Formula 1

Content placeholder

Formula 2

Content placeholder

Related Content

Title	Type	Slug
Seismic Monitoring Setup and PPV Interpretation	lesson	seismic-monitoring-ppv-interpretation
Blast Design Excel Template v4.2	resource	blast-design-excel-template
Drill Rig Maintenance Inspection Checklist	resource	drill-rig-maintenance-checklist
Rock Mass Rating (RMR) Field Survey Sheet	resource	rmr-field-survey-sheet
Drilling Energy Benchmarking Dashboard (Power BI)	resource	drilling-energy-dashboard

Detailed Explanation

Participatory Monitoring Networks (PMNs) represent a paradigm shift from top-down compliance monitoring to collaborative knowledge production. The Specification Guide provides standardized yet adaptable specifications—covering sensor deployment, data collection frequency, calibration requirements, metadata standards, and participatory validation workflows—to ensure scientific rigor while respecting local epistemologies and capacity constraints. Central to the guide is the principle of 'shared authority': communities co-define monitoring questions (e.g., water turbidity thresholds relevant to fishing livelihoods), co-install low-cost sensors or conduct field observations, and jointly interpret trends with technical partners. The guide also mandates inclusive governance structures—such as Joint

Technical Advisory Committees—with defined roles, decision rights, dispute resolution mechanisms, and capacity-building pathways to prevent power asymmetries. Furthermore, it integrates digital and analog modalities: specifying interoperable open-source data platforms (e.g., SensorThings API-compliant dashboards) alongside paper-based verification logs and seasonal oral testimony protocols to accommodate varying literacy, connectivity, and trust conditions. Finally, the guide embeds adaptive management loops—requiring periodic co-reviewed performance audits against both technical accuracy (e.g., sensor drift tolerance ?5%) and social effectiveness (e.g., ?80% community satisfaction in quarterly feedback)—ensuring long-term legitimacy and responsiveness.

Key Components

#	Component
1	Co-Designed Monitoring Protocol
2	Equitable Data Governance Framework
3	Capacity-Building & Technology Transfer Plan

Applications

#	Application
1	Baseline and impact assessment for Environmental and Social Impact Assessments (ESIAs)
2	Real-time early warning systems for water quality or air particulate events
3	Third-party verification of corporate sustainability reporting (e.g., GRI, ICMM standards)

Related Concepts

#	Concept
1	Social License to Operate (SLO)
2	Community-Based Monitoring (CBM)

#	Concept
3	Open Environmental Data Standards

Tags

> mining, social-license, community-engagement, environmental-monitoring, data-governance