrated the usefulness of these two methods in creating appropriate learning settings. (Sanni, M., Adejuwon, J. O., Ologeh, I., & Siyanbola, W. O. 2011).

This article provides an analysis of the degree to which issues deal related to climate change in the context of university programs. However, it explains the methodology used the results from the "world climate change survey" a research initiative aimed at raising awareness among university students related to climate change in university programs around the world and identify general level needs. This survey was specially targeted at university students to gather advanced information about current practices and to provide factual suggestions for addressing identified issues and their needs. (Stocker, L., Pokrant, B., Wood, D., Harvey, N., Haward, M., O'Toole, K., & Smith, T. 2010).

Our university system can be thought of as an institution that trains, nurtures, educations and supervises students in their understanding of the system of the earth and all other human and natural activities with special reference to climate change education. It also allows students to learn science, understand climate change, and participate in numerous local and international workshops, conferences, and seminars. It involved research activities as a takeaway. This article highlights how climate change schemes in universities system can be used to advance and sustain capabilities in the field of environmental science related to climate change. This research develops a model of capability building about training, networking, and mentoring. To illustrate this model, a case study has been used for the Impact and Adaptation to Climate Change (AIACC) task. However, considering the statistic that several developing and developed countries are suffering from the effects of climate change despite varying intensities. It is suggested that these countries must implement this triangular model to increase their capabilities. At the same time, to reduce the risk level of being affected by climate change. (Leal Filho, W., Morgan, E. A., Godoy, E. S., Azeiteiro, U. M., Bacelar-Nicolau, P., Ávila, L. V., & Hugé, J. 2018).

According to literature, one of the key issues by Australia for sustainable coastal management is that decision-makers have not used the science of climate change extensively to inform the coastal government. There are opportunities to develop the dialogue between knowledge makers and decision-makers, also universities play an important role to take part in researching and promoting better communication. Historically, the focus of these interactions between different groups has been the principle of more informed engagement. In

Australia, a new "flagship" environmental research program funded by the Commonwealth Scientific and Industrial Research Institute (CSIRO) is supplementary systematic, and cooperative than ever before in such research projects emphasizes partnership with universities. Interdisciplinary education between the social and natural sciences is needed, especially to overcome the stagnation in coastal and general adaptation to climate. Also, a transitional understanding of this collaboration essential to fully developed. While new approaches of communication engagement, such as computer perceptions and animated techniques with deliberate techniques can assist policymakers and planners gain a better understanding of the importance of science on the effects of climate change on the coast. Historically, deep engagement between different groups has directed to the expansion of methodological harmonies and epistemological between natural and social scientists, adaptive learning, reflexive governance, and a more analytical deliberate understanding between scientists, policymakers, and the general public. So that this understanding could lead to an increase in coastal governance to adapt to the coastal climate. (Crona, B., Wutich, A., Brewis, A., & Gartin, M. 2013).

Several universities around the world are active centers for climate change research. Although, there are many barriers to climate change research, both arising from the nature of the research and the institutional structure. This article provides barriers to higher education institutions (IHEs) dealing with climate change issues, and the use of a global survey of higher education institutions to investigate these barriers. These are reported by an experimental study. We concluded with a proposal for some measures to implement the idea of maximizing and maximizing climate change in university research and teaching staff. It also includes research, outreach, and changing teaching methods for better support for climate change. (Anderson, A. 2012).

Public understanding observations of climate change are essential to both policy and climate sciences as it describes the local and global socio-political framework in which policy-makers and scientists' work. Most of the studies identifying the concepts of climate change have existed space-based. Although such research is educational, comparative learning through sites generally important for constructing theories as to why and how people understand and interpret climate change and the risks associated with it. This article presents a controversial study to present a comparative approach to a novel to address the complexities of local versus global perceptions about climate change. One of the studies uses the theory of culture as a consensus to extract and compare cultural knowledge concerning climate change. To illustrate the importance of this approach, they examine international statistics to determine whether people in specific and diverse locations share views on global climate change. Their results show that although data was collected by the use of ethnographic derivatives collected through location-based methods, and still they find no indication of a common cultural model of climate change in different countries. In addition, there are very specific signs of climate change that are also culturally recognizable. Furthermore, the results suggest that being women and pursuing higher education are likely to have a positive impact on the global cultural potential of both individuals. They discussed their findings in the context of the literature on environmental concepts and suggest that people with higher education are more probably to express general views on climate change in cultures and temporarily suggest that they look at the appearance of a 'global' outward culture. The mental pattern surrounding climate change and its possible effects is itself associated with higher education. (Grady-Benson, J., & Sarathy, B. 2016). This article is a unique opportunity for the educational sector to tackle climate change. It defines Climate Change Education for sustainable development that is comprehensive and multidisciplinary and emphasizes that it includes climate change, social and environmental and issues, and disaster risk lessening and do not include content related to sustainable consumption and lifestyle. Also focus on the environmental institute in which this material is taught to make sure that schools and education systems themselves are climate-friendly and flexible, as well as green and sustainable. Literature offering evidence-based conclusions on the factors that attitudes and behaviors, influence skills, so that environmental education, climate change, can be determined. Also, best works for environmental and informal climate change education materials, including scientific literacy and education. Sustainable lifestyle and usage evidence suggest that educational involvements are most effective when they focus on local, concrete, and viable aspects of sustainable development, climate change, and environmental education, especially those that are individualized. In conclusion, it was stated that the majority of the evidence that is existent is narrative, often in a study format without any monitoring and testing process which may also lead to quantitative and statistical reasons. So that effective climate change education can guide policy and action. (Stevenson, R. B., Nicholls, J., & Whitehouse, H. 2017). These days global warming has come to be the

most important political, scientific and social issue of our time in formulating actual alleviation strategies, so it is very clear that educate society has played a key role. In this paper, we look at the different mechanisms of climate change literacy in a section of students of the university also examine the effects of applied learning on the understanding of students. The results of questionnaires that are given primarily to nun science students enrolled in the weather and climate curriculum are used to test the knowledge of students about climate change. Consistent with previous research, this study found that students have significant misconceptions about the causes of global warming also there is a relationship between global warming and ozone depletion. Most of the students are associate global warming with only visible emissions, such as emissions from a car or factory, whereas exempting more indirect emissions from the use of electricity or the consumption of products or food. However, authors then discover how a climate learning activity designed around "environmental influences" also affects the perception of students to their personal energy use and interactions with global warming. Although, results show that a comparatively simple activity that involves the student personally improves the understanding of the relationship between personal energy use and global warming. Our work suggested that similar curricula, personal engagement, and social activism methods should be developed to support climate change education. (Cordero, E. C., Todd, A. M., & Abellera, D. 2008). A strong mainstream of defendants has confidence in that climate change is real and largely influenced by humanity. The majority are concerned about climate change. Still, students in the example have a misunderstanding of the underlying causes of climate change and its consequences. (Wachholz, S., Artz, N., & Chene, D. 2014). The growing interest in climate change education and the developing recognition of the challenges to tackling this problem provides an opportunity for a systematic assessment to understand what our view on effective climate change education and research is also involved in. An educational database, called EBSCO-host, was used to identify 959 unique reference records on climate change education. These 49 met the criteria for focusing on the assessment of climate change education intervention. The analysis of these foundations observed the purpose of the intervention, the diagnostic methods, and the strategies that could lead to effective intervention. In the previous study, two topics were acknowledged that are common to environmental education:

1) Concentrating on personally significant and meaningful information
2) Using engaging and active teaching methods

There are four topics are related to issues such as climate change that were also developed:

1) Engaging in thoughtful discussions
2) Interacting with environmental scientists
3) Dispelling misconceptions
4) School or implementing community projects. (Monroe, M. C., Plate, R. R., Oxarart, A., Bowers, A., & Chaves, W. A. 2019).

Climate change is a global challenge because of humanity. Nothing like other fields and sectors, so far only partial attention has been paid to climate change in academic research in general and in educational foundations in particular. However, education is a key to helping humanity in mitigation and adaptation to climate change and academic researchers working in a wide range of disciplines and research disciplines. Varied disciplines need to get involved in these most persistent challenges. We discuss that this field needs a fresh commitment to academic justice that can be properly extended the size of the challenge before us. (Henderson, J., Long, D., Berger, P., Russell, C., & Drewes, A. 2017). As we know education is the key to developing environmental sustainability. However, climate change education is a difficult subject where many issues play a key role. One of that factors that ongoing debate over whether climate change is real or not, is a major challenge for the provision of climate change curricula. Related to this factor and additionally recommend theneed to reconsiderthe demand of education for sustainability in a broader social perspective. However, the main determination of the following paper is to enhance previous research and to think through how education is perceived as sustainable in culturally diverse settings globally. One of the studies was conducted based on survey and interview data, prominent scholars from different countries such as China, Brazil, Germany, Saudi Arabia Mexico, and the United State. They share their views on the social perspective of climate change and

education for sustainability. They present a detailed analysis of findings of a survey that the United States' withdrawal from the Paris agreement on climate change, economic obstacles and political to climate change, sustainability measures, and the relationship of universities and industry. Although, there were significant contexts for climate change education. Moreover, the scholar's view on sustainable education revolves around five main ideas. The teaching of all kinds of scientific knowledge, rooted in some degree of uncertainty, bias, and complexity. Comprehensive experimental knowledge of climate change, including its basic principle, debates, and myths. Engage with critical inquiry, global engagement, integration, and conflicting ideological perspectives. Authoritative student participation in the study and extenuation of climate change and sustainability curriculum and climate change learning center. The implications of the education process for climate change have been discussed. It is claimed that global visions have the potential to reinforce education approaches to climate change and a more sustainable coming future. (Perkins, K. M., Munguia, N., Moure-Eraso, R., Delakowitz, B., Giannetti, B. F., Liu, G., & Velazquez, L. 2018). The selection of goals is given here in the main text with more details of the goals and actions. Climate change about 11% reduction in emissions by 2013-2013 and 30% by 2020. Transportation proportion of staff and students travel by foot and bicycle will double to 35% by 2011. Paper reduction: by 2011, the purchased paper has decreased by 20% and recycled paper usage has increased by 30%. The pace at which the development of the strategy has created shows that it can play an important role in making the university more sustainable. Although, it is mandatory thing that how to engage with students and faculty of universities on the development of interest regarding climate change. (Atherton, A., & Giurco, D. 2011).

Statement of the problem

This study was aimed at "Climate change and higher education.

Objectives of the study

The study has been designed to achieve the following objectives. To know climate change and higher education about.

1. Educational sector to tackle climate change
2. Core subject values of climate change
3. Outreach and changing teaching methods for better support for climate change.
4. Effective climate change education can guide policy and action.

Significance of the Research

The study would be significant because of its following dimensions;

1. The study would divulge that what makes us educate our students. Is it for knowledge enrichment or information acquisition? Does the education enable the students to transform the information into knowledge and knowledge into wisdom and applying the same into live situation where it would be feasible and appropriate?
2. The study would also make us known that with what aspirations the students enter the educational institutions and to what level those are satisfied by the recurrent system of higher education? It would also apprise us about the aspirations that remained totally unmet or partially unmet.
3. The study may come up with the nature, causes of poor delivery; ways to tackle and redress leading us to improve.

Assumptions

1. Our teacher discharges his/her duties in a purposeful manner at higher education level, but the learner is a bit slack.

Research methodology

1. This study was based on qualitative research methods**.**

The population of the study

2. There were 11 public and 15 private universities in the Punjab and all public and private universities of the province Punjab are the population of the current study.

Sampling techniques of the study

1. Purposive sampling techniques were used in this study.

Samples of the study

2. The researcher chooses the 11 universities in Punjab

3. Researchers take the one participant each university, male and female are equal participants.

Limitation of the Study

Male and female respondent were taken equally so no gender wise categories the participants.

Public and private universities were chosen equally.

Data collection, the researcher conducts the semi-structured interviews. The researcher sends the questioner by his/her' respondents' online survey.

Data analysis, the researcher used the evaluation survey with coding**.**

Research questions

1. What is the climate change impact on our higher educational system?
2. What are your opinions on students' and teachers' Perceptions of climate change in higher education?
3. Do you think, the subject of climate change may be included at the primary educational level?
4. Do students and teachers are well aware of climate change in higher education.
5. How we can tackle climate change by educational institutes?
6. How can we tackle climate change by educational institutes?

University wise respondents of students

Q.1: What is the climate change impact on our higher educational system?

1. For more than a decade technology has altered the whole education system. Technology-based courses decreased the practice-based work like fieldwork, co-curricular activities, and physical activities which are crucial for the sustainability of health and the economy.
2. The immense number of electronic devices cause the greenhouse effect also as small and large size glass wall and cabins designed for more and more computer use at the university level which has disordered the environment.
3. Change brings always some merit and demerits with its innovative form. Climate change in higher education system also alter the whole system of education. Easy access and urgent solution are the one of the emerging achievements of this Era but holistically the use of massive appliances of technology has changed the climate of institutions and outside the institutions at massive level. Cleona flora carbon (CFCs) production at large level is the result of using more air-conditions to protect the digital labs.

4. Climate change has become the dangerous threat for man at this planet and straggle for more batter future is going horribly fast. Universities and colleges are facing strong and growing risks from climate disruption. Such risks are challenging for preparation of 21st century skills in safe way to protect the life institutions.

5. Preparing them to be safe and sheltered in the face of transformation new climate, more actively involved in answering real-world problems, and rationalized to better deliver the education and research needed to create and sustain a sustainable society.

6. Climate change in my view is the alteration in the natural layer of ozone due to man-made small and bulky commodities and activities of man. At first climate change in my view is the alteration in the natural layer of ozone due to man-made small and bulky commodities and activities of man.

7. Climate change effect in the higher education system is questionable; all colleges and universities continuously introducing more and more courses online and use computers and cooling system which are basic requirement to keep these electronic devices safe. All such digital dependent education has effects multiply.

8. Climate change in higher education is environmental apprehensions, understandings, opinions, attitudes, world paradigm, standards, and arrangements concerning effect the activities of higher education culture.

9. There is no on our higher educational system from climate change.

10. Today, global warming is one of the major issues. So that to mitigate global warming and other environmental related problems, climate change and environmental sciences are mandatory to study at school level to higher education in both arts and sciences students. Climate change teach as core subject so that people should know more about their environment and climate change issues and their solutions.

11. To successfully respond to the challenges that climate change poses to our communities, it's crucial that we talk explicitly about it and in a way that invites and welcomes into the conversation a broad spectrum of people. And this is the clincher it can be tough enough to start conversations on this topic, but it can be all-too-easy to unwittingly alienate or switch others off, or cause them to deepen their commitment to their own, contrary perspectives.

Q.2: What are your opinions on students' and teachers' Perceptions of climate change in higher education?

1. The role of universities in substitute on climate change cannot be miscalculated. Improved environmental performance, enhanced public awareness, and cost reduction on-campus maintenance, short-term electricity reduction competition should be introducing among the universities. Universities to reduce productions and opportunities to fast-track larger solutions beyond the campuses. So, before the catastrophe destruction of this planet universities should play their role for sustainable rehabilitation of the environment producing awareness at a massive level.

2. Teachers and students feel and worried about future of climate in higher education.

3. With the start of 21st Climate change has started due to digital use in every field of life. Perceptions of students and teachers regarding the climate change is different some feel about future what will be future if the use of digital appliances will remain same and some feel enjoy to use these devices and not have awareness in such condition there is deficiency of awareness.

4. Students and teachers worried about so much use of chemicals, instruments, and digital utilizations.

5. There is difference of perception between the two groups.

6. I believe that the practice of environment-based subjects at the grassroots level will sustain the environment at a long-lasting level.

7. Sure, it is included as a very small portion as environment should properly include as separate subject.

8. Need to rise their curricular contributions on climate adaptation, both through the information in central courses and submission elective course that specify in the topic.

9. yes, there should be introduce subject from primary level so that student from the start of their educational period can understand the climate and causes of changes in climate and effect on man life.

10. The subject relatesclimate change must be introduce to save and sustain this planet**.**

11. **No**

Q.3: Do you think, the subject of climate change may be included at the primary educational level?

1. Sure, it is included as a very small portion as environment should properly include as separate subject.

2. Need to rise their curricular contributions on climate adaptation, both through the information in central courses and submission elective course that specify in the topic.

3. yes, there should be introduce subject from primary level so that student from the start of their educational period can understand the climate and causes of changes in climate and effect on man life.

4. The subject relatesclimate change must be introduce to save and sustain this planet**.**

5. No

6. At school level concept state about climate change of students is very low because in school not teach about climate change and not even bother to discuss with students at spare time on the other hand's teachers ration about climate change also low. However, at higher level students and teachers equally have knowledge about climate change but they not discuss on this topic and also not use in research to improve our environment.

7. Just this year we've seen wildfires rip across Australia and California, the busiest hurricane season on record, and mega droughts.

8. The concepts are mostly related to the types of pollution in the society but not about how should we avoid or reduce these effects. It is mostly discussed as an uncontrollable phenomenon.

9. No

10. I guess today's climate change due to change of geographic of earth.

11. Sure, it is included as a very small portion as environment should properly include as separate subject.

Q. 4: **Do students and teachers are well aware of climate change in higher education.**

1. The students do not have enough awareness of its effect on waters fare, the geosphere, and the atmosphere. And they know only the name of environment and pollution.

2. They are not properly awarded as it has affected the whole world and caused the collapsed of ozone layer in an American state. And its second form has changed the educational activities at all.

3. Campus operations and organization should expose to climate disruption and need to be familiar with from grass root level.

4. There is awareness in general among the students and teachers but mostly they are not having awareness it effects on human life and planet.

5. Student and teachers are moderately awarded about the climate change they do not know its real causes, its effects, and solution.

6. Yes.

7. Yes, there should be organized workshop on climate change and environmental issues and get their solution. Universities should organize tutorial related to climate change. Teachers personally gave conceptual knowledge to students in classroom.

8. Buildings create about 40% of the world's carbon emissions. Architects can solve this. Stand with us against carbon emissions and inequities in the built environment. Blueprint for Better. Types: Building Operations, Building Materials, Construction, Manufacturing, Transportation.

9. I think there should be a complete subject about the climate change to aware people about the intensity of this issue and how should we tackle this issue. If not, then some seminars should be conducted to provide basic knowledge.

10. Campus operations and organization should expose to climate disruption and need to be familiar with from grass root level.

11. Yes

Q.5: How we can tackle climate change by educational institutes?

1. Teachers and students have always remained the stockholders of societies and change can be brought through these managers of these societies.

2. Use of media, innovative literature, field trips, and in-depth research can be helpful to give awareness and protection academic activities with healthy environment.

3. Should identify version approaches that also underwrite to justifiable effort.

4. Leadership of higher education should take ironic step in climate moderation.

5. Curriculum innovation regarding climate change should be make possible to professionals, scientific research and social rehabilitation-based research can be helpful.

6. Providing its awareness at massive level, comically effects on water, soil, air, and land should be clearly explain among the public. Institutions always remained the hub of bringing revival of change. Students and teachers should collaborate Ly work dividing areas in groups and sub-groups so that more and more awareness can be provided at the immense level.

7. Climate change should be defined as whole its effects on future also. Short and long courses should be introducing at the lifelong learning stages. Stockholders of society, policy makers, and researchers should play their role practically not showing some cardboard or pamphlets.

8. By adding some information into the textbooks, organizing interactive sessions to educate the students and organize events and activities for students to actively partake in activities helping them educate themselves about the issue.

9. Management should be organized workshop on climate change and environmental issues and get their solution. Universities should organize tutorial related to climate change. Teachers personally gave conceptual knowledge to students in classroom. This attitude can change the way of thinking related to climate and bring positive change globally.

10. Today we're proud that Stove Team's mission is one of the best solutions we have to fight climate change and deforestation, while saving lives at the same time.

11. There should be a complete subject about the climate change to aware people about the intensity of this issue and how should we tackle this issue. If not, then some seminars should be conducted to provide basic knowledge about climate change.

Q.6: How can we tackle climate change by educational institutes?

1. To tackle climate change by educational institutes first of all educational minister should know the value of core subject of climate change and involved in syllabus as core subject. Management should be organized workshop on climate change and environmental issues and get their solution. Universities should organize tutorial related to climate change. Teachers personally gave conceptual knowledge to students in classroom.

2. With the help of media, public serves message to get to general audience and for students' small activities like planting specific number of plants as class assignment should be held, also seminars should be conducted.

3. No idea**.**

4. No idea**.**

5. by educating people about bio-friendly thins**.**

6. No idea

7. Climate change is an important subject to talk about, especially in this era of industrialization and deforestation where people are polluting the environment faster than ever.

8. Climate change has become the dangerous threat for man at this planet and straggle for more batter future is going horribly fast. Universities and colleges are facing strong and growing risks from climate disruption. Such risks are challenging for preparation of 21st century skills in safe way to protect the life institutions.

9. There is no on our higher educational system from climate change.

10. Global warming.

11. Change brings always some merit and demerits with its innovative form. Climate change in higher education system also alter the whole system of education. Easy access and urgent solution are the one of the emerging achievements of this Era but holistically the use of massive appliances of technology has changed the climate of institutions and outside the institutions at massive level. Cleora flora carbon (CFCs) production at large level is the result of using more air-conditions to protect the digital labs.

Findings of the study were

In view of this study, researchers would like to make following findings.

1. *Mostly teachers were described the, for more than a decade technology has altered the whole education system. Technology-based courses decreased the practice-based work like fieldwork, co-curricular activities, and physical activities which are crucial for the sustainability of health and the economy.*

2. *Mostly respondents were described the role of universities in substitute on climate change cannot be miscalculated. Improved environmental performance, enhanced public awareness, and cost reduction on-campus maintenance, short-term electricity reduction competition should be introducing among the universities. Universities to reduce productions and opportunities to fast-track larger solutions beyond the campuses. So, before the catastrophe destruction of this planet universities should play their role for sustainable rehabilitation of the environment producing awareness at a massive level.*

3. *Teachers were described, there should be introduce subject from primary level so that student from the start of their educational period can understand the climate and causes of changes in climate and effect on man life.*

4. *Respondents were elaborate, there is awareness in general among the students and teachers but mostly they are not having awareness it effects on human life and planet.*

5. *To make the curriculum innovation regarding climate change should be make possible to professionals, scientific research and social rehabilitation-based research can be helpful.*

6. *Climate change is an important subject to talk about, especially in this era of industrialization and deforestation where people are polluting the environment faster than ever.*

Discussion

In this study, we concluded that climate change education is the current demand of society. Climate change course added at higher education level to aware the society and youth. The argument that a more sophisticated approach should be used for strategic planning and environmental change. So that, we also concluded that the teaching faculty showed more concern and understanding of their students, even though they underestimated the knowledge of their students. So that gain the interest of students related climate change education.Hence, identifies prospects where professional improvement can be targeted to promote literacy.

In this article, we discussed and introduce two educational situations that use an adaptive science approach. A syndrome methodology and consequence analysis. These two lines of attack are discussed in relatives to promote the acquisition of the same qualifications. Experimental studies have demonstrated the usefulness of these two methods in creating appropriate learning settings. This also highlights that how climate change schemes in universities system can be used to advance and sustain capabilities in the field of environmental science related to climate change.

This research develops a model of capability building about training, networking, and mentoring. To illustrate this model, a case study has been used for the Impact and Adaptation to Climate Change (AIACC) task. However, considering the statistic that several developing and developed countries are suffering. This article is a unique opportunity for the educational sector to tackle climate change. Our work suggested that similar curricula, personal engagement, and social activism methods should be developed to support climate change education.

Conclusion

We concluded by this research that there is a little number of people that aware the increasing issues of environment and think about climate change impact on community. So that aware the society is very important. We can aware students by study them climate change subject as core in all disciplines such as art, business and general sciences' students. Teachers should give Limited time in the classroom to deal with climate change and the described curriculum. However, higher educational institutions have special instruction to develop decision-makers and future leaders who are capable of understanding climate change issues and delivering solutions related to complex global issues. Although several universities around the world are active centers for climate change research. On the other hands Pakistan have limited number of researches on climate change, so we should promote research on environmental sciences. Because public understanding is very important to mitigate climate related issues.

References

[1] Allen, D. K. (2003). Organisational climate and strategic change in higher education: Organisational insecurity. Higher Education, 46(1), 61-92

[2] Anderson, A. (2012). Climate change education for mitigation and adaptation. Journal of Education for Sustainable Development, 6(2), 191-206.

[3] Atherton, A., & Giurco, D. (2011). Campus sustainability: climate change, transport and paper reduction. International Journal of Sustainability in Higher Education.

[4] Beck, A., Sinatra, G. M., & Lombardi, D. (2013). Leveraging Higher-Education Instructors in the Climate Literacy Effort: Factors Related to University Faculty's Propensity to Teach Climate Change. International Journal of Climate Change: Impacts & Responses, 4(4).

[5] Burandt, S., & Barth, M. (2010). Learning settings to face climate change. Journal of Cleaner Production, 18(7), 659-665.

[6] Cordero, E. C., Todd, A. M., & Abellera, D. (2008). Climate change education and the ecological footprint. Bulletin of the American Meteorological Society, 89(6), 865-872.

[7] Crona, B., Wutich, A., Brewis, A., & Gartin, M. (2013). Perceptions of climate change: Linking local and global perceptions through a cultural knowledge approach. Climatic change, 119(2), 519-531.

[8] Fahey, S. J. (2012). Curriculum change and climate change: Inside outside pressures in higher education. Journal of Curriculum Studies, 44(5), 703-722.

[9] Grady-Benson, J., & Sarathy, B. (2016). Fossil fuel divestment in US higher education: student-led organising for climate justice. Local Environment, 21(6), 661-681.

[10] Henderson, J., Long, D., Berger, P., Russell, C., & Drewes, A. (2017). Expanding the foundation: Climate change and opportunities for educational research. Educational Studies, 53(4), 412-425.

[11] Hess, D. J., & Collins, B. M. (2018). Climate change and higher education: Assessing factors that affect curriculum requirements. Journal of cleaner production, 170, 1451-1458.

[12] Leal Filho, W. (Ed.). (2010). Universities and climate change. Springer.

[13] Leal Filho, W., Morgan, E. A., Godoy, E. S., Azeiteiro, U. M., Bacelar-Nicolau, P., Ávila, L. V., ... & Hugé, J. (2018). Implementing climate change research at universities: Barriers, potential and actions. Journal of cleaner production, 170, 269-277.

[14] Molthan-Hill, P., Worsfold, N., Nagy, G. J., Leal Filho, W., & Mifsud, M. (2019). Climate change education for universities: A conceptual framework from an international study. Journal of Cleaner Production, 226, 1092-1101.

[15] Monroe, M. C., Plate, R. R., Oxarart, A., Bowers, A., & Chaves, W. A. (2019). Identifying effective climate change education strategies: a systematic review of the research. Environmental Education Research, 25(6), 791-812.

[16] Perkins, K. M., Munguia, N., Moure-Eraso, R., Delakowitz, B., Giannetti, B. F., Liu, G., ... & Velazquez, L. (2018). International perspectives on the pedagogy of climate change. Journal of Cleaner Production, 200, 1043-1052.

[17] Sanni, M., Adejuwon, J. O., Ologeh, I., & Siyanbola, W. O. (2011). Path to the Future for Climate Change Education: University Project Approach. In The Economic, Social and Political Elements of Climate Change (pp. 693-702). Springer, Berlin, Heidelberg.

[18] Stevenson, R. B., Nicholls, J., & Whitehouse, H. (2017). What is climate change education? Curriculum Perspectives, 37(1), 67-71.

[19] Stocker, L., Pokrant, B., Wood, D., Harvey, N., Haward, M., O'Toole, K., & Smith, T. (2010). Australian universities, government research and the application of climate change knowledge in Australian coastal zone management. In Universities and Climate Change (pp. 31-46). Springer, Berlin, Heidelberg.

[20] Wachholz, S., Artz, N., & Chene, D. (2014). Warming to the idea: university students' knowledge and attitudes about climate change. International Journal of Sustainability in Higher Education.