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Tourism in Transformation: Ethical Imperatives and Regenerative Innovation for Sustainable Travel Futures

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Tourism's reputation as a driver of boundless economic prosperity is now under serious scrutiny. This study investigates the deepening conflict between conventional tourism practices and the ecological, ethical, and social demands shaping today's sustainability discourse. Using a mixed-methods approach across five geographic zones in India - Himalayan ecotourism corridors, coastal regions, tribal heritage sites, cultural circuits, and urban digital tourism pilots - the research drew on 314 respondents including tourists, local entrepreneurs, government representatives, and NGO workers. Structural equation modeling and confirmatory factor analysis handled quantitative data, while thematic analysis processed interview findings. Results exposed a persistent gap between tourist behavior and genuine conservation efforts, a fundamental mismatch between tourism's economic cycles and fragile ecosystems' biological rhythms, and widespread confusion surrounding what "regenerative" tourism actually means in practice. Three hypotheses were tested and empirically confirmed: community-driven models yield stronger sustainability outcomes than externally administered ones; SDG-aligned enterprises demonstrate measurable ecological and social gains; and unregulated digital tourism deepens rather than resolves existing inequities. The paper concludes by introducing the RTIF model as a practical governance framework.

Keywords: Regenerative tourism, eco-tourism entrepreneurship, SDG alignment, community sovereignty.

1. Introduction

1.1 Background and Context

There is a photograph taken in Spiti Valley, Himachal Pradesh, that circulates with some regularity on travel blogs and Instagram pages. It shows a monk sitting at the edge of a monastery, framed by a sky so blue it looks manufactured. What those photographs almost never show is the plastic trail that winds up the mountain path below him, or the half-built concrete guesthouses that now crowd the village he looks out upon. This is not a romantic lament. It is, in miniature, the precise contradiction that this research sets out to examine.

Tourism is the world's third-largest export sector, and in 2019, just before a pandemic reordered everything, it accounted for approximately 10.4% of global GDP and 334 million jobs (UNWTO, 2020). India, with its staggering ecological diversity, ancient civilisations, and indigenous communities, sits at the centre of one of the most important experiments in sustainable tourism today. And yet, the dominant paradigm of tourism development - growth-led, externally financed, and visitor-centric - has produced a trail of consequences that are becoming impossible to ignore: degraded ecosystems, culturally displaced communities, and carbon footprints that mock the very "green" branding plastered on resort walls.

The concept of regenerative tourism emerged in the early 2010s as a response to the perceived inadequacy of merely "sustainable" tourism (Bellato et al., 2022). Where sustainability asks, "how do we do less harm?", regeneration asks, "how do we actively restore what has been damaged?" This is a meaningful shift. But without ethical architecture - without confronting who benefits, who decides, and whose knowledge counts - regeneration risks becoming the newest layer of greenwashing. This paper takes that risk seriously.

1.2 Problem Statement

The core tension this paper addresses is this: tourism is being asked to save what it has historically helped destroy. Eco-tourism branding proliferates, SDG commitments are signed by industry bodies, and "community-based" tourism is celebrated in policy papers - but on the ground, indigenous communities lose land rights to eco-lodge developers, fragile ecosystems are monetized faster than they can regenerate, and entrepreneurial frameworks imported from Western sustainability discourse fail to account for the structural realities of the Global South. The problem, put simply, is not a lack of good intentions. It is a lack of honest, actionable frameworks that integrate ethical

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governance, community sovereignty, ecological science, and viable economics.

1.3 Research Questions

Three research questions drive this study forward:

RQ1: To what extent do community-led eco-tourism entrepreneurial models in India produce measurably superior sustainability outcomes - ecological, social, and economic - compared to externally managed tourism enterprises?

RQ2: How effectively are tourism enterprises in India's diverse geographic zones aligning their operational and strategic practices with the United Nations Sustainable Development Goals, and what structural barriers impede this alignment?

RQ3: What ethical frameworks and governance mechanisms are necessary to ensure that digital and technological integration in tourism advances regenerative outcomes rather than reproducing existing inequities?

1.4 General Objectives

This paper works toward four interconnected objectives. First, it critically analyzes the ethical imperatives that are reshaping the logic of sustainable and regenerative tourism. Second, it evaluates the role of emerging technologies - digital platforms, data analytics, and Industry 4.0 tools - in either advancing or undermining regenerative models, particularly in India and Asia. Third, it develops a conceptual framework, the Regenerative Tourism Integration Framework (RTIF), that ties community empowerment to ecological restoration through tourism enterprise. Fourth, it assesses how far current tourism innovation actually aligns with the SDGs beyond the level of stated intention.

1.5 Research Hypotheses

Three hypotheses are advanced:

H1: Community-led eco-tourism entrepreneurial ventures demonstrate significantly higher ecological and social sustainability performance scores than externally managed tourism enterprises operating in the same geographic zones.

H2: The degree of explicit SDG alignment in tourism enterprise strategy is positively and significantly associated with improved multi-dimensional sustainability outcomes across ecological, economic, and socio-cultural indicators.

H3: Digital technology integration in tourism enterprises without an accompanying ethical governance framework is positively associated with widening social inequity and increased environmental commodification.

1.6 Purpose and Justification of the Study

This study is justified on three grounds. Academically, the literature on regenerative tourism remains theoretically underdeveloped, particularly for the Indian context where ecological, cultural, and political specificities demand indigenous theoretical anchors rather than imported models. From a policy standpoint, India's Tourism Policy 2020 and its alignment with the National Action Plan for Climate Change make this an urgent empirical question: are policy intentions translating into ground realities? And practically, the communities most affected by tourism's failures - tribal village cooperatives in Nagaland, fisherfolk-run homestays in the Andamans, pastoralists in Spiti - deserve research that speaks to their actual circumstances, not abstracted sustainability indices.

1.7 Significance and Contribution

This paper contributes in three specific ways. It generates the first multi-zone mixed-methods dataset linking SDG alignment to sustainability performance across heterogeneous Indian tourism geographies. It proposes and validates the RTIF as an actionable conceptual model. And it shifts the epistemological frame of tourism research by centering community knowledge - not as anecdote, but as primary analytical data - alongside statistical outputs.

1.8 Key Definitions

Regenerative Tourism refers to tourism that actively restores ecological, cultural, and social systems rather than merely minimizing harm (Bellato et al., 2022). Eco-tourism Entrepreneurship describes the creation and management of tourism ventures that generate livelihood while preserving ecological integrity, often in biodiversity-rich or culturally sensitive areas (Lordkipanidze et al., 2005). SDG Alignment in Tourism refers to the deliberate integration of the 17 UN Sustainable Development Goals - particularly SDG 8, 12, 13, 14, 15, and 17 - into tourism enterprise strategy and operations. Thrivability, borrowed from futurist literature (Baue & Thurm, 2020), describes a beyond-sustainability metric that asks whether communities and ecosystems are genuinely flourishing, not merely surviving. Stewardship Gap is used here to describe the

measurable distance between tourist professed environmental values and actual conservation behavior during and after travel.

2. Literature Review

2.1 Theoretical Framework

Three theoretical pillars support this study. The first is Stakeholder Theory (Freeman, 1984), extended into tourism by Timur and Getz (2009), which argues that sustainable tourism enterprises must be accountable to an ecosystem of stakeholders - not merely shareholders - including local communities, ecosystems, future generations, and indigenous knowledge holders. The second is Capability Approach (Sen, 1999), which shifts the question from "how much economic output does tourism generate?" to "what real freedoms and abilities does it expand for the people it touches?" The third is Socio-Ecological Systems Theory (Ostrom, 2009), which provides the analytical vocabulary for understanding how tourism enterprises are embedded in complex adaptive systems where social and ecological dynamics are inseparable.

Together, these three lenses allow this paper to analyze tourism not as an isolated economic sector but as a dynamic, ethically laden socio-ecological actor.

2.2 Review of Existing Research

The evolution of sustainable tourism scholarship mirrors, with some lag, the broader evolution of sustainability discourse. Early work by Butler (1980) on the tourism area life cycle established that destinations follow predictable patterns of growth and decline - a sobering baseline against which all subsequent optimism about "green" tourism should be measured.

Wearing and Neil (1999) produced one of the earliest serious examinations of eco-tourism's ethical contradictions, noting that the commodification of "nature" for tourist consumption could simultaneously fund conservation and erode the cultural context that made that nature meaningful to resident communities. Mowforth and Munt (2003) went further, arguing that sustainable tourism was, in its dominant Western formulation, an extension of colonial power relations - the privileged travelling to experience the "authentic" lives of the poor.

Scheyvens (2002) offered a more hopeful counter-narrative, documenting cases where community-based tourism generated genuine local empowerment, particularly where communities retained ownership, decision-making authority, and the majority of economic returns. This tension - between tourism as colonizing force and tourism as liberation - has never been resolved in the literature, and this paper argues it never will be without a structural shift in who controls the tourism enterprise.

Buckley (2009) conducted a major global review of eco-tourism's environmental outcomes and reached a disquieting conclusion: eco-tourism, as practiced across the majority of certified operations, produced modest conservation benefits at best and in many cases created ecological pressure while providing little measurable restoration. The certification regime itself, he found, was riddled with inconsistency.

Hall (2011) introduced the concept of tourism degrowth into mainstream academic discourse, challenging the assumption that tourism expansion was axiomatically positive. His work opened a space for questioning whether the goal of tourism development should be more tourism or better tourism - a distinction that this paper finds foundational.

Higgins-Desbiolles (2018) made perhaps the most pointed political argument in recent sustainable tourism scholarship: that tourism must be "socialized" - returned to democratic community control - if it is to serve human flourishing rather than capital accumulation. Her argument drew explicit parallels with post-colonial theory and resonated strongly with the Indian context where tribal communities are routinely displaced or bypassed by tourism investments made in their names.

Spenceley and Rylance (2019) provided comparative empirical evidence across African and Asian contexts showing that community benefit sharing mechanisms in eco-tourism were most effective when legally codified and monitored by independent bodies - not when left to goodwill of private operators.

Gössling and Hall (2019) assessed aviation's contribution to climate change against tourism's stated sustainability ambitions and documented what they called a "decarbonization delusion" - the gap between the industry's voluntary climate commitments and the actual trajectory of emissions. This finding speaks directly to this

paper's hypothesis around digital and ethical governance frameworks.

Sigala (2020) examined the transformative potential of digital platforms for sustainable tourism, noting that technologies like blockchain, AI-driven visitor flow management, and community-owned digital platforms could either democratize tourism benefits or concentrate them further in the hands of platform owners. The ethical governance question she raises is central to H3 of this study.

Bellato et al. (2022) produced the most comprehensive theoretical treatment of regenerative tourism to date, distinguishing it from sustainability on six axes: orientation (restorative vs. protective), metrics (thrivability vs. sustainability indices), community role (sovereign vs. consulted), knowledge systems (pluralist vs. technocratic), temporal horizon (intergenerational vs. project-based), and economic model (circular vs. extractive). This taxonomy is adopted here as the primary reference framework for evaluating tourism enterprises.

Fletcher et al. (2019) critiqued the "green economy" framing of sustainable tourism, arguing that market-based conservation instruments - carbon credits, biodiversity offsets, eco-certification premiums - naturalized capitalist logic rather than challenging it. Their critique shapes this paper's skepticism about technological solutions unaccompanied by structural change.

Boluk et al. (2019) proposed "critical tourism studies" as a corrective to the field's tendency to accept the market as the natural medium for sustainability. They called for research that centers power, justice, and political economy - a call this paper attempts to answer empirically.
Cheer et al. (2019) examined resilience theory's application in tourism, arguing that communities exposed to repeated shocks - climate events, pandemics, political disruptions - develop adaptive capacities that externally managed tourism enterprises consistently undervalue and crowd out. Their polycrisis framing anticipates the current global context.

Dodds and Butler (2019) edited a volume on overtourism that shifted academic conversation toward visitor carrying capacity and distribution - the spatial and temporal management of tourism flows. Their work is particularly relevant to this study's findings from Kerala and the Andaman archipelago.

UNWTO (2019) published its baseline assessment of tourism's alignment with the SDGs, finding meaningful progress only on SDGs 8 (decent work) and 17 (partnerships), with almost no systematic progress on SDGs 13, 14, or 15. This finding drives RQ2 of this study.

Movono and Dahles (2017) examined Fijian village-based tourism and found that success depended less on technical tourism expertise than on the strength of existing social institutions - kinship networks, communal governance structures, traditional resource management systems. Their work informs this paper's sampling strategy in tribal tourism zones.

Stroma et al. (2021) documented how indigenous tourism operators in Southeast Asia navigated the tension between preserving cultural sovereignty and meeting market expectations for "authenticity" - a tension they found was most successfully managed when communities retained narrative control over how their culture was represented.

Stone and Nyaupane (2019) studied dark tourism and heritage sites, finding that communities often experienced tourism's arrival as epistemically violent - their histories interpreted, packaged, and sold without their participation. This insight shapes the paper's treatment of heritage tourism circuits in Rajasthan and Tamil Nadu.

Sharpley (2020) offered a sobering assessment of sustainable tourism's two decades of progress, concluding that despite an enormous proliferation of frameworks, certifications, and policy statements, tourism's aggregate environmental impact had continued to grow. He called for paradigmatic rather than incremental change - a conclusion this paper shares.

Qiu et al. (2021) showed that young travelers, particularly millennials and Gen Z tourists, demonstrated strong stated preferences for sustainable travel options but significant value-action gaps in actual behavior. Their behavioral data directly informs the stewardship gap analysis in this paper.

Saarinen (2021) revisited the sustainability concept in tourism and argued that it had become so elastically defined as to lose analytical precision. His call for more rigorous conceptual discipline is answered here through the adoption of Bellato et al.'s (2022) regenerative taxonomy.
Pandy and Rogerson (2021) examined small and medium tourism enterprise resilience in South Africa and found that enterprises embedded in local supply chains and community networks survived the COVID-19 crisis at significantly higher rates than those dependent on international operators. This finding has direct implications for entrepreneurial models examined in this study.

Senbeto and Hon (2020) studied technology adoption in tourism SMEs and found that digital integration often favored larger, better-capitalized enterprises, widening the competitive gap rather than leveling the playing field - a finding this paper tests in the Indian context.

Lenzen et al. (2018) published the most comprehensive carbon accounting of global tourism to date, finding that it accounted for 8% of global greenhouse gas emissions when supply chain effects were included - substantially higher than earlier industry estimates. Their methodology informs this paper's treatment of decarbonization dilemmas.

Scheyvens and Biddulph (2018) examined pro-poor tourism and found that poverty reduction claims were frequently overstated, with leakage of economic benefits to urban centers and foreign operators remaining a persistent structural problem. This is a recurring pattern in this study's qualitative findings.

Font et al. (2019) conducted a meta-analysis of eco-certification schemes and found that their sustainability claims were, on average, supported by only weak empirical evidence. Their finding is directly relevant to this paper's hypothesis about the inadequacy of current measurement frameworks.

Gretzel et al. (2020) examined smart tourism from a critical perspective, arguing that data sovereignty - the question of who owns the vast quantities of behavioral data generated by digital tourism platforms - was emerging as a central ethical issue that the industry had not begun to seriously address.

Singh (2022) examined ecotourism governance in Himalayan communities and found that participatory governance mechanisms that formally incorporated indigenous ecological knowledge produced significantly better biodiversity outcomes than top-down conservation management. This finding anchors this study's community sovereignty arguments in the Indian empirical context.

Nunkoo et al. (2022) conducted a systematic bibliometric review of tourism sustainability research and identified community empowerment, SDG integration, and digital ethics as the three most significant under-researched areas in the field - a gap this paper is specifically designed to address.

2.3 Identification of Research Gaps

The literature review reveals four critical gaps. First, while regenerative tourism has been theorized, no empirical study has tested its operational conditions across heterogeneous Indian geographies simultaneously. Second, the SDG alignment literature is almost entirely self-reported, lacking independent measurement frameworks. Third, the ethics of digital technology integration in eco-tourism remain almost entirely unaddressed in empirical research. Fourth, the concept of "thrivability" as an alternative to conventional sustainability metrics exists in theoretical literature but has not been operationalized for tourism research.

2.4 Conceptual Model

The Regenerative Tourism Integration Framework (RTIF) proposed in this paper has four interdependent nodes: Community Sovereignty (governance and decision-making power), Ecological Regeneration (measured biological restoration), Ethical Technology Integration (digital governance with equity auditing), and SDG-Anchored Accountability (multi-dimensional performance metrics aligned with UN goals). These four nodes are not sequential; they operate in dynamic feedback loops. An enterprise that excels on Community Sovereignty tends, the data show, to perform better on Ecological Regeneration - and vice versa. Ethical Technology Integration amplifies both when governed appropriately and undermines both when it is not. SDG-Anchored Accountability provides the external reference point that prevents self-referential sustainability claims.

3. Methodology

3.1 Research Philosophy and Design

This study adopted a pragmatist philosophical position, which holds that the most valid knowledge emerges from whatever methods best illuminate the research problem rather than from allegiance to a single paradigm (Creswell & Plano Clark, 2018). The research problem - which involves both measurable performance differences between enterprise types and lived experiential realities of communities - demanded a convergent parallel mixed-methods design. Quantitative data captured patterns; qualitative data explained them.

3.2 Geographic Area

Five zones were selected to represent the ecological, cultural, and developmental heterogeneity of Indian tourism:

The Himalayan Ecotourism Zone (Himachal Pradesh and Ladakh) was selected for its extreme ecological sensitivity, its heritage of Buddhist monastic culture, and its growing exposure to both mass and specialized tourism. The Coastal and Island Zone (Kerala and Andaman & Nicobar) represented globally recognized eco-tourism destinations with high community engagement records but growing environmental pressure. The Tribal and Indigenous Tourism Zone (Chhattisgarh and Nagaland) offered contexts where tourism intersected most directly with indigenous sovereignty questions. The Heritage Tourism Zone (Rajasthan and Tamil Nadu) captured the SDG alignment challenges in culturally rich but often commercially saturated tourism circuits. The Urban Smart Tourism Zone (Varanasi and Ahmedabad) examined the digital integration and ethical technology questions in complex urban tourism environments.

3.3 Research Design: Quantitative and Qualitative Components

The quantitative component used a structured survey instrument to test the three hypotheses across the five zones. The qualitative component used in-depth interviews and focus group discussions to generate explanatory depth.

3.4 Sampling Framework

The sampling universe comprised all stakeholders directly engaged in tourism enterprise across the five zones: tourists, community entrepreneurs, government tourism officials, NGO workers, and hospitality workers. The sampling frame was constructed from: state tourism department enterprise registries, UNWTO-registered eco-tourism sites, community homestay networks documented by the Ministry of Tourism (2021), and purposive identification of tribal tourism cooperatives. The sampling method was stratified purposive sampling - stratified to ensure geographic, enterprise-type, and stakeholder-type representation; purposive to ensure relevance to the research questions. The sampling technique was systematic random sampling within each stratum for the quantitative instrument, and theoretical saturation sampling for qualitative interviews. The sample size was N = 314 for the quantitative instrument, distributed as follows:

Geographic Zone	n	% of Total
Himalayan Ecotourism (Himachal/Ladakh)	68	21.7%
Coastal and Island (Kerala/Andaman)	65	20.7%
Tribal and Indigenous (Chhattisgarh/Nagaland)	58	18.5%
Heritage Tourism (Rajasthan/Tamil Nadu)	63	20.1%
Urban Smart Tourism (Varanasi/Ahmedabad)	60	19.1%
Total	**314**	**100%**

For the qualitative component, 48 in-depth interviews were conducted - approximately 9-10 per zone - alongside 12 focus group discussions with an average of 7 participants each.

3.5 Data Collection Tools

The quantitative questionnaire was structured in five parts: (1) Demographic and enterprise profile; (2) Community Sovereignty Index (CSI) - 14 items on governance, decision-making, and benefit distribution, adapted from Scheyvens (2002); (3) Ecological Regeneration Performance Scale (ERPS) - 12 items measuring actual ecological management practices, based on Buckley (2009) and Singh (2022); (4) SDG Alignment Index (SAI) - 18 items covering SDGs 8, 12, 13, 14, 15, adapted from UNWTO (2019); (5) Digital Ethics and Equity Audit Scale (DEEAS) - 10 items measuring technology governance practices, adapted from Gretzel et al. (2020). All items used a 5-point Likert scale. The instrument was piloted with 30 respondents not included in the final sample, with Cronbach's alpha values ranging from 0.78 to 0.89, indicating strong internal reliability.

The qualitative interview guide covered: perceptions of community power in tourism decision-making; experiences with ecological impact and restoration; narratives around technology's effects on community benefit; and assessments of where and why SDG commitments failed in practice.

3.6 Variables and Measurement

The key independent variables were Enterprise Type (community-led vs. externally managed), SDG Alignment Level (high/medium/low), and Digital Ethics Governance Score. The dependent variables were Ecological Regeneration Performance Score, Social Sustainability Score, and Economic Sustainability Score. Control variables included zone type, enterprise age, and enterprise scale.

3.7 Data Analysis Plan

Quantitative analysis used SPSS 26 and AMOS 24. Descriptive statistics established baseline profiles. Confirmatory factor analysis (CFA) validated the measurement scales. Structural equation modeling (SEM) tested the hypothesized relationships. ANOVA with post-hoc Tukey tests examined cross-zone performance differences. Qualitative analysis used NVivo 12 for thematic coding, following Braun and Clarke's (2006) six-phase thematic analysis protocol. Axial coding connected initial codes to the study's theoretical constructs.

3.8 Ethical Considerations and Limitations

All participants provided written informed consent. For tribal communities, free, prior, and informed consent (FPIC) principles guided engagement, recognizing that standard academic consent procedures may be inadequate where collective rather than individual rights are at stake. Data were anonymized and stored in encrypted repositories. Limitations include the cross-sectional design's inability to capture longitudinal change, potential social desirability bias in self-reported SDG alignment items, and the researcher's own position as an outsider to many of the tribal communities studied - a limitation that was partially addressed by engaging community liaisons as co-researchers in the Chhattisgarh and Nagaland zones.

4. Results and Findings

4.1 Sample Profile

Of the 314 respondents, 58.6% identified as community-based tourism operators or cooperative members, while 41.4% represented externally managed enterprises. Women constituted 38.5% of the sample - a figure that reflects the gender composition of tourism enterprise leadership in India, where women are disproportionately represented in grassroots cooperative structures but underrepresented in formal hotel management. Enterprise age ranged from 2 to 31 years, with a mean of 8.3 years (SD = 5.7).

4.2 Confirmatory Factor Analysis Results

CFA confirmed the five-factor structure of the measurement instrument. Model fit indices were satisfactory: CFI = 0.943, TLI = 0.931, RMSEA = 0.062 (90% CI: 0.051–0.073), SRMR = 0.058. All factor loadings exceeded 0.60, and composite reliability values ranged from 0.81 to 0.91, confirming convergent validity. Average variance extracted (AVE) values exceeded the 0.50 threshold for all constructs, and discriminant validity was established using the Fornell-Larcker criterion.

4.3 Hypothesis Testing via SEM

All three hypotheses received strong empirical support. The relationship between community-led enterprise structure and ecological regeneration performance ($\beta = 0.421$, $p < 0.001$)

Table 1: Structural Equation Model Path Coefficients

Hypothesized Path	β	SE	t-value	p-value	Supported?
Community-Led Enterprise → Ecological Regeneration Performance	0.421	0.074	5.69	<0.001	Yes (H1)
Community-Led Enterprise → Social Sustainability Score	0.388	0.081	4.79	<0.001	Yes (H1)
SDG Alignment Level → Multi-Dimensional Sustainability	0.463	0.068	6.81	<0.001	Yes (H2)
Digital Integration (without ethical governance) → Social Inequity	0.312	0.089	3.51	<0.001	Yes (H3)
Digital Integration (without ethical governance) → Env. Commodification	0.278	0.094	2.96	0.003	Yes (H3)

Table 2: Mean Sustainability Performance Scores by Geographic Zone

Zone	Ecological Regeneration (M ± SD)	Social Sustainability (M ± SD)	SDG Alignment (M ± SD)
Himalayan Ecotourism	3.81 ± 0.74	3.56 ± 0.82	3.44 ± 0.91
Coastal and Island	3.94 ± 0.68	3.71 ± 0.79	3.62 ± 0.84
Tribal and Indigenous	4.12 ± 0.61	4.23 ± 0.68	3.28 ± 0.97
Heritage Tourism	3.22 ± 0.88	3.44 ± 0.91	3.58 ± 0.86
Urban Smart Tourism	2.98 ± 0.93	3.31 ± 0.88	3.74 ± 0.79

Note: Scale range 1–5. F-statistic = 12.44, $p < 0.001$ for ecological regeneration; F = 9.87, $p < 0.001$ for social sustainability.

was the strongest single predictor of ecological outcomes in the model - a finding that directly challenges the common assumption that professional external management produces superior conservation outcomes.

4.4 Cross-Zone ANOVA Results

Post-hoc Tukey tests revealed that the Tribal and Indigenous Zone produced significantly higher ecological and social sustainability scores than both the Heritage and Urban Smart Tourism zones ($p < 0.01$), despite having the lowest SDG Alignment Index scores. This counterintuitive finding - communities that formally score lowest on SDG alignment metrics perform best on ecological and social outcomes - is one of the study's most significant results. The Urban Smart Tourism zone showed the highest SDG Alignment Index score but the lowest ecological performance, suggesting that formal SDG compliance language and actual regenerative practice are not the same thing.

4.5 Qualitative Findings

Thematic analysis of 48 interviews produced five primary themes, three of which were unanticipated at the study's design stage.

Theme 1: The Performative SDG - Respondents across all zones, particularly government-linked enterprise managers, described SDG alignment as primarily a reporting exercise. One manager in Rajasthan stated plainly: "We fill the form because the grant requires it. Whether what we do actually connects to those goals - no one checks." This was echoed with striking consistency across zones, suggesting that SDG alignment frameworks are functioning as compliance theater rather than operational guides.

Theme 2: Community Sovereignty as Ecological Knowledge Conduit - In the Tribal and Indigenous zone, community elders and cooperative leaders described ecological management practices rooted in seasonal knowledge and kinship-based resource governance that predated any formal conservation framework. One cooperative leader in Nagaland explained that the community had maintained specific forest patches as "silent zones" for birds for three generations - a practice that aligned perfectly with contemporary scientific evidence on avian biodiversity corridors, though no scientist had ever told them to do it.

Theme 3: The Digital Extraction Problem - In the Urban Smart Tourism zones, small hospitality entrepreneurs described being systematically disadvantaged by digital platforms whose algorithm-driven visibility systems favored larger, better-reviewed operators. One homestay owner in Varanasi: "The platform shows me only after 40 hotel listings. My room is better. My food is better. But I cannot pay for visibility. So the tourist never finds me." This is the digital inequity mechanism that H3 predicted - and the qualitative data made its operational mechanics visible.

Theme 4: Stewardship Gap in Practice - Across all zones, guides and local operators described a consistent pattern: tourists arrive with strong verbal commitments to environmental responsibility and depart having generated significant waste, purchased ecologically harmful souvenirs, and left minimal economic trace in the local community. The gap between tourist identity ("I am an eco-traveler") and tourist behavior was, in respondents' words, "exhausting" and "demoralizing."

Theme 5: The Ambiguity of Regeneration - A striking number of respondents - across all stakeholder types - were unfamiliar with the concept of "regenerative tourism" and, when it was explained, expressed skepticism about

whether it was meaningfully different from "eco-tourism," "responsible tourism," and "green tourism" - terms they had all seen arrive with fanfare and depart leaving no lasting change.

5. Discussion

5.1 Interpretation Against Literature

The finding that community-led enterprises outperform externally managed ones on ecological and social metrics (H1 supported, $\beta = 0.421$) is consistent with Scheyvens (2002), Movono and Dahles (2017), and Singh (2022). But the strength of the relationship - and its persistence across ecologically and culturally distinct zones - strengthens this claim considerably. Put simply, community control is not just a social justice preference. It is an ecological performance advantage, and this distinction has profound policy implications.

The SDG alignment paradox - where urban smart tourism zones score high on formal alignment but low on ecological performance - resonates with Sharpley's (2020) warning about paradigmatic rather than incremental change, and with Font et al.'s (2019) finding that certification and compliance frameworks tend to measure process rather than outcome. The tribal zone result - high ecological performance despite low formal SDG alignment - suggests that indigenous ecological knowledge produces regenerative outcomes without the scaffolding of formal international frameworks. This is not an argument against the SDGs; it is an argument for humility about the primacy of Western institutional frameworks as the measure of sustainability.

The digital inequity finding (H3 supported) directly extends Senbeto and Hon's (2020) and Gretzel et al.'s (2020) theoretical concerns into an empirical Indian context. The Varanasi homestay case is not an isolated anecdote; it is a structural pattern that appeared across 60 urban zone respondents.

5.2 Solutions to the Research Questions and Statement of Problem

Addressing RQ1: The evidence strongly argues for reforming tourism investment and certification policy to prioritize community-led enterprises as the primary vehicle for sustainable tourism development. Specifically, this paper proposes an Indigenous Ecosystem Knowledge Certification (IEKC) - a parallel certification system that formally recognizes and rewards indigenous ecological management practices as equivalents to technical conservation credentials, removing the structural disadvantage communities face when applying for eco-tourism development grants and licenses.

Addressing RQ2: The SDG compliance theater problem requires a transition from input-based reporting (what activities are aligned with which goals) to output-verified accountability (what measurable ecological, social, and economic changes resulted). This paper proposes a Multi-Dimensional Thrivability Audit (MDTA) - a biennial independent audit process using the composite RTIF metrics developed in this study - as the minimum accountability standard for SDG-claiming tourism enterprises.

Addressing RQ3 and the overarching SOP: The digital equity problem requires a structural solution. This paper proposes the Community Digital Sovereignty Protocol (CDSP) - a governance framework mandating that digital tourism platforms operating in ecologically sensitive or culturally significant zones: (a) make their algorithmic ranking logic transparent to small operators; (b) reserve a minimum of 30% of first-page digital visibility for verified community-owned operators; (c) direct a portion of platform transaction fees into a community digital equity fund administered by local government bodies.

5.3 The Regenerative Tourism Integration Framework (RTIF)

The RTIF brings these solutions into a single operational architecture. It has four operational layers. The Governance Layer establishes Community Sovereignty - through legal codification of community decision-making rights, recognition of traditional ecological governance, and mandatory FPIC protocols for all new tourism development. The Performance Layer establishes Ecological Regeneration benchmarks - species diversity indices, water quality metrics, carbon sequestration measurements - as mandatory operating conditions rather than optional aspirations. The Technology Layer applies the CDSP to ensure digital tools amplify rather than undermine community benefits. The Accountability Layer uses the MDTA to produce independently verified thrivability reports that replace or supplement conventional sustainability indices.

The RTIF is not a rigid prescription. It is designed as an adaptive framework - a set of non-

negotiable structural conditions within which local communities determine appropriate operational strategies. This is the key distinction from previous frameworks that imposed uniform solutions on diverse contexts.

5.4 Prototype Model: The Community Tourism Commons (CTC)

Beyond the RTIF, this paper proposes a specific institutional prototype: the Community Tourism Commons (CTC) - a legal and operational structure that treats tourism resources (landscapes, heritage, biodiversity, cultural practices) as commons governed by community institutions rather than as private or state assets available for commercial extraction.

The CTC model draws on Ostrom's (2009) eight design principles for managing commons sustainably: clearly defined boundaries, rules matched to local conditions, collective choice arrangements, monitoring, graduated sanctions, conflict resolution mechanisms, recognition of rights to organize, and nested enterprises. Applied to tourism, this means communities would hold legal title to tourism commons, set their own visitor limits and seasonal restrictions, determine acceptable enterprise models, and negotiate directly with visitors and tour operators under a transparent benefit-sharing regime.

Figure: Model of the Community Tourism Commons (CTC)

In practical terms, a CTC in Nagaland would look like a village-held trust that manages forest tourism trails, sets seasonal access limits based on community ecological monitoring, trains and certifies its own guides, and negotiates directly with travel companies rather than through state or private intermediaries. Revenue flows back into the trust for ecological restoration and community welfare. The external tourism economy interfaces with the CTC but does not penetrate or control it.

5.5 Theoretical Implications

The findings challenge three assumptions embedded in mainstream sustainable tourism theory. First, they challenge the assumption that professional external management produces superior environmental outcomes - the evidence shows the opposite. Second, they challenge the primacy of formal SDG alignment as a performance predictor - the evidence shows that indigenous ecological governance produces superior outcomes without it. Third, they challenge the neutrality of digital technology - the evidence shows that without ethical governance, digitalization systematically disadvantages exactly the communities sustainability frameworks are supposed to empower.

5.6 Practical Implications for Policymakers

India's Ministry of Tourism should consider three policy interventions this study supports empirically. The IEKC should be integrated into the National Tourism Policy framework as a parallel accreditation pathway. The CDSP should be made a licensing condition for digital tourism platforms seeking access to Heritage, Tribal, and Himalayan zone markets. The MDTA should replace or supplement existing eco-certification audits for enterprises claiming SDG alignment.

6. Conclusion

6.1 Summary of Findings

This paper began with a photograph of a monk in Spiti Valley and a simple observation: the gap between tourism's beautiful imagery and its material consequences is not a communications problem. It is a structural one. Three years of field engagement and the analysis of 314 survey responses, 48 interviews, and 12 focus group discussions have produced evidence that supports this beginning premise while complicating it in productive ways.

Community-led tourism enterprises consistently outperform externally managed ones on ecological and social sustainability metrics - not marginally, but significantly. SDG alignment, as currently practiced, is more often a reporting exercise than an operational reality. Indigenous ecological knowledge, operating without formal certification or international framework support, produces regenerative outcomes that professional conservation management would struggle to replicate. Digital technology, without ethical governance, systematically advantages

larger operators and disadvantages the very communities that sustainable tourism is meant to serve. And the concept of "regenerative tourism," despite its real potential, remains so ambiguously defined in practice that most frontline tourism stakeholders cannot distinguish it from the string of previous green tourism labels that preceded it.

6.2 Contribution to Knowledge

This paper makes four contributions to the field. First, it provides the first multi-zone mixed-methods dataset testing the relationship between community-led enterprise governance and sustainability performance across heterogeneous Indian geographies. Second, it operationalizes "thrivability" as a measurable set of multi-dimensional performance indicators, addressing a critical measurement gap identified in the literature. Third, it provides empirical grounding for the argument that indigenous ecological knowledge should be formally recognized as an equivalent - not a supplement - to technical conservation expertise. Fourth, the RTIF and CTC model provide practitioners and policymakers with frameworks that are structural rather than aspirational, accountable rather than self-reported, and community-anchored rather than externally imposed.

6.3 Limitations

The cross-sectional design cannot establish causality with certainty, though the SEM path analysis and qualitative corroboration strengthen the causal interpretation of the findings. The study's geographic focus on India, while a strength in terms of contextual depth, limits direct generalizability to other national contexts. And the researcher's position as an academic outsider to tribal communities - even with community liaison co-researchers - introduces positionality considerations that qualitative findings must carry with appropriate humility.

6.4 Future Directions

Three directions present themselves as urgent. Longitudinal study tracking the same enterprises over five or more years would allow causal claims to be made with greater confidence. A comparative study applying the RTIF across other South and Southeast Asian contexts - Nepal, Sri Lanka, Indonesia, the Philippines - would test whether the framework's four nodes perform similarly in different institutional environments. And participatory action research, co-designed with tribal tourism cooperatives in Nagaland and Chhattisgarh, would move the knowledge-production process from researcher-led to community-led - a methodological shift this paper argues is not just ethically preferable but scientifically necessary.

6.5 Final Reflection

Tourism has always been a mirror. It shows a society what it values, who it centers, and what it is willing to sacrifice for convenience and pleasure. The fact that this mirror currently reflects so much that is troubling - over-extracted landscapes, displaced communities, carbon-intensive journeys cloaked in green branding - is not a reason for pessimism. It is a reason for honesty. The frameworks proposed here are not utopian. They are demanding: they require the redistribution of decision-making power, the humbling of expert knowledge before indigenous wisdom, and the subjection of digital platforms to community accountability. These demands will meet resistance. But the evidence, the data, and the stories of communities that are doing this work already - on their own terms, with their own knowledge - suggest that regenerative tourism is not a fantasy. It is already happening, in places that formal sustainability indices fail to see.

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