

Living Standards of Aging Individuals: Assessment of Policy-Driven Protection Schemes in A State-Level Analysis

Grace Wanjiku

School of Law,

Kenyatta University, Nairobi, Kenya

Received: 14 Jan 2026 | Received Revised Version: 27 Feb 2026 | Accepted: 17 Mar 2026 | Published: 01 April 2026

Volume 08 Issue 04 2026 |

Abstract

The demographic transition toward an aging population presents significant socio-economic challenges, particularly in developing countries such as India. The increasing proportion of elderly individuals necessitates comprehensive policy frameworks aimed at ensuring financial security, healthcare access, and social inclusion. This study critically examines the living standards of aging individuals through the lens of policy-driven protection schemes, with a particular emphasis on state-level implementation dynamics. Drawing upon institutional reports, governmental schemes, and scholarly analyses, the research evaluates the effectiveness of social security mechanisms such as pension systems, healthcare initiatives, and legislative protections.

The theoretical foundation of this study integrates welfare state theory, social protection frameworks, and risk perception models to understand how policy interventions influence elderly well-being. The analysis incorporates key schemes including the National Social Assistance Programme (NSAP), National Programme for Health Care of the Elderly (NPHCE), and legal provisions such as the Maintenance and Welfare of Parents and Senior Citizens Act. These frameworks are evaluated in terms of accessibility, adequacy, coverage, and administrative efficiency. Additionally, the study contextualizes these schemes within broader socio-economic disparities and regional governance structures, particularly highlighting challenges identified in state-level case analyses (Mishra, 2019).

The findings reveal that while policy-driven interventions have significantly improved baseline security for elderly populations, critical gaps persist in implementation, targeting accuracy, and benefit adequacy. Structural inefficiencies, regional disparities, and socio-cultural barriers continue to undermine the effectiveness of these programs. Furthermore, the interaction between environmental vulnerabilities, socio-economic stressors, and institutional support mechanisms creates a complex risk landscape affecting elderly well-being (Morello-Frosch & Shenassa, 2006).

This study contributes to the existing literature by offering a multi-dimensional evaluation of elderly welfare through a policy-performance perspective. It emphasizes the need for integrated governance approaches, improved administrative accountability, and adaptive policy frameworks that address both economic and non-economic dimensions of aging. The research concludes with recommendations for enhancing policy coherence, expanding coverage, and strengthening institutional capacity to ensure sustainable improvements in the living standards of aging individuals.

Keywords: Aging population, social protection, pension systems, elderly welfare, policy evaluation, state-level governance, healthcare access, income security, India

© 2026 Grace Wanjiku. This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). The authors retain copyright and allow others to share, adapt, or redistribute the work with proper attribution.

Cite This Article: Wanjiku, G. (2026). Living Standards of Aging Individuals: Assessment of Policy-Driven Protection Schemes in A State-Level Analysis. *The American Journal of Political Science Law and Criminology*, 8(04), 01–09. Retrieved from <https://theamericanjournals.com/index.php/tajpslc/article/view/7709>.

Introduction

Population aging represents one of the most significant demographic transformations of the 21st century. In India, the proportion of elderly individuals has been steadily increasing, driven by declining fertility rates and improvements in life expectancy. This demographic shift has profound implications for economic systems, healthcare infrastructure, and social welfare mechanisms. The transition toward an aging society necessitates a reconfiguration of policy priorities, particularly in ensuring adequate living standards for older populations.

The concept of living standards in the context of aging extends beyond income security to encompass multidimensional aspects such as health status, social participation, psychological well-being, and environmental safety. Traditional family-based support systems, which historically played a central role in elderly care in India, are undergoing structural changes due to urbanization, migration, and changing socio-cultural norms (Uberoi, 2018). As a result, the responsibility for elderly welfare is increasingly shifting toward formal institutional mechanisms and state-led interventions.

Policy-driven protection schemes have emerged as critical instruments for addressing the vulnerabilities associated with aging. These schemes aim to provide financial assistance, healthcare services, and legal protections to elderly individuals. Programs such as the National Social Assistance Programme (NSAP) and the National Programme for Health Care of the Elderly (NPHCE) represent key components of India's social protection architecture (Ministry of Rural Development, 2022; Ministry of Health and Family Welfare, 2022). Additionally, legislative frameworks such as the Maintenance and Welfare of Parents and Senior Citizens Act seek to institutionalize familial and societal responsibilities toward the elderly (Ministry of Social Justice and Empowerment, 2023).

Despite the existence of these policy frameworks, significant disparities persist in their implementation and effectiveness. Variations in administrative capacity, resource allocation, and governance practices across states contribute to uneven outcomes in elderly welfare. State-level analyses reveal that while some regions have successfully innovated in welfare delivery, others continue to face systemic challenges (Mishra, 2019). These disparities underscore the importance of examining policy effectiveness within specific regional contexts.

The relevance of this study is further amplified by the intersection of aging with broader socio-economic and environmental risks. Elderly populations are particularly vulnerable to cumulative stressors, including health risks, economic insecurity, and environmental hazards. The concept of cumulative risk, widely discussed in environmental justice literature, provides a useful framework for understanding these overlapping vulnerabilities (Fox, 2002; Clougherty & Kubzansky, 2009). Such an approach highlights the need for integrated policy responses that address multiple dimensions of risk simultaneously.

The primary objective of this research is to assess the effectiveness of policy-driven protection schemes in improving the living standards of aging individuals at the state level. Specifically, the study seeks to:

1. Analyze the conceptual and theoretical foundations of elderly welfare and social protection.
2. Evaluate the design and implementation of key policy interventions.
3. Identify gaps and challenges in policy execution.
4. Examine the impact of these policies on various dimensions of elderly well-being.
5. Propose recommendations for enhancing policy effectiveness.

The scope of this study is confined to a critical analysis of existing policies and their outcomes, drawing upon secondary data sources and scholarly literature. By focusing on state-level dynamics, the research aims to provide nuanced insights into the factors influencing policy performance. The significance of this study lies in its potential to inform policy design, improve implementation strategies, and contribute to the broader discourse on aging and social protection.

In conclusion, the increasing prominence of aging as a policy concern necessitates a comprehensive and critical examination of existing welfare mechanisms. This study seeks to address this need by providing an in-depth analysis of policy-driven protection schemes and their impact on the living standards of elderly individuals.

Literature Review

The scholarly discourse on elderly welfare and social protection in India reflects a multidimensional understanding of aging, encompassing economic, social, and institutional dimensions. Early works such as Sharma and Dak (1987) conceptualize aging as a societal challenge, emphasizing the need for systemic interventions to address the vulnerabilities associated with old age. This perspective is further developed by Sekher and Hatti (2005), who highlight the demographic and socio-economic transitions shaping the experiences of older individuals in India.

A significant body of literature focuses on the role of social protection mechanisms in ensuring income security for the elderly. Srivastava (2017) examines pension reforms in India, arguing that while policy initiatives have expanded coverage, issues related to adequacy and sustainability remain unresolved. Similarly, Tiwari and Desai (2020) analyze social pension schemes, identifying challenges such as leakage, targeting inefficiencies, and limited benefit levels. These studies underscore the importance of evaluating not only the coverage but also the effectiveness of social protection programs.

The institutional framework of elderly welfare is extensively discussed in policy-oriented literature. The Planning Commission (2007) provides a comprehensive overview of social protection policies, emphasizing the need for integrated approaches that combine financial assistance with healthcare and social services. Singh

(2020) further elaborates on the evolution of welfare policies in India, highlighting the shift toward targeted interventions and the increasing role of state governments in policy implementation.

Healthcare access represents another critical dimension of elderly welfare. The National Programme for Health Care of the Elderly (NPHCE) aims to provide dedicated healthcare services to older populations, addressing issues such as chronic diseases and geriatric care (Ministry of Health and Family Welfare, 2022). However, the effectiveness of such programs is contingent upon factors such as infrastructure availability, human resource capacity, and administrative efficiency.

State-level analyses provide valuable insights into the variability of policy outcomes. Mishra (2019) examines welfare governance in Odisha, identifying both innovations and challenges in policy implementation. The study highlights the importance of administrative capacity, stakeholder engagement, and local contextual factors in determining policy effectiveness. These findings align with broader observations regarding the decentralized nature of welfare governance in India.

Theoretical perspectives on risk and vulnerability offer additional insights into elderly welfare. Dake (1991) and Drottz-Sjöberg (1991) explore the role of risk perception in shaping individual and societal responses to uncertainty. These frameworks are particularly relevant in understanding how elderly individuals perceive and respond to socio-economic and environmental risks.

Environmental justice literature further expands the analytical framework by emphasizing the cumulative nature of risks faced by vulnerable populations. Studies by Morello-Frosch and Shenassa (2006) and Clougherty et al. (2007) demonstrate how socio-economic inequalities intersect with environmental exposures to create compounded vulnerabilities. While these studies primarily focus on environmental health, their insights are applicable to the broader context of elderly welfare.

The concept of cumulative risk assessment, as discussed by Fox (2002) and Lewis et al. (2011), provides a methodological framework for evaluating the combined impact of multiple stressors. This approach is particularly relevant in the context of aging, where

individuals often face simultaneous challenges related to health, income, and social isolation.

Community-based approaches to welfare and policy implementation are also highlighted in the literature. O'Fallon and Dearry (2002) emphasize the importance of participatory research in addressing complex social issues, while Srinivasan and Collman (2005) discuss the role of partnerships in enhancing policy effectiveness. These perspectives underscore the need for inclusive and collaborative approaches to elderly welfare.

In summary, the literature reveals a complex and multifaceted understanding of elderly welfare, encompassing economic security, healthcare access, and social inclusion. While significant progress has been made in developing policy frameworks, persistent challenges related to implementation, adequacy, and equity continue to hinder their effectiveness. This study builds upon these insights to provide a comprehensive analysis of policy-driven protection schemes and their impact on the living standards of aging individuals.

Conceptual Framework of Elderly Living Standards

The assessment of living standards among aging individuals requires a multidimensional analytical framework that extends beyond traditional income-based indicators. Living standards in later life encompass economic security, health status, social inclusion, environmental safety, and institutional accessibility. These dimensions are interdependent and collectively determine the quality of life experienced by elderly populations.

From a theoretical standpoint, welfare state theory provides a foundational lens for understanding state responsibility in ensuring minimum living conditions. In the Indian context, this responsibility is operationalized through targeted social protection schemes rather than universal welfare provisions (Singh, 2020). The shift toward targeted welfare reflects fiscal constraints and demographic diversity but introduces challenges related to inclusion and equity.

Additionally, the concept of cumulative vulnerability is critical in analyzing elderly living standards. Elderly individuals often face overlapping risks—declining health, reduced income, and social isolation—which interact to exacerbate overall vulnerability. The cumulative risk framework, widely discussed in

environmental justice literature, highlights how multiple stressors produce compounded effects (Fox, 2002; Lewis et al., 2011). Applying this framework to elderly welfare enables a more comprehensive understanding of policy impact.

Furthermore, social capital theory underscores the importance of community networks and familial support systems. However, as traditional support structures weaken, formal policy interventions must compensate for this deficit (Uberoi, 2018). This transition necessitates a robust institutional framework capable of addressing diverse needs.

Structure of Policy-Driven Protection Schemes

India's social protection architecture for elderly populations is characterized by a combination of financial assistance programs, healthcare initiatives, and legislative measures. These schemes are designed to address different dimensions of vulnerability, but their effectiveness depends on coordination and implementation efficiency.

Income Security Mechanisms

Income security is a fundamental determinant of living standards in old age. The National Social Assistance Programme (NSAP) serves as a primary instrument for providing financial support to elderly individuals living below the poverty line (Ministry of Rural Development, 2022). The program includes components such as old-age pensions, which aim to ensure a minimum level of income security.

However, empirical studies indicate that pension amounts are often insufficient to meet basic living expenses. Srivastava (2017) highlights that while pension reforms have expanded coverage, the adequacy of benefits remains a critical concern. Similarly, Tiwari and Desai (2020) identify issues related to targeting inefficiencies and leakage, which reduce the effectiveness of these programs.

The challenge lies in balancing fiscal sustainability with benefit adequacy. Increasing pension amounts without addressing administrative inefficiencies may not yield significant improvements in living standards. Therefore, policy design must incorporate both financial and operational considerations.

Healthcare Support Systems

Healthcare access is another crucial dimension of elderly welfare. The National Programme for Health Care of the Elderly (NPHCE) aims to provide specialized healthcare services, including geriatric care, chronic disease management, and preventive health interventions (Ministry of Health and Family Welfare, 2022).

Despite its comprehensive design, the program faces significant implementation challenges. These include inadequate infrastructure, shortage of trained healthcare professionals, and limited awareness among beneficiaries. The effectiveness of healthcare schemes is further constrained by regional disparities in healthcare infrastructure.

The intersection of health risks and socio-economic vulnerability amplifies the importance of accessible healthcare. Clougherty et al. (2007) demonstrate how environmental and social stressors interact to influence health outcomes, suggesting that healthcare policies must adopt a holistic approach.

Legislative and Institutional Protections

Legal frameworks play a critical role in safeguarding the rights and well-being of elderly individuals. The Maintenance and Welfare of Parents and Senior Citizens Act provides a legal mechanism for ensuring familial support and protection against neglect (Ministry of Social Justice and Empowerment, 2023).

While the legislation represents a significant step toward institutionalizing elderly care, its effectiveness is limited by enforcement challenges and low awareness levels. Many elderly individuals are reluctant to pursue legal remedies due to social stigma and dependency on family members.

Institutional mechanisms must therefore be complemented by awareness campaigns and community-based support systems to enhance their impact.

State-Level Governance and Policy Implementation

The decentralized nature of governance in India results in significant variations in policy implementation across states. State governments play a crucial role in adapting national schemes to local contexts, influencing both coverage and effectiveness.

Mishra (2019) provides a detailed analysis of welfare governance in Odisha, highlighting innovative practices such as improved beneficiary identification and streamlined administrative processes. However, the study also identifies challenges related to resource constraints and bureaucratic inefficiencies.

State-level disparities are influenced by factors such as administrative capacity, political commitment, and socio-economic conditions. Regions with stronger governance structures tend to achieve better outcomes in elderly welfare, while weaker systems struggle to deliver intended benefits.

The role of local institutions and community organizations is also significant in bridging gaps between policy design and implementation. Participatory approaches, as emphasized by O'Fallon and Derry (2002), can enhance accountability and responsiveness.

Socio-Economic and Environmental Determinants

Elderly living standards are shaped not only by policy interventions but also by broader socio-economic and environmental factors. Income inequality, urbanization, and environmental risks contribute to variations in well-being among elderly populations.

Environmental justice literature provides valuable insights into the distribution of risks across different socio-economic groups. Morello-Frosch and Shenassa (2006) highlight how marginalized populations are disproportionately exposed to environmental hazards, which can exacerbate health vulnerabilities in old age.

Similarly, cumulative exposure to stressors such as pollution, violence, and economic insecurity can significantly impact health outcomes (Clougherty & Kubzansky, 2009). These findings underscore the need for integrated policy approaches that address both social and environmental determinants.

Institutional Efficiency and Policy Gaps

The effectiveness of policy-driven protection schemes is contingent upon institutional efficiency. Administrative processes, transparency, and accountability mechanisms play a critical role in determining policy outcomes.

One of the key challenges identified in the literature is the issue of leakage and targeting errors in welfare

programs (Tiwari & Desai, 2020). Inefficient beneficiary identification mechanisms result in exclusion of eligible individuals and inclusion of ineligible beneficiaries.

Additionally, lack of coordination between different schemes leads to fragmentation and duplication of efforts. An integrated approach to policy design and implementation is necessary to address these challenges.

The concept of analytic-deliberative processes, as proposed by Renn (1999), offers a framework for improving decision-making in complex policy environments. By incorporating stakeholder perspectives and evidence-based analysis, policymakers can enhance the effectiveness of welfare programs.

Results

The analysis reveals that policy-driven protection schemes have produced measurable improvements in the baseline living conditions of elderly populations, particularly in terms of income security and healthcare access. Programs such as NSAP and NPHCE have expanded coverage and introduced targeted interventions that address critical vulnerabilities.

However, the findings indicate that the impact of these schemes is uneven across regions. States with stronger administrative capacity and governance frameworks demonstrate higher levels of policy effectiveness, while others exhibit significant gaps in implementation. This disparity highlights the importance of state-level dynamics in determining outcomes.

A key finding is the inadequacy of financial benefits provided under social pension schemes. While these programs ensure a minimum level of income, the amounts are insufficient to meet basic living expenses, particularly in urban areas. This limitation reduces the overall impact of income security measures on living standards.

Healthcare initiatives have improved access to services but face challenges related to infrastructure and human resources. The availability of specialized geriatric care remains limited, particularly in rural areas. Consequently, the potential benefits of healthcare programs are not fully realized.

The study also identifies significant issues related to targeting and leakage in welfare programs. Inefficient

beneficiary identification processes result in exclusion errors, leaving many eligible individuals without access to benefits. At the same time, inclusion errors undermine the efficiency of resource allocation.

Another important finding is the role of socio-economic and environmental factors in shaping elderly well-being. The interaction of multiple stressors creates a complex risk environment that is not adequately addressed by existing policy frameworks. This highlights the need for integrated approaches that consider cumulative vulnerabilities.

Finally, the analysis reveals that legal and institutional protections, while important, are underutilized due to lack of awareness and social barriers. Strengthening these mechanisms requires not only policy reforms but also efforts to enhance public awareness and accessibility.

Discussion

The findings of this study underscore the complexity of improving living standards for aging populations through policy-driven interventions. While existing schemes provide a foundational framework for elderly welfare, their effectiveness is constrained by structural and operational challenges.

From a theoretical perspective, the limitations of targeted welfare approaches become evident. While targeting ensures efficient resource allocation, it also introduces risks of exclusion and administrative complexity. This trade-off suggests the need for hybrid models that combine targeted interventions with universal basic provisions.

The concept of cumulative vulnerability provides a critical lens for interpreting the findings. Elderly individuals often face multiple overlapping risks, and addressing these risks requires integrated policy responses. Current schemes, which operate in silos, are insufficient to address the multidimensional nature of vulnerability.

The role of governance emerges as a central determinant of policy effectiveness. Variations in state-level implementation highlight the importance of administrative capacity and institutional quality. Strengthening governance structures is therefore essential for improving outcomes.

The findings also reveal a disconnect between policy design and ground-level realities. While schemes are theoretically comprehensive, their implementation is often hindered by resource constraints and bureaucratic inefficiencies. Bridging this gap requires a focus on operational efficiency and accountability.

Comparative analysis with existing literature confirms that issues such as inadequate benefits, targeting inefficiencies, and implementation gaps are persistent challenges (Srivastava, 2017; Tiwari & Desai, 2020). However, this study extends the analysis by integrating environmental and socio-economic dimensions, highlighting the need for holistic approaches.

The implications of these findings are significant for both policy and practice. Policymakers must prioritize integration and coordination among different schemes to enhance overall effectiveness. Additionally, increasing benefit levels and improving targeting mechanisms are critical for ensuring meaningful improvements in living standards.

At the same time, the study acknowledges certain limitations. The reliance on secondary data restricts the ability to capture real-time dynamics and individual-level experiences. Future research should incorporate primary data and longitudinal analysis to provide deeper insights.

Conclusion

This study provides a comprehensive analysis of policy-driven protection schemes and their impact on the living standards of aging individuals. The findings indicate that while significant progress has been made in expanding coverage and addressing basic vulnerabilities, substantial challenges remain in terms of adequacy, efficiency, and equity.

The research highlights the importance of adopting a multidimensional approach to elderly welfare, incorporating economic, health, social, and environmental factors. It emphasizes the need for integrated policy frameworks that address cumulative vulnerabilities and enhance coordination among different schemes.

The study contributes to the existing literature by offering a state-level perspective on policy effectiveness, highlighting the role of governance and institutional

capacity. It also underscores the importance of bridging the gap between policy design and implementation.

Future research should focus on developing innovative policy models that combine universal and targeted approaches, as well as exploring the role of technology in improving service delivery. Additionally, greater emphasis should be placed on participatory approaches that involve elderly individuals in policy design and evaluation.

In conclusion, improving the living standards of aging individuals requires not only robust policy frameworks but also effective implementation, strong governance, and continuous adaptation to changing socio-economic conditions.

References

1. Brody, J.G.; Morello-Frosch, R.; Zota, A.; Brown, P.; Pérez, C.; Rudel, R.A. Linking exposure assessment science with policy objectives for environmental justice and breast cancer advocacy: The Northern California household exposure study. *Am. J. Public Health* 2009, 99, S600–S609.
2. Bullard, R.D.; Warren, R.C.; Johnson, G.S. *The Quest for Environmental Justice: Human Rights and the Politics of Pollution*; Counterpoint Press: Berkeley, CA, USA, 2005.
3. Clougherty, J.E.; Kubzansky, L.D. A framework for examining social stress and susceptibility to air pollution in respiratory health. *Environ Health Perspect.* 2009, 117, 1351–1358.
4. Clougherty, J.E.; Levy, J.I.; Kubzansky, L.D.; Ryan, P.B.; Suglia, S.F.; Canner, M.J.; Wright, R.J. Synergistic effects of traffic-related air pollution and exposure to violence on urban asthma etiology. *Environ. Health Perspect.* 2007, 115, 1140–1146.
5. Dake, K. Orienting dispositions in the perception of risk: An analysis of contemporary worldviews and cultural biases. *J. Cross-Cult. Psychol.* 1991, 22, 61–82.
6. Drottz-Sjöberg, B.-M. *Perception of Risk: Studies of Risk Attitudes, Perceptions and Definitions*; Center for Risk Research: Stockholm, Sweden, 1991.
7. Fleming, C. When environmental justice hits the local agenda: A profile of spartanburg and spartanburg county, South Carolina. *Public Manag. Mag.* 2004, 86, 1–10.

8. Fox, M.A. Evaluating cumulative risk assessment for environmental justice: A community case study. *Environ. Health Perspect.* 2002, 110, 203.
9. Habisreutinger, P.; Gunderson, D.E. Real estate reuse opportunities within the regensis project area: A case study. *Int. J. Constr. Educ. Res.* 2006, 2, 53–63.
10. Harris, R. Environmental Justice Considerations; The Office of Research, Development/Regional Cumulative Risk Assessment Workshop and Expo: Dallas, TX, USA, 2002.
11. Kloc, K. Zones of inequity: Cumulative air pollution and hot spots in the San Francisco bay area. 2009.
12. Krieg, E.J.; Faber, D.R. Not so black and white: Environmental justice and cumulative impact assessments. *Environ. Impact Assess. Rev.* 2004, 24, 667–694.
13. Lewis, A.S.; Sax, S.N.; Wason, S.C.; Campleman, S.L. Non-chemical stressors and cumulative risk assessment: An overview of current initiatives and potential air pollutant interactions. *Int. J. Environ. Res. Public Health* 2011, 8, 2020–2073.
14. Ministry of Health and Family Welfare. National Programme for Health Care of the Elderly (NPHCE). 2022. Available from: <https://main.mohfw.gov.in>
15. Ministry of Rural Development. National Social Assistance Programme (NSAP). Government of India; 2022. Available from: <https://nsap.nic.in>
16. Ministry of Social Justice and Empowerment. Maintenance and Welfare of Parents and Senior Citizens Act, 2007. Government of India; 2023. Available from: <https://socialjustice.gov.in>
17. Ministry of Statistics and Programme Implementation. Elderly in India - 2021. Government of India; 2021. Available from: <https://mospi.gov.in>
18. Mishra B. Welfare governance in Odisha: Innovations and challenges. *Odisha Econ J.* 2019;51(1):87-103.
19. Morello-Frosch, R.; Shenassa, E.D. The environmental “riskscape” and social inequality: Implications for explaining maternal and child health disparities. *Environ. Health Perspect.* 2006, 114, 1150–1153.
20. National Environmental Justice Advisory Council. Ensuring Risk Reduction in Communities with Multiple Stressors: Environmental Justice and Cumulative Risks/Impacts; Cumulative Risks Impacts Work Group, National Environmental Justice Advisory Council: New Orleans, LA, USA, 2004.
21. O’Fallon, L.R.; Deary, A. Community-based participatory research as a tool to advance environmental health sciences. *Environ. Health Perspect.* 2002, 110, S155–S159.
22. Planning Commission. Report of the Working Group on Social Protection Policy. Government of India; 2007. Available from: <https://niti.gov.in>
23. Polkowski, R. Environmental Justice Case Study: Toxic Waste in Chester, Pennsylvania. Available online: <http://www.umich.edu/~snre492/polk.html>
24. Rao CHH, Dev SM. India’s development experience: Selected readings. New Delhi: Oxford University Press; 2003.
25. ReGenesis. Regensis Environmental Justice Demonstration Project: Community Revitalization through Partnerships. Available online: <http://www.regenesisproject.org/>
26. Recommendations of the CAL/EPA Advisory Committee on Environmental Justice to the CAL/EPA Interagency Working Group on Environmental Justice; Final Report, Canadian Energy Pipeline Association (CEPA); California Environmental Protection Agency: Sacramento, Cal., USA, 2003.
27. Registrar General & Census Commissioner. Census of India: District Census Handbook - Sambalpur. 2011. Available from: <https://censusindia.gov.in>
28. Renn, O. A model for an analytic-deliberative process in risk management. *Environ. Sci. Technol.* 1999, 33, 3049–3055.
29. Sekher TV, Hatti N. Older persons in India: A perspective. New Delhi: B. R. Publishing Corporation; 2005.
30. Sharma ML, Dak TM. Aging in India: Challenge for the society. New Delhi: Ajanta Publications; 1987.
31. Singh C. Welfare policy and social protection in India. New Delhi: Sage Publications; 2020.
32. Srinivasan, S.; Collman, G.W. Evolving partnerships in community. *Environ. Health Perspect.* 2005, 113, 1814–1816.
33. Srivastava M. Pension reforms and old age income security in India. *Indian J Soc Work.* 2017;78(1):45-60.
34. Su, J.G.; Morello-Frosch, R.; Jesdale, B.M.; Kyle, A.D.; Shamasunder, B.; Jerrett, M. An index for assessing demographic inequalities in cumulative

- environmental hazards with application to Los Angeles, California. *Environ. Sci. Technol.* 2009, 43, 7626–7634.
35. Tiwari R, Desai M. Social pensions in India: Coverage, leakage, and impact. *Indian J Hum Dev.* 2020;14(2):219-34.
36. Uberoi P. *Social institutions and the elderly in India.* New Delhi: Oxford University Press; 2018.
37. U.S. Environmental Protection Agency, Office of Pesticide Programs. Preliminary Cumulative Risk Assessment of the Organophosphorus Pesticides. Available online: http://www.epa.gov/oppsrrd1/cumulative/pr_a_op_methods.htm
38. U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. Baltimore Community Environmental Partnership Air Committee Technical Report. Community Risk-Based Air Screening: A case study in Baltimore, Maryland. Available online: <http://yosemite.epa.gov/oar/communityassessment.nsf/d2cea01886a35f4085256e1900591902/aa83857f10d2012a852576a5002c785f!OpenDocument>
39. U.S. Environmental Protection Agency. EPA's Environmental Justice Collaborative Problem-Solving Model. Available online: <http://www.epa.gov/compliance/ej/resources/publications/grants/cps-manual-12-27-06.pdf>
40. U.S. Environmental Protection Agency. Guidelines for the Health Risk Assessment of Chemical Mixtures. Available online: <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=22567>
41. U.S. Environmental Protection Agency. Preliminary OP Cumulative Risk Assessment (part 1). Available online: http://www.epa.gov/oppsrrd1/cumulative/pr_a_op/
42. U.S. Environmental Protection Agency. Safe Drinking Water Act (SDWA). Available online: <http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm#sdwafs>
43. U.S. Environmental Protection Agency. Summary of the Clean Water Act. Available online: <http://www.epa.gov/regulations/laws/cwa.html>
44. U.S. Environmental Protection Agency. Towards an Environmental Justice Collaborative Model: Case Studies of Six Partnerships Used to Address Environmental Justice Issues in Communities. Available online: <http://www.epa.gov/evaluate/pdf/ej/towards-ej-collaborative-model-case-studies-six-partnerships.pdf>
45. Walker A, Naik J. *Social policy in India.* London: Palgrave Macmillan; 2011.
46. Wilson, S.M.; Wilson, O.R.; Heaney, C.D.; Cooper, J. Use of EPA collaborative problem-solving model to obtain environmental justice in North Carolina. *Prog. Community Health Partnersh. Res. Educ. Action* 2007, 1, 327–337.