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Role of Civil Society in Mobilisation Action on Environmental Issues in Peshawar

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ABSTRACT

The civil society of Pakistan has been identified as a crucial player in the country's social, economic and political arena. Given the multitude of challenges Pakistan faces, civil society's role is significant in raising awareness, advocating for change, building capacity, influencing policy, conducting research and addressing environmental challenges. This study is conducted to examine the role of civil society in mobilising the public on environmental issues in District Peshawar. The research study is based on a qualitative research design. Structured & semi-structured interviews were conducted to collect data. Themes were identified from the interview transcripts and analysed to find patterns across the data set. The District Peshawar is experiencing numerous environmental issues specifically air & water pollution, waste management, heat waves, depleting capacity of surface and groundwater resources and loss of urban vegetation. The study notes that civil society can play a crucial role in addressing environmental issues through public mobilisation. The key challenges in this context include socio-economic constraints, a lack of public awareness regarding the pressing issue, insufficient capacity-building efforts for civil society, inadequate resources and gaps in policy formulation and implementation among others. The study concludes that public awareness, adequate resources, effective policy implementation and continued collaboration between civil society and policymakers are essential for sustained progress in environmental conservation efforts.

Key Words: Civil Society Organizations (CSOs), Climate Change, Khyber Pakhtunkhwa, Pakistan, Sustainable Development.

Introduction

The globalization process has impacted the political and socioeconomic climate of nations. While new chances for cooperation among nations to safeguard their natural resources, borders and environments are made possible by globalization, international organizations, national administrations, local governments, the private sector and civil society organizations (CSOs) also need to work together and in concert to achieve this cooperation. Since civil society can raise local awareness and educate people about environmental protection and its significance, it is required to contribute both directly and indirectly (Pasha, 2005).

Global Climate Risk Index 2021 ranks Pakistan as the eighth most vulnerable country to climate change (Germanwatch, 2023). This vulnerability has severe implications on Pakistan's capacity and capability to ensure water and food security for its citizens as well as their well-being (Mustafa, 2011). Environmental risks are common in metropolitan areas such as Karachi, Lahore and Peshawar. The impacts of climate change, like the heat waves in Peshawar and Karachi or the oppressive smog in Lahore, are starting to have serious health and economic effects (Khalid & Aslam, 2020). The Peshawar District of Khyber Pakhtunkhwa Province contains four towns and Town-I is the biggest functional urban area of the district. Chemical products, food and beverages, transport equipment, furniture and electrical machinery are some of the key sectors of the economy (Asian Development Bank, 2019). Due to rapid population growth and unplanned urbanization, all towns of the district have suffered significant ecological imbalance. Besides, a lack of appropriate resources and hurdles in policy implementation further contribute to environmental degradation. The district faces significant challenges with solid waste management, pollution, heat waves, food and water security. (Khattak & Amin, 2013).

Civil society has a crucial role to play in addressing environmental issues in Pakistan. By 2030, it is estimated that half of the Pakistani population will reside in cities whose water and sanitation systems are already over-stretched (Asian Development Bank, 2021). Cities may also face challenges such as insufficient waste management, increased air pollution and greater pressure on water and energy resources. In recent times, civil society including

campaigners, academicians, researchers, environmental experts and Non-Governmental Organizations (NGOs) have worked to find solutions to hazardous emissions that endanger human health, impact ecosystems, infrastructure and the economy in Pakistan. In this connection, the role played by civil society becomes important for environmental policy and action. This study explores the role of civil society in mobilising the public on environmental issues in District Peshawar. The study examines responses of civil society working in District Peshawar ((henceforth Peshawar) to understand their practices, activities and challenges in promoting environmental action.

Environmental Protection and Civil Society in Pakistan

Doe, (2016) contends that civil society is considered “an organizational layer of the polity that lies between the state and citizens.” It is “the room or space for citizens to...participate in different decision-making and choices in the society.” In this context, civil society “represents people with certain responsibilities of something larger.” Kenny (2023) explains civil society as the dense chain of groups, societies, networks, and links that exist among the individual as well as the present state. New civil society actors experiment with advanced organizational forms, equally online and offline. Civil society is now “recognized as encompassing far more than a mere ‘sector’ dominated by the NGO community” (World Economic Forum, 2018). Today, civil society comprises a broader and vibrant range of systematized also chaotic groups and various Civil Society Organizations (CSOs). It is regarded as an assorted and intensifying ecosystem of people, groups, and associations. As a result, CSOs work in a variety of disciplines at both the global and local levels, including biodiversity, sustainable development, newborn immunization, gender justice etc. (Bhattacharya, 2017). In Pakistan’s context, schools, colleges, universities, professional organizations, advocacy groups, interest groups, village committees, Madaris, churches and cultural institutions are all considered to be part of civil society. Businesses are also sometimes included in civil society (Pasha & Iqbal, 2003).

Civil society in Pakistan has been increasing its scope in several aspects of political and social life for decades. Pakistan’s Devolution Plan 2000 endorsed the importance of civil society in facilitating decentralization (Malik & Rana, 2020). Following the return of

democracy in 2008 in Pakistan, civil society has contributed considerably by its advocacy campaigns regarding democracy, good governance and human rights (Khan, 2018). Later, Pakistan's conventional civil society has undergone considerable changes, such as redefining its function and goal (Islam, 2015). Indeed, environment and climate-related issues are now part of that new role of civil society. Certain international and local NGOs are also working on climate change adaptation and mitigation. Increasingly, citizens can share their concerns and issues at a table provided by civil society (Khan, 2018). Civil society has both direct and inadvertent effects on public policy, such as the well-known National Sanitation Policy established by the government, which was stimulated by the Orangi Pilot Project (Habib & Rafique, 2019).

Khyber Pakhtunkhwa is actively involved in the province's response to climate change. Climate change has the potential to reduce agricultural productivity across the province ("Effects of Climate Change on KP", 2022). Khyber Pakhtunkhwa region is also prone to flash floods throughout the monsoon season. The region is flooded almost every year due to excessive precipitation (Mumtaz & Ali, 2019; Khyber Pakhtunkhwa Climate Change Policy 2022, 2022). The repeated flooding, combined with the ongoing repair from past floods, made things even more difficult and costly. To address issues of climate change and environmental degradation, the Khyber Pakhtunkhwa government created the first provincial climate change policy in 2017. The policy was updated in 2022 along with a comprehensive Climate Action Plan, to outline the provincial government's pledges to battle climate change through mitigation and adaptation measures in light of the province's merger of tribal districts in 2018 and to fulfill the obligations of the updated Nationally Determined Contributions 2021. The legislature, the line department, academia, civil society and intelligence all made valuable contributions in the formulation of the Khyber Pakhtunkhwa Climate Change Policy and Action Plan 2022. Through mobilisation, civil society can put the interests, desires and needs of the public in front of policymakers. Care International, in partnership with the European Commission Humanitarian Aid, supported the Urban Resilience Project in 2018-2019, focusing on hazard mapping and mitigation in the urban union councils of Peshawar (Asian Development Bank, 2021). The Climate Change Centre at Agriculture University Peshawar organizes climate change research

operations, establishing links with national and international research organizations and training local farmers. Similarly, the Peshawar Clean Air Alliance (PCAA) is a volunteer-run coalition of CSOs and individuals working to improve the air quality in the provincial capital Peshawar (“Alliance Finding Ways,” 2021). Civil society could be instrumental in mobilising the public to take action in tackling environmental issues in Peshawar.

Environmental Issues Faced by People in District Peshawar

Based on data collected through interviews and scrutiny of documents, the main environmental issues faced by people in Peshawar are air pollution, water pollution, heat waves and waste management. The key climate-related risks in Peshawar are depleting capacity of surface and ground water resources and loss of urban vegetation (Ali et. al., 2019).

Peshawar is located near the border of Afghanistan in the northwest. As of the 2023 census, the district has a population of 4.758,762 million (7th Population and Housing Census, n.d.). According to the World Air Quality Report 2022 by IQAir, Peshawar is the second most polluted city in the country and the fifth most polluted city in the world. The World Health Organization (WHO) recommends $5 \mu\text{g}/\text{m}^3$ as the corresponding standard (Amir, 2023). Peshawar recorded a concentration of Particulate Matter PM_{2.5} concentration of $82 \mu\text{g}/\text{m}^3$, categorizing it as “very unhealthy,” surpassing the WHO’s annual air quality limit by 16.4 times. According to the PCAA report, the city has poor air quality due to an increase in the number of registered vehicles from 2012 to 2020. The transport sector contributes to Peshawar’s air pollution at a rate of 58.46 percent. Dust and the re-suspension of dust particles contribute to Peshawar’s air pollution at a rate of 17.67 percent, the domestic sector at 11.6 percent, industry at 6.58 percent, open waste burning at 4.10 percent and finally, the commercial sector at a share of 1.49 percent. Most disturbing is that a significant portion of vehicles are between 30 and 40 years old and do not have proper emission management systems, thus emitting more pollutants than other sources of air pollution (Fahim, 2023).

M. Nafees, an environmental scientist of the University of Peshawar, (personal communication, March 17, 2023) argues that air pollution and water pollution are the major issues in Peshawar and the reason behind air pollution is the transport sector and industrial sector. A growing population and a lack of tree cover have aggravated Peshawar's air pollution crisis over the years, and with no effective remedy in sight, the city's residents will have to live with hazardous air for the foreseeable future (Yousafzai, 2022). Air pollution and water pollution are significantly impacted by the pollutants produced by the Hayatabad Industrial Estate in Peshawar. About 550 factories produce hazardous materials like steel and chipboard, actively contributing to the environmental pollution in the city due to which respiratory diseases are on the rise. Moreover, a report by Khyber Pakhtunkhwa Department of Agriculture and Livestock revealed that consumption of wastewater irrigated vegetables can cause various diseases such as cancer and the highest number of such vegetables containing heavy metals and toxic substances were grown in Peshawar (Khan, 2021). M. Ahmad, Manager, Pakistan Council of World Religions, Faith Friends, (personal communication, May 2, 2023) pointed out that the water level decline is also one of Peshawar's biggest environmental problems.

A research associate in the Center for Water Informatics & Climate Resilience (CWC), at the Institute of Management Sciences (IMSciences), Peshawar, M. Rameez (Personal Communication, June 5, 2023) noted that the major environmental issues faced by Peshawar include solid waste management, deforestation and the heat waves. Peshawar experiences high levels of air contamination, mostly caused by vehicular emissions, industrial actions, burning of solid waste and agricultural practices which impacts public health. Similarly, F. Tawab, a botanist from Shaheed Benazir Bhutto Women University Peshawar (SBBWUP), (personal communication, June 9, 2023) opines that major issues of Peshawar are air pollution and solid waste due to lack of proper waste management strategies.

“Peshawar city faces a significant challenge in managing solid waste, which can lead to serious health issues due to open waste in streets and other public areas. Dumping sites on open lands may also contaminate nearby water sources. Moreover, urban areas, particularly large cities like Peshawar, are experiencing

rising temperatures, urban flooding, and heat waves as a result of climate change.” (S. K. Hussain, personal communication, July 13, 2023).

Growing concerns about Peshawar’s environmental issues have led to urgent calls for government action and support. An environmental lawyer, Ahmad Rafay Alam maintains that the Khyber Pakhtunkhwa government needs to pay attention to how Peshawar’s air quality is declining and provide the province’s Environmental Protection Agency (EPA) with the funding, staff, and resources it needs to carry out its mandate (Yousafzai, 2022). To address these issues, the government of Khyber Pakhtunkhwa (KP) initiated the Billion Trees Afforestation Project (BTAP) in 2014. The BTAP is regarded as one of Pakistan’s major afforestation initiatives. It has been observed as a significant phase towards fostering maintainable land practices and forest regeneration (Rauf et al., 2019).

Role of Civil Society in Mobilisation of the Public on Environmental Issues

The role of civil society particularly the CSOs is crucial in the mobilisation of the public because these organizations raise awareness and give education on different environmental issues. By delivering pertinent information and understanding between all stakeholders and sections of society, civil society can also play an important role in the control of industrial pollution, aid to marginalized and weak groups (women, children, the elderly and the sick), and implementing national and local campaigns and projects that contribute to environmental protection and minimize public exposure to unsafe industrial releases (Khwaja, 2012). To help control environmental degradation, these organizations focus on raising public awareness by distributing pamphlets and flyovers & working in collaboration with different educational institutions. According to S. K. Afridi, an economist and environmental activist at SBBWUP, (personal communication, June 1, 2023), the CSOs also collaborate with other governmental or Non-Governmental Organizations.

Civil society performers also offer crucial and unique solutions & points of view to regional issues through their local skills, ideas, and perspectives. In this approach, they promote public debate on decisions that affect the lives of local citizens and the environment, and they hold public authorities accountable (Buzasu, 2020). M. Nafees (personal

communication, March 17, 2023) claims that public mobilisation through CSOs is essential, stating:

“Public participation is not part of the policy-making process in Pakistan. Public participation in Pakistan is low; because the right to information—the first element of meaningful participation—is not accessible to every citizen. Foreign funding projects have their Environmental Impact Assessment (EIA) reports & the government rarely shares EIA reports of their projects with the public. Without access to EIA reports, citizens are unable to reflect their perspectives and shape policy formulation.”

Hence, civil society contribution ensures greater accountability and transparency in all phases of decision-making and implementation, and CSOs can play a critical watchdog role. Development of any kind cannot occur in the absenteeism of a system that is answerable and transparent (Ali & Qadri, 2016).

Pakistan’s major strategy for dealing with climate change impacts is adaptation. Executing the Green & Blue Infrastructure (GBI) is critical in urban settings for developing adaptive governance in response to climate change. In this regard, civil society advocates for climate adaptation, environmental action and sustainable development. M. Ahmad (personal communication, May 2, 2023) believes:

“Mobilisation on environmental issues is crucial, but we first concentrate on the training of our faith activists because action strategies come from these trainings; otherwise, environmental protection is something that is taught and advocated in every religion, but these issues receive little to no attention. However, after receiving training, citizens particularly faculty and students can spread this knowledge or awareness. Then they collaborate with us, and we help them by organizing seminars and sessions in their universities. That is how our action plan is implemented at the local level.”

Role of Civil Society in Addressing Environmental Issues in Peshawar

Academics, researchers, health experts, environmentalists, media personnel and CSOs often collaborate to explore strategies to address environmental issues and climate change that harm human health and damage infrastructure and businesses. A Journalist working with Sarhad Conservation Network (SCN), A. Khan (personal communication, June 26, 2023) claims that “Most of the organizations work by creating awareness; conducting research and suggesting policy measures” in Peshawar. Similarly, the Center for Water & Climate Resilience (CWC) at IMSciences, Peshawar, actively collaborates with national

and international organizations, engages with government bodies, supports educational programmes to promote sustainable practices and enhance the capacities of individuals and institutions in water and climate sectors in Peshawar. Their efforts truly exemplify the significant contributions of CSOs in mobilising public support for environmental causes (M. Rameez, personal communication, June 5, 2023).

The CSOs are increasingly leveraging social media as a powerful tool to advocate for environmental protection. Chairman, Pakistan Development Foundation, B. Sethi, (personal communication, April 27, 2023) discusses the organization's activities in Peshawar, stating:

“We are currently working on a project that utilizes digital content to raise awareness about the harmful effects of climate change. We aim to highlight ways to protect the environment and the steps individuals can take to contribute to these efforts through social media.”

M. Ahmad (personal communication, May 2, 2023) underlined the efforts of Faith Friends in promoting environmental protection by raising awareness through the incorporation of perspectives from different religions. He maintains:

“Faith Friends developed a manual on how to adapt to climate change and prevent natural disasters. To create this manual, we hired a consultant and collaborated with Dr. Asif from the University of Peshawar for research. With the assistance of religious leaders from various faiths, we incorporated religious teachings and sermons into the booklet to inspire the general public to protect the environment and prevent personal harm.”

Civil Society Organizations and NGOs actively work with communities to promote environmental sustainability. The World Wide Fund for Nature, WWF-Pakistan works closely with local communities in Peshawar to build their capacity and empower them to actively participate in environmental conservation efforts. They conduct training programmes and provide resources to communities, enabling them to adopt sustainable practices and contribute to environmental protection. Organizations like WWF-Pakistan can have a significant impact on the policy-making process on environmental issues. Organizations can actively engage with policymakers through advocacy efforts, providing evidence-based recommendations and suggestions for environmental policies. They can

also participate in public consultations, policy seminars, and stakeholder dialogues to voice their concerns and present alternative solutions (S. K. Hussain, personal communication, July 13, 2023).

Table 1	
CSOs	Detail of Activities in District Peshawar
Peshawar Clean Air Alliance (PCAA)	Installed high-quality monitors for collecting data on air quality in Peshawar. <ul style="list-style-type: none"> • Close contact with policymakers on environmental action.
Sarhad Conservation Network (SCN)	<ul style="list-style-type: none"> • Public awareness campaign on conservation of plant biodiversity. • Monsoon tree plantation & autumn plantation drives. • Poster & speech competitions & seminars on World Environment Day
Pakistan Council of World Religions, Faith Friends	<ul style="list-style-type: none"> • Awareness sessions in educational institutions • Organizing conferences in universities. • Developed a manual on tackling climate change which included ideas and sermons of several religious figures. • Celebrations of International Days related to climate change and the environment. • Arrangement of various trainings, seminars, campaigns & walks.
Pakistan Development Foundation (PDF)	<ul style="list-style-type: none"> • Plantation campaign, Chinese Embassy donated 25,000 trees to our organization for the plantation programme. • Working on a project using digital content to grab attention. • Conducting awareness sessions & PDF green selfie campaign in which one person had to plant one tree, share their pictures & get a certificate or cash prize.
Rotary Club	<ul style="list-style-type: none"> • Conducting multiple activities, plantation drives & cleanliness drives. • Planted 4,000 plants in Regi region & University town Peshawar. • Collaboration with tourism corporations.

Source: Developed by Author

M. Rafiq, coordinator of CWC at IMSciences, Peshawar, (personal communication, June 5, 2023) emphasized the challenges of environmental advocacy amidst competing political interests:

“We maintain close contact with policymakers to make a significant impact. However, navigating the realm of power politics means contending with various interest groups that often hinder our efforts to promote environmental causes by prioritizing their agendas. Despite these challenges, we continue to strive for sustainable policies.”

M. Mubashir, researcher in CWC at IMSciences, (personal communication, June 6, 2023) argues that “the input of CSOs is considered, whether timely or delayed, indicating that organizations do have a role in the policymaking process.”

Challenges Faced by Civil Society

Civil society faces various challenges to mobilise the public on environmental action in Peshawar. Socio-economic hurdles such as cultural constraints, poverty and inequality often push environmental issue down the priority list for civil society, communities and government. Socio-economic and political priorities also undermine the prioritization of environmental policies. Inconsistent implementation and monitoring of environmental policies further compound the problem. Besides, lack of public awareness, financial constraints and ineffective afforestation efforts are major obstacles. Moreover, political patronage of industry harm the environment, land and resources (A. Khan, personal communication, June 26, 2023).

“There are social and economic barriers,” commented S. K. Afridi (personal communication, June 1, 2023). “For example, I want to target women in society. If they wanted to participate, they would ask for pick-and-drop services, and if we were unable to provide that, they would be excluded from the list.” M. Rameez (personal communication, June 5, 2023) also cited socioeconomic challenges to environmental action, stating:

“Poverty and limited access to basic amenities can hinder the efforts of civil society. The capacity of government institutions to enforce environmental regulations is often

insufficient, and cultural and social barriers can make behaviour change difficult... Communication barriers and limited access to information further complicate the process.”

M. Ahmad (personal communication, May 2, 2023) notes that the lack of public awareness is a significant challenge.

“People use vehicles whether necessary or not, they dispose of their trash on the streets, and they waste water on non-essential activities. Before starting any project, our organizations must fulfill several requirements, including registering themselves or sharing their ideas on various websites and platforms.”

According to M. Mukhtar, Lecturer, Department of Economics & Climate Change Medication expert in CWC at IMSciences, Peshawar, (personal communication, June 6, 2023), the two main obstacles are public awareness and environment-related policy execution.

“The general public is unaware of the effects of environmental degradation because neither the people nor the government prioritise the environment. The government has numerous other challenging issues to address, often focusing on actions that yield tangible results to secure their seats in the next election.”

A key challenge in addressing environmental issues is the gap between policy formulation and its implementation. H. Khan, an environmental scientist of the University of Peshawar, (personal communication, May 4, 2023) believes that “the most important challenge is the lack of proper implementation of policies.”

M. Rafiq (personal communication, June 5, 2023) said that getting into circle of the government officials is not easy because they prioritise their agenda “which makes them popular in the eyes of the public.” So, working with the government is a big challenge. Rafiq further argues that “there are coordination problems and people are working in silos.”

M. Zubair, a political scientist from the University of Peshawar, (personal communication, March 16, 2023) endorsed this perspective, highlighting that government policies ultimately reflect the public demands and that environmental cause is not a priority of society.

“We have to generate demands and sensitize the public to make input so the government can provide an output. However environmental protection is not a

priority for our society. So, the government has not responded effectively or paid sufficient attention to it...The CSOs cannot educate the public or build their awareness on environmental issues effectively because of priorities. When these organizations work on child labour, women's abuse and terrorism issues, these projects secure funding and attract donors as compared to environmental projects.

M. Zubair further argues "our industrial elites are not interested in solving these issues and they did not want to support or encourage such movements." This point was also emphasized by S. K. Hussain, (personal communication, July 13, 2023), who noted that "industries may prioritize economic growth over environmental conservation leading to conflicts between economic development and sustainability." Businesses and industrial elites oppose CSOs' efforts to organize the public around environmental issues. "There are powerful lobbies and mafias in every sector (timber mafia, mining mafia, marble industry mafia, kabza mafia that create obstacles). Also corrupt practices and ineffectiveness of government bodies like EPA, inadequate laws, the laws devolved to Khyber Pakhtunkhwa after the 18th Amendment are more or less photocopies of Federal laws with Federal replaces the Province." (Habib & Rafique, 2019). Vice President, Hindu Kush Conservation Association, D. A. Jan, (personal communication, July 6, 2023) argues that "CSOs are often either used as tools by the elite or function as tools of the elite," undermining their capacity to drive significant environmental mobilisation.

Sufficient resources and funding are crucial for effective environmental mobilisation. B. Sethi (personal communication, April 27, 2023) argues that the severe lack of resources is one of the most pressing challenges to effective environmental action. "With prevalent poverty, many people remain focused on meeting basic needs over long-term environmental sustainability efforts." M. Ahmad, (personal communication, May 2, 2023), supported this view, adding that:

"If we do not have any donors, we will have to halt that particular wellbeing project since the government does not provide financial support. The failure to recognize the importance of collaboration between the government and civil society in pursuing common goals has resulted in a lack of understanding across many of governmental institutions."

People's distrust in NGOs and CSOs also poses a challenge to effective sustainability initiatives. M. Nafees (personal communication, March 17, 2023) opined, that it raises

“questions about whether the efforts of CSOs are genuinely intended for the welfare of the community or for their benefit?” “These organizations are not answerable to any institution and they rarely share project report details with public” Nafees noted, highlighting the lack of transparency that fuels this mistrust. Nevertheless, Nafees believes that CSOs have the potential “to influence decision-making, but there is often no reflection on stakeholder feedback and suggestions.”

Conclusion

The District Peshawar is threatened by both climate change and several environmental problems ranging from pollution to water scarcity. The movement for sustainable development and the environment faces difficulties because of its magnitude. So, the role of civil society becomes crucial as the government alone cannot address these challenges effectively. In Peshawar, civil society is actively addressing environmental issues; nevertheless, its role remains somewhat limited due to challenges related to socio-economic constraints, capacity building, lack of public awareness and education, insufficient financial and technical resources and gaps in policy formulation and implementation. There is a severe lack of available expertise and the CSOs are already overwhelmed as they try to address multiple issues simultaneously. Building and establishing connections with regional and international environmental and sustainable development institutions will become more important to advance local leadership and knowledge (Khan & Khan, 2004) in Peshawar.

Recommendations/Suggestions

To address environmental issues and mitigate the risks due to climate change, some recommendations are proposed by academicians, experts and activists.

1. We can mobilize people and inspire them through financial, religious and political motivations to conserve natural resources. Firstly, we can persuade the public to become stakeholders by showing them the financial benefits of conservation.

Secondly, we can educate the public about the significance of protecting the environment through the teachings of Quran and Sunnah. In addition, the feedback and follow-up of different activities and initiatives of different projects completed by CSOs are essential (M. Nafees, personal communication, March 17, 2023).

2. People should be sensitised through art and literature, music, digital content, documentaries, stage drama, movies and films (B. Sethi, personal communication, April 27, 2023).
3. There should be bottom-up education and awareness campaigns to promote engagement. Project continuity is required to identify both short-term and long-term objectives. We must involve all parties, including the government, the public and the academic community (M. Mukhtar, personal communication, June 6, 2023).
4. Increasing funding in the environmental sector—particularly for capacity building of community-based environmental organizations, implementing efficient legislation, setting up green bench tribunals and sensitising law enforcement about environmental offenses—is key to addressing these challenges.
5. The Environmental Protection Agency needs to be revamped and restructured (D. A. Jan, personal communication, July 6, 2023).
6. Air polluters should be fined, and the funds collected should be directed toward increasing plantation efforts (M. Mubashir, personal communication, June 6, 2023).
7. One of the most effective strategies is to reduce landfill waste, ban single-use plastic and incorporate recycling practices into daily life (S. K. Hussain, personal communication, July 13, 2023).
8. Rainwater harvesting could be used for conserving water in Peshawar (M. Ahmad, personal communication, May 2, 2023).
9. Proactive participation of the community and civil society in conservation efforts is important (A. Zareef, personal communication, June 25, 2023).
10. We need to challenge existing patterns and trends by transitioning to renewable energy, promoting sustainable agriculture, and embracing circular economy principles. By combining these approaches, we can pave the way for a sustainable

future in our cities, and in Pakistan, ensuring a greener and healthier environment for generations to come (M. Rameez, personal communication, June 5, 2023)

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