

Operationalising India's Model Adventure Tourism Safety Framework: International Lessons for State Regulation and Enforcement

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ABSTRACT

India's Model Adventure Tourism Safety Framework (MATSF), issued in May 2026, contains an ambitious template for operator registration, safety audit, insurance, competence, incident reporting, environmental compliance and penalties. Yet a model document does not by itself create enforceable duties across states and Union Territories. This paper investigates the regulatory translation problem: how can MATSF be converted into valid, proportionate and auditable state-level regulation? It uses structured comparative legal-policy analysis of MATSF, India's 2018 Safety and Quality Norms for Adventure Tourism, the National Air Sports Guidelines 2023, the New Zealand adventure-activities regulations and audit standard, the United Kingdom Adventure Activities Licensing regime, the Australian Adventure Activity Standard and instruments of the International Organization for Standardization (ISO) and Bureau of Indian Standards (BIS). Eighteen regulatory features were coded, including legal force, scope, operator entry, risk classification, audit, auditor oversight, inspection, competence, incident notification, sanctions, appeals, public registers and transitional support. Policy-transfer theory, regulatory governance and responsive regulation guide interpretation. The comparison shows that MATSF has broad substantive coverage but requires a clearer adoption vehicle, controlled activity codes, risk-based authorisation classes, accreditation boundaries, auditor surveillance, inspection protocols, graduated sanctions and measurable implementation indicators. The 2018 guidelines should not be displaced; they should be modernised into auditable activity schedules beneath MATSF, while BIS/ISO standards should support conformity without replacing the regulator's public-law responsibility. The paper proposes a five-stage State Adoption and Enforcement Architecture and an implementation scorecard. It concludes that credible implementation depends less on declaring MATSF mandatory than on constructing a legally coherent chain from rule-making to authorisation, verification, correction, sanction and review. The study contributes a transferable regulatory-design approach for converting national adventure tourism policy into enforceable, proportionate and measurable state-level regulation.

Keywords: Adventure Tourism Regulation, Model Adventure Tourism Safety Framework, Policy Transfer, State Regulation and Safety Audit.

INTRODUCTION

Adventure tourism is built around challenge, uncertainty and managed exposure. Commercial operations may take participants into remote terrain, fast-moving water, high altitude, unstable weather or other technically demanding settings. These conditions are part of the experience, but they do not reduce an operator's duty to identify foreseeable hazards, explain residual risk and provide competent leadership, suitable equipment and workable emergency arrangements. The literature therefore treats safety as more than a matter of individual risk-taking; it is also shaped by organisational practice, professional competence, regulation and destination reputation [3,4,8,24].

India possesses exceptional adventure tourism resources: the Himalayan and trans-Himalayan ranges, major river systems, forests, deserts, coasts, islands and expanding air-port locations. Yet resource abundance does not by itself create a competitive or responsible adventure destination. Safety requirements have developed unevenly across states, activities and administrative departments. Air sports, river activities, mountaineering, protected-area access, coastal operations and disaster response may involve different authorities. Air-based activities are separately addressed through the National Air Sports Guidelines, 2023, illustrating the need for a clear interface between tourism regulation and specialist aviation requirements [20]. In such an environment, unclear jurisdiction can produce duplicated permissions in some areas and regulatory gaps in others.

The Government of India and the Adventure Tour Operators Association of India (ATOAI) attempted to address the operational dimension through the Indian Adventure Tourism Guidelines (Version 2.0), released in 2018 as Safety and Quality Norms for Adventure Tourism in India. The official launch described standards for 15 land-based, seven air-based and seven water-based activities, including guidance on personnel, equipment, inspection, risk mitigation, medical safety, insurance and emergency response [21]. A later parliamentary response described the guidelines as covering 31 verticals and confirmed that states and Union Territories had been advised to adopt them [22]. Their contribution was significant, but their primarily advisory character and uneven adoption meant that detailed operating guidance was not matched by a uniform system of registration, independent audit, enforcement and incident learning.

MATSF 2026 responds to this governance deficit. It proposes State and Union Territory Adventure Tourism Regulatory Authorities (SATRAs/UTATRAs), mandatory operator registration, a digital single-window system, pre-activity and periodic safety audits, insurance, personnel certification, environmental safeguards, incident reporting, grievance redressal, community participation and accessibility provisions [23]. The document is therefore more than a revised activity manual: it attempts to create the institutional architecture through which standards can be authorised, verified and enforced.

This article does not assume that MATSF is unique or already the world's best framework. Such a claim would be premature because the framework is new and implementation outcomes are not yet available. Instead, the study tests its design against mature international systems. New Zealand offers the closest statutory comparator through mandatory audit and registration; the United Kingdom provides a long-standing licensing and inspection model focused on young people; Australia offers a nationally consistent but largely voluntary standard supported by activity-specific Good Practice Guides; and the ISO 21100 series provides portable management-system, leader-competence and participant-information benchmarks [13–15,18,25,30–32].

This question also matters for India's wider tourism ambition. Government statements linked with *Viksit Bharat@2047* refer to a target of 100 million international visitors by 2047 and the Prime Minister has spoken of India becoming a leading destination across tourism segments [27–29]. The 2024 Adventure Tourism Development Index (ATDI), which covers 186 countries, assesses sustainable development, safety, health, climate resilience, resources, entrepreneurship, infrastructure and image. Its South Asia assessment places India comparatively well on safety and cultural resources, but also makes a practical point: resources produce lasting advantage only when governance, readiness and coordination are in place [11]. MATSF can contribute to those conditions, but it cannot by itself determine India's position in an international index.

Regulatory problem and questions

The central problem is regulatory translation rather than general institutional governance. MATSF prescribes registration, audit and penalties, but enforceability depends on state adoption, delegated powers, procedural safeguards and compatible technical schedules. The paper asks: (1) Which legal and administrative instruments are required to translate MATSF into state regulation? (2) How do selected international regimes control operator entry, assurance and enforcement? (3) Which practices are transferable to India and which require contextual adaptation? (4) How should MATSF, the 2018 guidelines and BIS/ISO instruments be connected without duplication? (5) Which indicators can verify implementation progress?

Objectives

The objectives of the study are:

- i. To clarify the legal character of the Model Adventure Tourism Safety Framework (MATSF).
- ii. To compare regulatory instruments governing operator entry, safety audits, inspections and sanctions.
- iii. To distinguish internationally transferable practices from context-specific features.
- iv. To develop a standards crosswalk integrating MATSF, the 2018 Adventure Tourism Guidelines and relevant BIS/ISO requirements.
- v. To propose a phased State Adoption and Enforcement Architecture supported by measurable implementation indicators.

Regulatory Theory and Conceptual Foundation

Adventure, commercial responsibility and safety systems

Adventure always involves some uncertainty, but commercial provision changes who is able to control it. Participants rely on operators for information, route selection, equipment, supervision, judgement of changing conditions and emergency response. Cater cautions against assuming that the appeal of adventure is a demand for uncontrolled danger [8]. Studies of New Zealand operators also show that injury experience and safety practice differ between activities, making sector-level monitoring important [3,4]. Morgan's work adds that training, reassessment and organisational learning must connect decisions in the field with the operator's formal safety system [24]. Taken together, this literature explains why activity expertise is necessary but not sufficient: the wider assurance system must also be capable of checking whether good practice is followed.

ISO 21101 similarly treats safety as a management system, not as a one-time checklist. It requires an organisation to set policy, identify hazards, assess risk, define controls, allocate resources, prepare for emergencies, monitor performance and improve its arrangements [14]. ISO 21102 deals with leader competence, while ISO 21103 deals with information for participants [15,18]. The distinction is useful for this paper because it separates three connected responsibilities: control by the organisation, competence in the field and informed participation by the client.

Regulatory governance and responsive enforcement

Regulatory governance concerns the complete control chain through which public objectives become rules, authorisations, verification, correction and sanctions [5]. In adventure tourism this includes rule-making authority, licensing or registration, competent inspection, oversight of private auditors, procedural fairness and public accountability. Responsive regulation adds proportionality: regulators should begin with guidance and corrective action where operators are willing and capable, but retain escalation to restrictions, suspension, cancellation and prosecution for serious or persistent non-compliance [2]. A credible regime therefore requires both assistance and deterrence; registration without surveillance is weak, while punishment without accessible compliance pathways may drive small operators into informality.

Policy transfers and contextual fit

International benchmarking can improve policy design, but borrowing is not automatically successful. Dolowitz and Marsh define policy transfer as the use of knowledge about policies, institutions and administrative arrangements in one setting to develop policy in another [10]. They warn that uninformed, incomplete or inappropriate transfer can contribute to failure. India can learn from mandatory auditing in New Zealand, statutory inspection in the United Kingdom and activity-specific guidance in Australia, but each element must be adapted to India's constitutional structure, informal and small-enterprise sector, remote geography, institutional capacities and existing specialist bodies.

Regulatory translation proposition

This paper uses a simple regulatory proposition: a model framework becomes workable only when five links are present - valid rule-making, risk-based authorisation, controlled technical requirements, independent verification and reviewable enforcement. If one link is missing, the regulatory chain is weakened. The international systems are therefore examined as sources of relevant regulatory instruments rather than as models to be copied without considering Indian law, institutional capacity and administrative conditions.

METHODOLOGY

Research design

A structured comparative legal-policy analysis was used. Official documents were read for the obligations, powers and procedures they create, rather than being treated as proof of safety outcomes. The unit of analysis was a rule, licence, registration condition, audit requirement, inspection power, technical standard, sanction, appeal or disclosure mechanism. This approach was chosen because MATSF is too recent for a credible outcome evaluation; the immediate research problem is how its model provisions can acquire legal and administrative effect.

Document selection

Purposive sampling selected documents that were authoritative, current, relevant to commercial or led adventure activity and sufficiently detailed to support cross-jurisdictional comparison. Primary documents were obtained from government, standards or recognised sector bodies. Secondary scholarly literature was used to establish the conceptual framework and interpret safety governance. The principal documentary corpus is summarised in Table 1.

Table 1. Principal documentary corpus

Jurisdiction/ level	Principal documents	Analytical role
India	MATSF 2026; Indian Adventure Tourism Guidelines Version 2.0 (2018); BIS certification information; National Air Sports Guidelines 2023	Focal framework, operational predecessor and domestic standards ecosystem
New Zealand	Health and Safety at Work (Adventure Activities) Regulations 2016; Safety Audit Standard Version 2.0; registration guidance	Mandatory audit, recognised auditor, registration and public-register benchmark
United Kingdom	Adventure Activities Licensing Regulations 2004; HSE/AALA guidance	Statutory licensing, professional inspection and appeals benchmark
Australia	Australian Adventure Activity Standard; Core and activity Good Practice Guides	National consistency, proportionality and operational-detail benchmark
International	ISO 21101:2014/Amd 1:2024; ISO 21102:2020; ISO 21103:2014; ATDI 2024	Management-system, competence, communication and destination-readiness benchmarks

Coding and comparison

An eighteen-feature coding matrix was developed: legal status, regulated scope, rule-making authority, operator-entry mechanism, risk classification, audit trigger, auditor recognition, auditor surveillance, inspection power, personnel competence, equipment conformity, incident notification, public register, corrective action, graduated sanctions, suspension or cancellation, appeals and transitional support. Each feature was recorded as explicit, conditional or absent/unclear, with a short documentary justification. The categories describe formal design, not enforcement intensity or accident performance.

Reliability, limitations and ethics

The study is limited by its documentary and regulatory-design focus. As MATSF was issued only recently, sufficient implementation and outcome data are not yet available to assess its effectiveness in practice. The findings therefore concern regulatory design, institutional readiness and implementation requirements rather than demonstrated enforcement outcomes or safety performance. Although the comparative analysis draws lessons from established international systems, their transferability to India will vary across states because of differences in administrative capacity, geography, operator structure and available technical expertise. The proposed State Adoption and Enforcement Architecture and implementation scorecard consequently remain conceptual and require validation through state-level implementation, pilot application and future empirical research. No human or animal participants were involved in the study; therefore, ethical approval was not required.

Evolution Of Adventure Tourism Safety Governance In India

The 2018 operational foundation

The 2018 guidelines represented a substantive codification of minimum operating practice. They addressed leadership, qualifications, participant preparation, technical equipment, inspection, medical considerations, emergency procedures, insurance and risk mitigation across land, air and water activities [21]. Their enduring value lies in activity specificity: the operational hazards of an all-terrain vehicle tour, a high-altitude trek, rafting, diving or paragliding cannot be managed through a generic registration rule alone. ATOAI's continuing SOP platform likewise frames safety, quality, sustainability and compliance as linked operator responsibilities [1].

Their central limitation was institutional. Advice to states and operators did not establish a universal legal obligation to register, pass an independent audit, report incidents through a shared taxonomy or submit to a consistent sanction process. The guidelines answered much of the question 'how should an activity be operated?' but not fully 'who verifies, authorises and enforces safe operation?'

Model Adventure Tourism Safety Framework as Governance architecture

MATSF reorganises the policy problem around regulatory authority. SATRAs and UTATRAs are assigned functions spanning registration, accreditation, safety oversight, incident management, training, sustainability, grievance redressal, data management and multi-agency coordination [23]. Operators are expected to obtain registration through a digital system, pass safety audits, maintain insurance and employ competent personnel. Auditors are subject to qualification, recognition, ethics and conflict-of-interest provisions. The framework also establishes a state data repository, mandatory incident reporting, appeals and penalties.

MATSF also goes beyond conventional safety licensing. It includes carrying capacity, leave-no-trace practice, climate risk, restoration, community representation, benefit sharing, accessibility and protection against retaliation for grievances. In Indian destinations, these concerns are closely connected with safety because environmental pressure, local conflict and exclusion can affect the conditions in which activities are operated. The wider scope is valuable, but it will increase coordination demands unless responsibilities, resources and agency interfaces are clearly assigned.

Continuity and transformation

Table 2. From 2018 operating guidance to the 2026 governance framework

Policy function	2018 guidelines	MATSF 2026	Required integration
Activity procedures	Detailed, activity-oriented minimum practices	References standards and audit checklist but is less activity-specific	Update 2018 content as enforceable activity codes/schedules
Operator entry	Recognition and recommended	Mandatory registration proposed	Link registration to activity permissions and verified

	adherence		competence
Verification	Operator and agency compliance expected	Independent pre-activity and periodic safety audits	Use recognised, competent and impartial audit bodies
Accountability	Limited common enforcement architecture	Suspension, cancellation, penalties, grievance and appeal	Adopt through valid state/UT legal instruments
Learning	Operational review encouraged	Digital incident reporting and analytics	Publish taxonomy, annual reports and corrective-action feedback
Sustainability/inclusion	Leave-no-trace and responsible practice	Extensive environment, community and disability provisions	Translate broad duties into measurable audit criteria

International Regulatory Benchmarks

New Zealand: mandatory audit and registration

New Zealand provides the closest structural comparator. Under the Health and Safety at Work (Adventure Activities) Regulations 2016, covered operators must pass a recognised safety audit and apply for registration with WorkSafe before providing regulated activities [25,31–33]. Recognised auditors assess whether the operator’s documented and field-level safety management complies with the Safety Audit Standard. The regime includes a public register, review mechanisms and participant-information duties. Safety Audit Standard Version 2.0 replaced the earlier standard in April 2024 and strengthens expectations concerning governance and natural-hazard risk [31].

The New Zealand model demonstrates three lessons for India. First, registration is meaningful only when contingent on verified conformance. Second, an audit scheme requires oversight of auditors, not only operators. Third, natural hazards demand dynamic systems for identifying changes, setting thresholds and suspending operations. Its limitation as a direct template is scale: India’s volume, federal diversity and number of small or informal providers make uniform surveillance more difficult.

United Kingdom: statutory licensing and professional inspection

The United Kingdom’s Adventure Activities Licensing scheme is based on the Activity Centres (Young Persons’ Safety) Act and the Adventure Activities Licensing Regulations 2004 [13,30]. HSE administers the Adventure Activities Licensing Authority and contracts inspections to experienced outdoor professionals, with inspection guidance clarifying how providers’ risks, controls and arrangements for maintaining compliance are examined [12,13]. Covered providers selling specified caving, climbing, trekking and watersport activities to persons under 18 must hold a licence. Inspection assesses risk, necessary controls and arrangements for maintaining them.

The UK model offers procedural clarity, professional inspection and established powers to issue, vary, refuse or revoke licences. Its scope is deliberately narrower than MATSF: adults-only provision and many activities fall outside licensing, though general health and safety duties may remain. For India, its value lies less in copying scope and more in demonstrating due process, inspector competence, public assurance and enforceable entry control.

Australia: national consistency through good-practice guidance

The Australian Adventure Activity Standard and related Core and activity Good Practice Guides seek consistent risk and safety management for led outdoor activities with dependent participants [26]. The framework is primarily voluntary at national level, but it may become practically binding through land-manager licences, permits, education requirements, insurer conditions or contracts, as illustrated by Victoria’s tour-operator licensing and public-land requirements [9,26]. The AAAS establishes common requirements,

while activity guides provide detailed contextual practice. This layered structure preserves proportionality and technical specificity.

Australia's principal lesson is architectural: a concise common standard should be supported by living, activity-specific guidance. This is precisely where the 2018 Indian guidelines can complement MATSF. The limitation is fragmented enforceability; voluntary guidance cannot substitute for statutory action where persistent non-compliance creates public risk.

International Organization for Standardization standards and Bureau of Indian Standards convergence

ISO 21101 provides the internationally portable management-system baseline, ISO 21102 specifies leader competence and ISO 21103 addresses participant information [14,15,18]. The 2024 climate-action amendment to ISO 21101 further requires organisations to consider climate change within their management-system context [19]. India has an institutional advantage because BIS already lists Adventure Tourism Safety Management System certification under IS/ISO 21101:2014 and offers related training [6,7]. ISO's practical guide for small and medium-sized adventure tourism enterprises can additionally support proportionate implementation without diluting the requirements of ISO 21101 [16].

BIS should therefore be treated not merely as a source of technical specifications but as a central implementation partner. Its potential roles include harmonising activity standards, defining conformity-assessment requirements, developing auditor competence, supporting certification, coordinating standards revision and translating international requirements into Indian operating conditions. Care is needed to distinguish management-system certification from regulatory safety audit: certification can support assurance, but the state remains responsible for authorisation and enforcement.

Comparative Findings

Table 3. Comparative governance and assurance characteristics

Dimension	India: MATSF	New Zealand	United Kingdom	Australia/ISO
Legal form	Model framework requiring state/UT adoption	Statutory regulations	Statutory licensing regulations	Voluntary standard; can bind through licences/contracts; ISO certifiable
Scope	Broad land/water; air linked to national air-sports regime; sustainability and inclusion included	Defined commercial adventure activities with exclusions	Specified activities sold to under-18s	Led activities with dependent participants; broad adaptable guidance
Authority	Proposed SATRA/UTATRA with wide functions	WorkSafe and Registrar	HSE/AALA with contracted professional inspection	State/territory/land managers plus sector bodies
Entry control	Registration after safety audit proposed	Audit plus registration mandatory	Licence mandatory for in-scope provision	Variable; accreditation/licence/c contract conditions
Assurance	Recognised safety auditors, onsite audit and monitoring	Recognised audit bodies under formal standard	Document and site inspection by experienced professionals	Self-application, accreditation or context-specific verification
Enforcement	Suspension, cancellation, penalties and appeal proposed	Established regulatory enforcement and review	Issue, vary, refuse or revoke licence; appeal	Depends on law, permit, land manager, insurer or contract

Table 4. Comparative operational and adaptive characteristics

Dimension	MATSF assessment	International lesson	Implication for India
Personnel competence	Mandatory certification and maintenance of competence	ISO 21102 and activity-specific competence evidence	Create national occupational roles, RPL pathways and periodic reassessment
Activity detail	Broad annexures/checklist; not a complete code suite	Australia separates common standard from activity GPGs	Update 2018 guidelines into controlled, periodically revised codes
Natural hazards	Climate and disaster preparedness explicit	New Zealand emphasises dynamic natural-hazard management	Define source data, thresholds, cancellation authority and communication chain
Incident learning	Mandatory reporting, repository and analytics proposed	Mature regimes connect notification, investigation and corrective action	Adopt national taxonomy; publish anonymised annual safety report
Insurance	Extensive operator, worker and participant provisions	Risk-based coverage must align with legal duties and exclusions	Prescribe minimum cover by risk class and require plain-language disclosure
Sustainability	Carrying capacity, EIA, LNT, carbon and restoration included	ATDI links sustainability and climate resilience to competitiveness	Audit measurable site-specific environmental controls
Inclusion/community	Strong disability and community provisions	International safety regimes generally less explicit	Preserve as Indian strength but develop competence and individual planning criteria
Digital governance	Single window, state repository and predictive intelligence	Public registers improve market verification	Build interoperable national registry with privacy and data-quality safeguards

Where Model Adventure Tourism Safety Framework is comparatively strong

Documentary comparison indicates that MATSF is stronger in breadth than the selected statutory safety regimes. It explicitly integrates environmental stewardship, carrying capacity, climate risk, community benefit, disability inclusion, grievance redressal and digital intelligence with conventional licensing and audit functions. These are not decorative additions: environmental degradation and exclusion can generate operational risk, conflict and reputational harm. The framework also recognises that tourism safety is a destination-system responsibility rather than solely an operator matter.

Where international regimes remain stronger

New Zealand and the United Kingdom are stronger in demonstrated institutionalisation. Their legal mandates, established administrative processes, recognised inspectors or auditors, public registers and enforceable entry controls have been operational over time. Australia is stronger in accessible activity-specific guidance. MATSF currently specifies what should exist, but not all supporting institutions, controlled codes, auditor-surveillance arrangements, data standards and implementation resources are yet demonstrably in place.

The principal implementation risks

Five risks emerge. The first is legal ambiguity if model provisions are treated as directly enforceable without valid state adoption. The second is capacity asymmetry: high-volume or institutionally strong states may implement complex systems while smaller states struggle. The third is regulatory fragmentation, particularly at interfaces with aviation, forests, protected areas, water resources and disaster management. The fourth is

assurance capture, where auditors depend financially on operators without adequate regulator surveillance. The fifth is compliance exclusion: poorly designed costs could push micro and community operators outside the formal system rather than improving their safety.

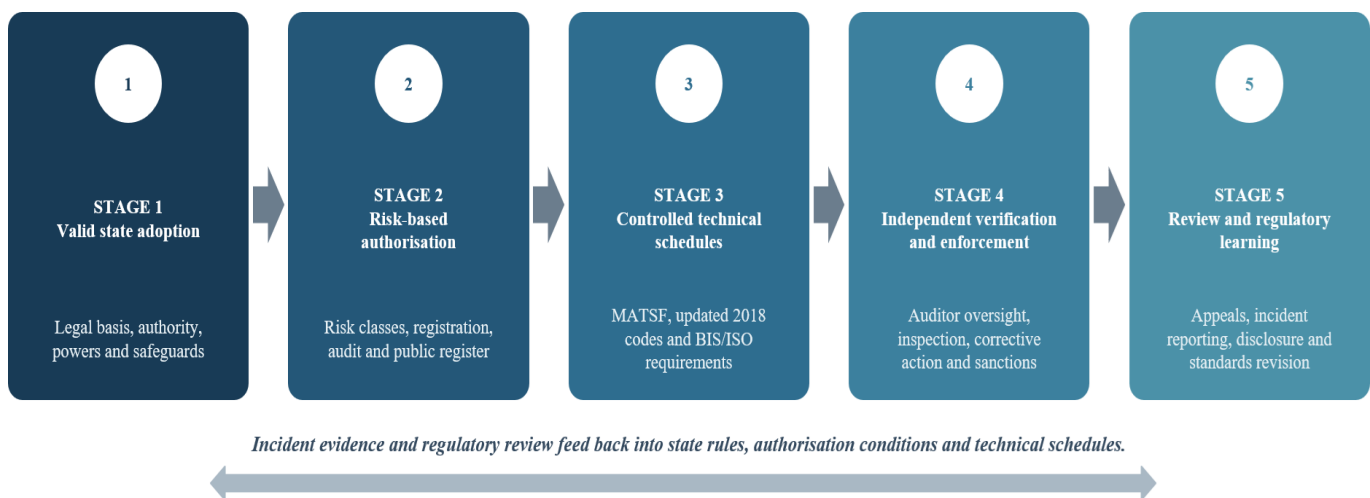
Adventure Tourism Development Index and international competitiveness

Model Adventure Tourism Safety Framework and Adventure Tourism Development Index can influence several ATDI pillars: safety through registration and audit; health through emergency and insurance provisions; sustainable development through stewardship and community participation; climate resilience through disaster integration; infrastructure through digital systems and rescue coordination; entrepreneurship through professionalisation; and image through public assurance [11]. Nevertheless, a higher ranking cannot be attributed to the framework alone. ATDI also measures broader health capacity, transport, enterprise conditions, natural and cultural assets and international image. The World Economic Forum's Travel & Tourism Development Index provides a complementary, broader destination-development benchmark, but should not be conflated with the adventure-specific ATDI [34]. The defensible claim is that credible implementation can remove safety and governance constraints that prevent India from converting strong resources into competitive readiness.

Model Adventure Tourism Safety Framework Adoption And Enforcement Architecture

The comparison leads to a five-stage State Adoption and Enforcement Architecture. It is designed as a practical sequence for states: filing an application should not by itself allow an operator to enter the market, while enforcement must rest on clear duties, recorded evidence and a fair review process. The proposed five-stage State Adoption and Enforcement Architecture is presented in Figure 1.

Figure 1. Five-stage MATSF State Adoption and Enforcement Architecture.



Source: Authors' conceptualisation based on the comparative documentary analysis.

Stage 1: Valid state adoption

Each state or UT should select a legally defensible adoption vehicle and specify the authority's rule-making, inspection, information-gathering, suspension and penalty powers. A Ministry model package should contain draft primary provisions, model rules, schedules and a legal cross-reference note. Executive instructions may coordinate administration, but coercive powers and offences require an adequate legal basis and procedural safeguards.

Stage 2: Risk-based operator authorisation

Authorisation should classify activities by consequence, remoteness, technical complexity and rescue dependency. Lower-risk activities may qualify for simplified documentary registration; high-consequence

activities should require specialist review, onsite audit and shorter renewal cycles. The public register should state activity scope, locations, validity, audit status and any restrictions.

Stage 3: Controlled technical schedules

MATSF should operate as the common regulatory spine, while modernised versions of the 2018 guidelines become controlled activity schedules. BIS/ISO provisions should supply management-system, leader-competence and participant-information requirements. Each schedule must distinguish mandatory clauses from explanatory guidance and specify evidence, guide ratios, equipment controls, operating limits and emergency arrangements.

Stage 4: Independent verification and responsive enforcement

Recognised audit bodies must themselves be supervised through competence criteria, conflict declarations, witness audits and complaint procedures. Enforcement should be graduated: advice and improvement plans for minor correctable deficiencies; time-bound notices and increased surveillance for material non-conformity; and prohibition, suspension, cancellation or prosecution for imminent danger, deception or persistent breach.

Stage 5: Review, disclosure and regulatory learning

Decisions should be recorded, reasoned and appealable. A common incident taxonomy and exposure data should support annual public reporting. Review triggers should include serious incidents, repeated audit findings, standards changes and climate-related hazards. Predictive analytics should follow - not precede - the establishment of reliable data definitions, privacy controls and interoperable reporting systems.

Table 5. Proposed implementation responsibility and enforcement matrix

Actor	Core responsibility	Immediate priority
Ministry of Tourism	National outcomes, coordination, monitoring and model revisions	Issue implementation roadmap and minimum adoption package
BIS ecosystem	Standards, conformity assessment, auditor competence and certification	Map MATSF clauses to IS/ISO and develop activity-standard programme
State/UT government	Legal adoption, authority, funding, registration and enforcement	Create phased, risk-based regulatory plan
NDMA/NDRF/SDRF/IMD	Hazard protocols, rescue coordination, warning integration and exercises	Develop activity closure and emergency coordination templates
Technical institutes/federations	Training, assessment, technical review and rescue capability	Define competence pathways and assessor criteria
ATOAI/industry bodies	Operator transition, SOP refinement and compliance support	Update 2018 guidance with evidence and standards crosswalk
Insurers	Risk-based cover, incentives and claims intelligence	Develop standard minimum products and anonymised learning
Local bodies/communities	Site knowledge, monitoring, rescue interface and benefit participation	Establish destination safety committees and local training
Universities/research bodies	Evaluation, incident analysis and regulatory learning	Create independent MATSF implementation observatory

DISCUSSION AND IMPLEMENTATION SCORECARD

The comparison brings out a clear division of work. The 2018 Indian guidelines provide much of the activity-level content, whereas MATSF provides the proposed regulatory structure. Neither layer is sufficient on its

own. State law must connect them through valid powers, controlled schedules and reviewable enforcement. New Zealand shows how registration can be tied to audit, the United Kingdom shows the value of professional inspection and due process and Australia shows how a common standard can be supported by detailed activity guidance.

For India, the sensible course is selective adaptation rather than copying one country. The UK's youth-focused licensing scope is too narrow for MATSF and New Zealand's audit capacity cannot be assumed to exist immediately across every Indian state. Australia's voluntary approach is helpful for guidance, but it is not enough where non-compliance creates serious public risk. A workable Indian combination would join mandatory, risk-based state authorisation with nationally controlled minimum standards, independent assurance, activity codes and a system for learning from incidents.

The connection with BIS needs particular attention. Mentioning an ISO or BIS standard in MATSF does not, by itself, show that an operator conforms to it. States will need clause-by-clause crosswalks, defined certification scopes, auditor qualifications, accreditation boundaries and surveillance procedures. The Ministry of Tourism, BIS, QCI/NABCB where relevant, state authorities, NDMA, DGCA and activity-specific technical bodies should agree who sets the requirement, who assesses it and who acts on non-compliance. Even where technical assessment is outsourced, public accountability must remain with the regulator.

The framework's broad sustainability, community and inclusion provisions should be retained and can be operationally reinforced through ISO 20611:2018 on good practices for adventure tourism sustainability [17]. They distinguish India's policy ambition from narrower accident-prevention regimes and align with contemporary competitiveness measures. Yet each broad aspiration must be rendered auditable. For example, carrying capacity needs a recognised assessment method and site limit; accessibility needs individual safety planning and competent staff; community participation needs defined representation; and climate preparedness needs thresholds, responsible decision-makers and communication records.

Implementation will need to be phased. The first phase can establish legal authority, the registry, high-risk activity categories and interim recognition arrangements for competent operators. The second can introduce audits, professional registers and incident reporting in priority destinations. The third can connect national data, publish performance reports and revise standards on the evidence available. During this transition, subsidised training and recognition of prior learning will be important, especially for capable small and community enterprises that may otherwise be pushed outside the formal system.

Measurable implementation indicators

Regulatory success should be assessed through implementation evidence rather than the number of provisions reproduced in a state notification. Table 6 proposes a minimum scorecard. Indicators should be disaggregated by activity risk class and state and reported with denominators so that registration or incident counts are not mistaken for exposure-adjusted performance.

Table 6. Minimum MATSF implementation scorecard

Indicator	Suggested measure	Regulatory purpose
Formal adoption	States/UTs with valid instrument as percentage of total	Measures legal coverage
Operator authorisation	Active authorised operators as percentage of identified operators	Measures formalisation
Audit completion	High-risk operators with current independent audit	Tests assurance reach
Corrective action	Median days to close major non-conformities	Tests enforcement responsiveness
Personnel competence	Active guides with verified, current competence	Tests professional control

Incident reporting	Reports complete within prescribed time; exposure denominator recorded	Tests data reliability
Public assurance	Registry records current and searchable; insurance/audit status visible	Tests transparency
Regulatory review	Annual report and activity-code revisions completed on schedule	Tests learning and maintenance

POLICY RECOMMENDATIONS

Convert the model into valid, consistent state law

The Ministry should issue a model adoption package containing draft legal provisions, rules, authority structure, registration classes, due-process safeguards, offences, appeal procedures and minimum staffing. States should adapt site and activity controls without weakening national minimum outcomes.

Institutionalise Ministry-BIS-state convergence

A permanent national technical council should coordinate policy, standards and revision. BIS should lead standards alignment and conformity infrastructure; states should enforce; specialist agencies should define domain requirements; and industry and communities should inform feasibility. Roles must be documented to prevent overlapping approvals and accountability gaps.

Modernise the 2018 guidelines

The 2018 guidelines should be technically reviewed, retained and transformed into modular activity codes. Each code should state mandatory requirements, evidence expected at audit, recognised standards, competence criteria, equipment life-cycle rules, operating thresholds and emergency arrangements. Revision should occur on a controlled cycle and after serious incidents.

Create an auditable assurance ecosystem

Audit bodies and individual auditors should be recognised through competence and impartiality criteria, with regulator surveillance, witness audits, complaint handling and sanctions. Non-conformities should be classified consistently, corrective-action deadlines prescribed and high-risk operators subjected to surveillance between renewal audits.

Build a national incident-learning system

A common digital taxonomy and reporting protocol should be established. Serious events require rapid notification; near-miss reporting should be protected and learning-oriented. An anonymised annual report should publish exposure-aware trends, causal themes, regulatory actions and standards changes.

Make compliance proportionate and inclusive

Fees, documentation and audit frequency should reflect risk and scale. Government-supported training, shared equipment testing, mobile audit teams and recognition of prior learning can help local enterprises enter the formal system. Inclusion provisions should be supported by activity-specific competence and individual risk-planning guidance.

Link safety with destination competitiveness

Marketing claims should follow verified performance. Public registers, visible certification, rescue readiness and transparent learning can strengthen trust and international image. ATDI should be used as a diagnostic dashboard rather than a publicity ranking: policy should target weaker pillars and measure whether implementation improves enabling conditions and readiness over time.

Future Research

Future research should move beyond documentary analysis and examine how MATSF is adopted and implemented across different Indian states and Union Territories. State-level case studies and pilot applications could test the practical operation of the proposed five-stage architecture, including registration, audit, inspection, enforcement and review. Empirical research should also examine the experiences of operators, regulators, auditors, local communities and participants to identify implementation challenges and acceptance. Comparative studies across different activity and destination contexts, such as Himalayan trekking, river rafting, air sports and coastal activities, could further test the adaptability of the proposed regulatory approach. Longitudinal research could subsequently assess whether implementation improves compliance, safety performance and regulatory learning.

CONCLUSION

MATSF 2026 gives India a substantial starting point for state regulation, but national issuance alone does not make its provisions enforceable. Its value will be decided by what states do next: create a valid legal basis, authorise operators according to risk, adopt controlled technical schedules, verify compliance independently and provide proportionate sanctions and review. The comparison shows that MATSF is broad on paper, while the selected international regimes have longer experience with licensing, audit and procedural enforcement.

The 2018 Indian guidelines remain indispensable. They should form the operational layer beneath MATSF rather than be displaced by it. New Zealand's audit-linked registration, the United Kingdom's professional inspection and Australia's activity-specific guidance provide complementary lessons. ISO and BIS offer a route to internationally legible management systems and conformity assessment.

The practical test is whether the framework can be made to work consistently in the states. Valid legal instruments, clear risk classes, supervised auditors, updated activity codes, graduated enforcement and public reporting would give MATSF international credibility. These steps cannot automatically place India first in ATDI or any other index. They can, however, strengthen safety, readiness, resilience and destination image. In that sense, effective implementation would help India convert its exceptional adventure resources into competitive performance and support the national tourism vision for 2047.

REFERENCES

1. Adventure Tour Operators Association of India. (2026). Standard operating procedures. <https://www.atoai.org/sops>
2. Ayres, I., & Braithwaite, J. (1992). Responsive regulation: Transcending the deregulation debate. Oxford University Press.
3. Bentley, T. A., Page, S. J., & Macky, K. A. (2007). Adventure tourism and adventure sports injury: The New Zealand experience. *Applied Ergonomics*, 38(6), 791–796. <https://doi.org/10.1016/j.apergo.2006.10.007>
4. Bentley, T. A., Page, S. J., Meyer, D., Chalmers, D., & Laird, I. (2001). How safe is adventure tourism in New Zealand? An exploratory analysis. *Applied Ergonomics*, 32(4), 327–338. [https://doi.org/10.1016/S0003-6870\(01\)00011-4](https://doi.org/10.1016/S0003-6870(01)00011-4)
5. Black, J. (2002). Critical reflections on regulation. *Australian Journal of Legal Philosophy*, 27, 1–35.
6. Bureau of Indian Standards. (2026). System certification overview: Adventure Tourism Safety Management System as per IS/ISO 21101:2014. <https://www.bis.gov.in/system-certification-overview/>
7. Bureau of Indian Standards. (2026). Training calendar 2026–27. https://www.bis.gov.in/wp-content/uploads/2026/05/Training_Calendar_2026-27.pdf
8. Cater, C. I. (2006). Playing with risk? Participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27(2), 317–325. <https://doi.org/10.1016/j.tourman.2004.10.005>

9. Department of Energy, Environment and Climate Action, Victoria. (2026). Tour operators: Licensing, safety and public land requirements. <https://www.forestsandreserves.vic.gov.au/tour-operators>
10. Dolowitz, D. P., & Marsh, D. (2000). Learning from abroad: The role of policy transfer in contemporary policy-making. *Governance*, 13(1), 5–23. <https://doi.org/10.1111/0952-1895.00121>
11. George Washington University International Institute of Tourism Studies, & Adventure Travel Trade Association. (2024). Adventure Tourism Development Index 2024. <https://iits.business.gwu.edu/adventure-tourism-development-index>
12. Health and Safety Executive. (2026). Inspection of adventure activity providers. <https://www.hse.gov.uk/aala/aals.htm>
13. Health and Safety Executive. (2026). The adventure activities licensing scheme legislation. <https://www.hse.gov.uk/aala/general-information.htm>
14. International Organization for Standardization. (2014). ISO 21101:2014 Adventure tourism Safety management systems Requirements. <https://www.iso.org/standard/54857.html>
15. International Organization for Standardization. (2014). ISO 21103:2014 Adventure tourism Information for participants. <https://www.iso.org/standard/54861.html>
16. International Organization for Standardization. (2016). ISO 21101 Adventure tourism safety management systems: A practical guide for SMEs. <https://www.iso.org/publication/PUB100405.html>
17. International Organization for Standardization. (2018). ISO 20611:2018 Adventure tourism Good practices for sustainability Requirements and recommendations. <https://www.iso.org/standard/68548.html>
18. International Organization for Standardization. (2020). ISO 21102:2020 Adventure tourism Leaders Personnel competence. <https://www.iso.org/standard/76475.html>
19. International Organization for Standardization. (2024). ISO 21101:2014/Amd 1:2024 Adventure tourism Safety management systems Requirements Amendment 1: Climate action changes. <https://www.iso.org/standard/88407.html>
20. Ministry of Civil Aviation, Government of India. (2023). National Air Sports Guidelines 2023. <https://civilaviation.gov.in/ministry-documents/guidelines/national-air-sports-guidelines-2023>
21. Ministry of Tourism, Government of India. (2018, May 31). Tourism Minister launches guidelines by Government on adventure tourism: Guidelines for 15 land based, 7 air based and 7 water based activities. Press Information Bureau. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1534040>
22. Ministry of Tourism, Government of India. (2020). Promotion of adventure tourism (Lok Sabha Unstarred Question No. 117). <https://sansad.in/getFile/loksabhaquestions/annex/174/AU117.pdf>
23. Ministry of Tourism, Government of India. (2026). Model Adventure Tourism Safety Framework. <https://master-tourism.digifootprint.gov.in/static/uploads/2026/07/807c449e3c6bc6a91c0d55214d298487.pdf>
24. Morgan, D. (2006). Risk management in outdoor adventure tourism. In J. Wilks, D. Pendergast, & P. Leggat (Eds.), *Tourism in turbulent times* (pp. 165–180). Elsevier. <https://doi.org/10.1016/B978-0-08-044666-0.50020-8>
25. New Zealand Government. (2016). Health and Safety at Work (Adventure Activities) Regulations 2016. <https://www.legislation.govt.nz/regulation/public/2016/0019/latest/whole.html>
26. Outdoors Victoria. (2022). Australian Adventure Activity Standard and related Good Practice Guides. <https://www.outdoorsvictoria.org.au/resources/australian-adventure-activity-standard/>
27. Press Information Bureau. (2023, February 16). Best Tourism Village Competition and the tourism vision for 2047. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1899949>
28. Press Information Bureau. (2024, October 3). Tourism expansion in India. <https://www.pib.gov.in/FactsheetDetails.aspx?Id=149085>
29. Prime Minister's Office. (2024, August 31). PM addresses Economic Times World Leaders Forum in New Delhi. https://www.pmindia.gov.in/en/news_updates/pm-addresses-economic-times-world-leaders-forum-in-new-delhi/
30. United Kingdom. (2004). The Adventure Activities Licensing Regulations 2004 (SI 2004/1309). <https://www.legislation.gov.uk/ukxi/2004/1309/contents/made>

31. WorkSafe New Zealand. (2023). Safety Audit Standard (Version 2.0): Safety management system requirements for adventure activity operators. <https://www.worksafe.govt.nz/topic-and-industry/adventure-activities/documents-and-resources/>
32. WorkSafe New Zealand. (2026). Adventure activities: Documents and resources. <https://www.worksafe.govt.nz/topic-and-industry/adventure-activities/documents-and-resources/>
33. WorkSafe New Zealand. (2026). Apply for adventure activity operator registration. <https://www.worksafe.govt.nz/topic-and-industry/adventure-activities/apply-for-adventure-activity-operator-registration/>
34. World Economic Forum. (2024). Travel & Tourism Development Index 2024. <https://www.weforum.org/publications/travel-tourism-development-index-2024/>