Rethinking Social Impact Assessment: From Compliance Tool to Socio-Economic Value Creation

By Katherine Teh, Executive Chairman Spektrum

Abstract

Social Impact Assessment (SIA) has traditionally functioned as a regulatory compliance tool, often failing to create enduring legitimacy or drive socio-economic value. This paper argues that SIAs must evolve into participatory, trauma-informed, and community-partnered frameworks that prioritize legitimacy and emotional intelligence. Drawing on the DAD-to-DAVE model, psychosocial impact literature, and Spektrum's Development by Consent methodology, we propose a dynamic SIA model capable of surfacing emotional flashpoints, aligning design with local values, and reducing project delays. Using illustrative cases from high-conflict critical minerals projects, we demonstrate how failure to address legitimacy contributes to project stalling. The paper outlines a structured outrage-aware assessment approach and offers recommendations to embed legitimacy, Free, Prior and Informed Consent (FPIC), and participatory governance into international best practice.

1. Introduction: The Limits of Compliance-Based Impact Assessment

Impact assessments have traditionally been used to evaluate the environmental, economic, and social consequences of proposed projects, primarily at the pre-approval stage. Across jurisdictions, Social Impact Assessment (SIA) has evolved from an aspirational tool of public accountability into a document-centric exercise of regulatory compliance. Often mobilised to secure project approvals, SIAs typically prioritise technical risk management over genuine community engagement. This shift marginalises community-defined harms, omits psychosocial impacts, and fails to enable transparent baselining or long-term social accountability (Esteves et al., 2012).

The Institute of Environmental Management & Assessment (IEMA) and Frank Vanclay (2023) have highlighted that public participation in impact assessment is frequently tokenistic. As a result, SIAs often reinforce stakeholder mistrust rather than mitigate it. Globally, delayed or cancelled projects in the extractives sector are increasingly linked to a failure to build early legitimacy (Franks et al., 2014).

This paper contends that SIA must be repositioned as a platform for co-created legitimacy, not merely regulatory compliance. Drawing on theoretical, cultural, and field-based insights,

we introduce a revised SIA approach that addresses emotional, historical, and power-based dimensions of impact.

However, in many jurisdictions, these assessments have evolved into documents that serve more as regulatory checklists or persuasive tools for project proponents, aimed at satisfying government requirements and demonstrating technical risk management—often while downplaying community concerns.[1] This shift has reduced the effectiveness of social impact assessments (SIAs) in particular, which rarely address psychosocial impacts, fail to reflect community-defined harm, and do not establish baselines for accountability in mitigating or healing such impacts.

This critique aligns with growing concerns in the impact assessment field. The Institute of Environmental Management & Assessment argues that public participation is often treated as a box-ticking exercise, which limits the opportunity to identify and mitigate social harm or co-create beneficial outcomes.[2] Similarly, Frank Vanclay, reflecting on five decades of SIA practice, calls for a transformation toward a participatory, adaptive process—one that engages communities early and continues throughout a project's lifecycle to manage social issues proactively.[3]

The consequences of failing to evolve SIA practices are evident in the growing number of stalled and stranded projects globally, where conflict resulting from poor stakeholder engagement has undermined development goals. For example, in the United States, many of the 20 projects that have been identified as a FAST-41[4]-designated critical minerals project, intended to be accelerated through streamlined permitting, have experienced delays due to community opposition and insufficient engagement. These patterns reinforce the need to reposition SIA as a tool for legitimacy, accountability, and long-term social resilience, not just compliance.

This paper contends that to accelerate approvals SIAs must respect Free, Prior and Informed Consent (FPIC), meet the requirements of trauma-informed development, and ensure legitimacy in contested contexts. For Spektrum, the SIA is not merely a precondition to mine permitting—it is a platform to co-design a regenerative future with communities, in line with contemporary principles of participatory development, outrage mitigation[5] and rights-based engagement.[6]

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[5] Sandman, P. M. (1993). *Responding to community outrage: Strategies for effective risk communication*. American Industrial Hygiene Association.

The company was established to unlock stranded critical mineral assets by securing community consent, treating that consent as a strategic asset embedded in its culture, systems, and tools. This approach enables accelerated project approvals that deliver more robust socio-economic outcomes[7]. When companies align early and meaningfully with communities, the regulatory pathway can be streamlined through trust and consent, rather than conflict[8].

The alternative—rushing to meet critical mineral demand through accelerated permitting— often results in increased social incidents, including protests, blockades, or community divisions[9]. Governments and companies frequently misclassify these expressions of concern, assuming that greater regulatory control will enhance certainty. In fact, the opposite is true: failure to recognise psychosocial and outrage triggers only amplifies resistance, erodes trust, and introduces long-term risks.[10] As Kemp et al. (2019) of the Centre for Social Responsibility in Mining put it:

"What gets measured gets managed—but what's ignored metastasizes."[11]

2. From DAD to DAVE: Strategic Realignment for Impact Assessment

Legacy impact frameworks reinforce DAD cultures that isolate proponents from the communities they affect. The DAVE approach (Declare-Acknowledge-Vision-Evaluate) offers an alternative logic, founded on co-creation and transparency. Instead of justifying decisions, DAVE begins with surfacing dilemmas, acknowledging the perspectives of all parties, building a unifying vision, and setting measurable outcomes through reverse-engineered KPIs.

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[6] Vanclay, F. (2003). International principles for social impact assessment. *Impact Assessment and Project Appraisal, 21*(1), 5– 11. https://doi.org/10.3152/147154603781766491
See also: Colchester, M., & Ferrari, M. F. (2007). *Making FPIC work: Challenges and prospects for indigenous peoples*. Forest Peoples Programme.

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[11] Kemp, D., Owen, J. R., Lèbre, E., & Kung, A. (2019). *A process for screening social incidents in the global mining industry: A concept note*. Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland.

Element	DAD Posture	DAVE Posture
Organisational Role	Compliance-seeking	Trust-building
Assessor Function	Technical verifier	Co-designer of social legitimacy
Use of SIA	Defensive artefact	Strategic accountability platform
Accountability	Procedural	Participatory and adaptive

By embedding DAVE into its company DNA, Spektrum has shifted SIA from a tick-box exercise to a collaborative design mechanism. We believe that the only path to faster, more reliable approvals is through earlier, deeper, and more emotionally intelligent alignment—not by skipping steps, but by doing them differently.

3. The Cultural Cost of DAD: Mutual Outrage and Systemic Paralysis

The DAD model doesn't just provoke resistance from communities—it also traps proponents, politicians and regulators in cycles of mutual frustration. Developers become resentful that their "compliance" is not enough. Regulators fear backlash. Politicians want to see projects fast-tracked and can't understand that despite many decrees the outcome is not faster approvals. Communities feel their experience is being invalidated. Each party retreats into its defensive posture, and the process grinds to a halt due to outrage.

Drawing on Sandman's (1993) outrage framework and Laidlaw & Schillaci (2024), we define outrage as the emotional, symbolic, and identity-based response to perceived unfairness, exclusion, or harm. Outrage and psychosocial impacts are under-theorised and under-measured in conventional SIA. Spektrum integrates structured outrage mapping into the SIA process, evaluating:

- Emotional flashpoints (e.g., betrayal, cultural erasure)

- Indicators of social fragmentation

- Invisible burdens (e.g., decision fatigue, symbolic harm)

- Resilience assets (e.g., shared aspirations)

Assessments also include:

- Biennial trauma recovery and benefit equity reviews

- Social Learning Panels to align project KPIs with community-defined success

- Shared governance mechanisms to ensure lived experience shapes project decisions

4. The Pebble Project: A Case of Structured Outrage

The Pebble Project in Alaska represents one of the world's most geologically attractive undeveloped copper-gold deposits. Yet despite favourable geology, repeated permitting efforts, and political support at the state level, the project remains immobilised. The core barrier is not technical feasibility—it is the collapse of social legitimacy. The central issue is not engineering risk, but psychosocial resistance. Conventional regulatory frameworks, designed to evaluate hazard, are ill-equipped to address the layered drivers of outrage that have rendered the project politically, socially, and reputationally unviable.

Opposition to Pebble has been widely mischaracterised as irrational or obstructionist. In reality, it reflects a structured and deeply rational backlash to perceived violations of trust, fairness, and cultural sovereignty. These are not technical failures—they are relational ruptures. Using Sandman's (1993) framework for analysing outrage, we examine seven key psychosocial triggers that reshaped public perception, stalled permitting, and ultimately reversed investor confidence.

i) Voluntariness: Imposed, Not Invited

The project was widely perceived as externally imposed. Local Indigenous communities, including the United Tribes of Bristol Bay, reported a lack of meaningful consultation and asserted that key decisions were made without their consent (NRDC, 2023). The absence of voluntary engagement fostered early alienation and laid the foundation for sustained mistrust.

ii) Control: Exclusion from Decision-Making

Affected communities had minimal influence over regulatory or project design processes. This absence of agency, reinforced by a perception of top-down decision-making by distant actors, intensified feelings of disempowerment and loss of control (Arctic WWF, 2023).

iii) Trust: Severely Eroded

Public trust deteriorated following the release of the "Pebble Tapes," in which company executives were covertly recorded discussing how to circumvent oversight and manipulate stakeholder perceptions (Washington Post, 2020). These revelations irreparably damaged the company's legitimacy and reinforced public suspicion.

iv) Fairness: Disproportionate Risk Bearing

Economic benefits were perceived to accrue primarily to non-local stakeholders, while environmental and cultural risks would be borne locally. Communities argued that they would inherit long-term ecological harm without receiving meaningful or lasting benefit (NS Energy, 2023).

v) Dread and Catastrophic Potential: Amplified Risk Perception

The proposed tailings storage facility posed a perceived existential threat to the Bristol Bay salmon fishery—the largest sockeye run in the world. The prospect of irreversible damage to this vital ecosystem intensified collective anxiety and escalated resistance (EPA Final Determination, 2023).

vi) Moral Relevance: Cultural and Sovereign Harm

For Alaska Native communities, salmon is not merely a resource but a living expression of identity, cultural continuity, and self-determination. The potential desecration of this value system imbued the conflict with profound moral intensity (NRDC, 2023).

vii) Responsiveness: Procedural Dismissal

Despite extensive submissions and sustained mobilisation, many stakeholders reported that their input was disregarded. The Final Environmental Impact Statement was seen as rushed and unresponsive to substantive concerns, reinforcing perceptions of procedural injustice (Harvard Environmental and Energy Law Program, 2020).

5. Consequences of Unaddressed Outrage

These factors did not merely delay Pebble's progress—they transformed it into a cautionary tale of not effectively addressing outrage and unifying communities around the project design and its ability to address the technical hazards.

The U.S. Environmental Protection Agency exercised its veto authority under the Clean Water Act, citing "unacceptable adverse effects" on aquatic resources (EPA, 2023). High-profile investors such as Anglo American and Rio Tinto exited the project, citing reputational risk. In retaliation, the State of Alaska filed a lawsuit seeking over $700 billion in damages from the federal government for the project's collapse (Alaska Beacon, 2024). In December 2024, the U.S. Supreme Court declined to hear Alaska's appeal against the EPA's veto, effectively upholding the agency's decision. The project has support from the Iliamna Natives Limited and Alaska Peninsula Corporation, representing communities near the proposed mine site who has sued the EPA, alleging that the veto exceeds the agency's authority and disregards local economic needs. However, local support did not turn the tide to increase alignment of society with surveys of Alaskans showing that 56% of voters are against the mine with many fearing that salmon habitat would be impacted and there could be irreversible ecological damage. In May 2025, a bill was introduced in the Alaska Legislature to prohibit hard-rock metals mining in the Bristol Bay watershed, aiming to solidify protections against projects like Pebble Mine.

6. Implications for Social Impact Assessment Practice

The Pebble case underscores that outrage is not an emotional overreaction but a structured and intelligible response to power imbalances, broken trust, and cultural injury. Integrating outrage diagnostics into Social Impact Assessment—early and formally— allows proponents to identify relational risks, anticipate resistance, and co-design legitimacy. Without this, even the most technically sound projects risk becoming socially unviable. Pebble's legacy is clear: legitimacy is not a supplement to permitting—it is its foundation.

Spektrum is carving out a role that is the equivalent to the property sector's "wholesale entitlement developers" but in for complex mineral assets. Our approach transforms projects from structurally paralysed to socially investable. We do this by embedding legitimacy through effective project co-design so that the architecture of the project resolves the concerns ahead of undertaking the regulatory pathway. Our model:

i. **Development by Consent — Not Just Compliance**

   We ask for an invitation onto Country. We design the engagement process with Traditional Owners and community, not for them. We scope viability and risks together. No meeting without shared authorship.

ii. **Participative Due Diligence**
   We facilitate expert-supported processes where Traditional Owners and all stakeholders can interrogate risks, shape scope, and engage in project co-design so they can ultimately decide whether development can proceed in a way that aligns with their aspirations.

iii. **Social Licence Ledger and CMS Compliance**
   From day one, all stages — consent, the integration of Traditional Ecological Knowledge, key consent milestones, emissions performance, and equity metrics — are transparently recorded in a blockchain-enabled ledger. This enables traceability aligned with global sustainability reporting frameworks and builds trust with downstream manufacturers and values-based investors.

iv. **A Commons Charter — Not an NDA**
   We coordinate the Commons: shared rules, shared infrastructure planning, and shared benefits — not side deals. This avoids fragmented approvals and protects all parties from litigation and reputational risk.

v. **Pre-Negotiated Co-Ownership Terms**
   When legitimacy is achieved and the development proceeds, Spektrum doesn't walk away. We enter as a co-owner with the Traditional Owners and investors on pre-negotiated terms, ensuring continued alignment, accountability, and value.

When we advocate for shifting the development model—starting with listening, transparency, and co-creation—we anticipate outrage from within our own sector. Senior

executives, legal advisors, board members, and even seasoned consultants can perceive this addressing outrage proactively as enabling opponents or "squeaky wheels" to undermine the regulatory framework[12]. Also experts are sometimes uncomfortable with the shift from expert to facilitator[13]. The outrage is not just external—it's internal.

This reaction is understandable. It stems from a deep belief that projects are rational exercises, and that fairness is guaranteed through process and compliance. But our experience has shown that legitimacy cannot be engineered. It must be co-created.

We address this by building cultural fluency within our teams and our partners. We help people understand that outrage—on all sides—is not irrational. It is a signal of unmet expectations, power imbalance, and often unresolved trauma. Our approach doesn't eliminate conflict, but it enables it to be addressed productively.

We believe this model can reduce permitting timeframes from the 29-year average in the U.S. and the 20-year average in Australia[14] to fewer than five years—if legitimacy is prioritised early. In a world racing to secure critical minerals, this is not just desirable. It is necessary.

And beyond speed, there is something deeper at stake. The current extractive model often reproduces what has been described as the "resource curse"—where mining brings wealth to companies but leaves communities fractured, disempowered, or worse off. This isn't inevitable. It's the result of systems that exclude community voice from the design and governance of development.

By contrast, SIA as envisioned by Spektrum becomes a tool for reversing the resource curse. It enables shared decision-making, unlocks new social value, and transforms extraction into regional renewal.

7. SIA as an Accountability Engine

SIA must evolve beyond recognising psycho-social impacts to formally assessing the factors that drive outrage and mitigate outrage. Too often, assessments do not recommend mitigations that address the fundamental reasons for outrage, but rather recommend adaptations for that impact such as psychological counselling, compensation, independent grievance mechanisms and long-term recovery planning.

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[12] RegTech and Predictive Lawmaking: Closing the RegLag Between Prospective Regulated Activity and Regulation
[13] Communicating about risk: strategies for situations where public concern is high but the risk is low - February 2017, Volume 27, Issue 1 | PHRP
[14] S&P Mine Development Times: The US Perspective 2024

Preventing outrage through respect, transparency, inclusion and fair process is ideal. But in the cases where outrage is triggered, mitigation strategies are more proactive. Mitigating outrage requires alignment on the solutions to address power and information asymmetry, the management of fairness, co-design and a high degree of responsiveness to the community.

The act of an SIA addressing outrage mitigation formally improves the dynamics that define whether a project will succeed or stall: trust, trauma, identity, and perceived fairness.

At Spektrum, we treat SIA as an outrage prevention and mitigation listening tool—an infrastructure for surfacing emotional, relational, and historical dimensions of risk. It helps uncover not just what people think, but how they feel. Not just what's broken, but what might heal. And not just what a project might deliver, but what a community is willing to receive and on what conditions to create socio-economic benefit.

Our method captures:

- Emotional flashpoints (e.g., fears of betrayal, historical injustice)

- Social fragmentation indicators (e.g., intra-community division, leadership trust)

- Invisible burdens (e.g., cultural loss, decision fatigue, power asymmetry, information asymmetry, symbolic harm)

- Resilience assets (e.g., local leadership, values alignment, shared aspirations)

At Spektrum, we also embed:

- Biennial reviews focused on trauma recovery, benefit equity, and governance integrity

- Social Learning Panels that allow community-defined metrics of success to shape the social impact management plans and their implementation

- Decision-making bodies to include community throughout the life of the project.

The SIA births a management plan and governance arrangement that becomes a living document—iterative, responsive, and community-facing. It holds us to account, and in doing so, builds resilience into the project's DNA.

8. Consent as Strategy: Redefining FPIC

Free, Prior and Informed Consent (FPIC) is often misunderstood as a barrier or veto. But in Spektrum's model, FPIC is a pathway. It is not a hurdle to be negotiated, but a foundation on which viable, accelerated development can be built.

When applied early and in good faith, FPIC:

- Reduces litigation, delays, and political backlash

- Creates social capital that can withstand conflict

- Aligns project pacing with social readiness

We engage Traditional Owners not as consultees, but as co-developers. We begin with cultural listening, integrate Indigenous definitions of value, and honour the right to self-determined development. We apply FPIC into the strategic assessment of the project — because it is strategically smart, morally sound, and financially effective.

9. Culture as Business Infrastructure

To succeed in contested contexts, we must build companies differently. Using Hofstede's Multi-Focus Model, we diagnosed the dominant culture of mining proponents—risk-averse, control-heavy, and siloed. Then we built a culture that served our objective – to develop in alignment with the community so we could create maximum value creation for Indigenous, the government, the community and the government as well as our shareholders.

Our culture is open, adaptive, and designed to perform in high-conflict, high-stakes settings. It is not abstract. It is operationalised in decision-making, incentives, and governance.

Dimension	Traditional Culture	Spektrum Culture
Effectiveness	Risk-averse, rules-bound	Goal-oriented, adaptive
Orientation	Internally focused	Externally accountable
Control	Hierarchical, rigid	Flexible, principle-led
Focus	Siloed, loyalty-driven	Long-term, diverse, critique-friendly
Approachability	Opaque, defensive	Transparent, feedback-driven
Management Philosophy	Output-focused, low support	People-centred, consultative

Cultural fit for our business model is the key to how we unlock value, reduce risk, and deliver enduring outcomes.

10. Conclusion: Legitimacy is the New Licence

The future of mining will not be determined by geology or engineering, but by legitimacy. In an era defined by social fragmentation, ecological tipping points, and geopolitical urgency, the ability to scale resource development at speed requires deep cultural, social, and institutional alignment. Without it, conflict hardens, delays multiply, and value evaporates.

To meet this challenge, Social Impact Assessment must be reimagined—not as a compliance artefact, but as a core infrastructure of consent, trust, and shared design. The following strategic shifts are essential:

i.   **Expand the IAIA Principles** to explicitly include emotional and psychological wellbeing by integrating a structured factorial analysis of outrage into assessment methodologies.

ii. **Reframe the role of the assessor** from a technical verifier to a credibility anchor— an independent facilitator of social legitimacy, comparable in stature to a financial auditor.

iii. **Recognise SIA as a design enabler**, capable of aligning project logic with community-defined priorities, thereby accelerating approvals through trust, not coercion.

iv. **Move from mitigation to shared visioning**, allowing SIA to assess not only harm, but the gap between present impacts and future social value creation.

v.   **Institutionalise outrage mitigation** by embedding psycho-social diagnostics into Social Impact Management Plans, enabling adaptive governance and durable community alignment.

When properly designed, Social Impact Assessment becomes more than a safeguard—it becomes a strategic asset. It can transform extractive ventures into regenerative partnerships, unlocking social value, accelerating timelines, and building long-term resilience. The legitimacy revolution in mining is not optional. It is already underway. Those who embed it now will not only move faster—they will be the ones still moving in the decades to come.

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