

# Framing Of Environmental Concerns In Pakistani Government Officials' Statements: An Ecolinguistic Study

Abdul Rouf<sup>1</sup>, Dr. Mehwish Zahoor<sup>2</sup>

## Abstract:

*This study explores how the Pakistani government officials framed the country's environmental concerns in their statements published in the national English-language newspapers, drawing insights from Arran Stibbe's concept of framing. A database of statements of selected government officials was collected from the online archives of The Dawn newspaper, published between 2018 and 2021, to examine reoccurring metaphors, themes, and discursive strategies used by government officials to frame environmental concerns. The study found that Pakistani government officials used tree plantations as a protective measure to increase people's engagement in national campaigns to avert the ramifications triggered by 'global warming and climate change. Besides enhancing green cover, a shift to innovative technology like electric vehicles and hydroelectricity are framed as primary protective measures. By exploring the linguistic patterns in the selected data, the current study has highlighted the crucial role of effective language use in communicating ecological concerns and increasing eco-awareness.*

**Keywords:** Environmental concerns, Ecolinguistics, Framing, the Pakistani government, Climate Change.

## Introduction and Theoretical Background:

Pakistan is grappling with the consequences of shifting climate patterns and global warming. Despite the country's minimal contribution to greenhouse gas emissions, Pakistan ranks as the eighth most affected nation by the devastating impacts of climate change. The Government of Pakistan's National Climate Change Policy of 2012 also highlights the severity and frequency of climate change disasters striking Pakistan. As per the World Health Organization's reports, more than ten million residents of Pakistan are constrained to consume unhygienic water. Seasonal rains and the melting of glacial ice are significant sources of water reserves, and due to global warming, the country is confronting severe challenges of water scarcity and floods. The unpredictable climate patterns are also causing serious health hazards. Floods extenuate waterborne infections, injuries, and loss of precious lives. The country's air quality is among the least satisfactory globally, especially in most populated cities like Lahore.

---

<sup>1</sup>Scholar Ph.D. English Department Of English Foundation University, School Of Science & Technology, Islamabad, Pakistan.  
Email: [Arouf1980@gmail.com](mailto:Arouf1980@gmail.com)

<sup>2</sup>Assistant Professor Department Of English Foundation University, School Of Science & Technology, Islamabad, Pakistan.  
Email: [Mehwish.Zahoor@Fui.Edu.Pk](mailto:Mehwish.Zahoor@Fui.Edu.Pk)

Although the destructive consequences of climate change in Pakistan are widely acknowledged, more knowledge among the masses about ecological decline is needed to adopt environmentally sound practices (Hornsey et al., 2016). Effective communication about the importance of climate change can play a significant role in increasing the level of engagement among the masses to curb the damages caused to the life-sustaining system (Bernstein & Hoffmann, 2019).

Ecolinguistics combines language and ecology to encourage discourses that generate sympathy for the environment. Language shapes our view and treatment of the natural environment. For instance, the language of consumerism promotes the accumulation of commodities, and industrial processes involved in the manufacturing of consumer goods may have a detrimental impact on the environment. On the other hand, language of nature writings can evoke sympathy for the life-supporting system. Our ideologies, concepts, and worldviews about the natural environment are shaped by our language (Stibbe, 2015).

Framing is one of the vital components of effective communication, and the use of carefully thought examples, allusions, and metaphors can activate fresh perspectives about the contextual relevance of climate change (Nisbet, 2009). Framing in communication generally involves highlighting certain aspects of reality while downplaying others in making sense. Framing is not about what is expressed in communication but how it is passed on. Effective framing can facilitate comprehension of various social perspectives about climate change (Schafer & O'Neill, 2017).

"Frames are mental structures that allow human beings to understand reality and sometimes to create what we take to be reality" (Darnton & Kirk, 2011, p.67). While those aiming to boost public engagement with an issue cannot control external and internal factors, they can still achieve the desired levels of engagement through effective framing of the issues, for instance, using the term "Ozone Hole" instead of "ozone depletion." In reality, there is not a literal hole but rather a thinning of the protective atmospheric layer due to increased greenhouse gas accumulation. However, the emotive framing of "Ozone Hole" is beneficial as it helps to boost engagement levels. "Different framing of the same issue may activate and reinforce different values" (Christmas et al., 2013, p.35).

Blackmore (2013) discussed frames with intrinsic value, such as those emphasizing a close connection with nature and fostering relationships among people. On the other hand, extrinsic frames focus on self-interest, wealth, and power (ibid).

Linguistic analysis helps to explore the stories we live by, which are examined in line with a particular ecosophy. Ecosophy encompasses the welfare of other species and the environment along with human beings; excessive consumption is discouraged and encourages equal distribution of resources, discouraging exploitation and the extrinsic value of natural resources for the accumulation of wealth. The primary objective of ecosophy is to discourage the stories causing ecological destruction and support the use of language that stimulates sympathetic attitudes in people towards the life-sustaining system (Stibbe, 2015).

Against this backdrop, the present study intends to conduct an Ecolinguistic analysis of the statements reported in national newspapers of Pakistani government officials to understand how the country's political leadership communicated the precarious challenge of global warming and climate change.

### **Research Questions:**

1. How have the environmental concerns been framed in the statements of Pakistani government officials?
2. What ecosophy is manifested in framing environmental concerns in the statements of Pakistani government officials?

### **Research Method**

The current study is governed by the theoretical framework of framing proposed by Arran Stubbe in his book *Ecolinguistics: Language, Ecology and the Stories We Live By* (2015). Stubbe maintained that framing adopts a packet of knowledge from one area of life to structure another. Frame analysis scrutinizes how the source frame is employed to shape the selected domain; in the present study, the target domain is environmental concerns. Framing analysis requires identifying trigger words in a phrase (in a text) to invoke a particular frame. Therefore, frame analysis maintains a two-stage inquiry, detection of signal words and phrases to recognize various frames, that can be interpreted as a methodology for data gathering from textual analysis of the chosen texts, and the subsequent stage involves the arrangement of frames in conjunction with signal words, to organize the research findings in a well-organized manner. In Stubbe's framework, the focus of the analysis is to identify the environmental implications of farming in the chosen texts by focusing on selected words and phrases. The method of textual analysis is adopted while collecting the data to determine and review the trigger words and phrases to understand how environmental concerns are framed, what ecosophy is, and the particular philosophy of Pakistani government officials, as reported in their statements. The findings of the study are reported with the identification of trigger words, metaphors, and phrases that evoke different frames in selected statements.

The data for the study comprises the Pakistani Government Officials' statements on the environmental concerns of the country, reported in the selected newspaper - The Dawn, between 2018 and 2021, because environmental challenges and the impact of global warming and climate change had been a recurring theme in political rhetoric during this period. The government launched massive campaigns like the Ten Billion Tree Tsunami to counter the country's changing climate patterns. The statements have been collected and accessed through the online archives of the selected newspaper. The data is delimited to the statements of the head of the State and Ministers related to environment and climate change like the then Prime Minister (Imran Khan), Minister of State on Climate Change (Miss Zartaj Gul Wazir), and advisor to the Prime Minister on Climate change (Amin Aslam Awan). The statements collected for analysis purposes included those that are attributed directly to the speaker, identified with the reporting verbs such as "Said," "Maintained," and "announced," and statements under inverted quotation marks.

### **ANALYSIS/ DISCUSSION**

Former Prime Minister Imran Khan stated, "The plantation drive was crucial for the generations to come, he said, adding that it was a fight for life and death" ("PM Launches Countrywide Drive to Plant Ten Bn Trees in Five Years," 2018). In this statement, the source frame "life and death" is mapped into the targeted domain of tree plantation; the framing underscores a sense of urgency and emphasizes the severity of the issue, the looming threat, the struggle for life, and moral obligation. The former Premier further maintained, "Everyone must take part in the campaign to plant trees, else the land will turn into a desert." The source frame "desertification" is mapped into the targeted frame of tree plantation to elevate the significance of protective measures, or else the damage could become irreversible.

Imran Khan asserted, "The swelling pollution will Mar the future of our coming generations" ("Imran Launches Drive to Combat Pollution, Global Warming," 2018). The word "mar" carries a negative connotation. Here, planted in the targeted frame of pollution in the country, it implies that the current pollution levels can drastically harm and sabotage the prospects of posterity. This metaphor communicates the seriousness of the issue and underscores the necessity of immediate action.

Imran Khan maintained that "the success of Billion Tree Tsunami has been unprecedented" (Raza, 2019). Framing the mega project as a triumph underscores the government's competence, initiation, preparation, and implementation to alleviate climate change impacts. Using the "tsunami" metaphor in the targeted frame of the tree plantation campaign elucidates the significant size of the project. The term "tsunami" commonly suggests a formidable might, terror, and disaster. In this statement, framing the metaphor "tsunami" accentuates the campaign's vast and significant scope. It also emphasizes the urgent need for mitigation strategies.

Imran Khan argued, "The people involved in cutting trees shall be dealt with an iron hand" (Khan, 2020). The statement stresses the significance of trees as necessary to people's wellness and for the country's future, playing a significant role in conserving biodiversity and preserving ecological stability. The metaphor "iron hand" is mapped into the targeted domain of illegal logging; the source frame evokes the image of authoritarian control and strictness, employed in the statement to enhance the government's ambitious approach to tackle unlawful deforestation; it also represents the government's determination to prosecute the offenders harming the environment and its dedication to applying the rules for the protection of the green cover.

Talking about the nation's steadfast dedication to preserving the environment from further damage and seeking alternate methods of energy production, Imran Khan argued, "We have scrapped two coal-based power projects and replaced them with hydroelectricity" (Shahid, 2020). Here, the metaphoric replacement of coal combustion to hydroelectric power generation plants emphasizes the dedication to implementing mitigation methods. The use of the verb "scrapped" reflects the country's inclination to abandon the operations, which causes noxious emissions: "Thirty percent of vehicles in Pakistan will be electric-powered" (Shaid, 2020). This metaphoric framing of electric vehicles as a corrective method to minimize carbon emissions indicates the country's eagerness to use contemporary technological practices to confront climate change.

Exchanging views on international recognition of the national undertakings in conserving its natural landscape, Imran Khan claimed, "Our green recovery program from the COVID-19 pandemic and our climate action plan has been recognized globally" ("Government's Environmental Policies Recognized Globally: PM," 2021). Framing government initiatives to address the pandemic as "green recovery" suggests a profound devotion and the country's determination to advance towards a sustainable environment.

Discussing his government's enthusiasm to construct new water reserves like the Diamer Basha Dam, Imran Khan proclaimed, "It is the need of the hour that electricity is generated in such a manner that it does not contribute to global warming" (Sadaqat, 2021). In this statement, the Prime Minister framed the ecological initiative as a "need of the hour" to underscore the importance of prompt action to prevent climate-induced adversaries and suggest a solution for generating electricity with renewable resources.

While signing a memorandum of understanding with the Chinese authorities, advisor to Climate Change Mr. Malik Amin Aslam commended China's achievements in enhancing

forestation cover from 12 percent to 18 percent. "He lauded the Chinese government's project of eco-civilization and green wall of China" (Junaidi, 2018). The origin of the metaphor "Green Wall of China" is the "Great Wall of China" built during the 17<sup>th</sup> century to safeguard the Chinese land from outside dangers and intrusions from nomadic tribes. The metaphoric framing of the "Green Wall of China" highlights the significance of protective measures adopted by the Chinese government to protect their people from the dangers of global warming and climate change. The metaphor "eco-civilization" promotes the concept of development that promises a sustainable environment.

Advisor on Climate change added that their government is interested in making the Ten Billion Tree planting campaign a flourishing project "By taking on hand land mafia in Punjab which does not have many surviving forests" ("PM Aims to Fight Climate Change by Planting Trees on the State Land," 2019). The metaphor "mafia" stimulates the image of precarious, illegal, and lawbreaking activities. The framing helped the speaker to highlight the government's firm commitment to handling the offenders incurring harm to the ecological stability of the country with heavy hands.

Talking about the government's plan to shift the bare minimum 30 percent of the total automobiles in the country to regenerative energy, Mr. Malik Amin stated, "The move to electric vehicles is a win-win strategy; it should reduce emissions by nearly three quarters, and cut the cost of running a vehicle" ("Pakistan Strive to Raise Electric Vehicle Use to Fight Climate Change," 2020). The statement frames climate change as a problem, and a remedy for the problem is sorted out by proposing encouraging electric power vehicle usage. For Arran Stibbe, framing ecological concerns as a problem is not beneficial because a problem entails a solution. The "problem" framing suggests that environmental destruction can be overcome with the help of rudimentary technological fixes. However, time needs to frame the sustainability issue as a "predicament" rather than a problem to encourage different responses and build a more resilient society (Stibbe, 2015, p. 51).

Exchanging views on anticipated advantageous effects of the recently introduced automotive policy, the advisor on Climate Change asserted, "Local manufacturers had already completed ninety percent of the spade work... Cars manufacturing plants in the country were eagerly waiting for government approval of the policy so they can roll out their electric vehicles into the market" (Raza, 2019). The metaphors "roll out" and "spade work" characterized the automotive industry's arrangements to quickly starting the manufacturing of E-vehicles repeats the notion of exploitative usage of natural resources and accumulation of wealth by manipulating the intrinsic value of renewable assets, this also indicates that the philanthropic endeavors of car manufacturers are a scheme of inculcating needs among customers for the recently introduced merchandise.

Expressing his views about the confirmation of 188 million dollars from the World Bank to support Pakistan in its struggle to reduce the devastating effects of climate change and global warming, Mr. Amin Aslam asserted, "Pakistan has succeeded in winning hefty funding of USD 188M.... to address the environmental degradation" ("188M Accord Reached with World Bank for Environmental Protection", 2020). The metaphor "hefty funding" enhances the significance of the State's achievement. It is pretty astounding that the speaker pays tribute to financial assistance received by the international community since the approved grant is marginal compared to the substantial economic losses the country is bearing due to global warming. The extensive flood of 2022 incurred a financial loss of 32 billion United States Dollars because of the exceptional seasonal rains (Clima, 2023). The country faced floods of different intensity from 1992 to 2021, and the accumulated losses went up to 29 billion US Dollars (World Bank Country Climate and Development Report, 2022).

The former Climate Change Minister, Miss Zartaj Gul Wazir, talked about the importance of the government's eco-friendly program during her speech to the students of Arid Agricultural University. "It was the right time for long-term planning and policies and their implementation" (Minster Urges People to Join the Clean and Green Initiative," 2019). In her claim, the metaphoric framing of the term "it is the right time" conveys the ideological understanding that prompt and determined initiative is imperative to averting the ramifications of climate aberrations. The climate tipping point has been reached, and the continued increase in temperature is already manifesting its calamitous repercussions. Hence, we must respond promptly to evade further devastation.

Imran Khan asserted, "It was a long battle, but the initiative has been taken to save future generations from the impact of global warming" (Shahid, 2020). In this sentence, the metaphor "long battle" is mapped into the targeted frame of global warming. Confronting climate disruption is depicted as parallel to combat. In combat, all resources are activated to mitigate the opposing adversary. Correspondingly, we need to leverage every resource at our disposal to reduce the escalating pollution levels.

Addressing the Climate Ambition Summit, Imran Khan maintained that "Pakistan has decided to have nature-based solutions to mitigate the impacts of climate change (Shahid, 2020). In this phrase, "nature-based solutions" have been positioned within the targeted realm of minimization approach. The framing implies that promoting an amicable relationship with nature can produce beneficial outcomes.

In his remarks at the inauguration ceremony of the spring planting in 2021, the Premier talked about the significant decrease in forests in Lahore city. It argued that "Smog is a silent killer that severely affects the lungs and brain of elderly people and children" (Malik, 2021). The metaphor "silent killer" is mapped and planted into the targeted domain of smog to exacerbate the harmful effects of smog on individuals and the pressing need for immediate action to deal with the critical problem. Consequently, immediate intervention is necessary without further delay. The Premier further articulated, "There is nothing that cannot be changed, but we need to struggle hard" (Malik, 2021). The mitigation efforts are framed in this expression with the verb "struggle." The framing indicates that the damaging impact of smog can be averted with the help of unified and concentrated attempts.

Imran Khan stated that by altering our strategies and gaining wisdom from our failures, we can still overcome our ecological challenges effectively, as in China and Singapore. We must emulate examples of other countries that effectively prevented their ecological erosion. During his inaugural visit to Singapore, the Premier observed that "their main river turned into a sewerage drain, but they have changed it into a clean water carrying river fish" (Sadaqat, 2021). The statement metaphorically compares the river to a sewage drain, which originates from a completely different sphere and stimulates unsatisfactory sanitary facilities, deficient infrastructure, and public health exposure to severe perils. This metaphoric framing of "sewerage drain" into the targeted river domain generated a bleak image of aquatic life, clear water, grace of nature, and environmental significance.

While delivering a speech at the commencement event of the 5<sup>th</sup> International Conference on the Environmental Horizon, Miss Zartaj Gul mentioned: "Pakistan's high child mortality rates, especially those dying of diarrhea caused by contaminated water and food" ("Call for Massive Plantation," 2019). The calamitous effects of climate change on the community's health are portrayed in the statement with a metaphoric framing of "contaminated water and food." Children are more sensitive, and surging child mortality is nature's call to

rectify the ecological decline before it becomes irreversible. Due to global warming in the past few years, we detected a massive surge in different diseases; above one hundred and fifty thousand people died in the year 2000 due to the harsh climatic conditions. (Sheffield and Landrigan, 2011).

### **Conclusion:**

Through a detailed scrutiny of statements from leading government officials reported in Dawn newspaper's online archives from 2018 to 2021, this study explored persistent metaphors, themes, and communicative tactics adopted by government officials. It was identified that government representatives mainly advocated afforestation as a mitigation strategy against the detrimental impact of the climate crisis and global warming. Moreover, environmental communication emphasizes a transition towards incorporating inventive technologies like hydroelectricity and rechargeable vehicles as fundamental measures for environmental protection. The study's findings also highlighted ecosophy, which is the particular philosophy of government officials. In selected statements, the welfare of other species is incorporated in increasing the country's green cover by massive plantations, and discouragement of exploitation of natural reserves is incorporated in the protection of forest cover by stopping illegal logging. However, the equal distribution of resources for the betterment of society is neglected in political rhetoric.

The study highlights the importance of communication strategies and language patterns in guiding the perception of ecological concerns. By elucidating the language tactics employed to frame ecological communication, this study augments insights for a deeper understanding of how Pakistani government officials recognize and interpret sustainability concerns.

### **References:**

- Abas, N., & Khan, N. (2014). Carbon conundrum, climate change, CO<sub>2</sub> capture and Consumptions. *Journal of CO<sub>2</sub> Utilization*, 8, 39-48.
- Bernstein, S., & Hoffmann, M. (2019). Climate politics, metaphors, and the fractal carbon Trap. *Nature Climate Change*, 9(12), 919-925.
- Blackmore, E. (2013). *A common cause for nature: A practical guide to values and frames in conservation*. Public Interest Research Centre.
- Call for Massive Plantation. (2019, January 13). *Dawn.com*. Retrieved from <https://www.dawn.com/news/1457225>.
- Change, P. C. (2018). Global warming of 1.5° C. *World Meteorological Organization: Geneva, Switzerland*.
- Christmas, S., Wright, L., Morris, L., Watson, A., & Miskelly, C. (2013). Engaging people In biodiversity issues. *Final report of the Biodiversity Segmentation Scoping Study*. Simon Christmas Ltd.
- Clima, Ther, and W. TE. "State of the Climate in Asia." (2023).
- Construction of Hoshab-Awaran Road Launched. (2021, April 28). *Dawn.com*. Retrieved from <https://www.dawn.com/news/1620779/construction-of-hoshab-awaran-road-launched>.
- Darnton, A., & Kirk, M. (2011). *Finding Frames: New ways to engage the UK public in Global poverty* (pp. 170-187). London: Bond.
- Den Elzen, M., Kuramochi, T., Höhne, N., Cantzler, J., Esmeijer, K., Fekete, H., ... & Vandyck, T. (2019). Are the G20 economies making enough progress to meet their NDC targets? *Energy policy*, pp. 126, 238–250.
- Government's environmental policies recognized globally: PM. (2021, March 15) *Dawn.Com*. Retrieved from <https://www.dawn.com/news/1612612/governments-environment-policies-recognised-globally-pm>.



- Green Pakistan Guarantees a Prosperous Future: Imran. (2020, July 18). *Dawn.com*. Retrieved From <https://www.dawn.com/news/1569612/green-pakistan-guarantees-prosperous-future-imran>.
- Hornsey, M. J., Harris, E. A., Bain, P. G., & Fielding, K. S. (2016). Meta-analyses of the Determinants and outcomes of belief in climate change. *Nature Climate Change*, 6(6), 622-626.
- Imran Launches Drive to Combat Pollution, Global Warming. (2018, October 14). *Dawn.Com*. Retrieved From <https://www.dawn.com/news/1438890/imran-launches-drive-to-combat-pollution-global-warming>.
- Junaidi, I. (2018, December 18). China will Support Pakistan's Effort to Increase Forest Cover: Envoy. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1452025/china-will-support-pakistans-efforts-to-increase-forest-cover-envoy>.
- Khan, K. (2020, February 24). PM Imran wants People Involve in Felling Trees Arrested. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1536338/pm-imran-wants-people-involved-in-felling-trees-arrested>.
- Malik, M. (2021, February 13). Imran Khan Asks Nation to Help Reverse Smog. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1607070/imran-asks-nation-to-help-reverse-smog>.
- Minister Urges People to Join Clean and Green Initiative. (2019, March 22). *Dawn.com* Retrieved from <https://www.dawn.com/news/1471093/minister-urges-people-to-join-clean-and-green-initiative>.
- Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and policy for sustainable development*, 51(2), 12-23.
- Of, M. (2012). National Climate Change Policy Government of Pakistan.
- Pakistan Strives to Rise Electrical Vehicle Use to Fight Climate Change. (2020, March 12). *Dawn.Com*. Retrieved from <https://www.dawn.com/news/1540244/pakistan-strives-to-raise-electric-vehicles-use-to-fight-climate-change>.
- PM Aims to Fight Climate Change by Planting Trees on State Land. (2019, March 22). *Dawn.com*. Retrieved from <https://www.dawn.com/news/1471141/pm-aims-to-fight-climate-change-by-planting-trees-on-state-land>.
- PM Launches Countrywide Drive to Plant Ten bn Trees in Five Years. (2018, September 3). *Dawn.Com*. Retrieved From <https://www.dawn.com/news/1430635>.
- Raza, S. (2019, March 11). Forest Cover in KP Expanded by 4pc, Says Imran. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1468921/forest-cover-in-kp-expanded-by-4pc-says-imran>.
- Raza, S. (2019, November 6). Cabinet Approves Electric Vehicle Policy to Cut Oil Import Bill. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1515153>.
- Rogelj, J., Popp, A., Calvin, K. V., Luderer, G., Emmerling, J., Gernaat, D., ... & Tavoni, M. (2018). Scenarios for limiting global mean temperature increase below 1.5 C. *Nature Climate Change*, 8(4), 325-332.
- Schäfer, M. S., O'Neill, S., Nisbet, M., Ho, S., Markowitz, E., & Thaker, J. (2017). Frame Analysis in climate change communication: approaches for assessing journalists' minds, online communication and media portrayals.
- Shahid, J. (2019, March 2). Pakistan to Lodge Complaint With UN Against India Over Eco-Terrorism. Retrieved From *Dawn.com*. <https://www.dawn.com/news/1467106/pakistan-to-lodge-complaint-with-un-against-india-over-eco-terrorism>.
- Shahid, J. (2020, December 13). Pakistan will Plant 10 billion Trees in three Years: PM. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1595457/pakistan-will-plant-10-billion-trees-in-three-years-pm>.
- Shahid, J. (2020, August 10). PM Launches Drive to Save Posterity from Climate Disaster. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1573562/pm-launches-drive-to-save-posterity-from-climate-disaster>.



18 *Framing Of Environmental Concerns In Pakistani Government Officials' Statements: An Ecolinguistic Study*

- Sadaqat, M. (2021, May 28). Govt Striving Hard to Combat Climate Change: PM. *Dawn.com*. Retrieved From <https://www.dawn.com/news/1626113/govt-striving-hard-to-combat-climate-change-pm>.
- World Bank Group. 2022. Pakistan Country Climate and Development Report. CCDR Series;. World Bank, Washington, DC. <http://hdl.handle.net/10986/38277>.
- Yaqoob, M. (2010). Human perversion and environmental space: An ecocritical reading of Mohsin Hamid's moth smoke. *International Research Journal of Arts & Humanities (IRJAH)*, 38(38).
- 188M Accord Reached with World Bank for Environmental Protection. (2020, June 2). *Dawn.Com*. Retrieved from <https://www.dawn.com/news/1560691/188m-accord-reached-with-world-bank-for-environment-protection>.