



ENVIRONMENTAL PROBLEMS IN BALOCHISTAN: EXPLORING STUDENTS' PERCEPTIONS ON ENVIRONMENTAL ACTIVISM

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Abstract

This research investigates students' awareness and attitudes toward environmental issues and activism in Balochistan with a particular focus on climate change. The research employs a Quantitative method, utilizing a structured questionnaire administered to 100 respondents selected from various academic fields, selected through purposive sampling at Balochistan University of Information Technology, Engineering, and Management Sciences, Quetta. This research assesses university students' awareness of environmental issues, their evaluation of the government's policies, and opportunities and challenges to environmental activism. Findings reveal that most university students are well aware of the challenges to environmental issues, particularly climate change. However, many students express their concerns about the government's capacity to cope with these problems, and the capacity of modern rules and regulations to deal with these issues properly. A key challenge identified during the research was the lack of funds with environmental organizations to deal with environmental issues. Overall, the outcomes combine both optimism and doubts among the students, which shows the students 'complex attitude toward environmental issues. The study emphasizes the importance of education, collaboration, and advocacy in addressing environmental issues and promoting sustainability in the region.

Key Words: Environmental issues, Climate Change, Soil Erosion, Deforestation

Introduction:

Balochistan, Pakistan's largest province, has environmental difficulties aggravated by climate change. The harsh mountains and wilderness landscapes of this place are experiencing extreme weather, water shortages, and land degradation. Environmental issues, particularly climate change, have threatened the rural and pastoral communities, which need urgent intervention. In response, individuals in Balochistan and the NGOs have been addressing climate change by promoting sustainable practices, conservation, and legislative reforms. They are crucial to making the place greater resilient and eco-friendlier. Balochistan environmental advocacy addresses soil erosion, deforestation, water control, and biodiversity (Baloch et al., 2021). Excessive groundwater extraction and unreliable rains worsen water shortages. Water aid management practices, including irrigation and micro dams to preserve rainwater, are being promoted. Reforestation and sustainable land use help ecosystem recuperation by preventing deforestation and soil erosion. Balochistan must cope with these weather challenges. Economic stability and population well-being are linked to ecological health. Environmental activists in Balochistan organize and promote awareness to create a sustainable future. These actions ensure Balochistan's potential to thrive despite climate change by combining short-term climate change mitigation with long-term resilience building against environmental deterioration (Bashir et al., 2023).

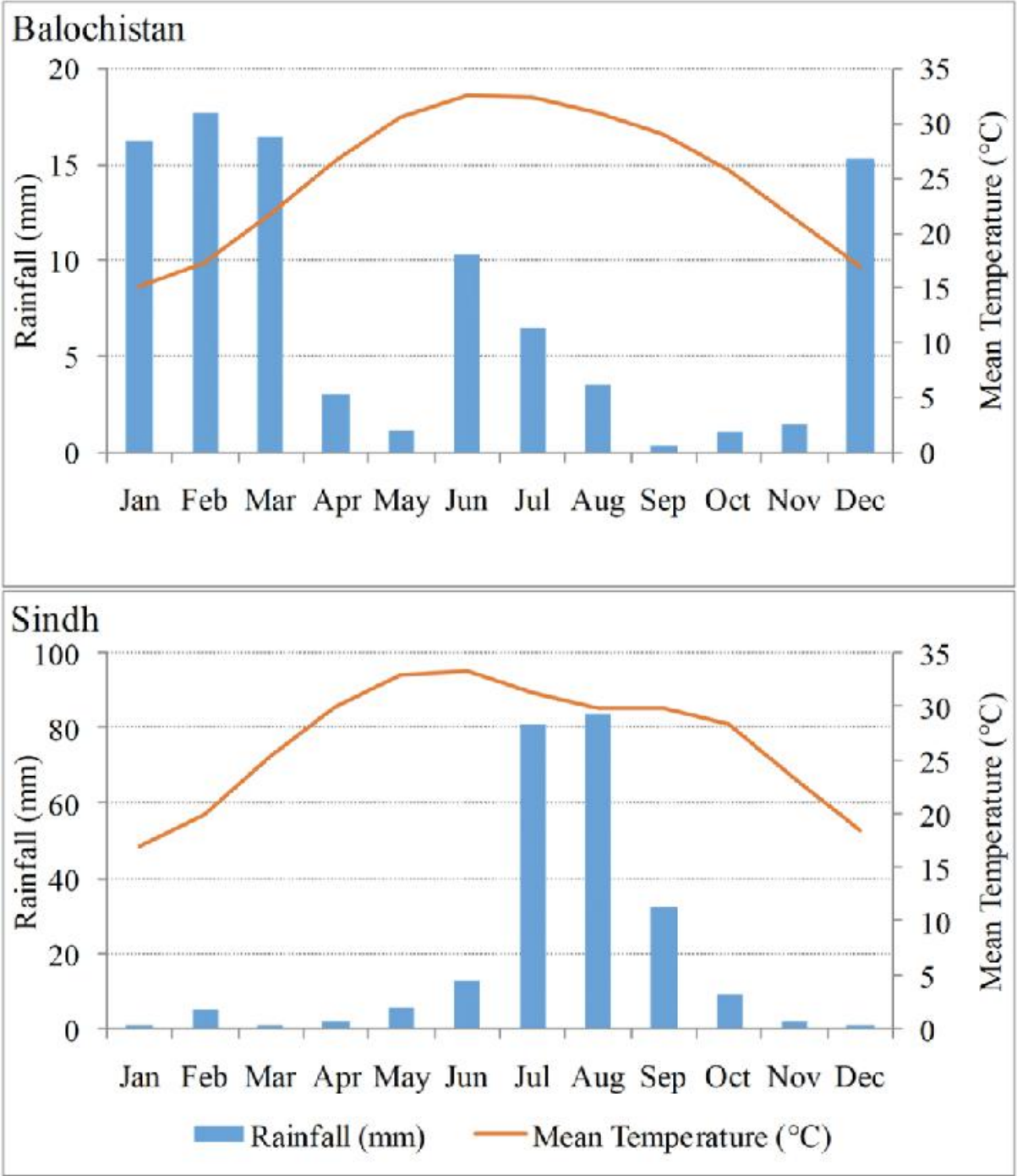
Overview of Balochistan's Environmental History

For instance, the largest province in Pakistan, Balochistan occupies an area of 347,190 square kilometres, constituting 44% of its overall geographical area. There are extensive sandy deserts, large arid plain areas, as well as some high-rise mountains that are the Sulaiman and Kirthar Mountains. The province's coastline borders the Arabian Sea, adding to its diversity. Balochistan is primarily desert with noticeable temperature variations and minimal annual rainfall. Highs exceeding 40°C (104°F) are typical in summer. However, northern mountainous winters may be exceedingly cold, sometimes below freezing. The province gets minimal rainfall, especially in the monsoon season, but great inequality makes what little falls inadequate for agriculture. Due to its harsh climate and geology, Balochistan has experienced several environmental issues. Water is one of the province's biggest issues since groundwater is running out rapidly. Due to modern agricultural methods and neglect, historic karez (qanat) systems, subsurface irrigation canals, are decaying, worsening the water crisis. Due to excessive groundwater extraction, water tables have plummeted, making it difficult for adjacent communities to access fresh water. Deforestation and land degradation are major environmental challenges. Illegal logging, fuel wood harvesting, and overgrazing threaten Balochistan's scarce plant life. Due to plant cover loss, soil erosion has risen, lowering fertility and increasing desertification. This decline hurts the province's agricultural and cattle sectors, which rent lots of its citizens. Climate change has worsened droughts, abnormal rainfall, and vicious climate (Ahmed et al., 2023). These adjustments have disrupted farming cycles, causing crop screw ups and lower agricultural productivity. Since Balochistan lacks infrastructure and money to screen and mitigate climate change, its people and environment are particularly prone. Balochistan's biodiversity is threatened. Wildlife within the province is numerous, along with local species. Unsustainable interest, poaching, and habitat loss endanger numerous species. Conserving the province's natural heritage is hard due to limited investment and resources. In latest years, public cognizance of these environmental problems has spurred improved movement and tasks. Regional and global groups are enhancing water management, restoring landscapes, and selling sustainable practices. These initiatives are

vital to maintain Balochistan's particular ecosystems, long-term environmental sustainability, and population's livelihoods from climate change (Yousuf et al., 2023).

Flow of Rainfall and Temperature:

Below exhibits a complex climate characterized by significant variability in rainfall and temperature across its diverse topography. Understanding these patterns is crucial for managing water resources, agriculture, and mitigating the impacts of climate change in the region.



Rainfall Patterns

Balochistan receives low and abnormal rainfall, with extensive seasonal and spatial variations. The province's weather is, in most cases, arid to semi-arid, with annual rainfall commonly

ranging from 50 to 200 millimetres (mm). The monsoon season, usually from July to September, accounts for the majority of the annual precipitation. However, the western part of Balochistan, influenced by the Mediterranean weather, reports winter rainfall from December and February.

Spatial Distribution

Eastern Balochistan: The eastern areas, inclusive of districts like Zhob and Loralai, obtain distinctly higher rainfall because of the impact of the Indian monsoon. These areas may also acquire as much as 200 mm of rain yearly, which remains modest as compared to other parts of Pakistan.

Western Balochistan: In evaluation, western districts like Quetta, Chagai, and Nushki obtain significantly less rainfall, frequently much less than a hundred mm consistent with yr. This stark contrast highlights the reported east-west gradient in precipitation.

Seasonal Variability

Monsoon Season: Approximately 60-70% of Balochistan's annual rainfall takes place in the course of the monsoon season. For instance, the Japanese districts may additionally get hold of approximately 120-140 mm of their annual general for the duration of this period, whilst western districts may best get 40-60 mm.

Winter Rainfall: Contributing round 20-30% of the total annual rainfall, the wintry weather season is greater extensive in the western components. Quetta and its surrounding areas may receive 20-30 mm of rainfall during those months.

Recent studies suggest a decline in normal rainfall in Balochistan, exacerbated by weather exchange. Over the beyond 3 decades, a few regions have seen a reduction of up to 20% in annual rainfall. For example, Quetta, which used to receive a median of 270 mm annually in the 80s, now averages around 215 mm, a lower of approximately 20%.

Temperature Patterns

Balochistan experiences a wide range of temperatures, with significant variations between summer and winter, and between day and night. The province's diverse topography, including mountains, deserts, and coastal areas, contributes to these variations.

Summer Temperatures

Lowland Areas: During the summer months (May to August), temperatures within the lowland areas, including Sibi and Turbat, can leap to intense highs. Sibi regularly statistics temperatures above 40°C, and it isn't unusual for temperatures to attain as high as 48-50°C, making it one of the most up to date places in South Asia.

Highland Areas: Highland areas like Quetta experience milder summers with common temperatures ranging from 25°C to 30°C. However, even those areas can see occasional heatwaves, pushing temperatures above 35°C.

Winter Temperatures

Lowland Areas: In contrast, winter temperatures in lowland regions stay exceptionally mild. Turbat and Gwadar, for example, see common wintry weather temperatures around 15-20°C, not often falling below 10°C.

Highland Areas: Highland regions undergo intense winters. Quetta regularly reviews temperatures losing under freezing, with common January temperatures ranging from -2°C to 8°C. Night-time temperatures can plummet to -10°C or lower at some point during cold spells.

Temperature Extremes

Balochistan's temperature extremes are wonderful. Sibi holds the record for the very best temperature in Pakistan, having recorded 52°C. Conversely, Ziarat, a hill station, has seen temperatures as low as -18°C. These extremes underscore the province's climatic range.

Recent data indicate a warming trend in Balochistan, consistent with global climate change patterns. Average temperatures have improved by about 1.5°C over the past century. For example, Quetta's annual temperature has risen from 15°C in the early twentieth century to around 16.5°C these days. Summer heat waves have come to be extra common and excessive; at the same time as winters are step by step turning into milder.(Hussain et. al., 2004)

Impact on Agriculture and Water Resources:

The variability in rainfall and temperature appreciably influences Balochistan's agriculture and water sources. The province's agriculture is commonly rain-fed, making it noticeably vulnerable to changes in precipitation patterns. Reduced rainfall and higher temperatures increase evaporation rates, exacerbating water shortages. Crop yields, especially of wheat and barley, have declined in recent years, with some regions reporting reductions of as much as 30%.

Efforts to mitigate those influences consist of adopting drought-resistant crop varieties and improving water control practices, inclusive of rainwater harvesting and the rehabilitation of conventional qanat structures. These measures are crucial for reinforcing the resilience of Balochistan's agricultural sector to weather variability (Durrani et al., 2024).

Balochistan's climate, characterised by low and erratic rainfall and sizeable temperature extremes, poses considerable challenges for its inhabitants. Understanding the spatial and temporal patterns of rainfall and temperature is critical for powerful water useful resource management and agricultural planning. With climate change exacerbating those demanding situations, there is an urgent need for adaptive strategies to ensure the sustainability of Balochistan's herbal sources and livelihoods. Continued studies and funding in climate resilience are vital to mitigating the detrimental effects of those climatic tendencies (Ayaz et al., 2022).

Research Methodology and Data Analysis

This research outlines the study's technique followed for analysing the perspectives of students from numerous departments at Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS) on environmental issues and rules in Balochistan. This research uses a quantitative method through a questionnaire to gather data, and the target audience selected here is BUITEMS students.

Research Design

The research employed a cross-sectional survey design, focusing on collecting quantitative data through structured questionnaires. This design was chosen to obtain a snapshot of (BUITEMS) student opinions and attitudes towards environmental activism and government policies in Balochistan.

Population and Sampling

Population: The target population consisted of students from every district of Baluchistan enrolled in various departments at BUITEMS.

Sample Size: A total of 100 responses were collected

Sampling Technique: A purposive sampling technique was employed to select (BUITEMS) students from each district of Baluchistan. This approach ensured that students from each district of Baluchistan were included, providing a broad perspective on the research topic.

Data Collection Instrument

A structured questionnaire comprising 18 questions was developed to collect data. The questionnaire was designed to cover various aspects of environmental issues and policies, including:

1. Awareness of environmental issues
2. Perception of government policies and initiatives
3. Personal involvement in environmental activism
4. Attitudes towards climate change
5. Recommendations for improving environmental governance

Data Collection Procedure

Data Collection Method: The data were collected by hand through physical distribution and collection of questionnaires. This approach was chosen to ensure high response rates and direct interaction with respondents, facilitating any needed clarifications regarding the questions.

Time Frame: The data collection process was completed within three weeks. This timeframe was set to ensure that the responses were timely and relevant, minimizing any external influences on the students' opinions.

Data Analysis

Data Entry: The collected data were entered into a statistical software program (e.g., SPSS) for analysis. Each questionnaire was assigned a unique identifier to ensure accurate data tracking.

Statistical Methods: The following statistical methods were employed to analyse the data:

1. **Descriptive Statistics:** To summarize the demographic characteristics of the respondents and their responses to individual questions.
2. **Frequency Distribution:** To examine the distribution of responses across different questions.

Ethical Considerations

Informed Consent: All participants were informed about the purpose of the study and assured that their responses would be confidential. Informed consent was obtained from each participant before they completed the questionnaire.

Confidentiality: The anonymity of the respondents was maintained throughout the study. No personal identifiers were used in data analysis and reporting.

Voluntary Participation: Participation in the study was voluntary, and students were free to withdraw at any time without any consequences.

Limitations of the Study

1. **Sample Size:** The sample size of 100 may limit the generalizability of the findings to the broader student population in (BUITEMS).

2. **Self-reported Data:** The reliance on self-reported data can introduce biases, such as social desirability bias, where respondents may provide socially acceptable answers rather than their true opinions.
3. **Time Constraints:** The three-week data collection period may not capture all potential respondents, particularly those who were unavailable during this timeframe.

Results analysis

	Included		Cases Excluded		Total	
	N	Percent	N	Percent	N	Percent
Do you believe that Balochistan is facing the effect of Climate Change?	100	100.0%	0	0.0%	100	100.0%
Do you believe that Environmental Activists are playing their role in overcoming Climate Change in Balochistan?	100	100.0%	0	0.0%	100	100.0%
Do you believe that cultural factors are a barrier to Environmental Activism?	100	100.0%	0	0.0%	100	100.0%
To what extent are you aware of Environmental issues in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How concerned are you about the impact of Climate Change on Balochistan's environment?	99	99.0%	1	1.0%	100	100.0%
How effective do you think Environmental Activism is in addressing Climate Change in Balochistan?	100	100.0%	0	0.0%	100	100.0%
Do you believe that the government is adequately addressing Environmental issues in Balochistan?	100	100.0%	0	0.0%	100	100.0%
To what extent do you think community involvement is important in Environmental Activism?	100	100.0%	0	0.0%	100	100.0%
How well-informed do you feel about the efforts of Environmental Activist in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How supportive are you of Environmental policies and regulations aimed at protecting Balochistan's Environment and Climate Change?	100	100.0%	0	0.0%	100	100.0%
Do you believe that international collaboration is necessary to address Climate Change in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How optimistic are you about the future of Environmental Change and sustainability in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How important do you think it is for educational institution to incorporate Environmental education into their curriculum in Balochistan?	100	100.0%	0	0.0%	100	100.0%
To what extent do you believe financial resources are a barrier to effective Environmental Activism in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How satisfied are you with the current level of public awareness about Environmental issues in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How confident are you in the ability of grassroots movements to drive positive change in Balochistan's Environmental sustainability?	100	100.0%	0	0.0%	100	100.0%
How likely are you to actively participate in Environmental Activism initiatives in Balochistan?	100	100.0%	0	0.0%	100	100.0%
How urgent do you think it is for government and civil society to prioritize Environmental issues in Balochistan?	100	100.0%	0	0.0%	100	100.0%

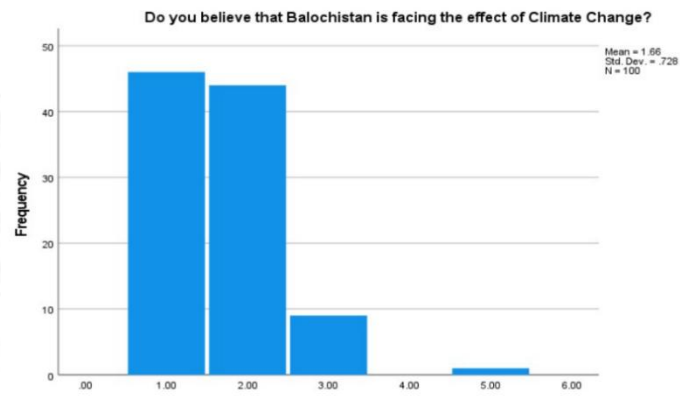
The case processing summary indicates that all 100 cases were included in the analysis. Participants responded to a series of questions related to climate change, environmental activism, government response, community involvement, and international collaboration. The analysis reveals high awareness and concern about environmental issues in Balochistan, with

a majority supporting the importance of environmental activism and the need for government action. However, challenges such as financial resources and cultural factors were identified as barriers to effective environmental activism. Overall, there is optimism about the potential for grassroots movements to drive positive change, but greater emphasis on public awareness and community engagement is needed for effective environmental sustainability efforts in Balochistan.

Results

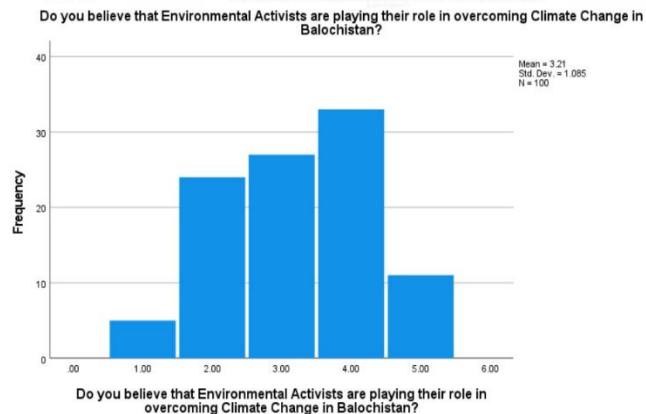
Do you believe that Balochistan is facing the effect of Climate Change?

	N	%
Strongly Agree	46	46.0%
Agree	44	44.0%
Neutral	9	9.0%
Strongly Disagree	1	1.0%



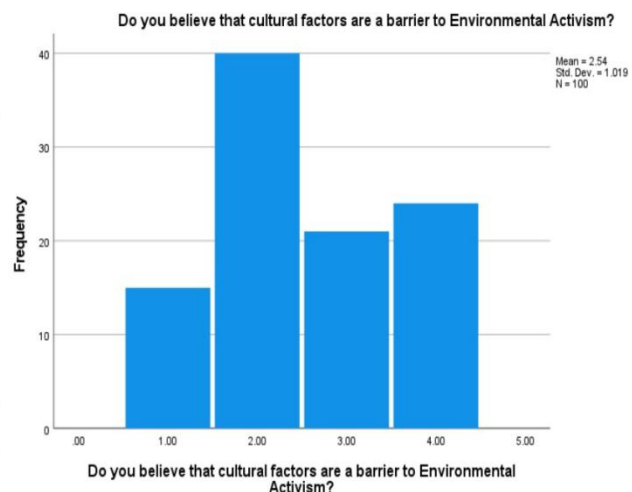
Do you believe that Environmental Activists are playing their role in overcoming Climate Change in Balochistan?

	N	%
Strongly Agree	5	5.0%
Agree	24	24.0%
Neutral	27	27.0%
Disagree	33	33.0%
Strongly Disagree	11	11.0%



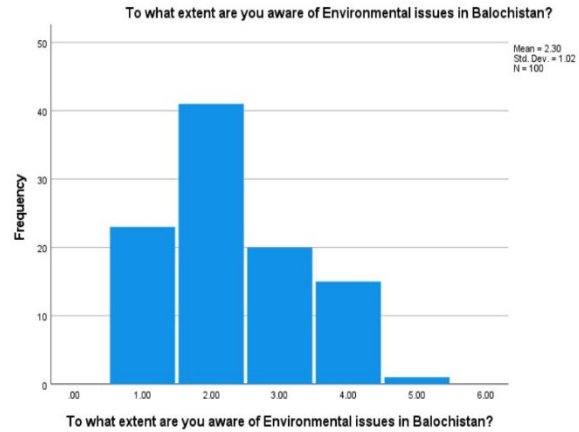
Do you believe that cultural factors are a barrier to Environmental Activism?

	N	%
Strongly Agree	15	15.0%
Agree	40	40.0%
Neutral	21	21.0%
Disagree	24	24.0%



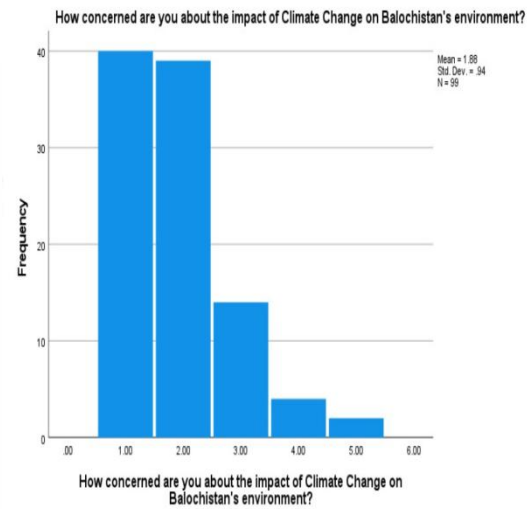
To what extent are you aware of Environmental issues in Balochistan?

	N	%
Extremely Aware	23	23.0%
Moderately Aware	41	41.0%
Somewhat Aware	20	20.0%
Slightly Aware	15	15.0%
Not Aware at All	1	1.0%



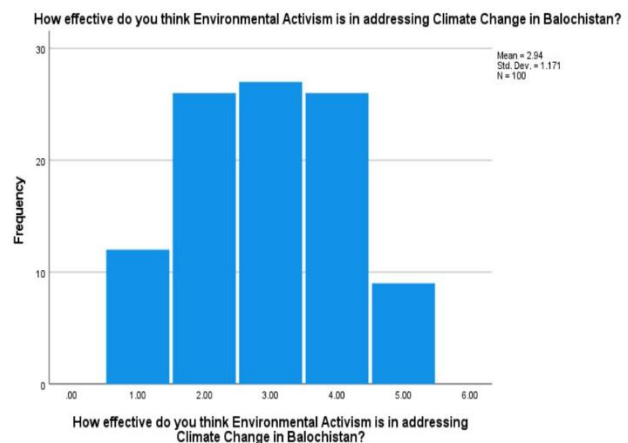
How concerned are you about the impact of Climate Change on Balochistan's environment?

	N	%
Very Concerned	40	40.0%
Concerned	39	39.0%
Neutral	14	14.0%
Not Concerned	4	4.0%
Not Concerned at All	2	2.0%
Missing System	1	1.0%



How effective do you think Environmental Activism is in addressing Climate Change in Balochistan?

	N	%
Very Effective	12	12.0%
Effective	26	26.0%
Neutral	27	27.0%
Ineffective	26	26.0%
Very Ineffective	9	9.0%

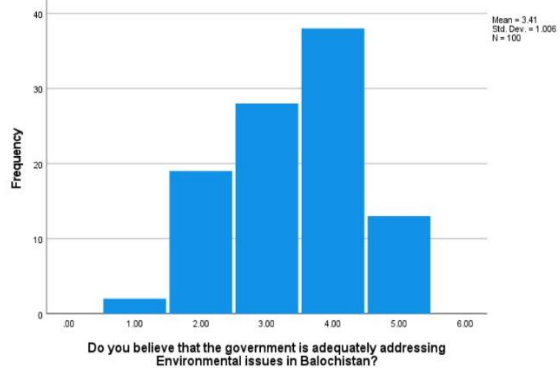


To what extent are you aware of

Do you believe that the government is adequately addressing Environmental issues in Balochistan?

	N	%
Strongly Agree	2	2.0%
Agree	19	19.0%
Neutral	28	28.0%
Disagree	38	38.0%
Strongly Disagree	13	13.0%

Do you believe that the government is adequately addressing Environmental issues in Balochistan?



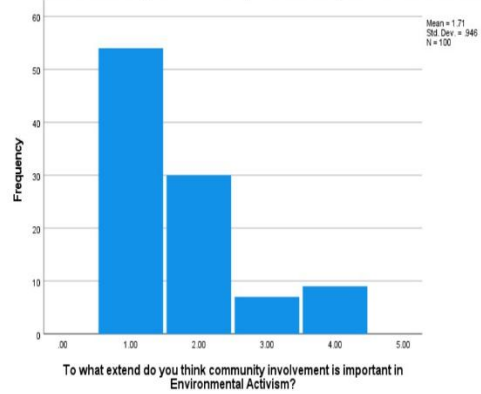
Q4

Environmental issues in

To what extend do you think community involvement is important in Environmental Activism?

	N	%
Very Important	54	54.0%
Important	30	30.0%
Neutral	7	7.0%
Not Important	9	9.0%

To what extend do you think community involvement is important in Environmental Activism?



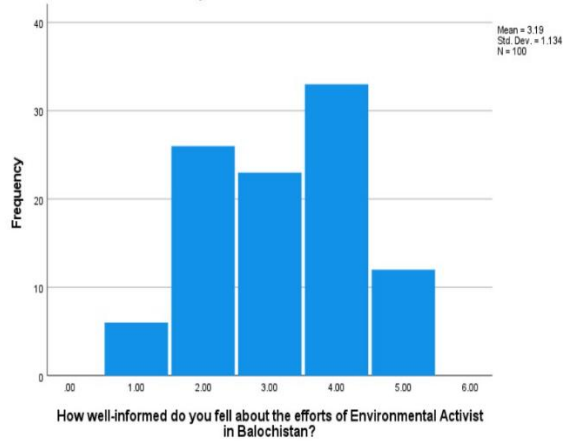
Q4

To what extent are you aware of

How well-informed do you fell about the efforts of Environmental Activist in Balochistan?

	N	%
Very Well-Informed	6	6.0%
Well-Informed	26	26.0%
Neutral	23	23.0%
Not Well-Informed	33	33.0%
Not Informed at All	12	12.0%

How well-informed do you fell about the efforts of Environmental Activist in Balochistan?



Q4

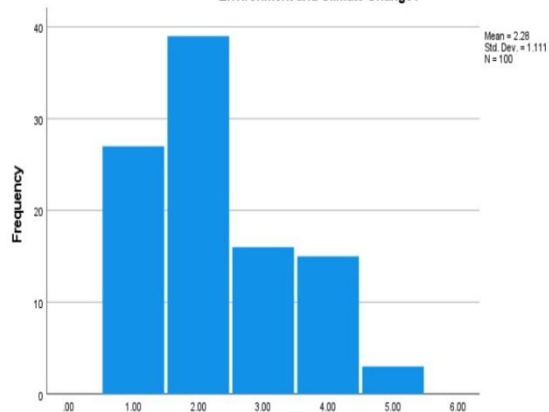
Climate Change in Balochistan's

To what extent are you aware of

How supportive are you of Environmental policies and regulations aimed at protecting Balochistan's Environment and Climate Change?

	N	%
Very Supportive	27	27.0%
Supportive	39	39.0%
Neutral	16	16.0%
Not Supportive	15	15.0%
Not Supportive at All	3	3.0%

How supportive are you of Environmental policies and regulations aimed at protecting Balochistan's Environment and Climate Change?



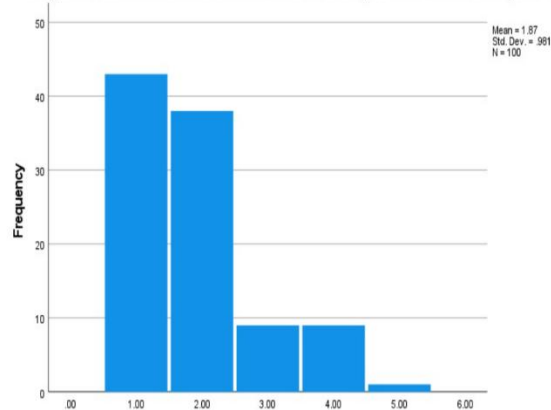
How supportive are you of Environmental policies and regulations aimed at protecting Balochistan's Environment and Climate Change?

To what extent are you aware of

Do you believe that international collaboration is necessary to address Climate Change in Balochistan?

	N	%
Strongly Agree	43	43.0%
Agree	38	38.0%
Neutral	9	9.0%
Disagree	9	9.0%
Strongly Disagree	1	1.0%

Do you believe that international collaboration is necessary to address Climate Change in Balochistan?



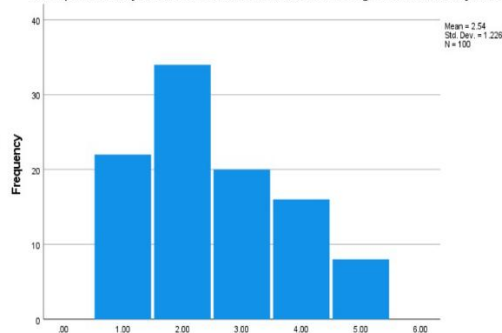
Do you believe that international collaboration is necessary to address Climate Change in Balochistan?

To what extent are you aware of

How optimistic are you about the future of Environmental Change and sustainability in Balochistan?

	N	%
Very Optimistic	22	22.0%
Optimistic	34	34.0%
Neutral	20	20.0%
Pessimistic	16	16.0%
Very Pessimistic	8	8.0%

How optimistic are you about the future of Environmental Change and sustainability in Balochistan?

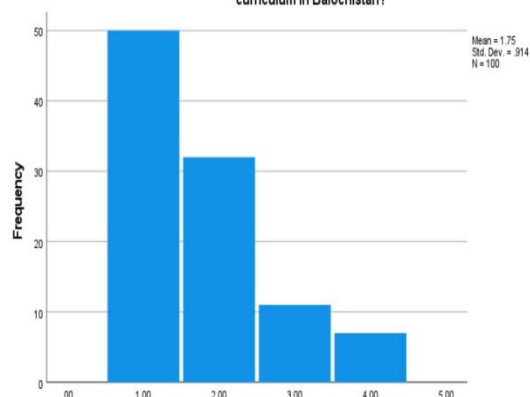


How optimistic are you about the future of Environmental Change and sustainability in Balochistan?

How important do you think it is for educational institution to incorporate Environmental education into their curriculum in Balochistan?

	N	%
Very Important	50	50.0%
Important	32	32.0%
Neutral	11	11.0%
Not Important	7	7.0%

How important do you think it is for educational institution to incorporate Environmental education into their curriculum in Balochistan?

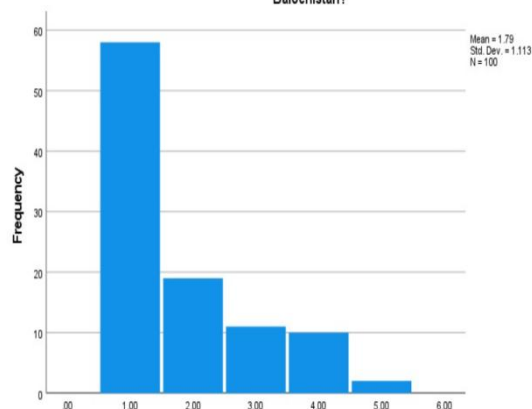


How important do you think it is for educational institution to incorporate Environmental education into their curriculum in Balochistan?

To what extent do you believe financial resources are a barrier to effective Environmental Activism in Balochistan?

	N	%
Strongly Agree	58	58.0%
Agree	19	19.0%
Neutral	11	11.0%
Disagree	10	10.0%
Strongly Disagree	2	2.0%

To what extent do you believe financial resources are a barrier to effective Environmental Activism in Balochistan?

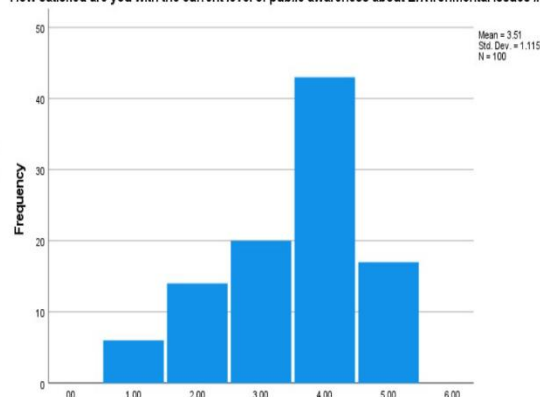


To what extent do you believe financial resources are a barrier to effective Environmental Activism in Balochistan?

How satisfied are you with the current level of public awareness about Environmental issues in Balochistan?

	N	%
Very Satisfied	6	6.0%
Satisfied	14	14.0%
Neutral	20	20.0%
Dissatisfied	43	43.0%
Very Dissatisfied	17	17.0%

How satisfied are you with the current level of public awareness about Environmental issues in Balochistan?



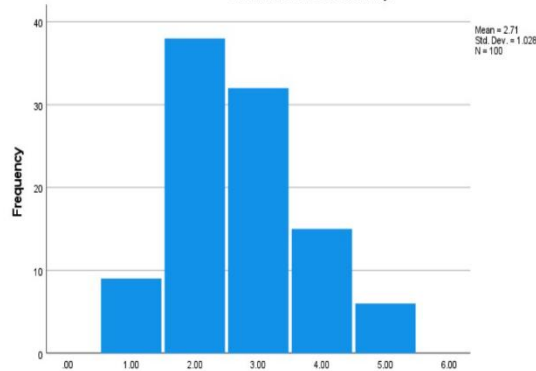
How satisfied are you with the current level of public awareness about Environmental issues in Balochistan?

To what extent are you aware of

How confident are you in the ability of grassroots movements to drive positive change in Balochistan's Environmental sustainability?

	N	%
Very Confident	9	9.0%
Confident	38	38.0%
Neutral	32	32.0%
Not Confident	15	15.0%
Not Confident at All	6	6.0%

How confident are you in the ability of grassroots movements to drive positive change in Balochistan's Environmental sustainability?



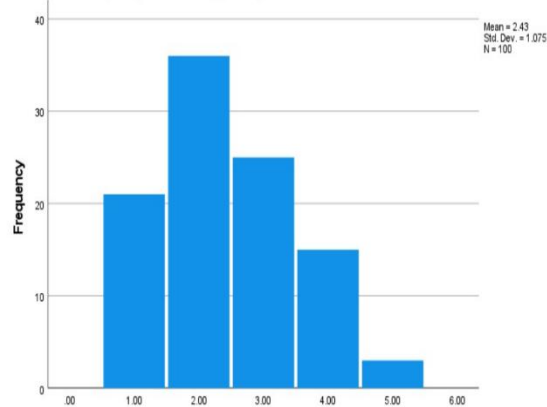
How confident are you in the ability of grassroots movements to drive positive change in Balochistan's Environmental sustainability?

To what extent are you aware of

How likely are you to actively participate in Environmental Activism initiatives in Balochistan?

	N	%
Very Likely	21	21.0%
Likely	36	36.0%
Neutral	25	25.0%
Unlikely	15	15.0%
Very Unlikely	3	3.0%

How likely are you to actively participate in Environmental Activism initiatives in Balochistan?



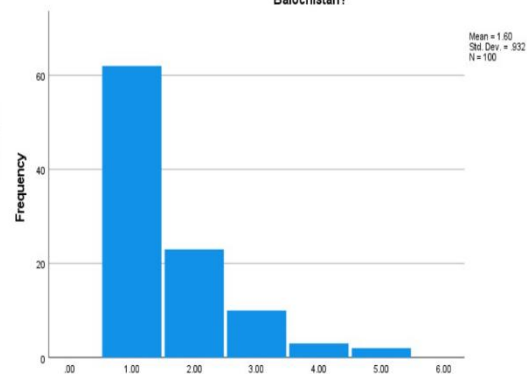
How likely are you to actively participate in Environmental Activism initiatives in Balochistan?

To what extent are you aware of

How urgent do you think it is for government and civil society to prioritize Environmental issues in Balochistan?

	N	%
Very Urgent	62	62.0%
Urgent	23	23.0%
Neutral	10	10.0%
Not Urgent	3	3.0%
Not Urgent at All	2	2.0%

How urgent do you think it is for government and civil society to prioritize Environmental issues in Balochistan?



How urgent do you think it is for government and civil society to prioritize Environmental issues in Balochistan?

Findings

⇒ The evaluation of responses to the question "Do you believe that Balochistan is dealing with the impact of Climate Change?" reveals an incredible degree of settlement among participants. A majority (90%) either strongly agree or agree that Balochistan is indeed experiencing the outcomes of weather exchange. This indicates an enormous recognition of the environmental demanding situations facing the area, highlighting the urgency for

action. The small percentage of respondents who expressed neutrality or confrontation shows a need for additional education or cognizance-elevating efforts to ensure a complete understanding of weather trade issues in Balochistan.

- ⇒ The evaluation of responses to the question "Do you accept as true that Environmental Activists are playing their role in overcoming Climate Change in Balochistan?" famous a wide range of evaluations amongst members. While a minority (29%) both strongly agree or agree that environmental activists are efficaciously contributing to addressing climate change, a significant component (44%) both disagree or strongly disagree. This suggests a lack of consensus regarding the efficacy of environmental activism in Balochistan. The excessive percentage of impartial responses (27%) indicates uncertainty or a need for greater records on the function and impact of environmental activists in mitigating weather exchange in the vicinity.
- ⇒ The evaluation of responses to the query "Do you accept as true with that cultural factor are a barrier to Environmental Activism?" highlights a notable consensus amongst participants regarding the have an effect on of cultural elements. A majority (55%) both strongly agree and agree that cultural elements indeed pose a barrier to environmental activism in Balochistan. This indicates that cultural norms, values, or traditions may additionally preclude the effectiveness of environmental activism efforts in the location. The good-sized percentage of impartial responses (21%) suggests a few uncertainties or complexity surrounding the position of cultural elements, warranting further exploration and attention in environmental advocacy strategies.
- ⇒ The analysis of responses to the query "To what extent are you aware about Environmental troubles in Balochistan?" indicates a generally moderate to high level of awareness amongst contributors. A majority (64%) describe themselves as both extraordinarily aware and moderately privy to environmental troubles in Balochistan. This suggests a widespread reputation of the environmental challenges dealing with the area. However, a remarkable component (36%) specific varying tiers of lower awareness, with 15% describing themselves as slightly aware and 20% as no longer conscious in any respect. This highlights the importance of growing awareness and education efforts to make certain a extra comprehensive information of environmental issues in Balochistan.
- ⇒ The analysis of responses to the question "How worried are you approximately the effect of Climate Change on Balochistan's environment?" reveals a vast level of situation amongst contributors. A majority (79%) specific varying tiers of concern, with 40% mentioning that they are very worried and 39% indicating that they may be involved. This shows a significant popularity of the capability negative outcomes of climate trade on Balochistan's surroundings. However, a small percentage (6%) explicit either neutrality or loss of situation, suggesting a want for further attention-raising efforts to deal with potential gaps in know-how or belief concerning the severity of weather change affects inside the location.
- ⇒ The analysis of responses to the query "How powerful do you think Environmental Activism is in addressing Climate Change in Balochistan?" highlights a range of reviews amongst participants. While a minority (38%) view environmental activism as powerful or very effective in addressing weather alternate, a huge component (36%) perceives it as ineffective or very useless. Additionally, sizeable percentage (27%) specific neutrality on the problem. This suggests a lack of consensus regarding the efficacy of environmental activism in mitigating climate trade in Balochistan, suggesting capacity demanding situations or limitations in cutting-edge activist efforts that can require similarly exam or improvement.
- ⇒ The evaluation of responses to the query "Do you trust that the authorities are satisfactorily addressing Environmental problems in Balochistan?" reveals a lack of

consensus among participants. A majority (51%) both disagree and strongly disagree that the authorities is satisfactorily addressing environmental problems, indicating scepticism or dissatisfaction with authorities' efforts. Conversely, a smaller component (21%) agrees or strongly agrees with the authorities' effectiveness in this regard. The reality that 28% of respondents gave vague solutions shows that human beings aren't sure what the officials are doing to restore environmental issues in Balochistan. This suggests that environmental government desires to be extra open and responsible.

- ⇒ The evaluation of responses to the question "To what extent do you believe you studied network involvement is crucial in Environmental Activism?" demonstrates a sturdy consensus among participants regarding the importance of network involvement. A majority (84%) consider community involvement to be either very essential or crucial in environmental activism. This underscores the recognition of the essential function that communities play in driving fine exchange and advocating for environmental problems. The small per cent of neutral responses (7%) may also replicate various views or stages of awareness concerning the effect of community engagement. Overall, the consequences emphasize the importance of fostering network participation in environmental activism efforts in Balochistan.
- ⇒ According to participants' responses to the question "How informed do you feel regarding the actions of the Environmental Activists in Balochistan?" there is marked variation in perception. When it comes to knowledge regarding the initiatives undertaken by environmental activists, 32% of the respondents state they are 'very well informed/well informed, while 45% not well informed/not informed'. In our case, however, 23% of the respondents are in-between with responses that are neither a yes nor a no. This implies through awareness or knowledge of the various actions or campaigns conducted by environmental activists and organizations in Balochistan, proving that there are possible communication or publicity deficits in this context to be discussed.
- ⇒ However, the sentiments of participants as depicted by mean scores in the answers they gave to the question "How supportive are you of Environmental policies and regulations aimed at protecting Balochistan's Environment and Climate Change?" suggest a largely positive perception of the subject. When asked about their level of support towards the environmental policies and regulations the public the responses were; very supportive 27%, fairly supportive 39%, supportive 39% and not at all supportive 16%. However, a notable portion (15%) respond negatively to this question; among the respondents 15% say that they are not supportive; 3% say they are not supportive at all. In the same way, 16% are ambivalent about the issue at hand. In general accordance with the identified environmental protection beliefs, the results show that the advocacy of policy and raising awareness programs may be required in several areas.
- ⇒ Responses to the question "Do you think International collaboration is important/necessary in tackling Climate Change in Balochistan?" suggest that all the participants think that international cooperation is important in addressing Climate Change. As it concerns of the need for international collaboration on climate change in Balochistan, it was found out that the majority of the respondents a blend of strongly agree and agree, hold 81% on the norm. These points point to a notion of the relation between the climate issue and the need to work together for global change. Perhaps the 10% who have responded in the disagree/disagree (neutral category have different perceptions or concerns regarding the place of international cooperation in combating adverse effects of climate change in the region or in general.
- ⇒ Finally, when responding to the question "How optimistic are you about the future of Environmental Change and sustainability in Balochistan?" the participants express different views. While 56% of respondents have varying levels of hope/optimism

regarding the future and those are very optimistic 22% and somewhat optimistic 34% there are 24% who can be considered as being pessimistic. First, the response can be pessimistic, and 16% of those surveyed labelled themselves as being pessimistic in general, while only 8 % expressed very pessimistic views. Movements: For 30% of the respondents, the situation is positive, while 20% are indifferent to the issue. The findings are of both positive signs for optimism and positive change in the sphere of environment and sustainability in Balochistan; therefore, it is crucial to undertake collective action to change the prevailing gloomy picture.

- ⇒ Thus, the respondents' answers to the question of how important it is for educational institutions in Balochistan to introduce Environmental education into the curriculum show that participants also share high levels of concern about the integration of environment into the education process. The respondents had a very high perception towards education on environment where 82% regarded it as either very important or important for the educational institutions to incorporate in their curriculum. This supports the reasoning that education should play a major role in creating awareness as well as enhancing students' understanding of environmental problems. However, 7% respondents think that environmental education is not important, which may suggest that there can be divergent views or values in relation to its education curriculum.
- ⇒ Using the responses for the question, "To what extent do you perceive financial resources as a limitation to efficiency in Environmental Activism in Balochistan?" suggests that participants agree with regards having a high impact for financial resources. Survey results indicate that a combined 77% strongly agree or partially agree with the statement that financial restrictions are real impediments to environmental activism in Balochistan. This also shows there is awareness of the issues that surround sponsorship of environmental causes and campaigns. The remaining 12% of participants either disagree or are neutral about the value of financial resources for supporting environmental activism. The disagreement or neutrality could be due to the participants' various views or individual experiences about the availability and distribution of resources that are needed for the fight conservation.
- ⇒ The quantitative analysis of feedback to the question "Are you satisfied enough regarding the current level of public awareness concerning Environmental issues in Balochistan?" demonstrates the negative degree of engagement. When it comes to the discontentment on level of public awareness, 60% said that they are dissatisfied where the 43% expressed dissatisfaction while 17% said they are very dissatisfied. On the other hand, a much lesser proportion (20%) reported having satisfaction; 14% classified themselves as being satisfied while 6% reported being very satisfied. Moreover, 60% have no clear stand on the issue, 20% being neutral. Based on these findings, there is an indication of self-perceived awareness and knowledge about environmental issues in Balochistan, calling for more efforts by the specialized and academic communities to improve public awareness.
- ⇒ Thus, the responses received to the question "How much confident you personally feel about the effectiveness of grassroots movements in contributing towards the Positive Change in Balochistan's Environmental sustainability?" clearly shows the mixed perception of participants. Hence, about half of the population (47%) is confident in the effectiveness of grassroots movements. The level of confidence is as follows: 38% feel rather confident and 9% are very confident in contrast, 47% of the people interviewed lack confidence in the effectiveness of grassroots movements. But with regard to level of confidence, the following responses were given: 40% feel somewhat confident, 32% feel not confident and 15% not confident at all. At the same time, 32% dissociate themselves from the particular topic and choose the option 'Other'. These results indicate beliefs of

optimism and biased for the prospects of the effectiveness of grassroots movements for environmental sustainability change in Balochistan.

⇒ It was possible to determine different levels of likelihood to engage actively in Environmental Activism initiatives in Balochistan according to the responses obtained from the participants which showed a positive attitude towards activism. A majority of 57% of the respondents demonstrate a level of readiness to act on environmental activism, with 21% of respondents professing a very high likelihood of taking the desired actions and another 36% asserting that they are likely to do so. Also, the part, which can be considered as being in the middle of the mentioned dilemma, is 25%, which would mean that they have different degrees of interest or willingness to engage in the process. On their hand, there is a smaller percentage of 18% who hold an unwillingness, 15% said they are unlikely to engage in active participation and 3% said they are very unlikely to engage in active participation. In conclusion, it is possible to state that exploring the level of concern and readiness for making a contribution to environmental activism efforts in Balochistan; it would be possible to provide new insights for protecting the area's environment.

Thus, reviewing the answers to the question posed in survey, namely, degree of urgency for government and civil society in relation to Environmental issues in Balochistan the high level of urgency can be noted among the respondents. As for setting environmental concerns as a dominant priority, 85% says it is had urgent or very urgent importance. When comparing the degree of urgency in the responses, 62% of participants stated that it was very urgent, and 23% that it was urgent. On the other hand, a paltry 5% male concerning the urgency of the issue with 3% regarding it as 'not urgent' and 2% as 'not urgent at all'. These findings reveal that there is dialogue about the centrality of Balochistan's environmental problems, which need to be addressed holistically and urgently.

Conclusion:

The results of this survey highlight the potential and challenges of creating an environmentally-conscious attitude, as well as active engagement among Balochistan students. Indeed, there is a good deal of awareness of environmental issues and a satisfactory level of participation in activism, but there are also certain reasons for concern and a certain amount of doubt. Employees demonstrate moderate to low levels of knowledge on environmental concerns; a good number of them report dissatisfaction with the level of consciousness currently found in society. In the present day, there are many theories as to why community participation is deemed crucial for change, why the involvement of people from other countries or regions is significant, and why grassroots movements are considered such a powerful force for change. Yet, there is also such prerequisite: the inefficiency of governments in combating environmental issues and some concerns relating to the financial restrictions of creative activism. Nonetheless, there is hope in the principle of possibility to change as many participants expressed their desire and readiness to participate in activities for environmental activism. In conclusion, the study underlines the importance for raising awareness, engaging oneself as well as stakeholders, and improving collaboration, particularly between the government and civil society, as well as the need for advocacy and policy changes towards environmental sustainability in Balochistan.

The results of this survey show each the possibilities and the difficulties of having children in Balochistan to care approximately the environment and get worried. The results show that students are normally privy to environmental issues and are involved in movement to an appropriate diploma. This shows that increasingly people are becoming aware about how

important it's far to shield the earth and that younger people are equipped to help resolve these problems. But the poll also suggests a few issues that want to be fixed before this promise can be completely used. The truth that most people know little to not anything about the sector is a massive fear. This data hole suggests that environmental education and schooling packages want to be extra thorough to assist human beings from all walks of existence recognize and care approximately environmental troubles. Also, quite a few people who responded were unhappy with how environmentally conscious people are actually. This shows that larger modifications want to be made to lifestyle and structures to be able to make environmental troubles a concern.

The survey also talks about how important it's far for the network to paintings together to exchange the world. There are many theories about why it is vital to get concerned for your network, displaying how effective and influential local organizations may be once they paintings together. When people and organizations work collectively to shield the environment, they are able to positioned loads of strain on lawmakers and enterprise leaders to make the modifications which can be needed. People often see grassroots corporations as robust forces for change. This is because they're led with the aid of individuals who are without delay touched through environmental problems, which makes their aid real and powerful.

It's also vital that humans from different countries or areas are involved. Environmental issues affect people everywhere in the international, and to solve them, international locations frequently want to paintings together. Sharing information, resources, and the excellent ways to do matters between regions can help local efforts and supply humans' new thoughts and methods to cope with environmental troubles. International participation can also bring help and word to neighbourhood responsibilities, making them larger and more powerful.

Even although all people agree that taking part in local and international issues is essential, the survey finds a number of troubles that make it more difficult for environmental activists to do their jobs well. One large problem is that states are not top at managing environmental problems. Responses to environmental problems are frequently sluggish or now not sufficient because of bureaucratic delay, a lack of political will, and terrible policy frameworks. This failure makes it clear that we need higher environmental control and a more political solve to shielding the environment.

Lack of money is any other massive problem that makes it difficult to be creative and effective in action. A lot of environmental projects want a number of moneys for such things as look at, coaching, building, and lobbying. These applications cannot do as an awful lot or as nicely due to the fact they do not have sufficient money, which makes it tough to make adjustments that depend and remaining. To get round those money issues, we need innovative ideas like public-non-public partnerships, donations, and overseas budget. Even with those issues, the survey suggests that there's a strong preference for trade and desire. A lot of individuals who participated stated they desired to be environmental activists and were ready to do so. This indicates that Balochistan has quite a few potentials for building a stronger and extra energetic environmental movement. This excitement wishes to be utilized by focusing efforts to raise focus, related to stakeholders, and making it less complicated for the authorities, civil society, and overseas partners to paintings collectively.

To sum up, it indicates how important it's miles to make human beings more aware about the environment, involve people in any respect stages, and encourage them to paintings together

in an effort to protect the surroundings in Balochistan. To make it viable for humans to take significant movement at the surroundings, advocacy and coverage adjustments are wished. Balochistan can construct a strong and lengthy-lasting future by using filling in the gaps in its expertise, encouraging greater community involvement, solving financial issues, and making the government extra green. With the proper plans and assist, the principles of ability and institution motion offer a nice view, indicating that large steps may be taken toward environmental sustainability in the region.

Recommendations

To address the identified challenges and capitalize on the opportunities for environmental activism in Balochistan, several recommendations are proposed:

- ⇒ Enhanced Education and Awareness: Facilitate environmental education programmes in school and other community and Institutional settings to foster awareness and understanding of environment.
- ⇒ Government Accountability: Call for a higher degree of awareness, responsibility and efficiency in government actions and interventions, which are targeted towards mitigation of environmental problems.
- ⇒ Community Engagement: Forge linkages and alliances with other government departments, NGOs and other civil organizations as well as the citizens to ensure that new and existing grassroots movements are supported and the effects are boosted.
- ⇒ Financial Support: Combat the lack of sufficient funding provided to financial environmental activist institutions by allocating appropriate financial resources and funding opportunities that will contribute to their functionality and success.
- ⇒ International Collaboration: Develop stronger ties with international institutions to had resource, standards, and cooperation to fight climate changes and environmental concerns in Balochistan.

Future Directions

To enhance the effectiveness of environmental activism in Balochistan, several steps are recommended:

- ⇒ Mainly, it can be suggested that increasing awareness and building the capacity of the local institutions and community organizations can foster enhanced environmental governance. This pertains to training, special, skills, and coaching as well as resources that are employed in leadership advancement.
- ⇒ Accepting and incorporating indigenous knowledge along with world policies on environment opens up possibilities to make the processes of conservation and resilience stronger. In this way, scientists can collaborate with people leading the communities and have support from them as well.
- ⇒ Therefore, the main recommendation needed is for the advocacy of enhanced policy support on the national and provincial structures. The outlined party agendas include the demand for additional funding, enhancement of protection to activists, and well-designed policies to support the development of the Balochistan region.

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