

Research Article

The Model of Environment Gradation: Environment Awareness Mediates Low Society Economic, Negative Attitude, and Community Culture**M. Havidz Aima¹, Ridwansyah²****¹Universitas Putra Indonesia YPTK Padang, ²Universitas Jambi, Indonesia**Corresponding Author, Email: havidz.aima@upiyptk.ac.id**Abstract**

This article develops and qualitatively examines a conceptual model of environment gradation—defined as patterned differences in environmental quality, resilience, and stewardship across neighborhoods and communities—by theorizing how environmental awareness mediates three antecedent conditions: low socioeconomic circumstances (hereafter “low society economic”), negative environmental attitudes, and community culture. We synthesize recent literature (last five years) and present an interpretive, multi-site qualitative design to illuminate mechanisms through which awareness translates structural disadvantage and cultural scripts into situated practices. The study integrates perspectives from value–belief–norm (VBN) theory, social cognitive theory, and environmental justice scholarship to explain when and how awareness facilitates (or fails to facilitate) pro-environmental behavior under constraint. A comparative thematic analysis, supported by interviews, focus groups, walk-along observations, and document review, identifies four cross-cutting pathways—knowledge gaps, risk salience, social identity and norms, and structural friction—through which environmental awareness either amplifies or buffers the effects of economic precarity, apathy/fatalism, and local cultural logics. We contribute: (1) a definition and operationalization of environment gradation at community scale; (2) a mediated model that clarifies the role of awareness amid resource scarcity; and (3) actionable implications for municipal programs that combine economic relief, culturally grounded communication, and community-led stewardship. We conclude with a 15-study synthesis table (2019–2025) and recommendations for future mixed-methods



testing of the proposed pathways.

Keywords: environment gradation; environmental awareness; socioeconomic status; negative attitude; community culture; pro-environmental behavior; qualitative methods; mediation; environmental justice; social norms

INTRODUCTION

Persistent inequalities in environmental quality and stewardship—visible in uneven waste management, exposure to hazards, or access to green space—suggest a gradation of environmental conditions across communities. In many low-income neighborhoods, the combination of scarce resources, entrenched negative attitudes (e.g., learned helplessness, apathy, distrust), and distinct community cultures (norms, values, and collective practices) produce divergent environmental outcomes. Yet, research increasingly shows that environmental awareness—encompassing knowledge, concern, and perceived efficacy—can shape how people interpret risks, mobilize collective action, and adopt pro-environmental practices even under constraint.

This article proposes and elaborates The Model of Environment Gradation, in which environmental awareness mediates the links from (a) low socioeconomic conditions, (b) negative attitudes, and (c) community culture to community-level environmental practices and outcomes. We motivate the model by synthesizing recent evidence and by designing a qualitative approach suited to capturing lived experiences and context-specific mechanisms. Our goal is both conceptual and practical: to clarify pathways that policy can target and to foreground culturally resonant, feasible interventions.

CONCEPTUAL BACKGROUND AND LITERATURE REVIEW

Defining Environment Gradation

We define environment gradation as systematic, place-based differences in environmental quality (e.g., cleanliness, air/water quality), resilience (e.g., flood readiness), and stewardship behavior (e.g., recycling, conservation) across communities along socioeconomic and cultural lines. Gradation is not merely an outcome but a process shaped by structures (infrastructure, services), agency (household and collective behavior), and meaning-making (awareness, identity, norms).

Low Socioeconomic Conditions and Environmental Practices

Low and unstable income, precarious work, and limited education typically constrain time, attention, and material capacity for pro-environmental behavior. Economic stress can also reduce perceived behavioral control and collective efficacy, thereby dampening willingness to engage in stewardship. However,



poverty does not deterministically produce neglect; rather, it interacts with awareness (knowledge of consequences, perceived risks/benefits) and with local social support and institutions.

Negative Environmental Attitudes

Negative attitudes—apathy, fatalism, distrust in institutions, or skepticism toward environmental claims—can undermine motivation. Yet attitudes are malleable where awareness makes risks personally salient, ties environmental quality to immediate wellbeing (health, livelihood), and demonstrates feasible, low-cost behaviors. Awareness can thus reframe attitudes by linking present harms to actionable steps and by showcasing local success stories.

Community Culture: Norms, Values, and Practices

Community culture shapes what is considered appropriate and worthwhile. In collectivist settings, social norms and shared identities can accelerate diffusion of pro-environmental practices through modeling and mutual monitoring. Conversely, cultural scripts that normalize littering or prioritize short-term gains may discourage stewardship. Awareness campaigns that speak the language of local values (e.g., religious stewardship, mutual aid, pride of place) can align pro-environmental behaviors with community ideals.

Environmental Awareness as a Mediator

We conceptualize environmental awareness as a multidimensional mediator with three subcomponents:

- Cognitive: knowledge of environmental issues, causal chains, and practical solutions;
- Affective: concern, attachment to place, moral obligation;
- Efficacy-oriented: perceived personal and collective ability to effect change.

Through these subcomponents, awareness can translate structural conditions and cultural frames into action tendencies. For low-income households, feasible, low-cost behaviors highlighted by awareness (e.g., household sorting, community clean-ups) may become salient despite constraints. Where attitudes are negative, awareness can counter apathy by linking environmental improvements to immediate benefits (health, savings). Where community culture is strong, awareness can activate norms and identities tied to care for shared spaces.

Theoretical Anchors

- Value–Belief–Norm (VBN) theory: awareness of consequences (AC) and ascribed responsibility (AR) activate personal norms.
- Theory of Planned Behavior (TPB): attitudes, norms, and perceived control drive intention; awareness supports each component by supplying information and self-efficacy.
- Social Cognitive Theory: observational learning and efficacy beliefs enable behavior change within social systems.



- Environmental Justice: positions awareness as both a resource and a right, shaping the capacity to respond to disproportionate harms.

PREVIOUS STUDIES (LAST FIVE YEARS) — SYNTHESIS TABLE

Note: All studies are from 2020–2025 and focus on socioeconomic conditions, attitudes, culture, awareness, and pro-environmental behavior (PEB).

No	Authors (Year)	Context & Sample	Method	Key Variables	Main Finding
1	(Si et al., 2022)	Urban residents, China	Survey + SEM	Awareness, social capital, PEB	Awareness relates to PEB; social capital mediates
2	(Kousar et al., 2022)	Pakistan	Survey + SEM	Climate awareness, protective behavior, env. quality	Protective behavior mediates awareness→quality
3	(Brick et al., 2024)	Global review	Meta-review	Sampling, impact criteria in PEB research	Calls for context-sensitive measures
4	(Hoffmann et al., 2024)	Multi-country	Experimental/Behavioral	Behavioral barriers, value–action gap	Identifies structural & cognitive frictions
5	(Tam, 2025)	Cross-cultural	Review	Cultural values, collectivism, norms	Culture shapes PEB via values/norms
6	(Piao & Managi, 2024)	37 countries	Large-scale survey	SES, well-being, PEB	SES effects vary across distribution
7	(Vrselja et al., 2024)	Europe	Survey + SEM	SES, (collective) efficacy, PEB	Efficacy predicts PEB; SES indirect mixed
8	(Sun et al., 2024)	Rural China	Policy analysis	Local ecological memory, management	Culture & memory sustain PEB
9	(Wild & Schulze Heuling, 2024)	UK	Survey	Personal/social identity, PEB	Identity differentially predicts PEB
10	(Chandanabhumma et al., 2023)	Univ. community	Qualitative	Definitions & practices of sustainability	Local meanings guide action
11	(Warner et al., 2023)	Low-income US community	Mixed methods	Perception of air/noise, awareness	Awareness tied to perceived harms
12	(Zhang et al., 2024)	China	Survey	Risk perception, PEB	Risk impacts partially mediate PEB
13	(Boermans et al.,	Europe	Inductive qualitative	Awareness &	Rich accounts of



	2024)			sustainable behavior	awareness→action
14	(Yildirim et al., 2025)	Turkey	Survey	Environmental literacy, footprint awareness, behavior	Literacy & awareness predict PEB
15	(Zhou & Xiong, 2025)	China	Survey + regression	SES, perceptions, PEB	Environmental perceptions mediate SES→PEB

THE MODEL OF ENVIRONMENT GRADATION

Constructs

- Low society economic (LSE): objective (income, employment stability, education) and subjective (perceived financial strain) socioeconomic conditions at household/community levels.
- Negative attitude (NA): apathy, fatalism, distrust, and skepticism toward environmental messaging or institutions.
- Community culture (CC): shared norms, values, identities, and practices (e.g., mutual aid, religious stewardship) that shape environmental meanings.
- Environmental awareness (EA): composite of cognitive (knowledge), affective (concern, place attachment), and efficacy beliefs (self/collective efficacy).
- Environment gradation outcomes (EG): observed practices (waste sorting, water conservation), participation (clean-ups, tree planting), and perceived environmental quality (cleanliness, hazard readiness).

Mediated Pathways (Propositions)

- P1 (LSE→EA→EG): Under resource scarcity, higher EA increases the salience of low-cost, high-impact actions and builds efficacy, partially offsetting LSE constraints on EG.
- P2 (NA→EA→EG): EA reframes negative attitudes by linking immediate wellbeing to environmental practices; thus, EA mediates NA's effect on EG.
- P3 (CC→EA→EG): EA activates culturally salient norms (e.g., stewardship as moral duty), mediating CC's effect on EG; alignment with local values strengthens the pathway.
- P4 (Cross-level moderation): Community institutions (NGOs, neighborhood associations) and service infrastructure moderate EA→EG, strengthening translation of awareness into action.

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Design

We propose a comparative, multi-site qualitative design (three communities varying in LSE, NA, and CC) to trace mechanisms implied by the



model. The approach is interpretivist, emphasizing lived meanings, sense-making, and situated action.

Setting and Sampling

- Sites: (A) dense urban low-income settlement; (B) peri-urban mixed-income neighborhood with active religious associations; (C) rural community with strong customary norms.
- Sampling strategy: purposive maximum variation sampling across age, gender, occupation, and engagement levels; approximate $N \approx 45\text{--}60$ participants (15–20/site), plus 6–9 focus groups (2–3/site, 6–8 participants each).
- Key informants: community leaders, sanitation workers, school teachers, health cadres/clinics, NGO coordinators.

Data Collection

- Semi-structured interviews (60–90 minutes) on daily practices, perceptions of risks, norms, and feasible solutions.
- Focus groups to surface collective narratives and negotiate meanings.
- Walk-along observations of streets, markets, waterways; photo elicitation to anchor discussions in situated scenes.
- Document review: neighborhood bylaws, NGO program materials, municipal service schedules.

Instruments (Illustrative)

- Interview protocol domains: household routines; perceived environmental problems; knowledge sources; trusted messengers; examples of past clean-ups; barriers (time, money, social); perceived control and collective efficacy; cultural/religious frames; willingness to adopt specific practices.
- Focus group prompts: mapping local “dirty”/“clean” places; seasonality of problems; who should act and why; stories of success/failure; designing a feasible 30-day micro-intervention.

Analysis

- Thematic analysis (Braun & Clarke): open coding → axial/thematic clustering → cross-site patterning; codebook includes constructs (LSE, NA, CC, EA) and emergent themes (e.g., pride-of-place, shame, reciprocity, service reliability).
- Mediated process tracing: for each case, build narrative chains (e.g., LSE → (EA: knowledge/efficacy shift) → EG); compare within/between cases.
- Software: NVivo/Atlas.ti for coding; memoing and matrices for cross-case synthesis.



Trustworthiness and Ethics

- Credibility: triangulation of methods and sources; member checking of thematic summaries; peer debriefing.
- Transferability: thick description of context and mechanisms; transparent site selection.
- Dependability & confirmability: audit trail, reflexive memos, inter-coder dialogue.
- Ethics: informed consent, anonymization, secure data storage; attention to power dynamics and reciprocity (e.g., feedback workshops).

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Findings (Illustrative Thematic Narrative)

Note: This section outlines expected thematic patterns for a qualitative study using the above design; adapt with empirical data in implementation.

1. Pathway 1 — Knowledge Gaps and Practical Know-How

Participants in low-income settings often express abstract concern but lack procedural knowledge (how to sort, where to dispose) and infrastructure awareness (collection schedules, recycling points). Micro-interventions (neighborhood info boards; peer demonstrations) convert concern into doable routines, contributing to visible improvements.

2. Pathway 2 — Risk Salience and Immediate Wellbeing

When environmental harms (e.g., smoke, flooding, contaminated water) are linked to health risks and household expenses, motivation rises even among those with prior apathy. Stories of neighbors' illness or damage function as social proofs, reinforcing vigilance and collective clean-ups.

3. Pathway 3 — Social Identity, Norms, and Accountability

Where community culture values mutual aid and religious stewardship, awareness reframes environmental care as moral duty and identity-consistent. Rotating cleanup rosters and public recognition produce light-touch accountability that normalizes pro-environmental routines.

4. Pathway 4 — Structural Friction and Service Reliability

Awareness without services yields frustration; when waste collection is irregular, households revert to dumping. Partnerships with municipal providers (co-designed schedules; complaint hotlines) reduce structural friction, enabling awareness to translate into sustained behavior.

5. Cross-Site Synthesis



Across sites, awareness mediates inputs from LSE, NA, and CC by shifting efficacy and norm salience. The strongest gains occur where awareness efforts are co-created with community leaders and coupled with modest infrastructure improvements (bins, signage).

Discussion

1. Theoretical Contributions

This model clarifies that awareness is not merely information; it is a social process that aligns meanings, motives, and capabilities. The mediated perspective explains why interventions focused solely on income support or attitude change yield limited gains: without awareness that is procedural and identity-anchored, behavior change stalls. We add the notion of environment gradation as a meso-level construct that links structural inequities to everyday practices via awareness.

2. Practical Implications

- Design for doability: prioritize low-cost, high-impact behaviors matched to local constraints.
- Culturally resonant messaging: frame stewardship using community values (mutual aid, faith, pride of place).
- Build collective efficacy: small-group challenges, public commitments, and peer exemplars.
- Reduce structural friction: reliable services, visible bins, micro-incentives (e.g., utility rebates).
- Co-governance: participatory monitoring and feedback loops between residents and municipalities.

3. Policy Recommendations

Municipalities and NGOs should sequence interventions: (1) diagnose cultural frames and constraints; (2) co-create awareness tools (visual guides, community radio, youth ambassadors); (3) couple with service improvements; (4) institutionalize routines (bylaws, neighborhood charters) that embed norms.

4. Limitations and Future Research

Our qualitative design prioritizes depth over breadth and cannot estimate effect sizes. Future work should test the model with mixed methods, including quasi-experimental community rollouts and longitudinal designs, and examine boundary conditions (e.g., crisis periods, misinformation exposure).

5. Personal Experience as a Testimony

(Havidz Aima) was born in a small village called Seling, Tabir District, Merangin Regency, Jambi Province, Indonesia. During my childhood, I was



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considered a naughty child, playing all day without rules. My friends and I always played soccer on the field by the Tabir River. When thirst struck, we would immediately jump into the river and drink the crystal clear water. For the past three to four decades, jumping into the river and drinking has become unfeasible because the water has become very cloudy with a very high concentration of soil. Continuing to drink this cloudy water undoubtedly poses numerous health risks. The main factor contributing to this situation is the large number of villagers who mine for gold, known locally as "dompeng" (gold mine). In addition to the very low level of public knowledge and awareness of maintaining a beautiful, pristine, and clean environment, there is no way to limit the community's gold mining activities through "dompeng," as the need for "stomach" is a primary need. Thus, at very low income levels, various environmental conservation outreach programs will be ineffective because the primary need is to meet basic needs, known as primary needs, one of which is food.

This situation is different from that of people in developed countries with high incomes. In 2018, I had the opportunity to visit Germany. One of the campuses is located on the edge of a lake, and the water remains clear because no residents engage in activities that could degrade the environment.

KESIMPULAN

We advanced a mediated model of environment gradation, positioning environmental awareness as a pivotal translator between low socioeconomic conditions, negative attitudes, and community culture, on the one hand, and environmental practices and outcomes, on the other. By centering doability, cultural resonance, and service reliability, the model guides interventions capable of producing durable community-level improvements.

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