

## HAPSc Policy Briefs Series

Vol 3, No 2 (2022)

HAPSc Policy Briefs Series



### Environmental Degradation and Threat to Human Security: A Case Study of Delhi's Air Pollution Problem

*Jayant Chandel*

doi: [10.12681/hapscpbs.33785](https://doi.org/10.12681/hapscpbs.33785)

Copyright © 2023, Jayant Chandel



This work is licensed under a [Creative Commons Attribution 4.0](https://creativecommons.org/licenses/by/4.0/).

### To cite this article:

Chandel, J. (2022). Environmental Degradation and Threat to Human Security: A Case Study of Delhi's Air Pollution Problem. *HAPSc Policy Briefs Series*, 3(2), 72–78. <https://doi.org/10.12681/hapscpbs.33785>

## Environmental Degradation and Threat to Human Security: A Case Study of Delhi's Air Pollution Problem<sup>1</sup>

Jayant Chandel<sup>2</sup>

### Abstract

The paper is an attempt to understand the current policy response to tackle air pollution in Delhi, India. It takes a human security approach to challenge some of the mainstream assumptions which inform the current top-down policy response. Then it tries to provide openings for a more holistic policy foundation based on our discussion on the literature about human and environmental security.

**Keywords:** Anthropocene; air pollution; environment; human security; environmental change; security.

### Introduction

The consequences of the human actions on the planet and its environment are so widespread and pervasive that “earth scientists now frequently refer to the present period of geological history as ‘the anthropocene’” (Dalby, 2013: 27). With large scale infrastructure and industrial development due to human activities there has been dramatic changes in the biosphere of the planet and they are bringing about “chemical and biological transformations” which has triggered this much talked about phenomenon of ‘Global Environmental Change’ (GEC). By building these ‘concrete jungles’ we are in fact altering the topography of the planet and, according to Dalby (2013: 27), “concrete and asphalt are effectively new rocks in the earth system”. Nowhere the effect of these concrete jungles and biological transformations is more apparent than that in the air quality of Delhi, especially around the advent of winters, where a combination of regional and local factors, such as auto pollution, construction activities and farming practices like burning of stubble trigger a plethora of top-down but late response from the state and people suffer for weeks as a consequence. The current policy of Graded Action Response Plan (GRAP) has failed to offer much respite to people despite being in place since 2017. The paper by looking at the debates on environmental security within security studies/international relations literature points to the weakness of such policy responses and instead tries to offer an alternative policy starting point on the basis of this literature.

The paper will try to analyze the threats these environmental changes pose to humanity in general and the marginalized and poor communities or individuals in particular. As St Clair (2010: 180)

---

<sup>1</sup> To cite this paper in APA style: Chandel, J. (2022). Environmental Degradation and Threat to Human Security: A Case Study of Delhi's Air Pollution Problem. *HAPSc Policy Briefs Series*, 3(2), 72-78. <https://doi.org/10.12681/hapscpbs.33785>

<sup>2</sup> PhD Candidate at the Centre for International Politics, Organization and Disarmament, Jawaharlal Nehru University, New Delhi, India.

argues it is the actions of affluent people and countries which created this worldwide problem, but it will have the most lethal effect on “those who have contributed least to the problem”. The first part of the paper will focus on the debates in the field of the nature of threats around environmental security and which referent objects need to be protected. The second part of the paper will try to show how a human security approach is the best way to solve this problem and there is a need to move away from the top down to bottom-up policies which makes the common stakeholders not just spectators but also participants.

### **Environmental Security: Threats and Debates**

The overall literature on environmental security can be divided into two approaches around the issue of environmental security; the traditional view and the human security view. The traditionalists view environmental damage as an indirect source of insecurity as it leads to conflicts and migrations due to resource scarcity whereas non traditionalists consider it a grave issue in its own right which should be dealt without linking it to national security. According to Dalby (2012), environmental security started to gain interest in late 1980 from certain policy makers in the USA and USSR (after the Chernobyl accident). Thereafter, there was some discussion about environmental degradation and resource depletion as a threat to the security of states. Dalby(2012) contends that literature in 1990 was similar to the literature of 1980 wherein the issue was portrayed as the problem of global south and as not something that could affect global north directly. One major influential literature of the era was an article by Robert Kaplan (1994). He is focusing on third world countries and arguing that environmental change will induce conflict and force poor people to migrate towards the affluent countries of the developed world. He links the phenomenon with national security. According to Hartmann (2013: 48-49) this “neo-Malthusian environmental security discourse” gives a message that “poor and displaced people are dangerous”. She further contends that the links between environmental degradation and migration are complex. Mainstream literature on climate conflicts invokes the age-old stereotypes of dangers posed by the “over breeding peasants” (Hartmann, 2013: 48).

Recently, Mazo (2010:13) linked the global phenomenon of climate change with the interests of the developed states, arguing that they should try to mitigate its effect because it is in their security interests to do so. He further argues climate change should "also be part of an overall approach to national security and defense planning" (Mazo, 2010:141). Recently, there were similar attempts by the US defense and Intelligence establishments, such as the CIA and defense think tanks such as the Centre for Naval Analysis. For instance, the CIA launched the Center on Climate Change and

National Security. All these initiatives have one goal i.e. to consider the issue from a national interest perspective and now there is evidence of increasing entanglement of US aid and its national security objectives (Hartmann, 2013). Such attempts to address this threat, which is global in nature, is problematic because it obfuscates the severity of global warming.

These dystopian accounts also fail to question the economic and development model largely responsible for these disruptions. One of the major drivers of the current industrial revolution is the coal and fossil fuel powered machines which are the most significant factor behind the "climate change crisis" (Dalby, 2013:28, 29). According to scholars such as Luke (2009: 14, 15) the ascent of the world market as the hegemonic ideology has placed the world market system above all other aspects of life hence "each state, society and culture must be managed along the lines of a corporate capitalist enterprise". This makes it very difficult to change developmental models of our society as the top-down approach privileges certain interests. Hence, in the case of Delhi/Northern India in the discourse around the issue it is the farmers who are discussed the most and other factors like vehicular pollution and round the year construction in and around Delhi/NCR region. It is because they are deemed significant and much more prominent economic activity than farming. But as Hough (2008:162) attests, politics is infected with the "perception of utilitarian gain" as governments always tend to protect their economic and 'national' interest. As almost all the actors (both state and non-state) are driven by their traditional interests and preferences.

Hence, policy responses around the issue of air degradation in North India are always driven by the various interest groups and blame gaming between various provincial governments and the central government. Hence, unlike the state centric approaches towards security, the human security approach instead focuses either on the human beings as individuals or as part of a community as a referent of security (Gasper, 2010). This approach instead allows the policymakers to make people centric policy approach while taking into account the interests of the most vulnerable communities.

#### Human Security Approach, GRAP and Delhi Air Pollution

Security is a 'contested' concept. O'Brien et al. (2013:4) assert that "has both objective and subjective dimensions attached to it". They further contend that an understanding of both these aspects is very significant for understanding the issues involved in the idea of human security. Gasper (2010: 23) contends that "the concept of human security redirects attention in discussions of security, beyond the nation-state level, beyond physical violence as the only relevant threat/vector, and beyond physical harm as the only relevant damage."

O'Brien defines the idea of Human Security in the context of GEC as:

*“a state that is achieved when and where individuals and communities have the options necessary to end, mitigate or adapt to threats to their human, environmental and social rights; have the capacity and freedom to exercise these options; and actively participate in pursuing them”.*

(Cited in Moser, 2013: 279)

Hence, the best way to protect the lives of individuals and communities vulnerable in the face of GEC could be achieved by their empowerment. Moser (2013: 280) identifies empowerment along with “development, poverty eradication, greater disaster resilience and adaptive capacity” as the means as well as the end. She draws parallels between the concept of human security and empowerment and points out that both the approaches talk about “the capacity and freedom to exercise choice, and active participation in that choice” (2013: 282). There are diverse sources of systemic disempowerment of a community or individual. Systemic discrimination and disempowerment dehumanizes people and obstructs individuals or communities from deciding their destiny and also their ability to deal with issues related to their lives (Moser, 2013: 284). In this context the observation of St Clair and Lawson (2013) is significant as they question the belief that poverty is reduced by development activities and these development activities are hindered due to environmental change. In fact, it is this development model which is creating environmental degradation and poverty (St Clair & Lawson, 2013: 205).

Economic theory is distant from this aspect of reality and hence present day economic models consider the present development models ideal for poverty reduction. There is a need to reverse this process and “egalitarian societies and health of the planet” should be the priority, not the present system, which is the main problem behind the GEC (St Clair & Lawson, 2013: 209-211). St Clair (2010: 185-187) argues that market-based solutions have failed to have any effect on the reduction of poverty; such programs are supported by the World Bank. She also insists that we need to develop a robust welfare system and efforts should be taken to reduce the wealth gap (St Clair 2010: 180). O’Brien et al., argue that there is need to focus on the “systems, structures and development paradigms that perpetuate insecurities” along with a deeper understanding about the “human dimensions” involved in the issue. Furthermore, they contend, “transforming how we perceive, experience, respond to and create change is a powerful leverage point for promoting human security” (2013:1-2). In addition, there is also a need to ponder over the issue of community empowerment, Ramallo and Ostrovskaya (2013) cite the case of Bolivia where indigenous communities which constituted the most marginalized part of the society were legally granted the rights over resources like water. This happened after indigenous communities started to mobilize around the issue of access to water and natural gas (Ramallo & Ostrovskaya, 2013) (Also see Goldman 2009). Such changes can only be brought if we think through the logic of human security.

It is in this context that limits of current policy of GRAP to tackle degradation of air pollution in Delhi and northern India should be understood. The policy incorporates a set of actions to be taken based on the severity level (poor, very poor, severe and severe+) of the air pollution in Delhi and National Capital Region (NCR) (Indian Express: 2022). This is decided by the Air Quality Index and when the air quality reaches a certain threshold a fixed set of steps is taken at the behest of state and local authorities. In 2022, it has so far failed to curtail the continuing severity of the air pollution as just during the first week of November the state authorities invoked the severe+ measures. Clearly the earlier efforts to curb the pollution level continues to give very limited relief if there is some. If we look at the data provided by the Ministry of Environment, Forest and Climate Change, since 2018, we can see that in the month of November during the period of 2018-2022 the AQI index has failed to improve significantly (PIB Delhi 2023). So, while the government report triumphantly declares that during the period of November 2022 Delhi saw a remarkable improvement in the air quality (AQI 320) which is a significant improvement over the November 2021 pollution level (AQI 377). According to the report it is a reflection of the success of the state policy. This interpretation is highly selective which looks just at the last year's data and compares it with the data from 2022. The AQI in 2019 was 312 so the long term data doesn't align with the argument that the AQI level is improving after introduction of the GRAP in 2017. Such top-down and ad hoc policy initiatives are bound to have limited impact in long term because of the nature of the policy itself which is passive in nature. Only involvement of people and a human centric approach which takes into account the agency of the communities at the margins will make an impact.

## Conclusion

The above discussion of mainstream top-down approach of tackling environmental degradation clearly demonstrates the fault lines in current pollution control measures in Delhi/NCR. Clearly, there is a need to have a long term solution which involves incorporating the interests of common stakeholders such as farmers of nearby regions, industrial/construction development and common people. Without involving these actors, these top-down ad hoc policies will always be limited in their impact. Currently farmers have no long term incentive to stop burning the stubble despite all the hue and cry made every year when winter arrives. Similarly, the constant increase of private vehicles can also not be solved by a simple top-down approach then severity level rises. We need to make public transport more accessible for the common public and much more secure for women passengers. Furthermore, banning/limiting construction/industrial activities just for a short period is no solution. We need to make these activities greener by bringing regulations around rampant construction activities round the year along with solving the issues like stubble burning. Just asking



public/industries to refrain from certain economic activity as crisis arises is not going to solve this recurring problem. Hence, in simple words it is by empowering the actors and making them active participants by making long term policy goals, which may bring better control of air pollution in Delhi. Only people centric and bottom up approach will make things better in the long term. The above discussion provides us the template to move forward towards a more holistic policymaking.

## References

- Barnett, J. (2013). Climate Change and Security. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 34-45.
- Dalby, S. (2008). Environmental Change. In: William, P.D. (ed.), *Security Studies- An Introduction*. London: Routledge, 311-323.
- Dalby, S. (2013). Human Security in the Anthropocene: the implications of earth system analysis. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security: Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 27-33.
- Gasper, D. (2010). The Idea of Human Security. In: St Clair A. et al. (eds.), *Climate Change, Ethics and Human Security*. New York: Cambridge University Press, 23-46.
- Goldman, M. (2009). Water for all! The phenomenal rise of transnational knowledge and policy networks. In: Kutting, G. & Lipschutz, R. (eds.), *Environmental Governance*. Oxon: Routledge, 145-69.
- Hartmann, B. (2013). Lines in the shifting sand: the strategic politics of climate change, human security and national defense. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 46-55.
- Hough, P. (2008). *Understanding Global Security*. 2nd ed. Oxon: Routledge.
- Indian Express. (2022, November 5). What is GRAP, Delhi-NCR's action plan to combat rising air pollution?, The Indian Express. Available at: <https://indianexpress.com/article/explained/everyday-explainers/what-is-grap-delhi-ncr-action-plan-to-combat-rising-air-pollution-8250061/> (Accessed: 15/11/2022).
- Kaplan, R. (1994). The Coming Anarchy. *The Atlantic*, February 1994.
- Karvonen, A. & Brand, R. (2009). Technical expertise, sustainability and politics of specialized knowledge. In: Kutting, G. & Lipschutz, R. (eds.), *Environmental Governance*. Oxon: Routledge, 38-59.
- Luke, T.W. (2009). Situating Knowledges, spatializing communities, sizing contradictions: the politics of globality, loyalty and green statism. In: Kutting, G. & Lipschutz, R. (eds.), *Environmental Governance*. Oxon: Routledge, 13-37.
- Mazo, J. (2010). *Climate Conflict- How Global Warming Threatens Security and What to do about it*. Oxon: Routledge.
- Moser, S. (2013). Individual and Community Empowerment for Human Security. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge. 279-293.
- O'Brien, et al. (2013). A Changing Environment for Human Security. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 1-24.
- PIB Delhi (2023). 2022-Air Quality Perspective in Delhi, Ministry of Environment, Forest and Climate Change. Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1888090> (Accessed: 02/01/2023).
- Ramallo, P. & Ostrovskaya, E. (2013). Community Empowerment: opportunities and challenges for Bolivia's water sector. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 294-304.

- St Clair, A. & Lawson, V. (2013). From Poverty to Prosperity. In: O'Brien, K., Sygna, L. & Wolf, J. (eds.), *A Changing Environment for Human Security Transformative Approaches to Research Policy and Action*. Oxon: Routledge, 203-2015.
- St. Clair, A. (2010). Global poverty and Climate Change. In: St Clair, A. et al. (eds.), *Climate Change, Ethics and Human Security*. New York: Cambridge University Press, 158-180.