



SOCIAL DE-RISKING OF PTX PROJECTS

Community Engagement,
Participation and
Benefit Sharing



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PROJECT BACKGROUND

This publication was produced within the framework of the Kopernikus project P2X, funded by the German Federal Ministry of Research, Technology and Space (BMFTR). The project investigates the development and assessment of technologies for the production of energy carriers and energy-intensive chemical products based on renewable energy, with the aim of advancing key technologies for sector coupling and supporting their market readiness.

Key components of the project include the construction and operation of a demonstration plant for the production of synthetic e-kerosene, as well as site-specific techno-economic analyses and life cycle assessments. The resulting findings are used to evaluate the scalability of the technologies and their transferability to other regions. In addition, the project addresses issues related to the environmental and social sustainability and acceptance of Power-to-X (PtX) technologies at national and international levels, involving relevant stakeholders along the entire value chain, including project developers, industrial off-takers, policymakers and public authorities, representatives of civil society, research institutions, and financial institutions. South Africa and Chile were selected as additional focus countries and comparative case studies to Germany.

Overall, the project results outline pathways toward a sustainable PtX economy from ecological, economic, and societal perspectives.

This publication is part of a publication series.



All publications will be published during the course of the year 2026 and are available [here](#).

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EXECUTIVE SUMMARY

The development of green hydrogen and Power-to-X (PtX) infrastructure is accelerating globally, driven by efforts to defossilize energy systems and industrial processes and to establish new international clean energy supply chains. These projects are likely to affect local host communities and, in turn, be affected by these communities.

This report makes the case that meaningful community engagement is simultaneously a legal obligation, a risk management instrument and a driver of long-term project value. It is addressed to project developers, investors and other stakeholders involved in PtX production and trade in international contexts.

Three central questions structure the report:

- › **Who** are host communities?
- › **Why** should developers engage with them?
- › **How** can engagement be designed and implemented effectively across the full project lifecycle?

Key findings include:

- #01** Host communities are internally diverse and must be identified, mapped, and engaged as such. Indigenous Peoples constitute a legally distinct sub-category.
- #02** The legal duty to engage is grounded in international human rights law and operationalised through national permitting frameworks, due diligence legislation and financing conditions.
- #03** Projects that fail to engage early face measurable costs in the form of delays, legal challenges, reputational damage and reduced access to finance. Those that do engage meaningfully are more likely to generate better outcomes for both developers and communities.
- #04** Engagement and benefit sharing are complementary pillars of socially legitimate project development. Neither can substitute for the other: Procedural engagement without equitable benefit distribution as well as benefit-sharing without continuous engagement procedures, both fall short of the standards required by law and supported by evidence.
- #05** Effective engagement follows a structured approach, including early stakeholder mapping, risk-based prioritisation, continuous dialogue across the project lifecycle, and grievance mechanisms that are accessible before conflicts arise.

» 1 INTRODUCTION

The rapid scaling of green hydrogen and Power-to-X (PtX) infrastructure is central to global efforts to decarbonise energy systems and establish new international clean energy supply chains. These projects are often large in scale, long in duration, and intensive in their demands on land, water, and infrastructure, with significant local effects on ecosystems, landscapes, and existing services. The communities living and working in proximity to these projects are therefore not incidental to their success: They are centrally affected by them and can, in turn, influence project trajectories in ways that can increase the likelihood of successful developments and improve the conditions under which projects proceed, rather than stall or fail entirely.

Inclusive engagement across diverse stakeholder groups enhances transparency, legitimacy and acceptance of energy policy outcomes.¹ Public engagement is recognised as a core component of successful infrastructure development because it helps align project planning with societal needs, identifies risks early, and enables stakeholders to co-create solutions rather than merely reacting to decisions imposed from above.² Where host communities are genuinely involved, projects can benefit from local knowledge, build more durable public support, and reduce exposure to the legal, financial, and reputational risks. Where they are not, developers may risk human rights and environmental violations, legal challenges, loss of social licence, and consequential investment delays or project failures.³



The communities living and working in proximity to these projects are not incidental to their success: They are centrally affected by them and can, in turn, affect project trajectories.

These dynamics unfold against a broader backdrop of uncertainty that makes community engagement both more complex and more urgent. Climate change mitigation generates global benefits, such as a stable climate, reduced extreme weather risks, and preserved ecosystems. Yet the infrastructure required to achieve it is built in specific places, on land and with water resources on which communities depend. The costs of large-scale energy infrastructure—including land use, landscape change, water consumption, and disruption to existing livelihoods—are often concentrated and local, even when the rationale for bearing them is global.⁴ This asymmetry between who benefits and who bears the burdens is the foundational equity challenge of the Just Energy Transition.^{5,6} At the same time, this asymmetry creates an opportunity to direct benefits towards local development, for example through improved grid infrastructure, desalinated water, or higher incomes. Where communities are meaningfully involved in project design, where benefit-sharing arrangements reflect local priorities, and where trust is built through consistent and transparent engagement, projects are more likely to secure durable support and generate shared benefits.⁷

- 1 S. Reynolds, 'Stakeholder Engagement and its Impact on Supply Chain Sustainability in the Context of Renewable Energy' (Preprints, 2024), <https://doi.org/10.20944/preprints202406.0080.v1>.
- 2 J. Szabo and B. Valach, 'Community Engagement and Fair Benefit Sharing of Renewable Energy Projects' (Climate Action Network Europe, 2025), <https://caneurope.org/content/uploads/2025/04/CANE-April-2025-Community-Engagement-and-Benefit-Sharing.pdf>.
- 3 W. J. Henisz, S. Dorobantu and L. J. Nartey, 'Spinning Gold: The Financial Returns to Stakeholder Engagement,' *Strategic Management Journal* 35, no. 12 (2014): 1727–1748, <https://doi.org/10.1002/smj.2180>.
- 4 K. J. Dillman and J. Heinonen, A 'Just' Hydrogen Economy: A Normative Energy Justice Assessment of the Hydrogen Economy,' *Renewable and Sustainable Energy Reviews* 167 (2022): Art. 112648, <https://doi.org/10.1016/j.rser.2022.112648>.
- 5 I. Suboticki et al., 'Fostering Justice Through Engagement: A Literature Review of Public Engagement in Energy Transitions,' *Energy Research & Social Science* 99 (2023): Art. 103053, <https://doi.org/10.1016/j.erss.2023.103053>.
- 6 K. Jenkins et al., 'Energy Justice: A Conceptual Review,' *Energy Research & Social Science* 11 (2016): 174–182, <https://doi.org/10.1016/j.erss.2015.10.004>.
- 7 F. Bacil, *Case Studies on Local Beneficiation from Hydrogen Projects* (UNIDO, 2025), <https://hydrogen.unido.org/sites/default/files/2025-11/report-case%20studies-digital-final2.pdf>.



The direct relationship between developers and the communities that host their projects remains essential, and this report is addressed to those engaged in building it.

The shift from conflict to partnership is therefore not idealistic but a reliable path to successful project implementation.

This report addresses that mechanism directly. At the same time, its recommendations must be situated within a broader governance context. The responsibility for ensuring that host communities are meaningfully engaged does not rest with project developers alone. Governments shape regulatory frameworks, permitting requirements and public participation standards that create consistent expectations for all developers operating within their jurisdictions. National, regional and international standard-setting in this area would be particularly valuable: Common frameworks for community engagement and benefit sharing could reduce the fragmentation that currently characterises the landscape, help level the playing field among developers, and provide host communities with more reliable and enforceable protections. Progress in this direction is welcome and should be accelerated.

Until such frameworks are fully in place, however, the absence of universal standards does not diminish the importance of action. For host communities, meaningful engagement is a matter of rights and lived experience that cannot wait for regulatory convergence. For developers, it is a practical necessity to ensure financing, permitting and long-term operational stability. The direct relationship between developers and the communities that host their projects therefore remains essential, and this report is addressed to those engaged in building it.

Key Terms

Three terms recur throughout this report and are worth briefly introducing here. The term **host communities** refers to all individuals, groups and collectivities who live or work in the area affected by a project, or who hold recognised rights, customary claims or legitimate interests in that area. **Community engagement** refers to the process through which developers and operators initiate and sustain meaningful dialogue with those communities across the full project lifetime, from early planning through to decommissioning. **Benefit sharing** refers to the mechanisms through which the economic and social value generated by a project is redistributed equitably to those who host it, going beyond tax compliance to encompass proactive and negotiated arrangements. Fuller definitions of all three terms, and the justice framework that connects them, are set out in [Chapters 2](#) and [4](#) respectively.

While there is no single globally-recognised definition of Indigenous Peoples, for the purposes of this safeguard WWF is guided by the statement of coverage contained in International Labour Organization Convention 169 (ILO 169), which includes both Indigenous and tribal peoples. In certain countries, these peoples may or may not be formally identified as "Indigenous or tribal" and should be referred to using contextually appropriate terminology. This safeguard also covers peoples who have been extended the rights of Indigenous Peoples under national law and/or rulings by applicable regional human rights courts. Specific expertise may be needed to ascertain whether a particular group should be considered as Indigenous Peoples for the purpose of this safeguard.

1.1 Methodology

The report is based primarily on systematic desktop research drawing on academic literature, practitioner frameworks, international legal instruments, and reports on community engagement in energy transition infrastructure projects. It additionally draws on three complementary sources: roundtables, focus groups, and interviews—some of which were performed during field trips.

Three countries were selected for closer analysis: Germany, Chile and South Africa. Aside from Germany, understood as a central proponent of the production and trade of PtX within and beyond Europe and a key net-importer of PtX, Chile and South Africa are selected as promising net-export countries. Their respective hydrogen strategies reflect a strong interest in producing hydrogen and derivatives for export purposes. Both countries have formed energy partnerships with Germany and are viewed as promising trade counterparts. Simultaneously, central aspects differ between the two case studies: proximity to Europe, level and nature of industrialisation, socio-economic development, historical context and environmental conditions differ and thus showcase different needs and expectations towards sustainability criteria. In a workshop the project consortium, consistent of Dechema e.V., IZES, PtX Hub, OTH Regensburg, Proadis and WWF, took a decision to focus their research and subsequent publications on these case studies.

A series of stakeholder dialogue roundtables were conducted in which sustainability criteria for PtX projects—spanning environmental, governance, social and economic dimensions—were discussed. Participants represented a broad range of actors including industry, government, project developers, financiers, certifiers, academics and civil society. Host community engagement emerged consistently as a relevant theme across these sessions, even though it was not the primary focus of the roundtable design. This finding shaped the direction of the subsequent research.

Secondly, **focus groups** were conducted with civil society organisations and members of host communities in Chile and South Africa. These sessions were particularly valuable for understanding existing community grievances, perceptions of PtX development and the conditions under which communities might support or resist projects and provide a grounded counterpoint to the more institutional perspectives gathered in the roundtables.

Finally, **a series of semi-structured interviews** were conducted to address remaining gaps. Interviewees included professionals working on Environmental, Social and Governance (ESG) frameworks for large-scale hydrogen projects and researchers with expertise in the rights of Indigenous Peoples affected by energy infrastructure. Interviewees were identified through snowball sampling, often following initial contact at industry and research conferences, and were selected to reflect a diversity of perspectives and geographic contexts. Interview transcripts were processed anonymously to protect interviewee confidentiality. Across the interviews, a notable pattern emerged: actors directly involved in local project development viewed local community engagement and benefit sharing more positively and integral to project success than actors further away from practice. This divergence in perspective is one of the central observations underlying this report.



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The institutional reference point throughout this report is the [WWF Environmental and Social Safeguards Framework \(ESSF\)](#), developed by WWF International to govern the social and environmental risks of its own project work globally. The ESSF establishes mandatory standards for community engagement, stakeholder consultation, benefit sharing, grievance mechanisms and the protection of Indigenous Peoples' rights.

A note on positionality: this report is published by WWF Germany, an organisation with direct operational experience of managing large-scale projects affecting local communities abroad, an institutional interest in the responsible scale-up of green hydrogen, and a commitment to approaching energy transitions from a justice perspective. These perspectives inform the report's framing. We have sought to ground the analysis in evidence and to acknowledge complexity where it exists.

Research Questions and Structure

Based on these combined insights, this report addresses three central questions:

Who are host communities, and how are they affected by PtX projects?

Why should project developers and other stakeholders work closely with host communities?

How can engagement be designed and implemented effectively across the full project lifecycle?

The structure is as follows:

» 2

Chapter 2—

Who? Defining the Actors of Community Engagement examines who host communities are, why they cannot be treated as a homogeneous group and why Indigenous Peoples require distinct consideration under international law. It establishes a working definition of host communities, introduces the stakeholder mapping approach central to this report's practical recommendations, and provides the conceptual foundation for all subsequent analysis.

» 3

Chapter 3—

Why? Legal and Socio-Economic Reasons to Engage sets out the normative and business case for community engagement, drawing on international human rights law, the concept of a social licence to operate and the evidence on local value creation. It argues that community engagement is simultaneously a legal obligation, a risk management instrument and a driver of project value—and that these dimensions are mutually reinforcing rather than in tension.

» 4

Chapter 4—

How? From Concepts to Methods of Engagement translates the preceding analysis into practical guidance, defining the key concepts of engagement and benefit sharing, mapping engagement obligations across the project lifecycle and providing an overview of tools and formats available to developers. It closes with a set of concrete recommendations grounded in a risk-based approach to stakeholder prioritisation.

» 2 WHO? DEFINING HOST COMMUNITIES

Large-scale energy infrastructure projects do not take place in a vacuum. They are situated in specific geographic, social and cultural contexts, and their impacts on land, water, livelihoods, mobility and cultural life are experienced by real people living and working in proximity to project sites. Yet the term “community”, as it appears across legal frameworks, ESG standards and project documentation, is rarely defined with precision.

Stakeholder engagement in PtX projects encompasses a broad set of interactions between parties, including public administrations, regulators, financiers, certifiers, researchers and civil society organisations.⁸ Three publications in this series explore the perspectives of all stakeholders on PtX in detail and will be released in the course of 2026. This guide focuses specifically on the relationship between project developers and the local communities that host their operations.⁹ This chapter defines who those communities are and establishes the conceptual foundation for a comprehensive community stakeholder map.

From “Local” to “Host”: A Note on Terminology

This guide uses the term “**communities**”, “**local communities**” and “**host communities**” interchangeably. While all terms appear widely in public discourse and project documentation, “host communities” most accurately captures the relational dynamic at play: these are communities on or near whose land, water and resources a project is being developed, and who bear both the risks and the potential benefits of that development. The term “local communities” tends to imply a degree of geographic proximity and social coherence that does not reflect the complexity of real project contexts. Where obligations or considerations apply specifically to Indigenous Peoples, it is important to state this explicitly rather than subsume them within the broader category.

⁸ M. Greenwood, ‘Stakeholder Engagement: Beyond the Myth of Corporate Responsibility’, *Journal of Business Ethics* 74, no. 4 (2007): 315–327, <https://doi.org/10.1007/s10551-007-9509-y>.

⁹ Publication 3 of the publication series concerns stakeholder perspectives as a whole. It highlights areas of consensus and divergence among governments, PtX producers and buyers, financial institutions, academia, think tanks, and civil society and social partners, revealing regional priorities and perceived trade-offs. Together with other publications it is available at: http://www.kopernikus-projekte.de/aktuelles/news/p2x_publicationen-wwf.

2.1 Defining host communities

For the purposes of this guide, the term host communities refers to all individuals, groups and collectivities who live or work in the area affected by a project, or who have recognised rights, customary claims or legitimate interests in that area, whether or not they are formally organised or officially represented. This includes permanent residents in the project's immediate vicinity, people dependent on land, water or natural resources affected by the project, workers and their households, and those whose mobility, livelihoods or access to services may be altered by project-related infrastructure or activities.

In the context of large-scale energy infrastructure projects, the term *community* is often used as if it referred to a single, coherent group with shared interests and a unified voice. In practice, however, communities are heterogeneous and internally differentiated, comprising individuals and groups with diverse livelihoods, identities, and degrees of influence over local decision-making. Treating communities as monolithic risks overlooking internal power dynamics and may result in engagement processes that privilege certain voices while marginalising others. This, in turn, decreases the legitimacy of PtX projects.

Engagement processes that rely solely on formal representatives or visible leaders risk reproducing existing power imbalances. In many contexts, local elites, whether financially or through other capital, are more likely to participate in consultations, while other social groups, typically women, migrant workers, or nomadic or semi-nomadic groups may be under-represented or excluded entirely.¹⁰ This can result in agreements or benefit-sharing arrangements that reflect the preferences of a subset of the population rather than the community as a whole.

Understanding communities as internally differentiated therefore requires attention to the distribution of authority and capacity, processes of representation and decision-making, as well as potentially overlooked groups. Relevant sub-groups to consider in any host community analysis include different socio-economic groups such as landowners, informal settlers, workers and small business owners; Indigenous and Non-indigenous Peoples; women, youth and elderly populations; groups differentiated by race, ethnicity or migration status; actors with differing access to education, information and communication technologies; and groups with unequal access to political representation or legal remedies.

Keeping this in mind, a culturally sensitive approach also requires respecting different forms of organisation and existing legal and social systems.

From a project-development perspective, failure to account for these dynamics increases the risk that engagement processes will later be contested as illegitimate, even if they formally complied with consultation requirements.



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10 B. K. Sovacool et al., 'Pluralizing Energy Justice: Incorporating Feminist, Anti-Racist, Indigenous, and Postcolonial Perspectives,' *Energy Research & Social Science* 97 (2023): Art. 102996, <https://doi.org/10.1016/j.erss.2023.102996>.

Indigenous Peoples as a distinct category

While there is no single globally-recognised definition of Indigenous Peoples, a useful statement of coverage is contained in the International Labour Organization Convention 169 (ILO 169), which includes both Indigenous and Tribal Peoples. In certain countries, these peoples may or may not be formally identified as "Indigenous or Tribal" and should be referred to using contextually appropriate terminology.

Indigenous People are communities that have historical continuity with a region prior to colonization or state formation, maintain distinct cultural, social, and political institutions, and self-identify as members of these communities. They hold the inherent right to self-determination, including the freedom to determine their own political status and to pursue freely their economic, social, and cultural development. This right exists independently of, and is not contingent upon, formal recognition by any state.

Where Indigenous Peoples are present in or connected to the project-affected area, they must be understood as a legally and culturally distinct category within the broader host community, subject to a specific and more demanding set of legal engagement obligations. These obligations give rise to rights attached not only to those physically resident in the project area but to peoples with historical, cultural or territorial connections to affected lands and resources, even where formal land titles are absent. The rights of this group are explored in [Chapter 3.2](#) in more detail.

Failing to identify the presence of Indigenous Peoples at an early stage is one of the most consequential scoping errors a developer can make. It can invalidate consultation processes, trigger legal challenges and, in serious cases, constitute a breach of international human rights standards with direct implications for project financing and market access.

Towards a stakeholder map

Defining host communities is not a purely conceptual exercise but the foundation for every subsequent engagement decision and begins with a structured stakeholder mapping exercise: a systematic process of identifying who is present in the project-affected area, what their interests and vulnerabilities are, and how they can be meaningfully reached.¹¹ Crucially, this mapping should be understood as a dynamic exercise, updated as projects evolve and as new impacts, migration patterns or social tensions emerge over the project lifecycle. Host communities form one, albeit central, category within the broader stakeholder landscape.

2.2 Identifying and mapping host communities

Defining host communities conceptually is necessary but not sufficient. Developers also need a practical method for determining who falls within that definition in any given project context. Draw the boundary too narrowly and affected groups are excluded from engagement; draw it too broadly and engagement loses focus and justification. Two criteria should guide the scoping exercise.

11 D. M. Franks and F. Vanclay, 'Social Impact Management Plans: Innovation in Corporate and Public Policy,' *Environmental Impact Assessment Review* 43 (2013): 40–48, <https://doi.org/10.1016/j.eiar.2013.05.004>.

The first is geographic scope. The relevant area is not simply the project site but the full zone of impact. Water abstraction catchments, transport corridors, grid connections and workforce migration can all generate impacts well beyond the installation itself. A useful starting point is to map the direct project footprint and then ask systematically which additional areas are affected by each associated activity. Where the boundary is uncertain, erring on the side of inclusion is both ethically sounder and operationally safer. Excluded communities that later identify themselves as affected are a predictable source of conflict.

The second criterion combines legitimacy of claim and stakeholder salience. Relevant actors include those with formal land rights, those with customary or traditional use rights and those whose livelihoods, health or cultural life are connected to affected resources. Formal title is not a prerequisite for legitimate standing. Within this group, salience, understood as the combination of the legitimacy of a stakeholder's claim, the urgency of their situation and the severity of the project's impact on them, determines who warrants the most intensive engagement attention. Those facing direct and significant impacts such as displacement, loss of livelihood or restricted resource access have higher salience than those with more indirect or diffuse exposure, and engagement depth should be calibrated accordingly. This prioritisation is the foundation of the risk-based approach set out in [Chapter 4](#).



Defining host communities conceptually is necessary but not sufficient. Developers also need a practical method for determining who falls within that definition in any given project context.



» 3 WHY? LEGAL AND SOCIO-ECONOMIC REASONS TO ENGAGE



Community engagement in large-scale energy and infrastructure projects such as PtX projects is grounded in international human rights law, embedded in national regulatory frameworks and increasingly recognised as a key factor determining investment stability and project success.

The duty to involve local communities in project planning and execution predominantly arises as legal obligations of states towards their respective citizens or residents (in democratic settings). However, this duty is increasingly translated into concrete expectations for businesses through due diligence frameworks, environmental licensing and permitting procedures, public discourse and evolving sustainability standards at a national and regional level.

In addition to legal obligations, meaningful engagement with affected host communities brings significant political and economic benefits. Projects that engage communities early and transparently can build trust, reduce risks, and create a more stable foundation for implementation. Local knowledge of ecosystems, potential use conflicts and societal needs are important resources that can shape the location, size and design of a project. By integrating community perspectives and benefit-sharing mechanisms into their design, PtX projects are more likely to gain durable public acceptance and strengthen long-term investment security. Conversely, projects that fail to engage communities early and transparently increasingly face delays, litigation, reputational risks or outright cancellation.

This chapter outlines both the legal foundations and the economic rationale for community engagement in the context of green hydrogen and PtX projects.



3.1 The duty to engage: legal frameworks governing the involvement of communities

Under international human rights law, states have a duty to protect individuals and communities within their respective jurisdictions against human rights abuses by third parties. This duty derives from core international human rights instruments such as the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR).¹² These treaties safeguard, among others, the rights to life, health, water, housing, work, freedom of expression, freedom of assembly and participation in public affairs.

¹² International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR); International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3 (ICESCR).



Harmonising due diligence obligations through a European corporate sustainability due diligence mechanism decreases bureaucracy through harmonisation, brings clarity to business conduct within and beyond the EU, and safeguards human rights.

Together, these rights establish a legal foundation for the inclusion of affected communities in decision-making processes where large infrastructure or industrial projects may interfere with their living conditions, access to resources or cultural life. States operationalise these obligations through national legislation governing environmental permitting, land use planning and environmental impact assessments (EIAs). In democratic legal systems, such frameworks typically require public participation or consultation processes when projects may have significant social or environmental impacts. Additional international agreements also reinforce these procedural rights. The Aarhus Convention establishes access to information, public participation and access to justice in environmental matters in the Eurasian region.¹³ In Latin America and the Caribbean, the Escazú Agreement provides a similar framework, guaranteeing access to environmental information, public participation in environmental decision-making and protection for environmental defenders.¹⁴ While Europe and several Latin American countries have adopted dedicated regional treaties on environmental democracy, African and Asian regions lack comparable comprehensive frameworks. Instead, participation rights are derived from broader human rights treaties, environmental conventions, and national legislation, resulting in a more fragmented legal landscape. [see Annex].

These instruments oblige states to ensure access to remedies when business activities cause or contribute to human rights harm. This includes judicial and non-judicial grievance mechanisms as well as procedural guarantees such as transparency mechanisms and the right to be heard. These procedural rights aim to ensure that affected communities can voice concerns, access relevant information and participate in decision-making before irreversible decisions are taken. They also strengthen transparency and accountability in environmental governance.

In practice, this responsibility is implemented and enforced through human rights due diligence and sustainability reporting laws in the context of large infrastructure projects. Companies are expected to identify, prevent, mitigate and account for human rights risks associated with their activities. These frameworks rarely prescribe specific forms of community engagement but require companies to demonstrate that they have taken reasonable steps to identify and mitigate social and environmental risks. Identifying risks and mitigating problems effectively require a dialogue between businesses and local communities.

Though a necessary step in legal terms, the factual double translation: first from international law into national law, and then from national due diligence laws into corporate strategies, gives rise to problems in practice. It leads to differences in expectations and due diligence obligations by states and exacerbates global inequality in the enjoyment of human rights. It also means that businesses operating transnationally must adapt their environmental, social and governance (ESG) strategies in each country to fulfil legal obligations. This problem can, interestingly, even be observed within the European Union.¹⁵ Harmonising due diligence obligations through a European corporate sustainability due diligence mechanism decreases bureaucracy through harmonisation, brings clarity to business conduct within and beyond the EU, and safeguards human rights.

13 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 25 June 1998, entered into force 30 October 2001) 2161 UNTS 447 (Aarhus Convention).

14 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (adopted 4 March 2018, entered into force 22 April 2021) 3388 UNTS (Escazú Agreement).

15 Szabo and Valach (fn 2).

While states will continue to bear the primary legal obligations under international law, businesses have been assigned a responsibility to respect human rights through various international instruments; most prominently in the United Nations Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines for Multinational Enterprises.¹⁶ These frameworks establish that companies should avoid infringing on the human rights of others and address adverse impacts linked to their operations, products or business relationships. Meaningful stakeholder engagement is a central element of this process. The UNGPs emphasise that companies should consult potentially affected groups to understand impacts from their perspective and ensure that assessments are not based solely on technical or managerial criteria.

Where projects affect Indigenous Peoples, these general obligations are supplemented by a distinct and more demanding body of international law, discussed in the following section.



3.2 Special protection for Indigenous Peoples: Free, Prior and Informed Consent (FPIC)

Indigenous Peoples enjoy specific protection under international law due to their distinct cultural, territorial and political status. The principle of Free, Prior and Informed Consent (FPIC) is enshrined most prominently in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and ILO Convention No. 169.¹⁷ It derives from the fundamental right of Indigenous Peoples to self-determination and to control their lands, territories and resources—rights that are increasingly recognised not merely as aspirational but as binding obligations under customary international law and regional human rights instruments.¹⁸

Legal and normative foundation

UNDRIP Articles 10, 19 and 32 establish FPIC as the applicable standard where decisions may affect Indigenous Peoples' lands, territories, resources, or their cultural and political integrity. ILO Convention No. 169, which carries binding force for ratifying states, similarly requires consultation with the objective of achieving agreement or consent. The Inter-American Court of Human Rights has gone further, treating FPIC as a prerequisite for any large-scale development project affecting Indigenous territories and holding states responsible for ensuring its application even where private actors are involved.¹⁹

It is important to note that international law does not uniformly require consent as an absolute veto in all circumstances. UNDRIP distinguishes between situations where FPIC is strictly required—most notably relocation, disposal of hazardous materials on

¹⁶ Organisation for Economic Co-operation and Development, *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (OECD Publishing, 2023), <https://doi.org/10.1787/81f92357-en>; United Nations Office of the High Commissioner for Human Rights, *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, UN Doc. A/HRC/17/31 (2011), https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinessshr_en.pdf.

¹⁷ United Nations General Assembly, *United Nations Declaration on the Rights of Indigenous Peoples*, UN Doc. A/RES/61/295 (13 September 2007); Indigenous and Tribal Peoples Convention, 1989 (No. 169) (adopted 27 June 1989, entered into force 5 September 1991) 1650 UNTS 383 (ILO Convention No. 169).

¹⁸ Inter-American Court of Human Rights, *Case of the Saramaka People v. Suriname*, Judgment of 28 November 2007, Series C No. 172.

¹⁹ Ibid.; Inter-American Court of Human Rights, *Case of the Kichwa Indigenous People of Sarayaku v. Ecuador*, Judgment of 27 June 2012, Series C No. 245.



FPIC is not a single procedural step but a continuous obligation throughout the project lifecycle, from early scoping and permitting through to construction, operation and decommissioning.

Indigenous lands, and legislative or administrative measures affecting Indigenous rights—and situations where consultation with the aim of reaching agreement is the applicable standard. In practice, however, this distinction is narrowing: where a project poses significant or irreversible impacts on Indigenous territories or cultural survival, the threshold effectively requires consent.

FPIC in PtX projects

For project developers, FPIC is triggered whenever a proposed project may affect the lands, territories, resources or cultural integrity of an Indigenous community. In the energy sector, this commonly arises in relation to site selection and land acquisition; subsurface resource extraction or use; construction of transmission infrastructure crossing Indigenous territories; displacement or restriction of access to traditional lands; and impacts on sacred sites or natural resources of cultural significance.

FPIC obligations apply regardless of whether the host state has formally ratified ILO Convention No. 169. It is considered customary international law and practices are also mirrored by the overwhelming majority of lenders, development finance institutions and certification bodies. Frameworks such as the IFC Performance Standards, the Equator Principles and the Green Climate Fund's standards require compliance as a condition of financing.²⁰ Developers operating in these frameworks are therefore bound by FPIC obligations as a matter of contract and project bankability, irrespective of domestic law.

FPIC as a process, not a procedure

FPIC is not a single procedural step but a continuous obligation throughout the project lifecycle,²¹ from early scoping and permitting through to construction, operation and decommissioning. Its core requirements are that consent must be:

- › **Free**—without coercion, intimidation or manipulation, and independent of any conditionality attached to benefits.
- › **Prior**—obtained before project approval or any irreversible commitment, including land acquisition or financing decisions.
- › **Informed**—based on complete, accessible and culturally appropriate information, provided sufficiently in advance to allow meaningful deliberation.
- › **Obtained through representative institutions**—chosen by the communities themselves, not bodies appointed or preferred by the developer or state.

FPIC combines procedural and substantive elements. Procedurally, it requires genuine and good-faith consultation, not mere notification or tokenistic participation. Substantively, it recognises the right of Indigenous Peoples to withhold or withdraw consent where a project threatens their territories or cultural survival. Critically, it is a continuous process and therefore Indigenous Peoples retain the right to withdraw their consent at any moment, including after initial agreement has been reached, should circumstances change or new impacts emerge.

²⁰ Equator Principles Association, *The Equator Principles* (EP4, 2020), <https://equator-principles.com/wp-content/uploads/2020/05/The-Equator-Principles-July-2020.pdf>; International Finance Corporation, *Performance Standard 7: Indigenous Peoples* (World Bank Group, 2012), <https://www.ifc.org/content/dam/ifc/doc/mgrt/ifc-performance-standards.pdf>; Green Climate Fund, *Environmental and Social Policy* (GCF, 2022), <https://www.greenclimate.fund/document/environmental-and-social-policy>.

²¹ Articles 19 and 32 of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP)



3.3 The social licence to operate: engagement as investment security

Beyond legal compliance, meaningful community engagement has become a decisive determinant of investment stability in large infrastructure and energy projects. The concept of a social licence to operate (SLO) captures this dynamic. Unlike formal permits granted by regulatory authorities, the SLO is not issued by any single body but is earned continuously through trust, perceived legitimacy and demonstrated fairness in a company's relationship with the communities affected by its operations.²² Originally developed in the context of the extractive industries, the concept has since been adopted across infrastructure and energy sectors, where it refers to the ongoing acceptance by local communities and stakeholders of a project developer's activities and operating procedures.²³

Where projects are developed without meaningful engagement, communities may respond with protests, legal challenges, political mobilisation or reputational campaigns.²⁴ Such conflicts can significantly delay project implementation, increase costs or lead to project cancellation after substantial investment has already been committed.²⁵

PtX projects are particularly exposed to these dynamics because of their resource intensity and novelty. PtX supply chains require land, water resources, renewable electricity infrastructure, transport corridors and port facilities. Depending on their scale and final product, interventions can affect local ecosystems, reshape landscapes, influence migration patterns and place pressure on local services and housing.²⁶ As a result, they often intersect directly with communities' rights to water, health, housing, work and cultural life—making genuine engagement not only a legal requirement but an operational necessity. This pattern was consistent across interviews conducted with stakeholders operating in Chile and South Africa, where community acceptance was cited as a primary operational concern rather than a regulatory one.

Reputational risk and access to finance

The consequences of inadequate community engagement increasingly extend beyond the project site. As green hydrogen supply chains become embedded in international trade relationships, net-importing regions and their regulatory frameworks are placing emphasis on the social and environmental conditions under which hydrogen and its derivatives are produced. The European Union's regulatory frameworks on taxonomy

Meaningful community engagement has become a decisive determinant of investment stability in large infrastructure and energy projects.

22 I. Thomson and R. G. Boutilier, 'Social License to Operate,' in *SME Mining Engineering Handbook*, ed. P. Darling, 3rd edn (Society for Mining, Metallurgy and Exploration, 2011), 1779–1796.

23 K. Komnitsas, 'Social License to Operate in Mining: Present Views and Future Trends,' *Resources* 9, no. 6 (2020): Art. 79, <https://doi.org/10.3390/resources9060079>.

24 B. Brouwer et al., 'Does Local Ownership Matter? A Comparative Analysis of Fourteen Wind Energy Projects in the Netherlands,' *Energy Research & Social Science* 120 (2025): Art. 103891, <https://doi.org/10.1016/j.erss.2024.103891>.

25 Szabo and Valach (fn 2); Henisz, Dorobantu and Nartey (fn 3).

26 World Bank, *Key Insights from Social Licensing to Operate (SLO) in Renewable Energy Projects: Applying Lessons to Clean Hydrogen Development* (ESMAP Paper, World Bank Group, 2025), <http://documents.worldbank.org/curated/en/0998000109042522213>.

and due diligence requirements, signal that social performance at the production site is becoming a condition of market access, not merely a reputational consideration.²⁷

Public and private financiers are moving in the same direction. Development finance institutions, multilateral lenders and an increasing share of institutional investors now require demonstrated compliance with social safeguards as a condition of financing. ESG performance frameworks and green bond standards are progressively incorporating community engagement indicators as material criteria. Projects that cannot evidence a credible engagement process face the risk not only of reputational damage but of being excluded from the financing structures on which large-scale PtX development depends.

For project developers, this means that the quality of community engagement is no longer solely a matter of local acceptance but a factor that shapes bankability, investor confidence and the ability to access preferential financing terms. Anticipating these expectations, rather than merely complying with minimum regulatory requirements, enables companies to operate more predictably in politically sensitive environments and to maintain their social licence over the full project lifecycle.

²⁷ Directive (EU) 2025/794 of the European Parliament and of the Council of 14 April 2025 amending Directives (EU) 2022/2464 and (EU) 2024/1760 [2025] OJ L 2025/794; Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on Corporate Sustainability Due Diligence [2024] OJ L 2024/1760.



Development finance institutions, multilateral lenders and an increasing share of institutional investors now require demonstrated compliance with social safeguards as a condition of financing.





3.4 Local value creation

Community engagement in PtX projects, when designed well, is not only a procedural requirement and a tool for managing risk but also a proactive strategy for delivering shared value and ensuring that the energy transition generates tangible, lasting benefits for the communities in which it takes place.

- › **Local employment and skills development** is one of the most immediate channels for value creation. PtX projects require a diverse workforce across construction, operation and maintenance phases. By prioritising local hiring and investing in targeted training programmes, developers can enhance employability, build technical capacity and support long-term economic resilience within host communities. This is particularly important in regions where energy transition projects risk reinforcing existing inequalities if high-skilled roles are exclusively filled by imported labour rather than developed locally—an outcome that not only undermines the case for the project but actively erodes community trust.²⁸
- › **Benefit-sharing mechanisms** offer a further means of ensuring equitable value distribution. Local tax revenues, royalties or co-ownership models are part of a multitude of options that can increase host communities' economic interest in a projects' success. Further guidance on how to design these mechanisms is given in [Chapter 4.1](#).
- › **Shared infrastructure** is a third dimension of value creation. PtX projects frequently necessitate improvements in transport, water and energy infrastructure. When planned in genuine consultation with local stakeholders, these investments can be designed to serve dual purposes, such as supporting project operations while also addressing community needs. Upgrades to, for example, roads, water supply, electricity grids or digital connectivity can generate broad spillover effects, improving quality of life and enabling economic activity well beyond the project footprint. While direct grid connection may face technical and regulatory constraints, infrastructure and operational capacity can often be shared. Recent evidence also suggests a causal relationship between the application of geographic and hourly matching criteria for renewable fuels and decreasing local electricity prices—a finding with direct relevance for host communities in regions where energy access remains limited.²⁹

Taken together, these dimensions illustrate that community engagement is not merely a matter of consultation or risk mitigation. Approached strategically, it is a mechanism for aligning business activities with local needs and expectations, advancing human rights in practice, and ensuring that the transition to a green hydrogen economy is genuinely inclusive.

28 International Labour Office, *Skills for a Greener Future: A Global View* (ILO, 2019), <https://www.ilo.org/publications/skills-greener-future-global-view>; C. Briggs et al., 'Building a 'Fair and Fast' Energy Transition? Renewable Energy Employment, Skill Shortages and Social Licence in Regional Areas,' *Renewable and Sustainable Energy Transition* 2 (2022): Art. 100039, <https://doi.org/10.1016/j.rset.2022.100039>.

29 L. Schumm et al., 'The Impact of Temporal Hydrogen Regulation on Hydrogen Exporters and Their Domestic Energy Transition,' *Nature Communications* 16 (2025): Art. 7486, <https://doi.org/10.1038/s41467-025-62873-w>.

»» 4 HOW? FROM CONCEPTS TO METHODS OF ENGAGEMENT

The legal and normative frameworks described in the preceding sections establish why engagement and benefit sharing with host communities are required and what standards they must meet. This section translates those requirements into practical guidance for project developers—addressing how deeply to engage, when to engage, and which formats and tools are available. A concise set of recommendations closes the section.

4.1 Concepts, definitions and the justice framework

Community engagement and benefit sharing address different but complementary dimensions of justice in infrastructure development.

The distinction maps onto three widely recognised pillars of energy justice: **procedural justice, recognition justice, and distributive justice**.³⁰

- › **Procedural justice** concerns the fairness of decision-making processes: who is informed, who is consulted, who can influence outcomes, and whether participation takes place early enough and on terms that are accessible and meaningful.
- › **Recognition justice** concerns whether affected groups are properly seen and acknowledged in the first place, including their identities, rights, vulnerabilities, knowledge systems, and lived realities. It draws attention to the fact that formally inclusive processes may still be unjust if certain actors are overlooked, mischaracterised, or treated as less legitimate than others.
- › **Distributive justice** concerns the fairness of outcomes, especially how the benefits, burdens, risks, and opportunities associated with a project are allocated across different groups. Although these dimensions can be analytically distinguished, they are closely connected in practice and jointly shape the social legitimacy of infrastructure development.³¹

Community engagement and benefit sharing address different but complementary dimensions of justice in infrastructure development.

³⁰ Sovacool et al (fn 10); K. Jenkins et al (fn. 6).

³¹ K. Jenkins et al (fn. 6); P. Velasco-Herrejon and Savaresi A., 'Energy Justice, Indigenous People, and Benefit-Sharing,' in *The Palgrave Handbook of Social License to Operate and Energy Transitions*, ed. Geoffrey Wood, Jakub Górski and Günes Mete, Palgrave Studies in Energy Transitions (Cham: Palgrave Macmillan, 2022), https://doi.org/10.1007/978-3-030-74725-1_8-1.



Community engagement

Community engagement refers to the process through which developers and operators initiate and sustain meaningful dialogue with affected communities across a project's entire lifetime—from early planning through to operation and decommissioning.³² It encompasses information exchange, stakeholder mapping, dialogue formats, community meetings and grievance mechanisms.

Two qualities distinguish meaningful engagement from procedural compliance. It must be **proactive**—initiating dialogue before decisions are made rather than presenting communities with predetermined outcomes. And it must be **responsive**—structured so that community input genuinely shapes project decisions.³³ Engagement that fulfils neither criterion is, in practice, notification. It may satisfy a formal legal requirement while failing entirely to build the trust and legitimacy on which project stability depends. Engagement exists on a spectrum: from basic information provision, through structured dialogue and consultation, to genuine co-design. The appropriate depth depends on the nature and scale of the project and the degree of impact on host communities. Where Indigenous Peoples are present, the right to FPIC sets the applicable threshold, as set out in [Chapter 3.2](#). In all other cases, the benchmark is whether community perspectives have genuinely informed project decisions, not merely whether a consultation process has been completed.

Grievance mechanisms

Grievance mechanisms are a fundamental pillar of community engagement. They provide a transparent way for individuals, host communities and Indigenous Peoples who may be adversely impacted by the project activities to voice their grievances and seek resolution. Effective grievance mechanisms help build trust and strengthen relationships with communities by ensuring that concerns are heard and addressed in a fair and timely manner.

Grievance mechanisms also create opportunities for vulnerable groups to raise issues that might otherwise go unnoticed. By identifying and addressing problems early, these mechanisms can prevent disputes before they escalate or turn into deep-rooted conflicts. Furthermore, they provide a transparent and structured process for collaboratively negotiating and developing solutions to issues arising from PtX project activities. Developers and operators are responsible for developing and maintaining effective procedures to enable individuals or communities to have their grievances addressed in a timely and effective manner. This safeguard applies to all individuals and communities who may be affected by PtX projects.

For a grievance mechanism to be effective, it must fulfil the effectiveness criteria set out in the United Nations Guiding Principles on Business and Human Rights (UNGPs), which are internationally recognised as the foundation for effective grievance mechanisms.

³² Szabo and Valach (fn 2).

³³ Ibid.

Hence, a grievance mechanism must be:

- › **Legitimate**—customised to respect the particular social context and trusted by individuals and communities intended to use the mechanism;
- › **Accessible**—known by its intended users, with accessible entry points and accommodating potential cultural, linguistic, logistical or other barriers to access;
- › **Predictable**—clear and known time-bound procedures;
- › **Equitable**—enabling informed, respectful and fair engagement of all parties;
- › **Transparent**—keeping parties informed throughout their case and providing information on the overall performance of the mechanism to the wider public;
- › **Rights-compatible**—ensuring that procedures and outcomes are compliant with applicable law and internationally recognised human rights;
- › **A source of continuous learning**—subject to periodic review and update to reflect lessons learned from implementation and informing organisational learning; and
- › **Based on dialogue and meaningful consultations** with potentially affected individuals and communities.

Practical tips for strengthening a grievance mechanism

- ✓ Assign clear responsibility and accountability for the grievance mechanism among staff.
- ✓ Allocate dedicated financial resources for communication, capacity building, mediation processes, and potential remedies.
- ✓ Communicate proactively and continuously about the grievance mechanism to rights holders.
- ✓ Foster a positive internal culture around the grievance mechanism as a mechanism for improvement.
- ✓ Regularly monitor and evaluate the mechanism to ensure its effectiveness.

› Benefit sharing

Benefit sharing refers to the process through which developers and operators redistribute the monetary and other gains derived from a project in a just manner to those who host it.³⁴ It goes beyond tax compliance and encompasses proactive redistribution of value to the communities on whose land and resources the project depends, enabling them to direct these returns towards locally identified priorities. It is the primary instrument of distributive justice in project development.

Recipients should be understood broadly, ranging from individual residents to municipalities, civil society organisations and local businesses.³⁵ The range of mechanisms available, including revenue sharing, community development funds, local employment and procurement commitments, co-ownership models and shared infrastructure investment. Two principles apply across all forms: arrangements are more legitimate and durable when shaped through genuine engagement rather than designed unilaterally; and they must be structured and communicated with care, as poorly designed or inadequately explained mechanisms risk being perceived as an inducement to consent rather than a genuine expression of shared value, a distinction with significant legal, ethical and reputational implications.

³⁴ Ibid.

³⁵ Ibid.



Benefit sharing vs. Inducement

Under FPIC standards and the UNGPs, benefits cannot substitute for or condition consent. Arrangements that do so risk invalidating the consent process entirely, regardless of whether communities formally agreed. Where FPIC applies, any benefit-sharing offer made before consent has been freely given will be scrutinised as a potential inducement, exposing the developer to legal challenges and reputational risk, even if the arrangement appeared consensual at the time.

DO:

- ✓ **Negotiate** benefit-sharing arrangements after genuine consultation has begun and independently of consent decisions.
- ✓ **Govern arrangements** through transparent written agreements with third-party oversight where possible.
- ✓ **Establish a joint oversight committee** including community representatives to monitor benefit-sharing delivery against agreed commitments.
- ✓ **Base arrangements** on community-identified priorities rather than developer-defined packages.

DO NOT:

- ⊗ **Make benefit offers conditional** on consent or prior to meaningful consultation.
- ⊗ **Structure payments** or in-kind benefits in ways that create financial dependency or obligations on the community side before consent decisions have been made.
- ⊗ **Present financial arrangements** as compensation for accepting a project rather than as a share of its value.
- ⊗ **Offer infrastructure investments, employment promises or community funds** as pre-conditions for site access or consultation agreement. Arrangements of this kind are commonly referred to as “pay-to-consent” and are legally vulnerable under FPIC standards regardless of whether communities formally agreed.

An integrated framework

Engagement and benefit sharing are complementary and mutually reinforcing. Engagement without equitable benefit sharing leaves communities procedurally included but materially excluded. Benefit sharing without genuine engagement produces arrangements that may be financially generous but lack legitimacy because they were not shaped by those they are meant to serve.

The WWF ESSF, for example, treats access to information, consultation and grievance mechanisms as core procedural safeguards while linking them explicitly to substantive safeguards such as the protection of livelihoods, land rights and ecosystem services.³⁶ Addressing community engagement and benefit sharing early is not only a matter of legal compliance or corporate responsibility, but a core condition for stable project design and implementation as well as durable public acceptance.

³⁶ World Wide Fund for Nature (2024), *Environmental and Social Safeguards Framework*. <https://www.worldwildlife.org/publications/environmental-and-social-safeguards-framework>.



Community & Indigenous Peoples safeguards: The WWF Standard

Safeguards are a structured set of standards, policies and implementation mechanisms designed to ensure that development and conservation projects do not cause harm—particularly to the communities and peoples living closest to them. They have been progressively adopted across international development finance, conservation organisations and bilateral agencies, and represent the current benchmark for responsible project delivery.

The WWF Environmental and Social Safeguards Framework (ESSF) offers a widely recognised reference point for what good practice looks like in this area. At its core, the framework treats local communities and Indigenous Peoples not as passive stakeholders to be consulted, but as rights-holders whose interests must be actively protected throughout the project lifecycle.

For Indigenous Peoples specifically, the framework requires respect for FPIC—meaning that consent must be sought before project activities begin, on the basis of accessible and complete information, and without coercion. Any benefits arising from the project, including those derived from traditional ecological knowledge, must be negotiated and agreed upon with affected communities rather than assumed or imposed.

More broadly, the framework requires that potentially affected communities are engaged early, consulted in their own languages, and given accessible channels to raise concerns. Mitigation plans must address identified social risks, and grievance mechanisms must be in place.

The underlying principle is straightforward: projects that fail to secure the genuine participation and informed consent of local and Indigenous communities carry significant legal, reputational and operational risk—and are unlikely to achieve lasting outcomes.

Key steps under the ESSF for community and Indigenous Peoples engagement:

- › **Screen:** Assess the project for social and environmental risks, with explicit attention to impacts on local communities and Indigenous Peoples.
- › **Classify:** Determine the risk level (low, medium or high), which governs the depth of engagement and mitigation required.
- › **Consult:** Initiate meaningful, inclusive consultation as early as possible, in accessible languages and formats; obtain FPIC where Indigenous Peoples are involved.
- › **Plan:** Develop a mitigation plan (e.g. an Indigenous Peoples Plan or Resettlement Action Plan) based on consultation outcomes.
- › **Disclose:** Share finalised plans with affected communities prior to implementation, allowing sufficient time for review.
- › **Implement and Monitor:** Integrate mitigation actions into project activities and report on safeguards compliance on a regular basis.
- › **Respond:** Maintain accessible grievance mechanisms throughout the project; escalate unresolved concerns to independent review where necessary.



4.2 Levels of engagement

The depth of interaction between a developer and host communities exists on a spectrum, ranging from one-way information provision to shared decision-making. Understanding where on this spectrum a given activity should sit is fundamental to designing processes that are proportionate, credible and legally adequate. Drawing on the International Association for Public Participation (IAP2) framework,³⁷ five levels can be distinguished:

- › **Inform.** The developer provides communities with objective information about the project and its impacts. Communication is one-directional and represents the minimum threshold for any project interaction—on its own, it does not constitute meaningful engagement.
- › **Consult.** The developer seeks community feedback on proposals or assessments and commits to taking that feedback into account. Communication is two-directional, but the developer retains decision-making authority. This is the standard required by most national permitting frameworks and international instruments such as the Aarhus Convention and the Escazú Agreement.
- › **Involve.** The developer works directly with communities to ensure their concerns and priorities are consistently reflected in project decisions—going beyond feedback collection to actively incorporating community perspectives into design and planning.
- › **Collaborate.** The developer partners with communities across decision-making processes, including the development of alternatives and identification of preferred solutions. This level is appropriate for projects with significant community impacts and is increasingly expected by development finance institutions and ESG frameworks.
- › **Co-decide.** Communities hold a formal role in final decisions—through co-ownership structures, veto rights or governance representation. This level is effectively mandated where FPIC applies to Indigenous Peoples.

A single project will typically operate at different levels for different communities and at different stages. The appropriate level is determined by the nature and scale of the project, the degree of impact and the applicable legal standards.³⁸ Developers should aim for the highest level feasible rather than default to the minimum level of compliance required.



The depth of interaction between a developer and host communities exists on a spectrum, ranging from one-way information provision to shared decision-making. Understanding where on this spectrum a given activity should sit is fundamental to designing processes that are proportionate, credible and legally adequate.

37 International Association for Public Participation, *IAP2 Public Participation Spectrum* (IAP2, 2018), <https://www.iap2.org/page/pillars>.

38 A. M. Esteves, D. Franks and F. Vanclay, 'Social Impact Assessment: The State of the Art,' *Impact Assessment and Project Appraisal* 30, no. 1 (2012): 34–42, <https://doi.org/10.1080/14615517.2012.660356>.



4.3 Stages of engagement

Meaningful engagement is not a permitting-phase activity. Research consistently shows that projects failing to involve communities early encounter resistance, causing long delays and are often abandoned before construction.³⁹ Engagement is a continuous obligation spanning the full project lifecycle, and the earlier it begins, the more effectively it can shape outcomes and prevent conflict.⁴⁰

Table 1 maps the principal engagement objectives and tools onto each stage of a PtX project lifecycle. Two stages deserve particular emphasis. Early development and site selection is the most critical and most commonly neglected stage: community input at this point can shape fundamental design decisions at a fraction of the cost of addressing conflicts later. The feasibility and environmental and social impact assessment (ESIA) stage is where the most substantive engagement obligations crystallise.

39 H. S. Boudet et al., 'Going Slow to Go Fast: Public Response and Engagement in Renewable Energy Projects,' *Nature Reviews Clean Technology* (2025), <https://doi.org/10.1038/s44359-025-00116-3>.

40 R. Davis and D. M. Franks, *Costs of Company-Community Conflict in the Extractive Sector*, Corporate Social Responsibility Initiative Report No. 66 (Harvard Kennedy School, 2014), <https://www.hks.harvard.edu/centers/mrcbg/publications/costs-company-community-conflict-extractive-sector>.

Table 1: Stages of community engagement

STAGE	OBJECTIVE	KEY TOOLS
Early development & site selection	Map stakeholders, identify risks and knowledge gaps and build initial relationships.	Stakeholder mapping, scoping workshops, informal community meetings, regional expert consultations.
Feasibility & ESIA	Integrate community knowledge into impact assessment, initiate FPIC where applicable and open benefit-sharing discussions.	Participatory scoping, focus groups, ESIA consultations, Indigenous Peoples planning.
Permitting & approval	Address concerns formally, demonstrate social legitimacy to regulators and financiers, and support permitting processes, once consent has been provided.	Public consultations, formal hearings, written submissions, stakeholder dialogues.
Construction	Manage arising impacts and maintain trust during disruption.	Community liaison committees, regular site updates, active grievance mechanisms, local employment monitoring.
Operation	Sustain social licence, honour and review benefit-sharing commitments.	Monitoring and reporting, periodic community reviews, grievance mechanisms, benefit-sharing audits.
Decommissioning ⁴¹	Manage transition, address employment and land-use implications.	Community consultations, transition planning workshops, updated benefit-sharing arrangements.

41 Whereas decommissioning is not a much discussed topic within PtX as of now, it should be considered in stakeholder processes. Even a communal decision of non-relevance can matter in terms of acceptance at a later stage.



4.4 Methods and formats

Method selection should be driven by the level of engagement sought, the project stage and the specific characteristics of the host community, including language, literacy, cultural practices and access to technology. No single method is universally appropriate, and effective engagement typically combines multiple formats across the project lifecycle.⁴² **Table 2** provides an overview of the principal tools available, including their primary function, the stages at which they are most relevant, and an honest assessment of their advantages and limitations.

Two tools warrant particular emphasis. Grievance mechanisms are not an engagement method in the conventional sense but are essential infrastructure at every stage. They are required by the IFC Performance Standards and the UNGPs, and are among the most reliable early warning systems for emerging community conflicts.⁴³ Digital engagement tools can extend reach in dispersed contexts but should not substitute for in-person engagement where communities have limited digital access or where trust-building requires physical presence—conditions that apply in many of the regions where PtX projects are being developed.

42 S. Markkanen, A. Y. Sheikh and E. Dickens, *Enabling a Community-Powered Energy Transition: Good Practices for Engaging Stakeholders, Fostering Collaboration, and Promoting Socioeconomic Benefits* (The Nature Conservancy; University of Cambridge Institute for Sustainability Leadership, 2024), https://www.nature.org/content/dam/tnc/nature/en/documents/Enabling_a_Community-Powered_Energy_Transition.pdf.

43 International Finance Corporation, *Addressing Grievances from Project-Affected Communities: Guidance for Projects and Companies on Designing Grievance Mechanisms*, Good Practice Note No. 7 (World Bank Group, 2009), <https://www.ifc.org/en/insights-reports/2000/publications-gpn-grievances>; International Finance Corporation, *Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts* (World Bank Group, 2012), <https://www.ifc.org/content/dam/ifc/doc/mgrt/ifc-performance-standards.pdf>. United Nations Office of the High Commissioner for Human Rights, *Guiding Principles on Business and Human Rights*, Principle 29, UN Doc. A/HRC/17/31 (2011), https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.



Table 2: Engagement tools: overview, advantages and limitations

TOOL	STAGE(S)	OBJECTIVE	ADVANTAGES	LIMITATIONS
Stakeholder mapping	Early development	Identify all affected host groups, interests and vulnerabilities.	Foundational for all subsequent engagement; surfaces overlooked groups; supports risk-based prioritisation.	Requires local expertise; risks missing informal or mobile groups if poorly designed; must be updated continuously.
Community & scoping workshops	Early development, feasibility	Surface local knowledge and concerns; co-identify impacts.	Builds early trust; integrates local knowledge into design; signals genuine intent.	Resource-intensive, requires an interest in engaging on both sides.
Focus groups	Feasibility, permitting	Explore specific issues in depth with targeted sub-groups.	Enables engagement with harder-to-reach groups; generates rich qualitative insight.	Small sample; findings may not represent broader community views.
Public consultations & hearings	Permitting	Meet formal legal requirements; provide public record of community input.	Legally recognised; creates a documented record; broad reach.	Often perceived as tokenistic; timing frequently too late to influence decisions; accessibility barriers for marginalised groups.
Participatory impact assessment	Feasibility, construction	Involve communities in identifying and assessing project impacts.	Increases legitimacy of outcomes; surfaces local knowledge.	Requires significant time investment; needs skilled facilitation.
Community advisory committees	Construction, operation	Provide an ongoing structured forum for dialogue.	Maintains continuous engagement; enables early identification of emerging issues.	Risk of capture by specific interest groups; requires genuine responsiveness to be credible.
Grievance mechanisms	All stages	Provide an accessible channel for concerns and feedback.	Essential for accountability; early warning system for conflicts; required by IFC standards and UNGPs.	Ineffective if not genuinely independent; inaccessible to marginalised groups if poorly designed.
Benefit-sharing negotiations	Feasibility, operation	Agree on the equitable distribution of project value.	Builds long-term partnership; increases legitimacy; reduces opposition.	Risk of being perceived as inducement if not grounded in genuine prior engagement.
Monitoring and reporting	Operation, decommissioning	Track and communicate performance and safeguards compliance.	Demonstrates accountability; maintains trust over long operational periods.	Credibility depends on independence and transparency of reporting, requires an external auditing.
Digital platforms & virtual consultations	All stages (supplementary)	Extend reach in dispersed or remote contexts.	Cost-effective; can reach geographically dispersed groups.	Inaccessible where digital literacy or connectivity is limited; cannot substitute for in-person trust-building.

» 5 RECOMMENDATIONS FOR PROJECT DEVELOPERS

The following recommendations should be read alongside the project stages set out in **Table 1**.

• **Start early and map your local host community**

Begin engagement before formal project development with a structured stakeholder mapping exercise, identifying who is present in the project-affected area, their interests, vulnerabilities and relationships. This map is the foundation for every subsequent engagement decision and should be treated as a living document, updated as the project evolves. Given the complexity of PtX projects operating internationally, engaging regional specialists, academics and civil society organisations with local expertise at this stage is strongly advisable. Across roundtables and focus groups conducted in Chile and South Africa, early and transparent communication about project timelines, land use and expected community impacts was consistently identified as the most important factor in building initial trust.

• **Apply a risk-based approach**

Use the stakeholder map as the basis for a structured risk assessment, identifying which community groups face the most significant impacts, where conflicts of interest exist and where historical grievances or existing inequalities may amplify project risks. Engagement effort and resources should be allocated proportionally. Groups facing greater impacts or higher vulnerability warrant deeper engagement, more tailored communication and closer monitoring. This approach ensures that resources are directed where they matter most and provides a defensible, documented basis for engagement decisions.

• **Engage continuously, not episodically**

Engagement must run from site selection to decommissioning. Frequency should track project activity and intensifying during construction and permitting. As a minimum: quarterly meetings during development and feasibility stages; monthly liaison meetings during construction; annual community reviews during operation. When, where and how meetings take place must be communicated clearly and well in advance.

• **Make engagement genuinely two-way**

Engagement must be structured so that community input can demonstrably change project decisions. If a developer cannot identify specific outcomes that emerged from community input, the process has not met the standard of meaningful engagement. Results from engagement must be addressed and incorporated into project developers' strategies.

Design benefit sharing participatively

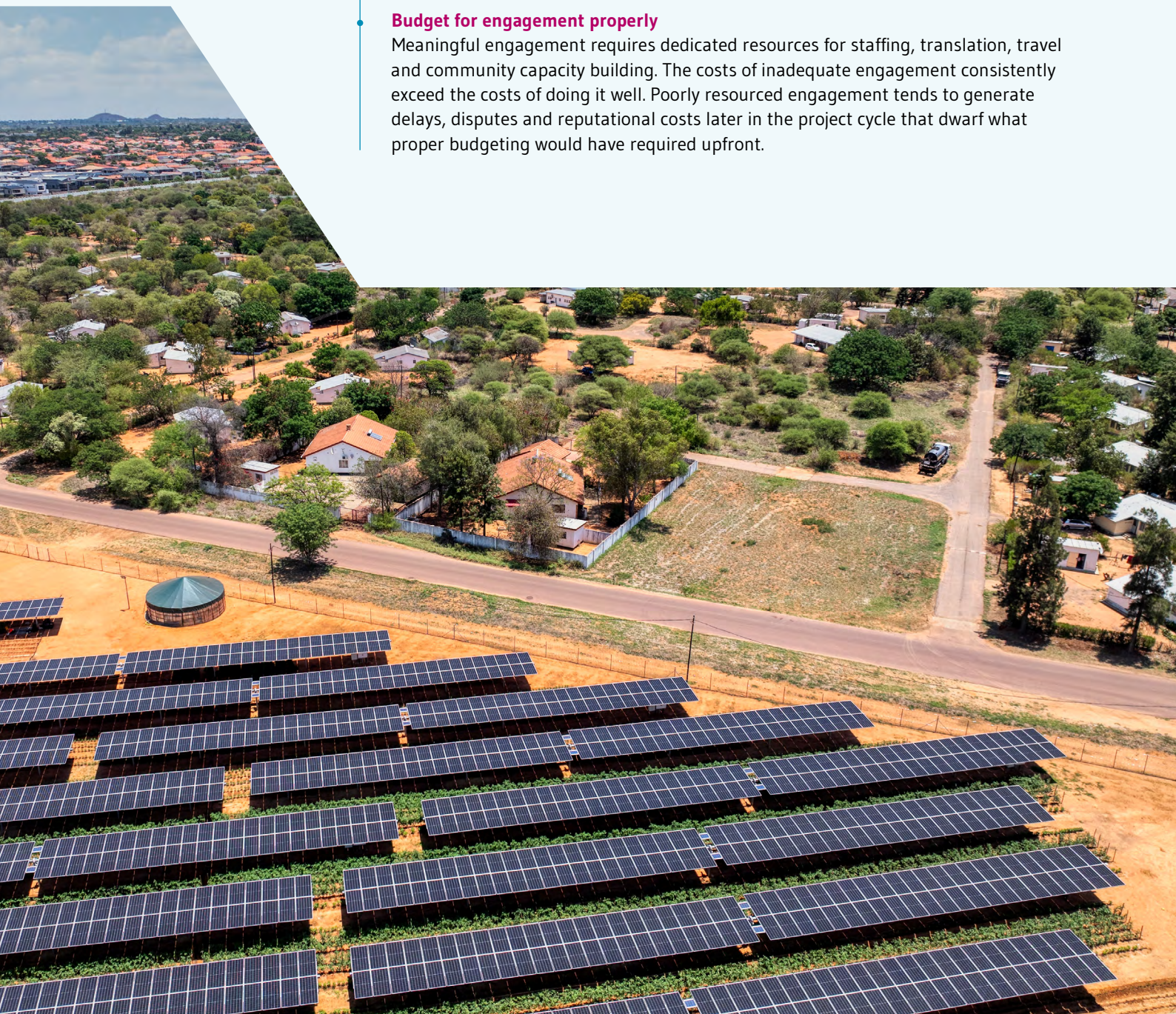
Arrangements designed without community input risk being perceived as compensation or inducement. Involve host communities in identifying what form of benefit sharing reflects their priorities and structure arrangements transparently. At minimum, benefit-sharing arrangements should be documented in writing, subject to independent review and revisable as project circumstances change.

Build grievance mechanisms from the outset

Grievance mechanisms are a core component of the engagement architecture. They must be in place before construction begins and designed in consultation with host communities. At minimum, a grievance mechanism should: accept complaints from any affected person without requiring them to identify themselves; provide a written response within a defined and published timeframe; be managed by someone independent of the project team; and be communicated to communities in their local language before construction begins.

Budget for engagement properly

Meaningful engagement requires dedicated resources for staffing, translation, travel and community capacity building. The costs of inadequate engagement consistently exceed the costs of doing it well. Poorly resourced engagement tends to generate delays, disputes and reputational costs later in the project cycle that dwarf what proper budgeting would have required upfront.



» 6 CONCLUSION

This report set out to answer three questions that sit at the heart of responsible PtX project development: who host communities are, why engaging them is both a legal obligation and a business imperative, and how that engagement can be designed and implemented effectively. Host communities are not peripheral to the energy transition but among its most consequential actors. By their proximity to installations and dependence on local ecosystems, economies and societal structures, they are most directly affected by projects. Aside from being affected, host communities can also affect project outcomes. Their acceptance or resistance shapes project timelines, financing conditions and long-term operational stability.

The legal analysis in [Chapter 3](#) demonstrates that the duty to engage is not a soft expectation but a binding obligation, grounded in international human rights law, operationalised through national permitting and due diligence frameworks and increasingly enforced through financing conditions. For projects affecting Indigenous Peoples, the standard is more demanding still: FPIC is not a procedural box to be ticked but a continuous and substantive obligation that runs the full length of the project lifecycle. Engagement goes beyond consultation and means that projects are also shaped by local host communities. Social licence, local value creation and access to finance are not alternatives to rights-based engagement but its consequences when engagement is done well.

[Chapter 4](#) translates these principles into practice. The levels, stages and methods frameworks provided there are intended as working tools, not checklists. The central insight they encode is simple but consistently underestimated: engagement that begins early, is genuinely two-way, accounts for the internal diversity of host communities and is matched by equitable benefit-sharing arrangements produces better projects. It reduces conflict, improves design, accelerates permitting and builds the kind of local ownership that sustains projects through the inevitable difficulties of long operational lifespans.

Central to this architecture is the establishment of effective grievance mechanisms through which individuals, communities and Indigenous Peoples can voice concerns and seek resolution throughout the project lifecycle. Grievance mechanisms are not a reactive safeguard of last resort but a structural component of meaningful community engagement, one that signals accountability, builds trust and enables continuous dialogue.

Towards Better Governance

The recommendations in this report are addressed to project developers operating now, in a landscape where regulatory frameworks are inconsistent, international standards are incomplete and the burden of responsible practice falls disproportionately on individual actors making individual judgements. That is not a satisfactory state of affairs,

and it should not be mistaken for a permanent one. While the preceding recommendations focus on actions available to project developers today, lasting improvements ultimately depend on broader governance decisions.

The ideal governance environment for PtX community engagement would look quite different from the one that currently exists. It would feature binding and harmonised standards for human and environmental rights that include community engagement and benefit sharing across project-hosting jurisdictions. This would reduce the fragmentation that currently forces developers to navigate incompatible requirements across and within different legal systems. It would include robust, coherent and enforceable FPIC obligations throughout all national legal systems. It would integrate community engagement criteria into sustainability certification schemes, green finance standards and public procurement conditions in a consistent and auditable way. And it would establish accessible accountability mechanisms, including effective grievance mechanisms, for cases where engagement obligations are breached. It would also decrease the bureaucratic burden on businesses operating across jurisdictions.

Progress towards this vision is underway. The EU Corporate Sustainability Due Diligence Directive, the Green Climate Fund's social safeguards and the Equator Principles represent steps in the right direction. But implementation remains uneven, enforcement is weak and the coverage of these frameworks does not yet match the global geography of PtX project development. Accelerating this convergence through ambitious and progressive European sustainability policy, support for international standard-setting bodies and the collaboration of host communities in developing governance mechanisms are essential steps to take towards supporting responsible PtX development globally.

Limitations

This report provides a conceptual and normative foundation for host community engagement in PtX projects. Two operational gaps deserve acknowledgement.

First, this report does not provide step-by-step operational guidance for practitioners working in specific project contexts. Readers seeking more granular tools are directed to the practical resources listed below, which offer detailed methodological guidance that complements the frameworks developed here.

Second, and more fundamentally, community engagement is an inherently context-specific practice. The frameworks, standards and recommendations presented in this report establish principles and minimum thresholds but cannot replace the situated knowledge, cultural competence and relational investment that effective engagement in any particular community requires. No framework, however well designed, can anticipate the specific history, power dynamics, governance structures and priorities of a given host community. That knowledge can only be built through direct, sustained and genuinely open engagement with the people concerned. The case studies, regional guidance and practitioner accounts referenced throughout this report offer starting points. The work itself must be done on the ground.

What this report can offer—and what it has attempted to provide—is a clear account of why that work is worth doing, who it must reach and what it must, at minimum, look like. The energy transition will only be just if it is locally owned. Getting there requires developers who treat community engagement not as a risk to be managed but as a relationship to be built—and built well.



Accelerating this convergence through ambitious and progressive European sustainability policy, support of international standard-setting bodies and the collaboration of host communities in developing governance mechanisms are essential steps to take to support responsible PtX development globally.



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Table 3: International legal frameworks governing community engagement, participation and benefit sharing

FRAMEWORK	YEAR	TYPE	KEY PROVISIONS ON COMMUNITY ENGAGEMENT	RELEVANCE FOR BUSINESSES / PROJECTS
Universal Declaration of Human Rights (UDHR)	1948	International human rights declaration	Establishes fundamental rights such as freedom of expression (Art. 19), freedom of assembly (Art. 20), and participation in public affairs (Art. 21), which underpin public participation in environmental and development decisions.	Provides the normative basis for participation and civic freedoms necessary for community engagement.
International Covenant on Civil and Political Rights (ICCPR)	1966	Binding UN human rights treaty	Protects rights essential for participation, including freedom of expression (Art. 19), peaceful assembly (Art. 21), and association (Art. 22). Requires states to ensure access to remedies for rights violations (Art. 2(3)).	Ensures that communities can organise, express concerns, and seek remedies related to project impacts.
International Covenant on Economic, Social and Cultural Rights (ICESCR)	1966	Binding UN human rights treaty	Recognizes rights to an adequate standard of living, health, and participation in cultural life. States must progressively realize these rights and ensure remedies.	Project impacts on land, livelihoods, or environment may affect these rights, requiring consultation and mitigation.
African Charter on Human and Peoples' Rights	1981	Regional human rights treaty	Recognizes the right to a satisfactory environment favourable to development (Art. 24). Jurisprudence links this right to participation and access to remedies.	Provides legal basis for community rights in environmental decision-making in Africa.
ILO Convention No. 169 on Indigenous and Tribal Peoples	1989	Binding international labour convention	Requires consultation with Indigenous Peoples regarding legislative or administrative measures affecting them (Art. 6). Participation must be in good faith and with the objective of reaching agreement.	Applies to projects affecting Indigenous communities in ratifying countries.
Aarhus Convention	1998	Regional treaty (UNECE)	Establishes three pillars of environmental democracy: access to environmental information, public participation in decision-making, and access to justice (Arts. 4–9).	Applies to Europe and parts of Central Asia; strongly influences EU environmental law and permitting procedures.
African Convention on the Conservation of Nature and Natural Resources (Revised)	2003	Regional environmental treaty	Encourages public access to environmental information, participation in decision-making, and access to administrative or judicial remedies (Art. 16).	Promotes participatory environmental governance across African states.
UN Declaration on the Rights of Indigenous Peoples (UNDRIP)	2007	UN declaration	Establishes the principle of Free, Prior and Informed Consent (FPIC) for projects affecting Indigenous lands, territories, or resources (Arts. 10, 19, 32).	Key global standard for engagement with Indigenous communities.
OECD Guidelines for Multinational Enterprises on Responsible Business Conduct	2011 (updated 2023)	Government-backed international guidelines	Encourage companies to conduct risk-based due diligence and engage meaningfully with affected stakeholders. Provide grievance mechanisms through National Contact Points.	Widely used benchmark for responsible corporate conduct and stakeholder consultation.
UN Guiding Principles on Business and Human Rights (UNGPs)	2011	Global soft law framework	Establishes the “Protect, Respect and Remedy” framework. Requires companies to conduct human rights due diligence and engage with affected stakeholders to identify and mitigate risks.	Core global standard for corporate human rights due diligence and stakeholder engagement.
Escazú Agreement	2018	Regional treaty (Latin America & Caribbean)	Guarantees access to environmental information, public participation, and access to justice; includes specific protections for environmental defenders.	Establishes legally binding participation obligations in Latin American countries that ratified the treaty.



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