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EESEF - INSTITUTIONAL BRIEFING (IB)

Environmental & Social Impact Assessment (ESIA) and Management Plan (ESMP) The Diagnosis and the Prescription

for Kazakhstan and Chinese Contractors

An Institutional Briefing on Integrated Environmental & Social Governance

Executive Summary

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This briefing addresses a persistent and costly failure in project delivery across Kazakhstan's industrial and infrastructure sectors: the production of an Environmental and Social Impact Assessment (ESIA) that is never properly translated into a functioning Environmental and Social Management Plan (ESMP). The ESIA diagnoses what a project will do to the environment and to people. The ESMP prescribes what will be done about it. Without both, a project is either non-compliant or exposed to serious legal, financial, and reputational risk.

The briefing is directed at four audiences operating in the Kazakhstani project market: government regulators and environmental authorities; project owners and sponsors seeking financing; Chinese EPC contractors operating under Belt and Road and Green-BRI guidance; and international lenders, monitors, and consultants applying IFC Performance Standards and the Equator Principles.

Key Findings

1. Three regulatory regimes converge simultaneously on large projects in Kazakhstan: the 2021 Ecological Code (OVOS procedure and state ecological expertise); IFC Performance Standards, World Bank EHS Guidelines, the Equator Principles EP4, and the AIIB Environmental and Social Framework; and China's own MOFCOM-MEE overseas environmental guidelines of 2021 and 2022. A single integrated ESIA and ESMP designed to satisfy all three at once is the most efficient and legally robust approach.
2. The OVOS under Kazakhstani domestic law and the international ESIA are not equivalent. The OVOS does not require the depth of social assessment — land acquisition, resettlement, livelihood restoration, grievance mechanisms — mandated by IFC PS5 and EP4. Projects with international financing must bridge this gap explicitly in the ESMP.
3. Chinese guidelines (2021 and 2022) are soft law but carry real force through state-owned enterprise governance and financier conditionality. They now direct Chinese contractors to follow the stricter of host-country and international standards — meaning the IFC/EP4 floor applies on most major projects.
4. The six most common ESMP failure modes are: untranslated plans; passive grievance mechanisms; unresolved standard conflicts; unverified self-reported monitoring; unfunded mitigation measures; and one-off rather than lifecycle stakeholder consultation. Each is preventable at low cost if addressed at the design stage.

EEESEF's Role

The Euro-Eurasia Environmental Science and Education Foundation (EEESEF) is a UK-registered non-profit operating across the Euro-Eurasian region with strategic presence in London and Almaty. EEESEF contributes to the ESIA-ESMP architecture through independent monitoring and verification, trilingual documentation support, and coordination between Kazakhstani regulatory requirements and international lender standards. Enquiries: research@EEESEF.org · www.EEESEF.org

Abstract

This institutional briefing explains the relationship between two instruments that are central to responsible project delivery yet are frequently confused: the Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP). Their relationship is best understood clinically — the ESIA is the diagnosis and the ESMP is the prescription. The ESIA is an evidence-based study that establishes, through baseline measurement and ranked significance, what the environmental and social impacts of a proposed project are, how serious they are, and who is affected. The ESMP converts those findings into a funded, owned, time-bound, and independently monitored set of commitments that are actually implemented on site. A project that produces a strong ESIA but a weak ESMP has diagnosed a condition and then failed to treat it. The briefing maps these instruments onto three regulatory regimes that converge in the Kazakhstani market: the domestic Ecological Code of the Republic of Kazakhstan No. 400-VI of 2 January 2021, with its OVOS impact-assessment procedure, state ecological expertise, four-tier facility categorisation, and polluter-pays-and-corrects principle; the international lender standards comprising the IFC Performance Standards, the



World Bank Group Environmental, Health and Safety Guidelines, and the Equator Principles; and China's overseas environmental policy as expressed in the 2021 and 2022 MOFCOM and Ministry of Ecology and Environment Green-BRI guidelines, which now direct Chinese contractors to follow the stricter of host-country and international standards across the project lifecycle. The central argument is that the legal and standard-setting architecture is already in place; the persistent failure is in implementation — untranslated plans, passive grievance mechanisms, unresolved standard conflicts, unverified monitoring, unfunded measures, and one-off consultation. Closing that gap requires a single integrated ESIA and ESMP designed to satisfy all applicable regimes at once, contractual flow-down that binds the contractor and subcontractors who execute the work, and independent verification that converts self-reported compliance into confirmed performance. EEESEF contributes to this architecture through its non-commercial coordination and monitoring mandate. [1][10][14][20][26]

Keywords: ESIA; ESMP; Environmental and Social Impact Assessment; Environmental and Social Management Plan; 2021 Ecological Code; OVOS; State Ecological Expertise; IFC Performance Standards; World Bank EHS Guidelines; Equator Principles; Green BRI; MOFCOM-MEE Guidelines; Chinese Contractors; Mitigation Hierarchy; Grievance Mechanism; Independent Monitoring; Kazakhstan; EEESEF.

摘要 (中文版) – Abstract in Chinese

本机构简报阐述了大型工业及基础设施项目负责任交付中两项核心工具之间的关系——环境与社会影响评估 (ESIA) 和环境与社会管理计划 (ESMP)。两者的关系最简明的理解方式是：ESIA 是诊断，ESMP 是处方。ESIA 通过基线测量和影响显著性排序，系统评估拟建项目的环境与社会影响，明确影响的严重程度及受影响人群。ESMP 则将上述评估结论转化为具体的、有资金保障、有责任主体、有时限要求并接受独立监督的承诺，切实落实于项目现场。一个完成了高质量 ESIA 却未能将其转化为有效 ESMP 的项目，相当于完成了诊断却放弃了治疗。

本简报将上述工具对应到哈萨克斯坦市场中三个交汇的监管框架：其一为哈萨克斯坦国内法律，即 2021 年 1 月 2 日颁布的《哈萨克斯坦共和国生态法典》(第 400-VI 号)，其中包含环境影响评估 (OBOC) 程序、国家生态鉴定制度及"污染者付费与治理"原则；其二为国际贷款方标准，包括 IFC 绩效标准、世界银行集团环境健康与安全指南及赤道原则第四版 (EP4)；其三为中国境外环境政策，即商务部与生态环境部 2021 年和 2022 年联合发布的绿色"一带一路"指南，要求中国企业在项目全生命周期内遵循东道国标准与国际标准中更为严格的一方。核心论点在于：法律与标准框架已经到位，持续存在的问题是落实——计划未翻译、投诉机制形同虚设、标准冲突未解决、监测数据未核实、措施缺乏资金保障、公众参与流于形式。

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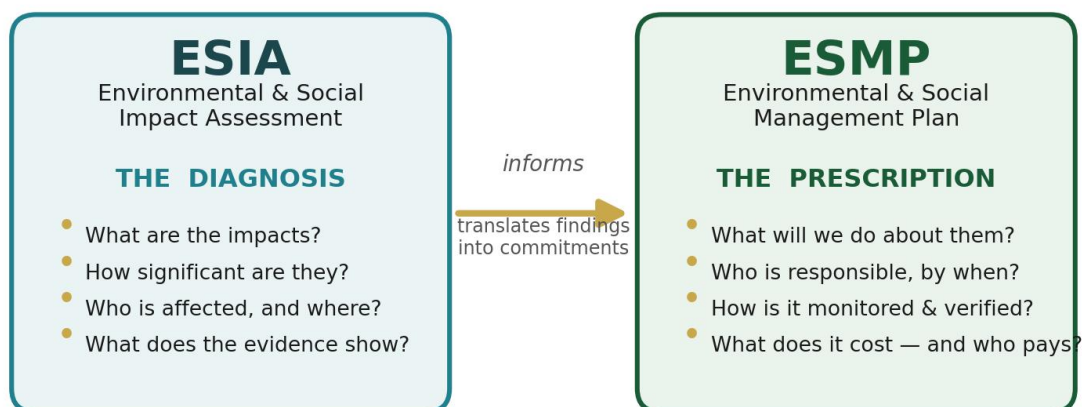
Chapter 1: Introduction — Why ESIA and ESMP Are Two Halves of One Discipline

1.1 The Central Distinction: Diagnosis and Prescription

Environmental and social governance for large industrial and infrastructure projects rests on two instruments that are frequently confused, conflated, or treated as interchangeable paperwork. They are not. The Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP) perform fundamentally different functions, and a project that produces one without properly producing the other is exposed — legally, financially, and reputationally. The cleanest way to understand the relationship is a clinical analogy: the ESIA is the diagnosis, and the ESMP is the prescription. [9][11]

A diagnosis examines a patient, runs tests, and produces an evidence-based account of what is wrong, how serious it is, and what is likely to happen if nothing is done. It does not, in itself, cure anything. In exactly the same way, the ESIA examines a proposed project, gathers baseline data, models predicted impacts on air, water, soil, biodiversity, livelihoods, health, and communities, and produces an evidence-based account of what those impacts are, how significant they are, and who will be affected. The ESIA is descriptive and predictive. It is the knowledge base. [10][26]

A prescription, by contrast, is a plan of action. It states what will be done about the diagnosed condition, in what dose, by whom, over what period, and how the patient's response will be monitored. The ESMP is precisely this: it converts the findings of the ESIA into a structured set of mitigation measures, each with a responsible owner, a measurable performance indicator, a timeframe, a monitoring method, and — critically — a budget. The ESMP is the instrument that is actually implemented on site, audited by lenders, and enforced by regulators throughout construction and operation. [14][25]



Diagnosis without prescription is description; prescription without diagnosis is guesswork.

Figure 1: ESIA and ESMP — The Diagnosis-and-Prescription Relationship

Source: Original EEESEF diagram. Concept adapted from IFC Performance Standard 1 (2012) and Equator Principles EP4 (2020).



The relationship is sequential and dependent. A prescription written without a diagnosis is guesswork; an ESMP written without a credible ESIA mitigates the wrong things, or mitigates real things at the wrong scale.

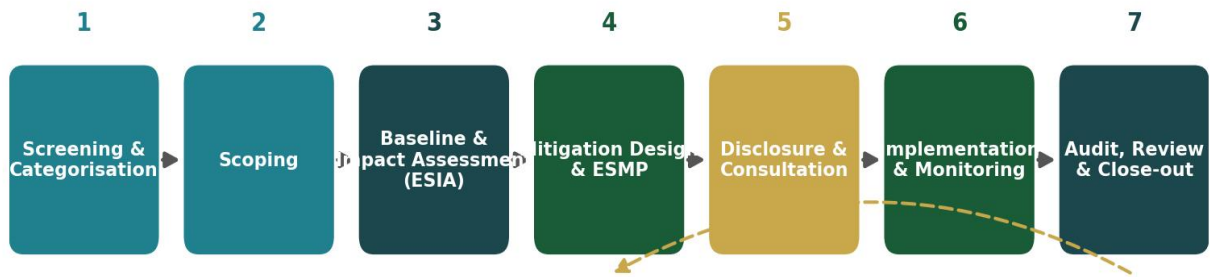
Equally, a diagnosis with no prescription is merely description: an ESIA that identifies serious impacts but is not translated into a funded, owned, time-bound management plan achieves nothing on the ground. This briefing argues that the most common and most costly failure in the Kazakhstani market — particularly on projects delivered by international engineering, procurement and construction (EPC) contractors — is not the absence of an ESIA, but the failure to translate it into a living, enforceable ESMP. [14][30]

1.2 Why This Briefing Focuses on Kazakhstan and Chinese Contractors

Kazakhstan occupies a particular position in the global infrastructure economy. It is a resource-rich, export-oriented economy with a modern environmental statute — the Ecological Code of the Republic of Kazakhstan No. 400-VI of 2 January 2021 — that was deliberately drafted to align with OECD and European Union practice and to embed the “polluter pays and corrects” principle. At the same time, a very large share of Kazakhstan’s industrial, energy, transport, and mining construction is delivered by Chinese contractors and financed, in whole or in part, through Chinese policy banks and the Belt and Road Initiative (BRI). [5][6]

This creates a three-way regulatory environment that any serious project must navigate simultaneously. First, Kazakhstani domestic law sets binding requirements through the OVOS (environmental impact assessment) procedure and state ecological expertise. Second, Chinese contractors and their financiers are increasingly bound by China’s own overseas environmental policy — the 2021 and 2022 MOFCOM-MEE guidelines — which now direct enterprises to follow international standards where host-country rules are weaker. Third, where international lenders are involved, the project must satisfy the IFC Performance Standards, the World Bank Group Environmental, Health and Safety (EHS) Guidelines, and frequently the Equator Principles. The ESIA and ESMP are the common documents through which all three regimes are satisfied at once. [15][20][24]

Continuous, lifecycle process — not a one-off permitting document



adaptive feedback — findings update the ESMP

Figure 2: The Integrated Environmental and Social Lifecycle — A Continuous Process

Source: Original EEESEF diagram. Concept adapted from IFC ESMS Implementation Handbook and Equator Principles EP4 lifecycle framework.

1.3 Scope, Method, and Intended Audience

This is an institutional briefing, not legal advice. Its purpose is to give a clear, practical, and technically accurate account of what an ESIA and an ESMP are, how they relate to one another, how each maps onto the Kazakhstani 2021 Ecological Code, and what specific obligations and risks arise when the project is delivered by a Chinese contractor operating under Green-BRI guidance. It is written for four audiences: Kazakhstani regulators and authorities who review and approve assessments; project owners and sponsors who commission them; Chinese EPC contractors and their environmental and social staff who must implement them; and the financiers, consultants, and independent monitors who verify them. [20][21]

The method is document analysis grounded in the primary regulatory and standard-setting instruments: the 2021 Ecological Code; the IFC Performance Standards and World Bank EHS Guidelines; the Equator Principles (fourth edition); and the Chinese MOFCOM-MEE overseas environmental guidelines of 2021 and 2022. Where this briefing characterises typical implementation gaps, it does so on the basis of widely reported patterns in international project finance practice and presents them as illustrative risk categories rather than findings about any specific named project. [1][16][24][25]



Chapter 2: The ESIA — Anatomy of the Diagnosis

2.1 What an ESIA Actually Is

An Environmental and Social Impact Assessment is a structured, evidence-based study that predicts the environmental and social consequences of a proposed project before it is built, and identifies how those consequences can be avoided or reduced. The word “assessment” is precise: the ESIA does not merely list possible effects, it evaluates their significance by combining the magnitude of an impact with the likelihood that it will occur and the sensitivity of the receptor that will experience it. The output is not a verdict of “acceptable” or “unacceptable” in the abstract, but a reasoned judgement about which impacts matter, how much they matter, and what must therefore be managed. [10][11]

The modern ESIA integrates the environmental and the social into a single instrument. Earlier practice separated environmental impact assessment from social impact assessment, but contemporary lender standards — and increasingly host-country law — treat them together, because impacts cross the boundary constantly. Dust and noise are environmental emissions and community health concerns at the same time; land acquisition is a property matter and a livelihood matter; water abstraction is a hydrological question and a question of who downstream loses access. The “S” in ESIA is not decorative. [15][28]

Among the social impacts that the ESIA must assess with the same rigour as environmental ones, land acquisition and economic displacement stand out as the highest-risk category in the Kazakhstani context. Large infrastructure and extractive projects frequently require the acquisition of agricultural land, pastoral land, or land on which communities depend for their livelihoods. IFC Performance Standard 5 sets out a detailed framework for involuntary resettlement that applies whenever people are physically displaced or economically displaced — meaning their livelihoods are affected — regardless of whether they are legally required to move. The standard requires a Resettlement Action Plan (RAP) or Livelihood Restoration Plan (LRP) as a sub-plan of the ESMP, with a census of affected persons, a valuation of affected assets at replacement cost, and a documented consultation and negotiation process. [15][10] In Kazakhstan, the OVOS procedure does not require a resettlement plan of the depth mandated by IFC PS5, and Kazakhstani land acquisition law operates through a compulsory purchase mechanism that may not fully compensate for loss of livelihood or access to common resources such as pasture and water. For projects with international financing, the gap between domestic law and IFC PS5 must be bridged by the ESMP: the plan must commit to IFC-standard compensation and consultation even where Kazakhstani law would permit a lesser approach. Ignoring this gap is one of the most common causes of community opposition, project delays, and lender covenant breaches on large Kazakhstani infrastructure and mining projects. [15][5][26]

2.2 The Sequence of an ESIA

A defensible ESIA follows a recognised sequence, and each step constrains the next. Skipping or compressing a step is the most common source of a weak diagnosis. The sequence below reflects both international good practice under IFC Performance Standard 1 and the structure embedded in the Kazakhstani OVOS procedure. [11][7]



Screening and Categorisation

Screening determines whether a formal assessment is required at all, and at what intensity. This is where the project is assigned a risk category. Under the Equator Principles and IFC system, projects are classified as Category A (potential significant adverse impacts that are diverse, irreversible, or unprecedented), Category B (limited, site-specific, largely reversible impacts), or Category C (minimal or no impacts). Under the Kazakhstani 2021 Ecological Code, facilities are assigned to one of four categories (I to IV) according to their level of environmental impact, with Category I facilities subject to the most demanding requirements. [26][2]

Scoping

Scoping defines the boundaries of the study: which impacts will be examined in depth, which receptors and which geographic and temporal extent are relevant, and what methods will be used. Good scoping prevents two opposite failures — a study so narrow that it misses material impacts, and a study so diffuse that it dilutes attention away from what matters. Scoping should be informed by early stakeholder consultation, because affected communities often identify impacts that a desk study would miss. [13][9]

Baseline Data Collection

The baseline is the measured state of the environment and the affected communities before the project begins. It is the reference against which all future change is judged, which is why a weak baseline fatally undermines everything downstream: if the pre-project condition of a river, an air-shed, or a community's health is not credibly documented, no later monitoring can prove whether the project caused harm or not. Baseline work spans physical, biological, and socio-economic data, and must be specific to season, location, and receptor. [10][13]

Impact Prediction and Evaluation of Significance

This is the analytical heart of the ESIA. Each potential impact is characterised by its nature (direct, indirect, or cumulative), its magnitude, its geographic extent, its duration and reversibility, and the sensitivity of the receptor. These factors are combined — often through a significance matrix — to rank impacts. The ranking is what tells the ESMP where to concentrate effort and money. An impact assessed as “high” or “extreme” significance demands a specific, well-resourced mitigation measure; a “low” significance impact may need only standard good-practice controls. [10][26]

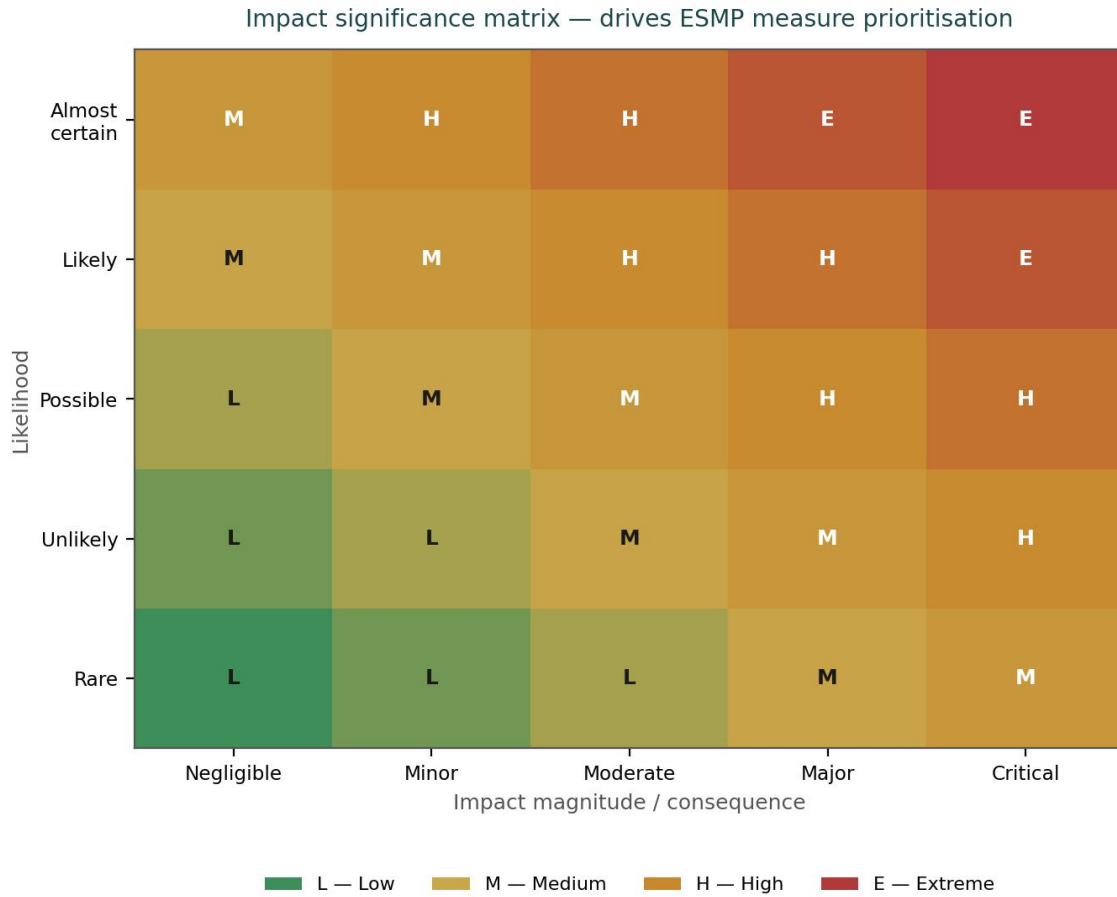


Figure 3: The Impact Significance Matrix — How the ESIA Ranks What Must Be Managed
 Source: Original EEESEF diagram. Significance matrix methodology adapted from IFC Performance Standard 1 and World Bank EHS Guidelines.

The significance matrix shown above illustrates the logic. Likelihood is assessed on one axis and consequence on the other; the product places each impact in a band from Low to Extreme. This is not arithmetic precision masquerading as science — it is a transparent, auditable way of forcing explicit judgements about every identified impact, so that a reviewer, a regulator, or a lender can see why one impact received a detailed management plan and another did not. [26][30]

2.3 The Mitigation Hierarchy — The Bridge to the ESMP

Before an ESIA can hand over to an ESMP, it must apply the mitigation hierarchy. This is the single most important principle connecting diagnosis to prescription, and it is mandated, in substance, by IFC Performance Standard 1, the Equator Principles, and the “prevention” and “polluter pays and corrects” principles of the Kazakhstani Code alike. The hierarchy requires that impacts be addressed in strict order of preference. [11][5]



The ESMP must show measures were selected top-down through this hierarchy

Figure 4: The Mitigation Hierarchy — Avoid, Minimise, Restore, Offset

Source: Original EEESEF diagram. Mitigation hierarchy adapted from IFC Performance Standard 1 (2012), Equator Principles EP4 (2020), and IUCN mitigation hierarchy guidance.

- **Avoid.** The first and strongest response is to prevent the impact entirely — by redesigning the project, relocating an activity, changing a process, or not undertaking the impact-causing activity at all. Avoidance is always preferred because it eliminates rather than manages risk.
- **Minimise.** Where an impact cannot be avoided, it must be reduced — in duration, intensity, geographic extent, or probability — through engineering controls, process changes, or operational limits.
- **Restore or rehabilitate.** Where impacts still occur, affected resources should be repaired or rehabilitated as far as practicable — for example, re-vegetating disturbed land or restoring a watercourse.
- **Offset or compensate.** Only as a last resort, for genuinely unavoidable residual impacts, should compensation or biodiversity offsets be used. Offsetting is the weakest tier precisely because it accepts that harm has occurred and seeks to balance it elsewhere.

A credible ESMP demonstrates, measure by measure, that mitigation was selected by working down this hierarchy from the top, not by reaching immediately for compensation because it is administratively convenient. When a reviewer audits an ESMP, one of the sharpest tests is to ask, for any significant impact: was avoidance genuinely considered, and if the measure proposed is compensation, why were the three higher tiers rejected? [11][30]

Chapter 3: The ESMP — Anatomy of the Prescription

3.1 What an ESMP Must Contain

If the ESIA answers “what are the impacts and how significant are they?”, the ESMP answers a different and more operational set of questions: what exactly will be done about each significant impact; who is responsible for doing it; when and how often; how will we know it is working; and how is it paid for? An ESMP that cannot answer all of these for every material impact is not a management plan — it is a statement of intent. The Equator Principles describe the ESMP as the summary of the client’s commitments to address and mitigate the risks and impacts identified in the assessment, ranging from a brief set of routine measures to a suite of detailed sub-plans. [26]

In practice, the operational core of an ESMP is a mitigation and monitoring matrix — a table in which every significant impact from the ESIA is matched to a specific commitment. The discipline of the matrix is what makes the plan auditable: each row can be tested independently, and a gap in any column is immediately visible. The columns below represent the minimum content of a bankable ESMP matrix. [14][25]

A bankable ESMP is auditable line-by-line: every commitment has an owner, a metric, and a budget

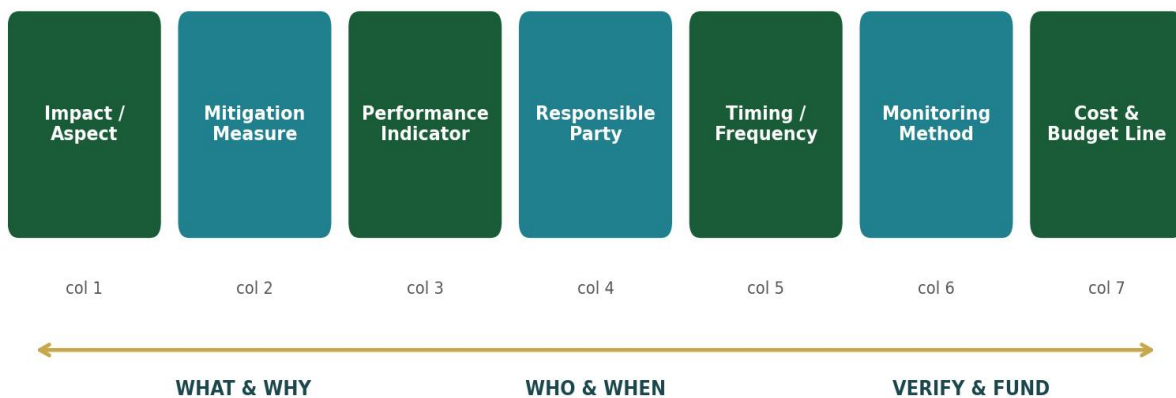


Figure 5: Anatomy of an ESMP Mitigation Matrix — The Seven Essential Columns

Source: Original EEEF diagram. Column structure adapted from EIB ESMP framework and Equator Principles EP4 ESMP requirements.

- **Impact / aspect.** The specific environmental or social impact being managed, traceable directly back to the ESIA significance assessment.
- **Mitigation measure.** The concrete action — engineering control, operational procedure, or management practice — selected through the mitigation hierarchy.
- **Performance indicator.** A measurable target or threshold that defines success (for example, a dust concentration limit, a noise level at the nearest receptor, or a re-vegetation percentage).
- **Responsible party.** A named role accountable for delivery — not “the contractor” in the abstract, but a specific position such as the site Environmental Manager.
- **Timing or frequency.** When the measure is applied and how often it is checked — continuous, daily, weekly, per-phase, or event-triggered.



- **Monitoring method.** How performance is verified — instrument readings, inspections, sampling and laboratory analysis, or records review — and who reviews the data.
- **Cost and budget line.** The resources allocated to the measure, tied to an actual budget so that mitigation is funded rather than aspirational.

3.2 The Management Sub-Plans

For larger projects — typically Category A and higher-risk Category B under the lender system, or Category I and II facilities under the Kazakhstani Code — the ESMP is not a single table but a framework that points to a series of topic-specific management plans. These translate the matrix into detailed operating procedures. The set of sub-plans is project-specific, but a typical industrial or infrastructure project in Kazakhstan delivered by an EPC contractor would include the plans summarised in the table below. [26][14]

Management Sub-Plan	Core Purpose
Air Quality & Dust Management	Control construction dust, vehicle and plant emissions; set ambient limits at sensitive receptors.
Water & Wastewater Management	Prevent contamination of surface and groundwater; manage abstraction, drainage, and discharge quality.
Waste & Hazardous Materials	Segregate, store, track, and lawfully dispose of wastes, including hazardous fluids, oils, and chemicals.
Soil, Erosion & Reinstatement	Manage topsoil, prevent erosion, and rehabilitate disturbed land to agreed end states.
Biodiversity & Habitat	Protect habitats and species; apply the mitigation hierarchy to ecological impacts.
Noise & Vibration	Limit noise and vibration at residential and ecological receptors; schedule high-impact works.
Occupational Health & Safety	Protect the workforce; integrate with the contractor's safety management system.
Labour & Working Conditions	Ensure fair terms, no forced or child labour, and a functioning worker grievance channel.
Stakeholder Engagement	Maintain disclosure, consultation, and a community grievance mechanism through the lifecycle.
Traffic & Community Safety	Manage construction traffic, access, and risks to local road users and pedestrians.
Emergency Preparedness & Response	Plan for spills, fires, and incidents; define roles, equipment, and drills.

Table 1: Typical ESMP Management Sub-Plans for an Industrial or Infrastructure Project in Kazakhstan

3.3 Monitoring, Auditing, and the Living Document Principle

The defining characteristic of a good ESMP is that it is a living document, revised as conditions change and as monitoring reveals whether measures are working. This is the practical meaning of adaptive management. Monitoring data feed back into the plan: if a dust-control measure is not holding concentrations below the agreed limit, the measure is strengthened, not quietly abandoned. Lender standards reinforce this by requiring ongoing monitoring and reporting across the full project lifecycle, and by treating environmental and social risk management as a continuous process rather than a one-off permitting exercise. [26][33]



Independent verification is what separates a credible ESMP from a self-serving one. Self-reported monitoring data, unverified, carry little weight with regulators, financiers, or affected communities. Under the Equator Principles, an independent environmental and social consultant reviews the assessment documentation, the management plans, and the stakeholder engagement process for higher-risk projects. This independent assurance layer is exactly where a neutral, non-commercial institution — such as an environmental science foundation with university and accredited-laboratory partners — can add credibility, provided it confines itself to monitoring and verification rather than commercial execution.

[26][14]

3.4 The Grievance Mechanism

A functioning grievance mechanism is a mandatory component of any ESMP that aspires to lender compliance, and it is frequently the single weakest element in practice. The fourth edition of the Equator Principles requires an effective grievance mechanism for affected communities and workers on all Category A and appropriate Category B projects, and it broadened the assessment of human-rights impacts to apply to every project. A grievance mechanism is not a complaints box; it is a defined, accessible, and culturally appropriate process by which an affected person can raise a concern, receive an acknowledgement within a stated time, and obtain a documented response — without fear of retaliation, and without surrendering any legal right. [26][28]

For projects delivered by Chinese contractors in Kazakhstan, the grievance mechanism presents specific design challenges that are frequently overlooked. Site workers are often Chinese nationals who speak neither Kazakh nor Russian, while affected community members may speak Kazakh or Russian but not Chinese. An effective mechanism must therefore operate in at least three languages — Kazakh, Russian, and Chinese — with intake points accessible to both the workforce and the surrounding community. This is not a translation exercise; it requires culturally appropriate communication channels. Chinese workers may be more comfortable raising concerns through a designated Chinese-speaking environmental officer than through a written form addressed to a Kazakhstani government body. Community members, conversely, require assurance that their concerns will reach decision-makers above the level of the site contractor. [26][28]

EP4 sets minimum performance standards for a compliant mechanism: it must be disclosed to affected stakeholders before construction begins; it must provide for acknowledgement of a grievance within a defined period (typically 5–10 working days); it must document every grievance, the response provided, and the outcome; and it must be reviewed periodically to confirm it remains accessible and effective. Critically, using the grievance mechanism must carry no cost or legal risk for the complainant, and the existence of the mechanism does not preclude recourse to judicial or administrative remedies. Under the Kazakhstani 2021 Ecological Code, public participation rights are reinforced through the OVOS public hearing requirement, but the Code does not prescribe a lifecycle grievance mechanism of the kind required by EP4 — meaning projects with international financing face an additional obligation that goes beyond domestic law. [26][5]

Chapter 4: Mapping onto Kazakhstan and Chinese Contractors

4.1 The Kazakhstani 2021 Ecological Code

The Ecological Code of the Republic of Kazakhstan No. 400-VI, signed on 2 January 2021 and in force from 1 July 2021, was developed over several years to consolidate strategic environmental norms in line with international and European Union practice. It introduced the “polluter pays and corrects” principle, strengthened public participation, embedded the presumption of environmental hazard for economic activity, and tied environmental performance to economic instruments through the Tax Code. For the purposes of this briefing, three features of the Code matter most. [5][6][4]

First, the Code operates a four-tier facility categorisation. Facilities are assigned to Category I (the highest environmental impact), II, III, or IV (minimal impact), and the assessment and permitting burden scales accordingly. Category I facilities — which include large industrial, energy, mining, and petrochemical operations of exactly the kind frequently built by Chinese EPC contractors — require an integrated environmental permit (IEP) based on best available techniques (BAT), and are subject to mandatory environmental impact assessment. [2][3]

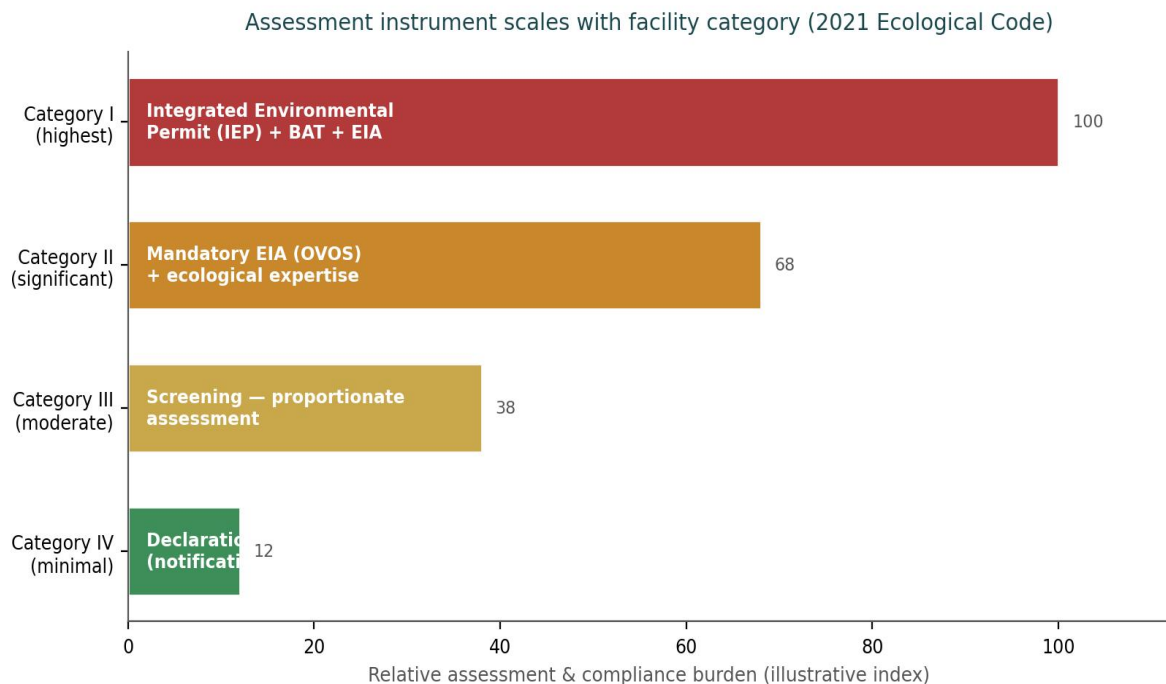


Figure 6: Kazakhstani Facility Categories and Their Assessment Instruments (2021 Ecological Code)

Source: Original EEESEF diagram. Category definitions from Ecological Code of the Republic of Kazakhstan No. 400-VI (2021), Articles 209–212.

Second, the Code retains and modernises the environmental impact assessment procedure, known by its Russian acronym OVOS, together with state ecological expertise — the formal review by the authorised state body that issues the environmental conclusion required before a project may proceed. The OVOS is, in substance, Kazakhstan’s domestic ESIA: it requires identification of impacts, evaluation of their admissibility against environmental quality standards, public hearings, and a documented decision.



The materials of the impact assessment and the state ecological expertise, including the protocols of public hearings, are placed in the national environmental information bank — an explicit transparency requirement. [2][7]

Third, the Code reinforces environmental management through economic pressure. Base payment rates for emissions from stationary sources were set to double from 2025, while facilities that adopt best available techniques through an integrated permit receive tax relief, and those that do not face heavier charges. This converts a strong ESMP from a compliance cost into a financial advantage: a facility that genuinely controls its emissions and documents the control pays less and faces less enforcement exposure. [1][5]

4.2 Where OVOS Meets the International ESIA / ESMP

The OVOS procedure and the international ESIA are not identical, and the gap between them is precisely where projects in Kazakhstan most often run into trouble. The OVOS is a regulatory permitting instrument focused on compliance with national environmental quality standards and on obtaining the state ecological conclusion. The international ESIA, by contrast, is broader on the social dimension — labour and working conditions, community health and safety, land acquisition and resettlement, indigenous and vulnerable groups, and a lifecycle grievance mechanism — reflecting the eight IFC Performance Standards. [2][15]

Where a project is financed only domestically and triggers no lender standards, the OVOS and the resulting permit conditions may be sufficient as a matter of law. But where international or Chinese policy-bank finance is involved, or where the contractor is bound by Green-BRI guidance, the project must satisfy the stricter of the host-country and the international requirement. The practical consequence is that a single integrated ESIA and ESMP, designed to meet both the OVOS requirements and the IFC Performance Standards simultaneously, is almost always more efficient than producing two parallel documents that diverge and contradict one another. [20][26] **The Asian Infrastructure Investment Bank (AIIB), through its Environmental and Social Framework (2021), similarly mandates ESIA and ESMP as conditions of financing for Category A and B projects, adding a fourth regulatory regime that projects with AIIB financing must satisfy alongside IFC, Equator Principles, and Kazakhstani domestic law. [31]**

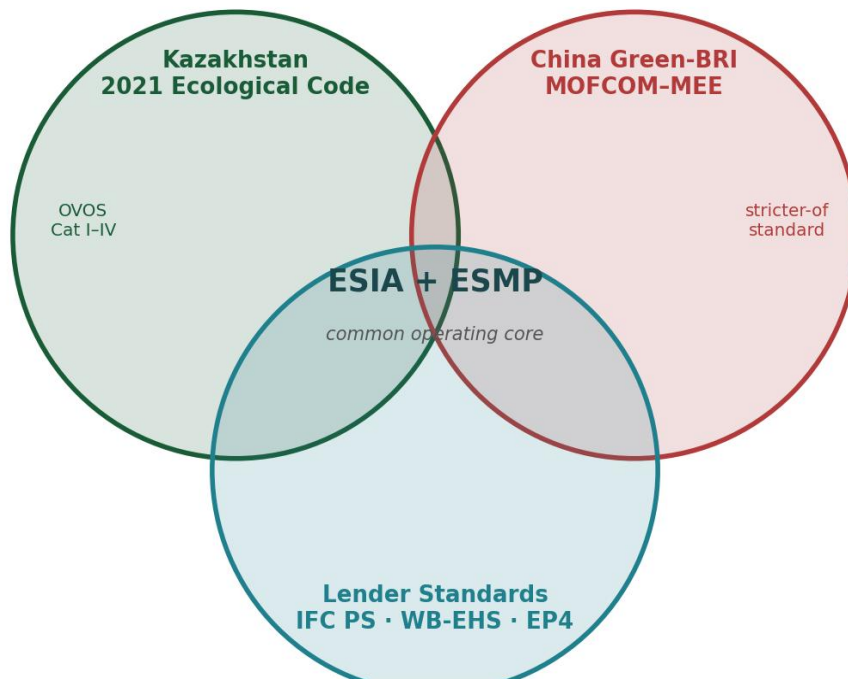


Figure 7: The Three Convergent Frameworks — Kazakhstani Law, Chinese Green-BRI, and Lender Standards
Source: Original EEESEF diagram. Framework analysis based on 2021 Ecological Code, IFC Performance Standards, Equator Principles EP4, and MOFCOM-MEE 2021/2022 Guidelines.

4.3 The Chinese Contractor Dimension

China’s overseas environmental policy has evolved markedly. The 2013 MOFCOM-MEE guidelines on environmental protection in foreign investment and cooperation set a baseline of meeting host-country rules. The Green Development Guidelines for Overseas Investment and Cooperation, issued jointly by MOFCOM and the Ministry of Ecology and Environment in July 2021, shifted the emphasis from minimum host-country compliance toward a “green development concept” and, importantly, encouraged enterprises to follow international green rules and standards where host-country standards are weak or absent. [17][22]

The 2022 Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects, issued in January 2022, went further. They set out responsibilities across the whole project lifecycle, provided sector-specific guidance for energy, transport, mining, and petrochemicals, and again encouraged enterprises to carry out environmental impact assessment and due diligence following international standards or Chinese standards, whichever is more stringent. For a Chinese EPC contractor building a Category I facility in Kazakhstan, this means that the contractor’s own home-state policy now points toward exactly the integrated ESIA-and-ESMP discipline described in this briefing. [20][21]

There is an important caveat. These Chinese guidelines are administrative guidance — soft law — rather than judicially enforceable statute. Their force comes from the steer they give to state-owned enterprises and from the conditions attached by financiers, not from the prospect of litigation. This makes the contractual flow-down of obligations decisive: the ESMP commitments must be written into the EPC

contract and cascaded to subcontractors, because that is the mechanism that actually binds behaviour on site. [18][24]

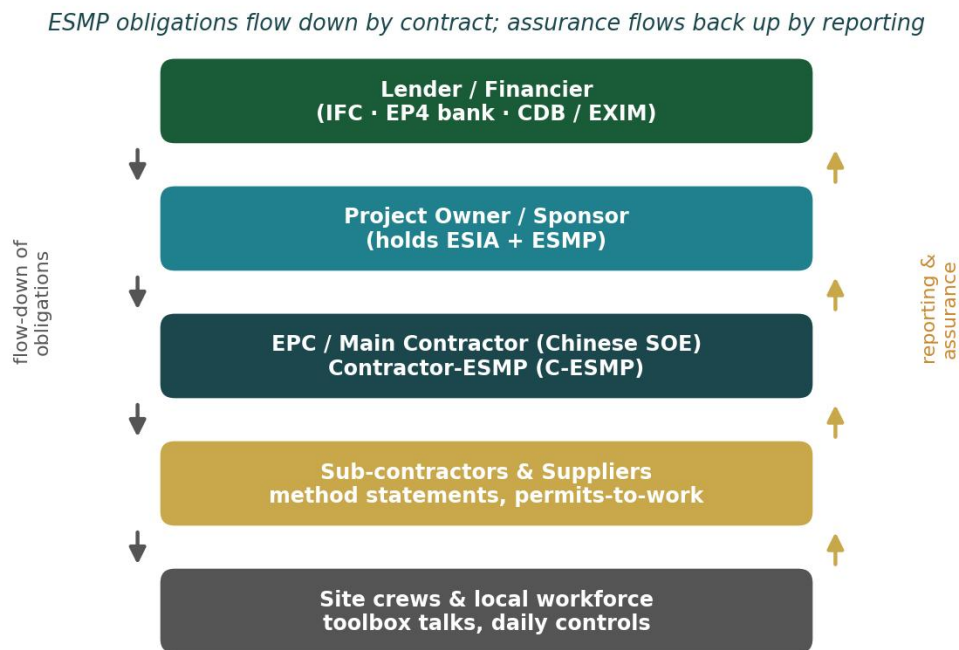


Figure 8: The Contractor Accountability Chain — Flow-Down of Obligations and Assurance

Source: Original EEESEF diagram. Accountability chain structure adapted from Equator Principles EP4 and EIB ESMP contractor flow-down requirements.

The accountability chain shown above is the operational reality of contractor-delivered projects. Obligations flow down by contract: from the lender to the project owner, from the owner to the main EPC contractor through a Contractor Environmental and Social Management Plan (C-ESMP), and from the main contractor to subcontractors, suppliers, and ultimately the site crews through method statements and permits to work. Assurance flows back up the same chain by reporting and verification. A break at any link — most commonly a C-ESMP that is never translated into the working language of the site crews — defeats the whole system. [14][25]

Illustrative Scenario: A Chinese EPC Contractor at a Kazakhstani Copper Mining Project

To illustrate how these three regulatory regimes converge in practice, consider the following representative scenario. A Chinese state-owned EPC contractor is awarded a contract to expand a copper concentrator in northern Kazakhstan. The project is Category I under the 2021 Ecological Code, triggering mandatory OVOS and an integrated environmental permit. The project owner has secured a co-financing arrangement with the EBRD, which requires compliance with IFC Performance Standards and EP4. The contractor's parent company, listed on the Shanghai Stock Exchange, is also subject to CSRC ESG reporting requirements covering its overseas operations.

In this scenario, three sets of obligations converge simultaneously: the OVOS must be completed and receive state ecological expertise approval before construction begins; an ESMP meeting IFC PS1 standards must be prepared and disclosed to affected communities; and a Contractor-ESMP must be written into the EPC contract and translated into Kazakh, Russian, and Chinese for use on site. The grievance mechanism must be operational before the first construction crew arrives. Independent monitoring reports must be submitted to the EBRD twice yearly. Each of these obligations is legally or contractually binding, and a failure in any one can trigger a financing default, a permit suspension, or a reputational incident. The scenario is not hypothetical in its structure — it describes the operational reality of dozens of projects currently under development across Kazakhstan's extractive and energy sectors. [5][20][26][31]

4.4 Recurring Implementation Gaps

Across contractor-delivered projects, a recognisable set of implementation gaps recurs. These are not failures of the ESIA as a document; they are failures to operationalise the ESMP. They are presented here as illustrative risk categories that owners, regulators, and monitors should actively probe, not as findings about any particular project. [14][30]

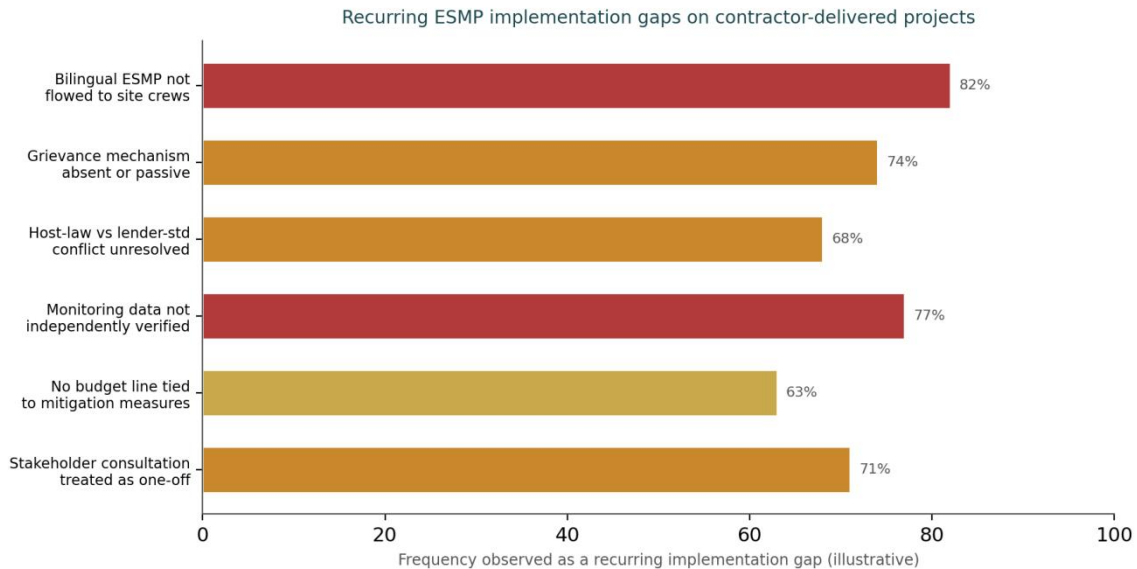


Figure 9: Recurring ESMP Implementation Gaps on Contractor-Delivered Projects

Source: Original EEESEF diagram. Gap categories derived from analysis of international project finance practice and IFC ESMS Implementation Handbook.

▶ THE SIX MOST COMMON ESMP FAILURE MODES

- Language and translation gap — a high-quality ESMP exists in English but is never translated into Kazakh, Russian, and Chinese, so the site crews who must implement it cannot read it.
- Passive grievance mechanism — a grievance procedure exists on paper but has no accessible intake point, no response timeframe, and no records, so community concerns are neither captured nor resolved.
- Unresolved standard conflict — where host-country and lender standards differ, the ESMP fails to state explicitly that the stricter applies, leaving site staff to default to the weaker rule.
- Unverified monitoring — monitoring data are self-reported by the contractor and never independently sampled or audited, so non-compliance is invisible until an incident occurs.
- Unfunded measures — mitigation measures are listed without a corresponding budget line, so when cost pressure arrives during construction, environmental measures are the first to be cut.
- One-off consultation — stakeholder engagement is treated as a single pre-construction event rather than a continuous lifecycle obligation, so emerging impacts are met with silence.

Chapter 5: Implementation Roadmap and Conclusions

5.1 A Phased Pathway to a Lender-Ready System

Bringing a project to the standard described in this briefing is achievable through a phased approach that front-loads the diagnosis, builds the management system early, and then sustains verification through the project lifecycle. The roadmap below is generic; the timing of each phase should be adjusted to the project schedule and to the facility category under the 2021 Ecological Code. [26][30]

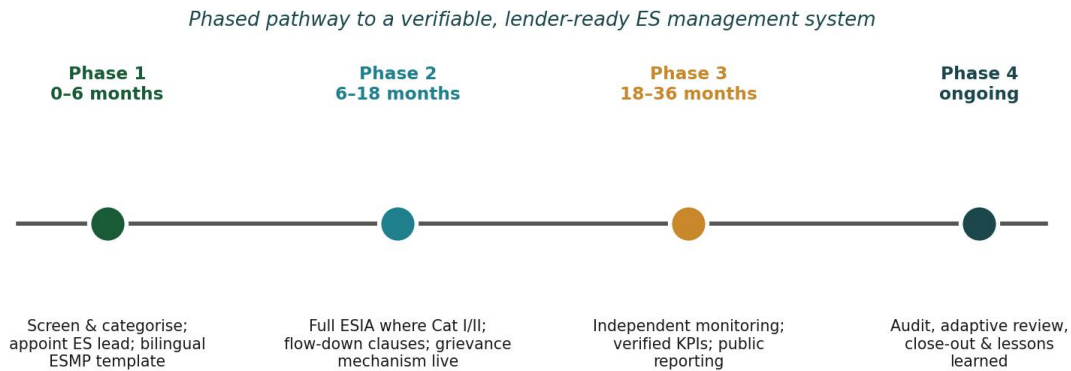


Figure 10: Phased Implementation Roadmap — From Screening to Verified Close-Out

Source: Original EESEF diagram. Phase structure adapted from IFC Performance Standard 1 lifecycle approach and 2021 Ecological Code permit timeline.

Phase	Window	Key Actions
Phase 1	0–6 months	Screen and categorise the facility; appoint a named environmental and social lead; prepare a trilingual ESMP template (Kazakh, Russian, Chinese) and confirm applicable standards.
Phase 2	6–18 months	Complete the full ESIA/OVOS for Category I and II facilities; write ESMP flow-down clauses into the EPC contract; establish and publicise a functioning grievance mechanism.
Phase 3	18–36 months	Implement independent monitoring; verify performance indicators against agreed thresholds; publish periodic environmental and social reports.
Phase 4	Ongoing	Conduct audits, apply adaptive review to update the ESMP, and complete close-out with documented lessons learned.

Table 2: Phased Implementation Roadmap for an Integrated ESIA / ESMP System

5.2 The Role of Independent Coordination and Verification

The credibility of the entire system depends on independent verification. Self-reported compliance, however well-intentioned, cannot reassure regulators, financiers, and affected communities at the same time. This is where a neutral, non-commercial institution can play a structurally necessary role — not by conducting the engineering or by displacing the licensed contractor or the state regulator, but by coordinating stakeholder engagement, convening university and accredited-laboratory partners to verify monitoring data, and publishing independent findings. The value of such an institution lies precisely in its neutrality: it has no commercial stake in the project outcome, and so its verification carries weight with all parties simultaneously. [20][21]



The Euro-Eurasia Environmental Science and Education Foundation (EEESEF), as a UK-registered non-profit operating under a constitution that enshrines its apolitical and non-religious character, is positioned to occupy this coordinating and monitoring layer in Kazakhstan. Its contribution is the independent aggregation and publication of findings and the facilitation of stakeholder alignment, conducted at no cost to government or to its partners and under cooperation arrangements that create no financial or legal obligation on any party. Its singular focus on measurable environmental and social outcomes — uncomplicated by commercial stakes — is what makes its presence both credible and useful. [20][21]

5.3 Consolidated Conclusions

The central argument of this briefing can be stated simply. The ESIA and the ESMP are not interchangeable documents or bureaucratic duplicates; they are the diagnosis and the prescription of a single discipline. The ESIA establishes, on the basis of measured baselines and ranked significance, what the environmental and social impacts of a project are. The ESMP converts that knowledge into a funded, owned, time-bound, and monitored set of commitments that are actually implemented on site. A project that produces a strong ESIA but a weak ESMP has diagnosed a condition and then failed to treat it. [10][14]

In Kazakhstan, the legal architecture is in place. The 2021 Ecological Code provides the OVOS procedure, state ecological expertise, facility categorisation, the polluter-pays-and-corrects principle, and economic instruments that reward genuine environmental performance. For projects delivered by Chinese contractors, the home-state Green-BRI guidance of 2021 and 2022 now points in the same direction, encouraging adherence to the stricter of host-country and international standards across the whole project lifecycle. Where international finance is involved, the IFC Performance Standards, the World Bank EHS Guidelines, and the Equator Principles converge on the same integrated ESIA-and-ESMP core. [5][20][26]

The remaining gap is therefore not legal authority or standard-setting; it is implementation. The recurring failures — untranslated plans, passive grievance mechanisms, unresolved standard conflicts, unverified monitoring, unfunded measures, and one-off consultation — are all failures to operationalise the prescription, not to write the diagnosis. Closing that gap requires three things: a single integrated ESIA and ESMP designed to satisfy all applicable regimes at once; contractual flow-down that binds the obligations to the contractor and subcontractors who execute the work; and independent verification that converts self-reported compliance into confirmed performance. With those three elements in place, a project in Kazakhstan can demonstrate environmental and social performance that is defensible to its regulator, bankable to its financier, and credible to the communities it affects. [14][24][30]



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