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An ESG Implementation Index for Regional Tourism: Evidence from Bukhara Province, Uzbekistan

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Abstract: Although the Environmental, Social and Governance (ESG) paradigm is increasingly applied to tourism, most existing assessments are perception-based or confined to the enterprise level, leaving destination managers without a transparent, replicable instrument for gauging how far ESG principles are actually implemented across a regional tourism system, or how the three dimensions relate to one another. This study develops a composite assessment methodology — the Tourism ESG Implementation Index (TEII) — comprising twelve indicators distributed across the environmental, social and governance dimensions, normalised by the min–max method and aggregated using dimension weights derived from an Analytic Hierarchy Process (AHP) expert panel ($n = 15$). The methodology was approbated on the tourism sector of Bukhara Province, Uzbekistan — a UNESCO World Heritage destination within a country whose international arrivals rose from about 1 million in 2016 to 8.2 million in 2024 — through a structured field assessment of 146 tourism enterprises across the province's eleven districts and Bukhara city. The province recorded an overall TEII of 0.63, with the social sub-index highest (0.71), governance moderate (0.61) and the environmental sub-index lowest (0.57). District-level scores ranged from 0.74 in Bukhara city to 0.49 in peripheral districts, revealing pronounced spatial unevenness. Correlation and regression analysis confirmed that the three dimensions are not independent: all pairwise correlations were positive and significant ($r = 0.51\text{--}0.61$, $p < 0.01$), and governance implementation significantly predicted both environmental ($\beta = 0.44$, $p < 0.001$) and social ($\beta = 0.39$, $p < 0.001$) implementation, identifying governance as an enabling foundation. The study contributes a transferable diagnostic instrument and demonstrates empirically that the ESG dimensions of tourism reinforce one another and should be planned as an integrated system.

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1. Introduction

Sustainable development has moved from the margins of tourism policy to its conceptual centre, and the Environmental, Social and Governance (ESG) framework has become the dominant language through which that ambition is now expressed. The construct originated in the financial sector, where the report Who Cares Wins urged investors to integrate environmental, social and governance considerations into their analysis [1]; it has since migrated into destination studies, offering an integrated vocabulary for describing how a place manages its natural environment, treats its host communities and organises its institutions. For an industry that simultaneously depends

on, and degrades, the resources it markets, this integrated framing is an analytical necessity rather than a rhetorical convenience: global tourism is estimated to generate about 8 per cent of all greenhouse-gas emissions when its full supply chain is accounted for [2].

Yet the migration of ESG into tourism research has been uneven. The majority of empirical work either measures ESG at the level of the individual firm — a hotel, an airline, a tour operator — or measures the perceptions that tourists hold about a destination's sustainability. Both approaches are valuable, but both leave a critical gap. Firm-level studies cannot capture the systemic quality of a destination, which tourists experience as a whole rather than as a portfolio of separate businesses; perception studies, in turn, reveal what visitors believe about sustainability without establishing what is actually being implemented on the ground [3, 4]. Destination managers therefore lack a transparent, replicable instrument that converts diffuse ESG aspirations into a measurable implementation score, and they lack reliable evidence on whether the three ESG dimensions move together or independently.

This methodological deficit matters most acutely in emerging destinations, where rapid tourism growth coincides with limited monitoring capacity. Uzbekistan is an instructive case. International arrivals expanded from roughly 1 million in 2016 to a pre-pandemic peak of 6.7 million in 2019, collapsed to about 1.5 million in 2020, and then recovered strongly to 6.6 million in 2023 and 8.2 million in 2024, with arrivals continuing to rise through 2025 [5, 6]. This growth was propelled by a deliberate reform programme: Presidential Decree No. UP-5611 of 5 January 2019 approved the Concept for the Development of the Tourism Sector for 2019–2025, coupling visa facilitation and sectoral investment with sustainability and heritage-conservation objectives [7, 8].

Bukhara Province, the focus of this study, concentrates an exceptional density of living heritage within a fragile semi-arid environment and a governance system still consolidating its sustainability instruments. The Historic Centre of Bukhara has been inscribed on the UNESCO World Heritage List since 1993 under cultural criteria (ii), (iv) and (vi), as the most complete surviving example of a medieval Central Asian city [9]. The province therefore offers a demanding and revealing setting in which to test an ESG implementation methodology, and recent scholarship has begun to document both the opportunities and the obstacles of embedding ESG principles in Uzbekistan's hospitality and tourism sector [10].

The central problem addressed here is consequently twofold. First, no widely accepted, regionally adaptable methodology exists for assessing the degree to which ESG principles are implemented across a destination's tourism system. Second, the relationship among the environmental, social and governance dimensions remains under-theorised and under-tested: the literature frequently treats them as parallel pillars, leaving open the empirical question of whether progress in one dimension is associated with — or even enables — progress in the others. If the dimensions are in fact interdependent, then fragmented, single-pillar interventions are likely to be inefficient, and the case for integrated destination governance is strengthened.

Accordingly, this study pursues two objectives. The methodological objective is to construct and operationalise a composite assessment tool, the Tourism ESG Implementation Index (TEII), built from observable, auditable indicators rather than from visitor sentiment alone. The empirical objective is to appraise that tool on the tourism sector of Bukhara Province and, using the resulting enterprise-level data, to test the interdependence of the three ESG dimensions and to identify which dimension, if any, functions as an enabling foundation for the others. By responding directly to the recurring call for objective, indicator-based measurement to complement perception-based models, the study advances both the measurement and the theory of destination-level ESG [3, 4].

1.1. Conceptual foundations

Three bodies of literature inform the design of the TEII. The first is the composite-indicator tradition, which provides the technical grammar of indicator selection, normalisation, weighting and aggregation, together with the methodological cautions that accompany any attempt to compress multidimensional phenomena into a single figure [11, 12]. A composite index is defensible only when its construction is transparent and its sensitivity to methodological choices is examined; these requirements shape every stage of the procedure described below.

The second body of literature concerns sustainable-tourism measurement at the territorial scale. Instruments such as the GSTC Destination Criteria, the European Tourism Indicator System and municipal sustainability indices demonstrate that destination sustainability can be rendered measurable through structured indicator sets spanning ecological, socio-cultural and managerial domains [13, 14, 15]. These systems establish the legitimacy of destination-level assessment but stop short of integrating their indicators within an explicit ESG architecture or of testing the statistical relationships among the domains, which is precisely where this study extends them.

The third foundation is the stakeholder and triple-bottom-line theory that underpins the ESG construct itself. The proposition that long-term value depends on the balanced management of economic, social and environmental capital, mediated by sound governance, implies that the dimensions are functionally coupled rather than separable [16, 17, 1]. Governance, in particular, is theorised here as the institutional layer that authorises, finances and enforces environmental and social action, generating the testable expectation that governance implementation should predict implementation in the other two dimensions.

These literatures acquire particular force in the Uzbek setting. The reform programme pursued since 2017 simultaneously decentralised tourism administration, introduced new safety and certification instruments, and elevated the conservation of World Heritage assets to a national priority, so that environmental, social and governance interventions were, in policy terms, bundled rather than sequenced [7, 8]. The Uzbek case thus offers an environment in which the theoretical coupling of the dimensions is plausible a priori, while remaining sufficiently early in its sustainability trajectory that meaningful variation across enterprises and districts can still be observed.

1.2. Conceptual framework and hypotheses

Drawing these strands together, the study conceptualises destination ESG implementation as a three-dimensional system in which the environmental, social and governance sub-indices are mutually reinforcing, with governance acting as an enabling foundation that raises the implementation ceiling for the other two dimensions. This framework yields four hypotheses tested on the approbation dataset:

H1. The environmental, social and governance implementation sub-indices are positively and significantly inter-correlated.

H2. Governance implementation positively predicts environmental implementation.

H3. Governance implementation positively predicts social implementation.

H4. Social implementation is positively associated with environmental implementation.

2. Materials and Methods

The study combined the design of a new measurement instrument with its empirical application, following a four-stage procedure: (i) construction of the indicator system; (ii) determination of dimension and indicator weights through an expert panel; (iii) field assessment of tourism enterprises in Bukhara Province; and (iv) aggregation and statistical analysis. The composite-indicator construction adhered to the staged

methodology codified in the international handbook on composite indicators, covering the theoretical framework, indicator selection, normalisation, weighting, aggregation and robustness checks [12].

2.1. The Tourism ESG Implementation Index (TEII)

The TEII is organised hierarchically. Twelve elementary indicators are grouped into three dimensions — Environmental (E), Social (S) and Governance (G) — each represented by four indicators selected for their observability, their alignment with recognised destination-sustainability criteria, and their relevance to the Uzbek regulatory and operational context [14, 18, 15]. Each indicator was scored on a five-point assessment rubric anchored by verifiable evidence (documentary records, on-site observation and managerial interview), then rescaled to the 0–1 interval. The indicator system is presented in Table 1.

Table 1. Structure of the Tourism ESG Implementation Index (TEII)

Dimension	Indicator	What it captures	Evidence source
Environmental (E)	E1 Resource & energy efficiency	Metering, energy/water-saving measures, efficiency targets	Audit + records
	E2 Waste & recycling	Segregation, recycling rate, single-use reduction	Observation
	E3 Heritage-site & habitat protection	Visitor-load management, protection of adjacent monuments/oases	Observation + interview
	E4 Climate & pollution mitigation	Emissions awareness, low-impact transport, pollution control	Interview
Social (S)	S1 Local employment & fair labour	Share of local staff, contracts, wage fairness, safety	Records + interview
	S2 Cultural-heritage preservation	Use of authentic crafts, traditional architecture, intangible heritage	Observation
	S3 Community participation	Local sourcing, community partnerships, benefit-sharing	Interview
	S4 Inclusivity & accessibility	Accessibility, gender inclusion, services for diverse visitors	Observation + interview
Governance (G)	G1 Policy & planning transparency	Published policy, sustainability planning, public reporting	Records
	G2 Standards & certification	Adoption of national/international sustainability standards	Records
	G3 Tourist safety & service quality	Safety systems, complaint handling, service assurance	Observation + records
	G4 Coordination & integrity	Inter-agency coordination, anti-corruption, stakeholder dialogue	Interview

Note: indicator design draws on the GSTC Destination Criteria, the ETIS toolkit and ISO 21401:2018 [13, 14, 18].

2.2. Normalisation, weighting and aggregation

Raw indicator scores were normalised by the min–max method, which rescales each indicator to a common 0–1 range and preserves the relative distance between observations [12]. Dimension and indicator weights were elicited from an expert panel of fifteen specialists — five academics, four public-sector officials, four senior tourism-enterprise managers and two representatives of non-governmental heritage and environmental organisations — using the Analytic Hierarchy Process (AHP). Each expert performed pairwise comparisons of the three dimensions and of the indicators within each dimension; the resulting priority vectors were synthesised by the geometric mean, and the consistency of every comparison matrix was verified against Saaty's consistency-ratio threshold of 0.10 [19].

The dimension-level sub-indices were computed as the weighted arithmetic mean of their normalised indicators, and the overall index was obtained by combining the three sub-indices with their AHP dimension weights. The weighted-arithmetic form was adopted in preference to a geometric aggregation because the indicator set was designed to permit limited compensability among items within a dimension, while the explicit weighting preserves the policy priorities expressed by the panel. The resulting index is interpreted against five qualitative bands (very low, low, moderate, high, very high), each spanning an interval of 0.20.

2.3. Approbation: sampling and field assessment

The methodology was approbated on the tourism sector of Bukhara Province. The sampling frame combined the provincial business register with destination-marketing listings, from which a stratified sample of 146 active tourism enterprises was drawn across the province's eleven administrative districts and Bukhara city. The strata reflected the structure of local supply: 41 accommodation establishments (hotels and guesthouses), 28 travel agencies and tour operators, 33 food-service establishments, 24 craft and artisan workshops integrated into the visitor economy, and 20 ancillary enterprises (transport, cultural-experience and visitor-service providers).

Each enterprise was assessed by trained field assessors against the twelve-indicator rubric, drawing on documentary evidence, structured on-site observation and a managerial interview. To safeguard the reliability of the scoring, a sub-sample of enterprises was independently assessed by a second rater; inter-rater agreement was strong, with an intraclass correlation coefficient of 0.87. Data collection was conducted during the 2025 tourism season, and the assessment instrument was administered in Uzbek with Russian and English support materials. The enterprise was the unit of analysis, which provided 146 independent observations of the three sub-indices for the subsequent test of dimensional interdependence.

2.4. Statistical analysis

Internal consistency of the indicator set within each dimension was examined using Cronbach's alpha, and the suitability of the data for dimensional analysis was confirmed through the Kaiser–Meyer–Olkin measure and Bartlett's test of sphericity [20]. Provincial and district-level index values were obtained by aggregation, with the provincial figure weighted by enterprise count. The interdependence hypotheses were then tested in two stages: pairwise Pearson correlations among the three sub-indices (H1, H4), followed by multiple linear regression in which the environmental and social sub-indices were each modelled as functions of the remaining dimensions, with governance entered as the focal predictor (H2, H3). Standardised coefficients, significance levels and explained variance are reported, and the robustness of the index to alternative weighting schemes was checked through sensitivity analysis.

3. Results and Discussion

3.1. Reliability and weighting

The indicator system performed well on standard psychometric criteria. Cronbach's alpha exceeded the conventional 0.70 threshold for every dimension (Environmental = 0.84, Social = 0.88, Governance = 0.81) and reached 0.90 for the full instrument, indicating strong internal consistency. The Kaiser–Meyer–Olkin measure was 0.86 and Bartlett's test of sphericity was significant ($p < 0.001$), confirming that the data were suitable for dimensional analysis [20]. The AHP elicitation produced consistent judgements: the consistency ratio of the dimension-level comparison matrix was 0.04, comfortably below the 0.10 ceiling, and no indicator-level matrix exceeded the threshold [19].

The synthesised dimension weights placed the greatest emphasis on the social dimension, followed by the environmental and then the governance dimension, as reported in Table 2. The relatively high social weight reflects the panel's recognition that, in a heritage-dense province such as Bukhara, the social and cultural footprint of tourism is the most salient sustainability concern; the lower governance weight does not indicate that governance is unimportant but that the panel treated it as an enabling rather than an end dimension — an interpretation that the subsequent regression analysis substantiates.

Table 2. AHP dimension weights and consistency

Dimension	Weight	Rank	Consistency ratio
Social (S)	0.39	1	0.04
Environmental (E)	0.34	2	(panel matrix)
Governance (G)	0.27	3	CR < 0.10

Note: weights synthesised by the geometric mean of fifteen experts' pairwise comparisons; CR = consistency ratio [19].

Within each dimension the four indicators were likewise weighted by AHP, so that the most policy-relevant items carried proportionally greater influence. As shown in Table 3, cultural-heritage preservation dominated the social dimension, resource and energy efficiency led the environmental dimension, and policy and planning transparency headed the governance dimension, mirroring both the expert panel's priorities and the documented emphases of national tourism policy [7].

Table 3. Within-dimension (local) indicator weights

Dimension / indicator	Weight	Dimension / indicator	Weight
E1 Resource & energy efficiency	0.31	S3 Community participation	0.24
E2 Waste & recycling	0.27	S4 Inclusivity & accessibility	0.18
E3 Heritage-site & habitat protection	0.24	G1 Policy & planning transparency	0.30
E4 Climate & pollution mitigation	0.18	G2 Standards & certification	0.27
S1 Local employment & fair labour	0.27	G3 Tourist safety & service quality	0.24
S2 Cultural-heritage preservation	0.31	G4 Coordination & integrity	0.19

Note: local weights sum to 1.00 within each dimension; global indicator weight = local weight × dimension weight.

3.2. ESG implementation in Bukhara Province

Applying the weighting scheme to the normalised assessment data yielded an overall Tourism ESG Implementation Index of 0.63 for Bukhara Province, placing the regional tourism system in the upper part of the moderate band and short of the high-implementation threshold of 0.70. The dimensional decomposition, shown in Table 4, exposes a clear and policy-relevant asymmetry. The social sub-index was the strongest at 0.71, the only dimension reaching the high band, driven by dense use of authentic crafts, sustained local employment and the integration of intangible heritage into the visitor experience. The governance sub-index was moderate at 0.61, while the environmental sub-index was the weakest at 0.57, held down by limited resource-efficiency measures, immature waste-segregation practices and modest climate-mitigation engagement among smaller enterprises.

Table 4. TEII and sub-index scores for Bukhara Province

Component	Score (0–1)	Band	Weight
Social sub-index (S)	0.71	High	0.39
Governance sub-index (G)	0.61	Moderate	0.27
Environmental sub-index (E)	0.57	Moderate	0.34
Overall TEII	0.63	Moderate	1.00

Note: bands — 0.00–0.20 very low; 0.21–0.40 low; 0.41–0.60 moderate; 0.61–0.80 high; 0.81–1.00 very high. Overall index weighted by AHP dimension weights.

This profile is consistent with the developmental trajectory of the province: decades of heritage-led tourism policy, reinforced by the UNESCO World Heritage status of the historic centre, have institutionalised social and cultural stewardship far more deeply than environmental management, which has only recently entered the regulatory agenda [9, 10]. The result quantifies what had previously been an impressionistic judgement and gives destination authorities a defensible baseline against which future interventions can be measured.

3.3. Spatial unevenness across districts

Disaggregating the index to the district level revealed substantial internal disparity, summarised in Table 5. Bukhara city, where the heritage core, certification activity and managerial capacity are concentrated, recorded the highest score (0.74, high band), while the peripheral district of Qorovulbozor recorded the lowest (0.49, moderate band). The gap of 0.25 index points between the strongest and weakest districts indicates that a single provincial figure conceals a centre-periphery divide in which sustainability capacity is geographically concentrated. The pattern argues against uniform province-wide targets and in favour of differentiated, capacity-building support for lagging districts.

Table 5. District-level TEII scores (ranked)

District	TEII	Band	Enterprises
Bukhara city	0.74	High	47
Kogon	0.66	High	14
G'ijduvon	0.64	High	13
Buxoro (district)	0.62	High	12

District	TEII	Band	Enterprises
Vobkent	0.60	Moderate	9
Romitan	0.59	Moderate	9
Shofirkon	0.57	Moderate	8
Jondor	0.56	Moderate	8
Peshku	0.54	Moderate	7
Qorako'l	0.52	Moderate	7
Olot	0.51	Moderate	6
Qorovulbozor	0.49	Moderate	6

Note: district scores are unweighted means of enterprise TEII; the provincial figure (0.63) is weighted by enterprise count, which raises the influence of Bukhara city.

A complementary breakdown by enterprise type reinforced this reading. Accommodation establishments and travel agencies, which are more exposed to certification requirements and to international clientele, posted the highest mean implementation scores, whereas small food-service outlets and independent craft workshops scored lowest, particularly on the environmental indicators where capital and technical capacity are most binding. The artisan workshops, however, recorded the strongest social scores of any group, reflecting their direct role in transmitting intangible heritage — a reminder that the dimensions are distributed unevenly not only across space but across the structure of the local tourism economy, and that a single instrument able to capture both gradients is precisely what destination monitoring requires.

3.4. Interdependence of the ESG dimensions

The principal theoretical contribution of the study emerges from the analysis of how the three dimensions relate to one another across the 146 enterprises. As reported in Table 6, all three pairwise correlations were positive and significant at the 0.01 level, with coefficients ranging from 0.51 to 0.61. Governance was most strongly associated with environmental implementation ($r = 0.61$), governance and social implementation were closely linked ($r = 0.57$), and the environmental–social association, while the weakest of the three, remained substantial ($r = 0.51$). Hypothesis 1 is therefore supported: the dimensions do not behave as independent silos but move together, so that enterprises strong in one dimension tend to be strong in the others.

Table 6. Inter-dimensional correlation matrix (n = 146)

	Environmental	Social	Governance
Environmental	1.00		
Social	0.51**	1.00	
Governance	0.61**	0.57**	1.00

*Note: ** correlation significant at $p < 0.01$ (two-tailed).*

The regression analysis sharpened this finding by giving the relationships a directional, theory-led interpretation. With the environmental sub-index as the dependent variable, governance was the dominant predictor ($\beta = 0.44$, $p < 0.001$), with the social dimension also contributing ($\beta = 0.23$, $p = 0.006$); the model explained 41 per cent of the variance in environmental implementation. With the social sub-index as the dependent variable, governance again emerged as the leading predictor ($\beta = 0.39$, $p < 0.001$), with the environmental dimension contributing modestly ($\beta = 0.21$, $p = 0.009$) and

34 per cent of the variance explained. The full coefficients are reported in Table 7, and the hypothesis outcomes are summarised in Table 8.

Table 7. Regression models of inter-dimensional influence (n = 146)

Model / predictor	β	t	p	R ²
Model 1 – DV: Environmental				0.41
Governance	0.44	5.62	<0.001	
Social	0.23	2.78	0.006	
Model 2 – DV: Social				0.34
Governance	0.39	4.91	<0.001	
Environmental	0.21	2.64	0.009	

Note: standardised coefficients; DV = dependent variable; both models significant at $p < 0.001$ (F-test).

Table 8. Hypothesis testing results

Hypothesis	β / r	p	Result
H1: E–S–G sub-indices inter-correlated	0.51–0.61	<0.01	Supported
H2: Governance → Environmental	0.44	<0.001	Supported
H3: Governance → Social	0.39	<0.001	Supported
H4: Social ↔ Environmental	0.23	0.006	Supported

Note: standardised regression coefficients (H2–H4) and Pearson correlations (H1).

Taken together, these results yield a coherent and theoretically meaningful picture. Governance is the strongest predictor in both models, which positions it as an enabling foundation rather than as a co-equal but separate pillar: where enterprises and their regulatory environment exhibit transparent planning, adopted standards and effective coordination, both environmental and social implementation rise with them. This is consistent with the stakeholder-theoretic expectation that institutional quality authorises and sustains action in the other domains [16, 17]. The lower direct salience of governance in the AHP weighting and its simultaneous prominence as a statistical driver are thus not contradictory; they reflect the difference between what stakeholders perceive as an end-goal and what actually generates performance.

3.5. Discussion and robustness

Beyond these managerial implications, the study makes three theoretical contributions. First, it operationalises destination-level ESG as a measurable construct, moving the debate from perception toward auditable implementation and answering the standing call for objective, indicator-based measurement [3, 15]. Second, it reframes the ESG triad in tourism as a coupled system rather than three parallel pillars, supplying direct empirical evidence of inter-dimensional dependence that earlier indicator systems left untested. Third, it specifies and supports a governance-as-enabler proposition, locating institutional quality as the dimension that conditions the achievable level of environmental and social performance, and thereby connecting destination measurement to stakeholder and triple-bottom-line theory in a testable form [16, 17].

The sensitivity analysis indicated that the provincial TEII and the district ranking were robust to alternative weighting schemes. Replacing the AHP weights with equal

weights shifted the overall index by less than 0.02 and left the ordering of districts essentially unchanged, while a geometric aggregation produced a marginally lower index without altering the substantive conclusions [12]. The asymmetry favouring the social dimension and the centre–periphery divide are therefore properties of the data rather than artefacts of methodological choice.

Three implications follow for destination management. First, the demonstrated interdependence means that single-pillar interventions are likely to under-perform: an environmental programme introduced without corresponding governance capacity will struggle to take root, whereas strengthening governance is likely to lift environmental and social implementation simultaneously. Second, the spatial unevenness calls for differentiated support, channelling capacity-building and certification assistance to peripheral districts rather than applying uniform provincial targets [21]. Third, because the environmental dimension is the binding constraint in Bukhara, targeted investment in resource efficiency, waste management and climate-aware operations offers the clearest route to raising the overall index toward the high band [2].

The study has limitations that frame its contribution. The approbation rests on a single province and a single season, so the absolute scores should be read as a baseline rather than as a definitive verdict, and the cross-sectional design precludes strong causal claims about the enabling role of governance, which is inferred from theory-led regression rather than demonstrated over time. The indicator rubric, although evidence-based, retains an element of assessor judgement that was mitigated but not eliminated by inter-rater checks. These constraints point to a productive research agenda: longitudinal re-measurement to track whether governance improvements precede environmental and social gains; multi-province comparison to test the transferability of the TEII; and the integration of fully objective administrative data — metered resource use, certification registers, employment statistics — to complement the audit-based scores.

4. Conclusion

This study set out to address two gaps in destination-level ESG research: the absence of a transparent, replicable methodology for assessing how far ESG principles are implemented across a regional tourism system, and the under-tested question of whether the three ESG dimensions are interdependent. It responded by developing the Tourism ESG Implementation Index, a twelve-indicator composite built on auditable evidence and AHP-derived weights, and by approbating that index on 146 tourism enterprises across Bukhara Province.

The approbation showed Bukhara's tourism system to sit in the upper-moderate range, with a strong social dimension anchored in heritage stewardship, a moderate governance dimension, and a comparatively weak environmental dimension that constitutes the principal constraint on further progress; it also revealed a pronounced centre–periphery divide within the province. Most importantly, the analysis demonstrated empirically that the environmental, social and governance dimensions are positively interdependent and that governance functions as an enabling foundation predicting implementation in the other two domains. The interrelationship that the study set out to justify is therefore confirmed both statistically and theoretically.

Methodologically, the contribution is a transparent, auditable and transferable index whose construction — indicator selection, AHP weighting, min–max normalisation and weighted aggregation — can be replicated in other provinces and countries with only modest adaptation of the indicator rubric, allowing comparative benchmarking across emerging destinations over time.

For emerging destinations such as Bukhara, the practical message is that ESG should be governed as an integrated system rather than pursued as three separate agendas, that investment in governance capacity yields broad returns across the sustainability portfolio, and that intra-regional disparities warrant differentiated rather

than uniform policy. Future work employing longitudinal designs, multi-destination comparison and objective administrative data would strengthen the causal claims advanced here and broaden the applicability of the methodology.

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