

# Review of: "Natural Surveillance and Natural Access Control: Implementation strategies for enhancing Safety in Indian Neighborhoods"

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The review investigation titled "[Natural Surveillance and Natural Access Control: Implementation strategies for enhancing Safety in Indian Neighborhoods](#)<sup>[1]</sup>" addresses the safety and security of Indian neighborhoods through the implementation of Crime Prevention Through Environmental Design (CPTED) principles, specifically focusing on 'Natural Surveillance' and 'Natural Access Control.' The review effectively sets the stage by emphasizing the importance of safety and security in Indian neighborhoods, creating a sense of relevance and urgency. The reference to compromised/neglected city planning and crime prevention strategies adds context and suggests a need for alternative approaches. The review, however, could benefit from specific examples or statistics to illustrate the issue's gravity in Indian neighborhoods. Regarding the CPTED principles, the review provides a concise explanation of 'Natural Surveillance' and 'Natural Access Control,' which are essential concepts for readers unfamiliar with CPTED. The paper's focus on these two strategies is made clear, which can help readers understand the paper's scope. Besides, the review lists several strategies, including clear sightlines, active frontages, community participation, and well-defined entrances, which are vital components of CPTED. Mentioning the significance of landscaping techniques and street connectivity adds depth to the proposed strategies. Nevertheless, the review does not elaborate on how these strategies are specifically adapted to the unique characteristics and challenges of Indian neighborhoods. Providing examples or case studies would strengthen this aspect. The next paragraph will provide potential correlation between these principles and security from natural disasters which sets foundation for reviewing case studies.

While the primary focus of the review is on crime prevention and community safety, there is a potential correlation between these principles and security from natural and anthropogenic disasters such as rampant floods<sup>[2]</sup>, recurring droughts including hydrological, meteorological, agricultural and socioeconomic droughts<sup>[3][4][5][6][7][8]</sup>, chronic water scarcity<sup>[9]</sup>, groundwater exploitation<sup>[10]</sup>, and climate change impacts, and related challenges such as difficulties in implementing adaptation, mitigation, and sustainable development approaches<sup>[11][12][13]</sup>. The issues related to water security and water mismanagement are widespread across the globe and across both rural and urban developments. The concept of 'Natural Surveillance' involves maximizing visibility and observation in neighborhoods. This can also be beneficial in the context of disaster response. Improved visibility can help residents and authorities monitor flood levels, drought conditions, or signs of other natural disasters more effectively. Engaged communities are more likely to have disaster response plans. The reference to street connectivity is essential not only for crime prevention but also for disaster

management. Well-connected streets provide clear evacuation routes during floods or other emergencies. Successful disaster preparedness and response often require collaboration between urban planners and disaster management agencies. The need for collaboration mentioned in the review aligns with this aspect of disaster resilience. Resilient communities are better equipped to handle natural disasters and adapt to the impacts of climate change.

Besides, the review correctly emphasizes the need for collaboration between various stakeholders, including urban planners, architects, law enforcement agencies, and the community. The mention of 'neighbourhood watch programs' and 'active community involvement' underscores the importance of community-driven efforts. Nonetheless, the review does not elaborate on potential challenges or barriers to implementing these strategies, which would provide a more balanced perspective. With regards to the contribution, the review highlights the contribution to the body of knowledge related to CPTED, specifically by focusing on the application of 'Natural Surveillance' and 'Natural Access Control' in Indian contexts. It would be beneficial to specify how this contribution extends or complements existing literature on CPTED, showcasing its novelty or distinctiveness. The review concludes by summarizing the potential outcomes of adopting these strategies, such as fostering safety and community engagement. The suggestion that adopting these strategies can deter criminal activities and promote thriving communities provides a compelling incentive. Mentioning 'future scope' is beneficial, indicating that the research acknowledges ongoing development and potential for further exploration.

To summarize, the review addresses a critical issue of safety and security in Indian neighborhoods, which is of societal importance. It provides a clear focus on 'Natural Surveillance' and 'Natural Access Control,' which can make the paper more actionable for urban planners and policymakers. The emphasis on community involvement aligns with the trend of participatory planning. However, there are scopes to further enhance the review deliverables. The review lacks specific data or case studies related to safety and security concerns in Indian neighborhoods, which would bolster the paper's empirical foundation. It could provide more insights into the challenges of implementing CPTED in Indian contexts, as this information is valuable for practitioners. The connection between the proposed strategies and the unique characteristics of Indian neighborhoods could be elaborated. Coherently, the paper could benefit from in-depth case studies or pilot implementations of these strategies in specific Indian neighborhoods, providing tangible results and lessons learned. Exploring the scalability of these strategies to accommodate the diversity of Indian urban environments could be a valuable avenue for future research. Investigating the economic feasibility and cost-effectiveness of implementing these strategies could enhance their practicality for city planners and policymakers.

## References

1. <sup>^</sup>Shubham Jajoriya, Pooja Singh. (2023). *Natural Surveillance and Natural Access Control: Implementation strategies for enhancing Safety in Indian Neighborhoods*. doi:10.32388/43tw5l.
2. <sup>^</sup>Aman Srivastava, Pennan Chinnasamy. (2021). *Developing Village-Level Water Management Plans Against Extreme Climatic Events in Maharashtra (India)—A Case Study Approach*. doi:10.1007/978-3-030-76008-3\_27.
3. <sup>^</sup>Ahmed Elbeltagi, Ali Raza, Yongguang Hu, Nadhir Al-Ansari, et al. (2022). *Data intelligence and hybrid metaheuristic algorithms-based estimation of reference evapotranspiration*. *Appl Water Sci*, vol. 12 (7). doi:10.1007/s13201-022-

01667-7.

4. ^ Ahmed Elbeltagi, Aman Srivastava, Abdullah Hassan Al-Saeedi, Ali Raza, et al. (2023). Forecasting Long-Series Daily Reference Evapotranspiration Based on Best Subset Regression and Machine Learning in Egypt. *Water*, vol. 15 (6), 1149. doi:10.3390/w15061149.
5. ^ Chaitanya B. Pande, Nadhir Al-Ansari, N. L. Kushwaha, Aman Srivastava, et al. (2022). Forecasting of SPI and Meteorological Drought Based on the Artificial Neural Network and M5P Model Tree. *Land*, vol. 11 (11), 2040. doi:10.3390/land11112040.
6. ^ Ahmed Elbeltagi, Aman Srivastava, Jinsong Deng, Zhibin Li, et al. (2023). Forecasting vapor pressure deficit for agricultural water management using machine learning in semi-arid environments. *Agricultural Water Management*, vol. 283 , 108302. doi:10.1016/j.agwat.2023.108302.
7. ^ Aman Srivastava, Pennan Chinnasamy. (2022). Understanding Declining Storage Capacity of Tank Cascade System of Madurai: Potential for Better Water Management for Rural, Peri-Urban, and Urban Catchments. doi:10.1007/978-981-19-2312-8\_14.
8. ^ Ahmed Elbeltagi, Aman Srivastava, Nand Lal Kushwaha, Csaba Juhász, et al. (2022). Meteorological Data Fusion Approach for Modeling Crop Water Productivity Based on Ensemble Machine Learning. *Water*, vol. 15 (1), 30. doi:10.3390/w15010030.
9. ^ Aman Srivastava, Pennan Chinnasamy. (2023). Watershed development interventions for rural water safety, security, and sustainability in semi-arid region of Western-India. *Environ Dev Sustain*. doi:10.1007/s10668-023-03387-7.
10. ^ Aman Srivastava, Pennan Chinnasamy. (2021). Assessing Groundwater Depletion in Southern India as a Function of Urbanization and Change in Hydrology: A Threat to Tank Irrigation in Madurai City. doi:10.1007/978-981-16-5501-2\_24.
11. ^ Aditya Dhanuka, Aman Srivastava, Leena Khadke, Nand Lal Kushwaha. (2023). Smart Geometric Design of Highways Using HTML Programming for Sustainable and Climate Resilient Cities. doi:10.1007/978-3-031-24767-5\_39.
12. ^ Aman Srivastava, Rajib Maity, Venkappayya R. Desai. (2022). Assessing Global-Scale Synergy Between Adaptation, Mitigation, and Sustainable Development for Projected Climate Change. doi:10.1007/978-3-031-15501-7\_2.
13. ^ Pennan Chinnasamy, Aman Srivastava. (2021). Revival of Traditional Cascade Tanks for Achieving Climate Resilience in Drylands of South India. *Front. Water*, vol. 3 . doi:10.3389/frwa.2021.639637.