ALIGN

Columbia Climate School
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RESPONSIBLE LAND GOVERNANCE FOR A JUST ENERGY TRANSITION

LESSONS AND STRATEGIES FROM INDONESIA AND ZAMBIA

MARCH 2026

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ACKNOWLEDGEMENTS

AUTHORS

Hansika Agrawal, Esther Akwii, Rose Mosi, and Amaelle Seigneret, with Kiki Sriyanti, Kisran Makati, Didi Hardiana, Imam Mas'ud, Risdawati Ahmad, Husnawati, Solomon Mwampikita, Jesinta Kunda, Dyless Mbewe, Elias Simbeye, Nikiwe Msoni, and Lucy Musonda.

This report was jointly produced by the **Columbia Center on Sustainable Investment (CCSI)** and the **International Institute for Environment and Development (IIED)** as part of the "**Advancing Land-based Investment Governance**" (**ALIGN**) project.

Contributing organizations: This report reflects on important lessons emerging from work led by ALIGN partner organizations in Indonesia and Zambia, with technical support and coordination provided by the ALIGN project. The collaborative efforts between ALIGN and its partners have been instrumental in surfacing practical insights and strategies to advance responsible land governance in the context of the energy transition.

As part of this work, ALIGN partners in Indonesia and Zambia, in collaboration with CCSI and IIED, advanced a range of approaches for strengthening the governance of land-based investments, including community empowerment, awareness building, government capacity building, policy engagement, and reform.

The lessons and insights presented in this report build on this integrated approach, reflecting the critical contributions of partners on the ground who are driving progress toward responsible land-governance systems. However, please note that the contents and analysis presented in this report should not be taken to reflect the views of ALIGN in-country partners.

INDONESIA

Central Kalimantan:

- **Aliansi Masyarakat Adat Nusantara Kalteng (AMAN Kalteng)** (Indigenous Peoples' Alliance of the Archipelago in Central Kalimantan)
- **Lembaga Bantuan Hukum (LBH Palangkaraya)** (Indonesian Legal Aid Foundation in Palangka Raya)
- **Save Our Borneo (SOB)**
- **Wahana Lingkungan Hidup Indonesia Kalteng (WALHI Kalteng)** (Indonesian Forum for Environment in Central Kalimantan)
- **Yayasan Betang Borneo Indonesia (YBBI)** (Betang Borneo Foundation)

Southeast Sulawesi:

- **Komnasdesa-Sultra (KOMDES)** (Rural Community Organization in Southeast Sulawesi)
- **Komunitas Teras**
- **Pusat Studi Dan Pembelaan Hak-Hak Masyarakat (Puspaham)** (Center for the Study and Defense of Community Rights)

- **Rumpun Perempuan Sultra (RPS)** (Southeast Sulawesi Women's Association)
- **Wahana Lingkungan Hidup Indonesia Sultra (WALHI Sultra)** (The Indonesian Forum for Environment in Southeast Sulawesi)

National:

- **Jaringan Kerja Pemetaan Partisipatif (JKPP)** (Indonesian Community Mapping Network)
- **Yayasan Lembaga Bantuan Hukum Indonesia (YLBHI)** (Indonesian Legal Aid Foundation)

ZAMBIA

- **Center for Trade Policy and Development (CTPD)**
- **Zambia Land Alliance (ZLA)**
- **Center for Environment Justice (CEJ)**

Advice, Review, and Expert Inputs: The authors are deeply grateful to Darryl Vhugen, Dave Keinzler, Emily Polack, Emmanuel Muma, Freeman Mubanga, Lara Fornabaio, Lorenzo Cotula, Nathaniah Jacobs, and Perrine Toledano for their valuable contributions, expert inputs, and reviews of an earlier version of this report. Such reviews should not be taken to imply endorsement of the final version of this report.

Editorial assistance: Thanks to Helena Fu and Marc Bailes for valuable editorial assistance.

Photos: KOMDES, Hansika Agrawal, Amaelle Seigneret

Design and layout: PortoDG

ALIGN supports governments, civil society, communities and peoples, and other relevant actors in strengthening the governance of land-based investments. The project is implemented by a consortium led by CCSI, IIED, and Namati, and is funded with UK International Development from the UK government. This material has been produced as part of ALIGN by CCSI and IIED, but the views expressed do not necessarily reflect the official views or policies of ALIGN partners or the UK government.

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The Columbia Center on Sustainable Investment (CCSI), a center of Columbia Climate School at Columbia University, is an applied research center that works to develop critical understanding, practical approaches, and governance tools for governments, investors, communities, and other stakeholders to maximize the benefits and minimize the potential harms of international investment for sustainable development.

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EXECUTIVE SUMMARY

The global energy transition is accelerating, but it is highly land intensive, reshaping land use through mineral extraction, renewable energy deployment, biofuel production, and development of associated infrastructure. Pressures on land are particularly acute in the Global South, where investments intersect with weak tenure systems, historical inequalities, and contested land governance. Drawing on the Advancing Land-based Investment Governance (ALIGN) project's experience in Indonesia and Zambia, this report offers a practice-based contribution that centers land governance as foundational to just energy transitions, showing that the fairness, legitimacy, and durability of transition-linked investments depend on how tenure is secured, land-use decisions are made, and benefits and burdens are distributed. It synthesizes applied lessons from civil society action and policy engagement to identify practical strategies for strengthening land governance in support of just energy transitions.

WHY LAND GOVERNANCE MATTERS FOR JUST ENERGY TRANSITIONS

Although the energy transition is driven by technology, industrial policy, and finance, it also reorganizes how land is allocated and used, often competing with farming, grazing, fishing, housing, and cultural practices. Where land governance practices are weak or poorly integrated into transition planning, these pressures can deepen inequality, trigger conflict, undermine food security, and erode social legitimacy. This report understands a just energy transition through three interrelated dimensions—equitable outcomes, inclusive decision-making, and attention to historical and structural inequalities—all of which are shaped by land governance, which determines whose tenure rights are protected, who benefits from investments, and whether transition pathways reproduce or address past injustices. Responsible land governance is therefore a precondition for the fairness and durability of these transitions.

COUNTRY FOCUS: INDONESIA AND ZAMBIA

Indonesia and Zambia offer complementary insights into the land governance challenges of energy transitions. Both countries are positioning themselves as key suppliers of transition-relevant minerals and energy resources while also pursuing broader industrial and development objectives. At the same time, both face deep-seated land governance challenges that risk undermining just transition outcomes.

In Indonesia, the energy transition is unfolding across land-intensive sectors aligned with long-standing development priorities, including nickel mining for batteries, palm oil for biofuels, and industrial forest plantations for biomass. In regions such as Central Kalimantan and Southeast Sulawesi, the rapid expansion of these sectors has intensified preexisting land conflicts, undermined Indigenous and community tenure, degraded ecosystems, and heightened livelihood insecurity. Despite a comprehensive legal framework governing land, forests, mining, and spatial planning, governance in practice remains fragmented. Overlapping mandates, incomplete spatial data, weak recognition of customary (Adat) tenure, and centralized decision-making limit the capacity of land governance systems to manage transition pressures equitably.

In Zambia, the government is pursuing mineral-led growth as a pillar of its energy transition and economic recovery strategy. Land intensive investments in copper, renewable energy, and regional infrastructure corridors intersect with Zambia's dual land tenure system, in which most land is held under customary tenure. Weak implementation of customary land rights, opaque conversion of customary land to state land, limited requirements for community consent, and under-developed

safeguards for displacement and resettlement have heightened tenure insecurity and community mistrust in areas targeted for transition-linked investments.

Across both contexts, land governance considerations remain secondary to investment facilitation, industrial policy, and macroeconomic objectives. As a result, transition planning is proceeding within land governance systems that are not equipped to ensure equitable outcomes.

KEY LESSONS AND STRATEGIES FOR RESPONSIBLE LAND GOVERNANCE

The report distils lessons across four interrelated elements of land governance that shape just energy transitions: tenure security, spatial planning, responsible approaches to scaling investment, and coordination and subnational leadership.

Tenure security as a foundation for equitable processes and outcomes

Tenure security is central to just energy transitions. When legitimate tenure rights—whether formally recognized or socially accepted—are unclear or insecure, communities face heightened risks of displacement, exclusion from decision-making, and unequal benefit-sharing. Stronger tenure security, by contrast, can support meaningful participation, reduce conflict, and improve environmental stewardship.

Experiences from ALIGN show that advancing tenure security in fragmented or discretionary systems often requires a dual strategy: local-level strategies such as participatory mapping and legal empowerment to make customary land claims visible, alongside national legal and institutional reforms to formally secure tenure at scale.

A key lesson is that tenure should be clarified before land is allocated for transition-linked investments. Where concessions already exist, recognition remains essential for facilitating participation, benefit-sharing, and land rehabilitation and closure responsibilities.

Spatial planning as a tool to manage competing land uses

Spatial planning is an important tool for managing competing land demands across energy, agriculture, conservation, infrastructure, and community livelihoods. However, as observed in Indonesia, planning regimes often fail to reflect local land uses, customary tenure systems, or ecological constraints.

ALIGN partners' experience shows that even within constrained systems, participatory mapping and community-generated data can make local land uses and environmental risks visible, enabling bottom-up evidence to inform formal planning processes. Strategic engagement with plan revisions and stronger subnational government capabilities to use spatial data can improve the quality and legitimacy of outcomes.

Experience from Indonesia underscores that shaping land-use decisions at the planning stage is critical, rather than relying solely on downstream safeguards after concessions are granted. This highlights the need to formalize links between bottom-up and top-down planning processes.

Responsible use of investment-scaling approaches

Governments increasingly rely on policy reforms, investment promotion, and legal frameworks to rapidly scale transition-linked investments. Such approaches can mobilize capital, but they also risk prioritizing speed and certainty over social and environmental safeguards.

Zambia's experience illustrates that responsible scaling requires embedding participation, tenure protection, and benefit-sharing directly into climate, mining and investment laws, strategies, and contracts. Consultation that occurs only at the project approval stage is insufficient. Instead,

communities must be able to influence the design of policies and frameworks that shape investment trajectories from the outset.

Legally binding benefit-sharing mechanisms, such as community development agreements, are particularly important to ensure that scaled investment delivers tangible and durable local benefits, rather than discretionary or short-term gains.

Coordination and subnational leadership

Just energy transitions cut across multiple sectors, stakeholders, and levels of government, making coordination essential. Fragmented mandates, discretionary decision-making, weak information sharing, and limited subnational authority undermine governments' ability to balance competing land uses and manage social and environmental risks.

Experience from ALIGN partners in Indonesia and Zambia shows that coordination is most effective when linked to concrete decisions, supported by clear mandates, and grounded in community-level evidence, including through dialogue platforms and civil society engagement. Strengthening subnational authority, capacity, and access to data is particularly critical since many land-use decisions affecting communities are made at provincial or district levels.

1 INTRODUCTION

There is an urgent need for a just and rapid shift away from fossil fuels to low-carbon economies. Current transition pathways are land-intensive, generating new and competing demands for land through the expansion of transition mineral extraction, renewable energy, biofuel and biomass production, and associated infrastructure. These pressures are already reshaping land use in many countries and will intensify as transition investments scale. In this report, these land-intensive activities are referred to as transition-linked investments—that is, investments required to scale the energy transition and that have material implications for land use and land governance.

This report advances a practice-based contribution to the just energy transition literature by examining land governance not as a peripheral issue but as a set of concrete pathways and decision points that shape whether transition-linked investments are just, feasible, legitimate, and durable. When land governance is weak or inadequately integrated into sectoral policy planning, land-intensive transition pathways risk deepening inequality, triggering conflict, and undermining long-term transition outcomes. Land governance challenges may include weak tenure recognition, fragmented or poorly implemented spatial planning processes, investment frameworks that prioritize speed over safeguards, or limited coordination across government levels.

Responsible land governance is based on clear standards for tenure recognition, community participation, and land-use allocation, while recognizing that implementation occurs through iterative processes shaped by capacity, sequencing, and institutional constraints. The challenge, therefore, is not whether these standards apply but how they are operationalized early and predictably enough to inform decisions and prevent adverse impacts on land and land users.

Drawing on the Advancing Land-based Investment Governance (ALIGN) project's work in Indonesia and Zambia, the report shows how weaknesses in land governance can operate as constraints on just transition outcomes and where targeted interventions and leverage points can meaningfully shift results. It consolidates lessons and strategies that governments, particularly those in the Global South, can deploy to strengthen land governance in ways that advance rather than undermine a just energy transition, including by thinking about sequencing, leverage points, and capacity. This report also serves as a reference point for civil society, practitioners, and others seeking to advance responsible land governance in the context of just energy transitions—in Indonesia, in Zambia, and beyond.

Section 2 of this report discusses the methodology and scope. **Section 3** explains why land governance is central to just energy transitions. **Section 4** discusses the state of just energy transition planning in Indonesia and Zambia and reflects on the extent to which land governance systems in these countries are equipped to navigate the complexities of the transition. **Section 5** identifies key lessons, practical strategies, and policy recommendations emerging from ALIGN's in-country work, as well as reflection on the Indonesia and Zambia contexts, for strengthening land governance to support just energy transition. These lessons cover four elements of land governance: **(1) tenure security, (2) spatial planning, (3) responsible use of approaches for scaling investments in the energy transition,** and **(4) coordination and subnational government leadership.**

2 METHODOLOGY AND SCOPE

This report adopts an applied, qualitative mixed-methods approach grounded in comparative case study analysis, drawing on field-based engagement, document review, desk research, and stakeholder discussions across Indonesia and Zambia.

This report is primarily the result of reflections and analysis conducted by CCSI and IIED. It draws on lessons and experiences generated through the ALIGN project in Indonesia and Zambia to inform and ground that analysis. The methodology combines: (1) synthesis by CCSI and IIED of publicly available literature, policy documents, and secondary sources relevant to land governance and energy transition planning; (2) review of ALIGN project documentation and monitoring outputs; and (3) targeted discussions with ALIGN partners in Indonesia and Zambia to clarify context, reflect on project experience, and validate emerging interpretations where relevant. Although they are informed by ALIGN activities and partner perspectives, the framing, analysis, and recommendations presented in the report reflect the independent analysis of CCSI and IIED authors and do not necessarily represent the views of project partner organizations or participating stakeholders.

Given ALIGN's focus on direct policy engagement, government capability building, community legal empowerment, and legal awareness building, the insights presented here are grounded in practical experience navigating land governance systems in Indonesia and Zambia. The report therefore highlights governance challenges and entry points that emerged most prominently through this work and in these contexts, rather than attempt an exhaustive mapping of all elements relevant to responsible land governance that are necessary for just energy transitions.

ALIGN's engagement differed across contexts in response to political economy dynamics and available leverage for advancing just transition objectives. In **Indonesia**, efforts focused primarily at the local level, advancing bottom-up community legal empowerment, participatory mapping, and national and subnational policy engagement on land-use planning, development planning, and mining governance. Work in Indonesia was led by regional civil society actors and supported communities affected by transition-linked investments in Central Kalimantan and Southeast Sulawesi. In **Zambia**, engagement included national-level policy processes with evidence from local-level action. National-level policy processes included land, mining, and investment governance reforms, with some community-level efforts in four key field sites: Serenje and Mkushi in the Central Province, and Solwezi and Kalumbila in the North-Western Province.

The report also examines land governance challenges in the context of a subset of transition-linked investments—transition mineral extraction, biofuel, and biomass production—that are relevant to Indonesia's and Zambia's energy transition efforts.

These contextual differences determined which land governance challenges were encountered, what political economy dynamics were surfaced, what approaches were adopted to address governance gaps, and the lessons that were generated. These differences will influence the contexts in which this report's lessons will be most applicable and should therefore be taken into account when interpreting the findings and applying them across geographies or other transition-linked sectors.

Note that while the empirical focus of this brief is on Indonesia and Zambia, its analytical approach sits within and is informed by cross-country learning generated across the ALIGN project. This includes work undertaken by ALIGN in collaboration with the Public Affairs Research Institute in South Africa, which generated similarly important lessons on the relationship between land governance and the pillars of a just energy transition, and the key lessons and strategies for responsible land-based investment within a just transition.[1]

3 THE ROLE OF LAND GOVERNANCE IN DRIVING JUST ENERGY TRANSITIONS

3.1 LAND FOOTPRINT OF THE ENERGY TRANSITION

The shift toward low-carbon energy systems is materially and spatially intensive, generating unprecedented pressures on land. Transition mineral extraction for batteries and renewable energy technologies, the scaling of renewable energy generation, associated transmission corridors, and the industrial infrastructure required for processing and manufacturing all generate significant new demands for land.[2]

For example, global demand for nickel for clean-energy technologies is expected to reach about 1.3 million metric tons annually by 2030.[3] In Indonesia, which supplies much of the world's battery-grade nickel, recent studies find that laterite nickel mining can disturb about 42 m^2 of land per metric ton of nickel extracted.[4] Similarly in Zambia, the expansion of transition mineral mining—including copper, cobalt, manganese, and nickel[5]—coupled with major infrastructure development to facilitate transport of transition minerals to market is expected to carry a significant land footprint.[6]

As these pressures accumulate, the energy transition reshapes land-based economies, tenure security, and patterns of environmental and social impact driven by land-use change. Therefore, the transition cannot be understood solely as an industrial, technological, or financial shift; it is also a reorganization of how land is allocated, controlled, and used. These dynamics underscore that the energy transition is, in practical terms, a land governance challenge.[7]

3.2 LAND IN TRANSITION PLANNING

Land is central to energy transition pathways, but many national transition plans and climate strategies incorporate land primarily through the Agriculture, Forest and Other Land Use (AFOLU) agendas, with relatively few that systematically engage with land governance as a distinct policy domain.[8] While AFOLU interventions are essential to climate action, they are sectoral in nature and are not designed to address core governance questions such as tenure security, how land is allocated and regulated, whose claims are recognized, and which interests shape decision-making and enforcement (see Box 1).

BOX 1: WHAT IS LAND GOVERNANCE?

Land governance refers to the framework of institutions, policies, and processes through which decisions are made, implemented, and enforced about the use, access, ownership, and control of land and natural resources.[9] It encompasses formal components (e.g., land laws, tenure rights, land registries, land-use planning, and administrative agencies) and informal or customary systems that shape how land is held and managed in practice.[10] In the context of just energy transitions, land governance is considered **responsible** when these institutions, policies, and processes operate in ways that are transparent, inclusive, equitable, and capable of managing competing land uses fairly.

Land governance can span a range of interrelated functions, including: recognition and protection of legitimate tenure rights; land registration and titling; land-use planning and zoning; strategic environmental assessments; assessment, approval, and oversight of land-based investments, including permitting, land acquisition, compensation, resettlement, and land rehabilitation; land valuation and taxation; regulation of land transactions; management of public and communal lands; dispute resolution and conflict management; facilitation of access to land information and land records; land policy formulation; and institutional coordination.

Advancing responsible land governance for just energy transitions requires engagement with multiple functions of the land governance system across institutions and scales, including those listed above. This report does not examine the full range of land governance functions. Instead, it focuses on a subset identified as relevant through ALIGN's work in Indonesia and Zambia, contributing practice-based lessons to the broader conversation on land governance in energy transitions.

3.3 HOW RESPONSIBLE LAND GOVERNANCE CAN SUPPORT JUST ENERGY TRANSITIONS

For this report, just energy transitions can be understood through three key elements:[11]

(1) **Distributional outcomes:** How the costs, benefits, and risks associated with transition-linked investments are distributed across different groups or territories.
(2) **Process of decision-making:** How decisions are made, by whom, and on what terms, ensuring full inclusion and participation of all community members at relevant stages of policy and investment decision-making.
(3) **Historical and structural impacts:** How legacy land-use patterns, structural inequalities, and historical impacts shape present-day transition pathways and outcomes.

Land governance shapes how all three elements are realized in energy transitions. It determines whose claims to land are recognized, who participates in decision-making, how competing interests are negotiated, and whether affected communities have access to benefits and remedies (see Box 2).

BOX 2: LAND GOVERNANCE AND HOW IT SHAPES THE LAND-RELATED IMPACTS OF ENERGY TRANSITIONS

In practice, the land-related impacts of energy transitions are shaped by national and subnational land governance processes that allocate land, approve projects, and manage impacts across sectors—spatial planning, licensing and permitting, customary tenure recognition, environmental and social assessment, resettlement and compensation, the institutional coordination to implement national energy and industrial strategies.

Distributional outcomes: Transition-linked investments sited on land used for farming, grazing, housing, or cultural practices can disrupt local livelihoods and concentrate environmental and social burdens in specific communities.[12] When transition planning processes do not adequately account for existing uses, some groups may face disproportionate costs, while others benefit from new infrastructure, investment, or employment.[13] Responsible land governance helps mitigate these uneven outcomes by clarifying tenure, aligning siting decisions with land-use realities and opportunities for community benefits, and reducing the risk that land-intensive transition investments disproportionately disadvantage certain groups.

Process of decision-making: Opaque, unclear, and poorly coordinated planning processes can weaken communities' ability to influence decisions affecting their lands, territories, and natural resources. If tenure is not appropriately recognized, consultations are superficial, or project information is inaccessible, affected communities have limited meaningful input into project siting or design. Responsible land governance supports inclusive, transparent, and timely decision-making, including early stage and continuous participation of Indigenous Peoples, local communities, and other stakeholders.

Historical and structural impacts: Energy transitions in the Global South frequently unfold in landscapes shaped by colonial and historical injustice, such as exploitation, dispossession, marginalization, and extractive development. Without proactive measures, transition investments risk reproducing or deepening these patterns. Responsible land governance helps address legacy impacts

and historical patterns of exclusion by acknowledging past harms; recognizing the tenure rights of historically excluded groups; ensuring access to remedy, including compensation, resettlement, and land rehabilitation; and creating pathways to address long-standing inequities through shared prosperity, benefit-sharing, or land redistribution programs.

Just transition considerations manifest differently across scales. For example, at the **international level**, distributional debates may focus on who pays, who benefits, and how costs are shared between states. At the **national level**, particularly in the Global South, just transition discussions frequently emphasize how to leverage transition-linked investment (e.g., in transition minerals) to advance macro-level development objectives.[14] At the **local level**, the focus shifts to how transition-linked projects affect land use, livelihoods, and tenure security, including whether affected communities are meaningfully consulted, adequately compensated, and able to benefit from investments. Recognizing and reconciling these perspectives is critical when applying lessons across contexts and designing land governance interventions, ensuring that approaches reinforce—rather than undermine—one another across contexts.

Responsible land governance also makes energy transitions more likely to be feasible, effective, and socially legitimate. The success of transition-linked investments depends not only on technology, finance, and industrial policy, but also on whether land governance systems can manage competing land uses, resolve conflicts transparently, and uphold fairness. If governance systems are weak or fragmented, and particularly if land governance is not fully integrated into energy transition policymaking, distributive inequities can generate resistance, delay implementation, and erode confidence in transition policies.[15] Integrated, cross-sector land governance embedded in national climate and transition strategies is therefore a foundational pillar of just energy transitions, enabling governments to proactively balance competing land demands and support transition pathways that are effective and legitimate.

4 CONTEXT AND COUNTRY LANDSCAPES

This section examines how Indonesia and Zambia are approaching (or are likely to approach) land governance within their emerging just transition strategies and assess whether existing land governance systems are equipped to manage the spatial, social, and political complexities of energy transition investments. Both countries are advancing ambitious energy and industrial policies, but land governance considerations often remain secondary to economic, fiscal, and political priorities. Understanding these dynamics is critical for evaluating transition readiness and identifying where governance systems may require strengthening.

4.1 INDONESIA

Indonesia's energy transition is unfolding across multiple land-intensive sectors aligned with long-standing development priorities, including transition minerals, biofuels, and industrial infrastructure. As these investments expand, competition over land, resources, and tenure security intensifies, positioning land governance as a critical yet weakly integrated element of the transition agenda.

4.1.1 Indonesia's energy transition landscape

With Indonesia holding 42% of the world's nickel reserves and 51% of the world's nickel mine production, **nickel** is at the center of the country's industrialization and downstreaming agenda and underpins ambitions for domestic battery manufacturing.[16] **Palm oil**, used for consumer goods and increasingly to produce biofuel by co-firing with coal, is playing a growing role in energy policy, with Indonesian plantations covering around 16 million hectares[17] and supplying over half of global exports in 2023.[18] **Industrial forest plantations**, similarly providing biomass for the government's co-firing program, add further pressure on already contested lands.

This report focuses on nickel, palm oil, and industrial forest plantations because they dominate Indonesia's current transition narrative and are most relevant in the two regions where ALIGN partners engaged: **Southeast Sulawesi** and **Central Kalimantan**.[19]

4.1.2 Documented land-related impacts and challenges

Across regions where ALIGN partners have worked, transition-linked investments have intensified preexisting challenges associated with land governance (discussed in Section 4.1.3), leading to widespread land-related environmental and social impacts.

In **Central Kalimantan**, which covers a little over 15 million hectares, at least 11 million hectares have been granted to investors, mainly for palm oil, coal mining, and industrial logging. According to research conducted by WALHI Kalteng, this represents 70% of the province.[20] Concession allocations in Indigenous territories and weak recognition of Indigenous tenure have contributed to accelerated forest loss, restricted access to land and natural resources, reduced food security, and heightened livelihood precarity.[21] Communities have faced criminalization for engaging in customary subsistence practices within state forest zones, while cultural and spiritual relationships to land have weakened as sacred landscapes are enclosed or cleared.[22] Deforestation and altered land cover have also increased exposure to flooding and environmental hazards.[23]

In **Southeast Sulawesi**, rapid expansion of nickel mining and palm oil has similarly undermined livelihoods and food security through soil and water degradation, loss of productive land, impacts on local fisheries, and contamination linked to dust and mine tailings.[24] Communities report encroachment on community lands critical for housing and livelihoods, erosion of cultural practices tied to land and natural resources, inequitable benefit-sharing, gender-based violence, deepening gender inequality due to increased domestic burdens and women's exclusion from employment and decision-making, and intimidation or criminalization when raising concerns.[25] Nickel and palm oil investments in the region have also driven deforestation and biodiversity loss—including in sensitive karst and coastal ecosystems. These dynamics, combined with degraded natural buffer zones, have weakened development outcomes and regional resilience to climate shocks.[26]

Across both provinces, competition for land has resulted in overlapping claims, tenure disputes, and rising agrarian conflict. From 2015 to 2024, the Consortium for Agrarian Reform documented more than 3,200 agrarian conflicts spanning 7.4 million hectares across Indonesia, many of which are connected to transition-linked sectors and weak environmental and social safeguards.[27]

4.1.3 Cross-cutting governance gaps and readiness for a just transition

Despite a comprehensive legal framework governing forest, mining, spatial planning, and agrarian affairs, Indonesia's land governance system remains fragmented and insufficiently aligned with pressures created by transition-linked investments. These governance gaps matter for just transition outcomes because they shape who bears costs and receives benefits (distribution); who participates and on what terms (process); and whether legacy injustices, particularly those faced by Indigenous Peoples, are reproduced or addressed (historical/structural impacts)—ultimately shaping the land-related impacts of energy transitions.

a. Overlapping mandates, weak institutional coordination, and limited subnational authority

Indonesia's land governance system is characterized by overlapping mandates across ministries and inconsistent spatial datasets. These institutional and data-related misalignments undermine coordinated land-use decision-making.

Subnational governments are formally responsible for spatial planning, but they have limited authority in practice, especially when national priorities or national strategic projects take precedence.[28] Plans and land-use designations are frequently overridden, bypassed, weakly enforced, or subordinated to higher-order investment priorities, contributing to land-use conflicts, post hoc investment permit revocations, and a tendency toward reactionary rather than proactive governance.[29]

b. Governance gaps and challenges in spatial planning

Spatial planning processes face persistent implementation challenges. The One Map Policy—intended to harmonize sectoral maps and establish a single authoritative spatial dataset—remains incomplete,

contributing to overlapping claims, contradictory land classifications, and reduced accountability.[30] Participatory mapping efforts led by JKPP have documented extensive overlaps between community land, state forest areas, mining licenses, and plantation concessions, underscoring how unresolved tenure conflicts are produced and reproduced through spatial planning systems. To achieve its harmonization objectives, the One Map Policy would need stronger integration of participatory mapping and community tenure data into the national spatial planning framework.

Insights from ALIGN partners and community experience reveal that participation requirements are usually implemented late, narrowly, or superficially, limiting the extent to which local tenure systems, livelihood needs, and ecological constraints shape planning outcomes. Furthermore, critical social, environmental, and climate-risk data are uneven, outdated, or even absent in many cases, reducing the capacity of agencies to avoid granting concessions in ecologically sensitive or livelihood-critical areas.

c. Challenges and delays in recognition of customary (Adat) tenure

Recognition of customary (Adat) tenure has been slow and politically contingent. Civil society organizations have mapped over 32 million hectares of customary territories. Yet the government has formally recognized only 5.38 million hectares, of which only 265,250 hectares are recognized as Adat forests.[31] This gap between mapping and legal recognition means that many communities remain absent in formal maps and spatial plans and face increased vulnerability when concessions are allocated or spatial plans are revised. Procedural complexity, fragmented institutional responsibilities, and the absence of a national law on the rights of Indigenous Peoples further constrain meaningful recognition.

d. Growing land inequality

Beyond issues of tenure recognition, Indonesia has experienced growing inequality in the distribution of land and in recognition of land rights. From 2013 to 2023, the number of landless peasants or farmers who owned less than half a hectare of land has skyrocketed.[32] This trend reflects deeper structural weaknesses in land governance.

e. Weakening of environmental and social safeguards

Reforms under the 2020 Job Creation (Omnibus) Law streamlined investment licensing but narrowed environmental and social safeguards, as well as avenues for public participation. These changes have compounded governance gaps rather than resolving them.[33]

More broadly, political economy drivers that prioritize investment facilitation reinforce top-down decision-making that tends to prioritize rapid project delivery over environmental safeguards, spatial planning norms, and community tenure rights.[34]

Collectively, **these land governance gaps limit Indonesia's capacity to manage the spatial, social, and ecological implications of the energy transition** and weaken the institutional foundations required for a more equitable and participatory transition pathway.

4.2 ZAMBIA

Like Indonesia, the upsurge in mining of transition-linked minerals, renewable energy, and infrastructure investments driving Zambia's transition are land intensive, creating growing competition over space, resources, and tenure security. This makes land governance a central yet underdeveloped pillar of the country's transition agenda.

4.2.1 Zambia's energy transition landscape

Zambia, like many mineral-producing countries, hopes to leverage the energy transition for economic development by supplying transition minerals for clean-energy technologies, including copper, cobalt, manganese, and lithium. This ambition has been reinforced by Zambia's fiscal constraints since its sovereign debt default in December 2020 and subsequent debt-restructuring process, which has intensified pressure to scale mineral production and export revenue.[35] In response, the government has articulated an ambitious policy agenda centered on mineral-led growth, including increasing copper production to 3 million metric tons by 2031.[36] This objective is complemented by the Green Growth Strategy (2024–2030) and the National Critical Minerals Strategy (2024–2028), which emphasize diversification across a wider range of transition-relevant minerals.[37]

The government has also recently reviewed its mineral laws, particularly the Minerals Regulation Commission Act of 2024,[38] with the aim of strengthening sustainable and equitable management of the country's mineral resources. This reform is complemented by the National Green Growth Strategy 2024–2030,[39] Zambia's blueprint for its transition to a low-carbon economy.[40] In addition, Zambia has developed the Green Finance Taxonomy, which creates a framework for mobilizing capital for Zambia's environmental and Nationally Determined Contribution targets.[41]

Zambia has also positioned itself as a strategic player in regional and global transition mineral supply chains. It signed an agreement with Angola, the Democratic Republic of Congo (DRC), the European Union, and the United States to develop the Lobito Corridor, which will ultimately transport transition minerals through the Copperbelt Province to global markets,[42] requiring substantial new infrastructure and land. Zambia, the 10th largest copper producing country,[43] is advancing cobalt refining capacity and collaborating with the DRC to develop an electric vehicle battery production facility.[44] The government is also seeking to leverage its lithium, manganese, nickel, graphite, rare earth elements, columbite-tantalite, tin, and uranium. These minerals have critical importance for decarbonizing global energy systems, and the government's road map prioritizes attracting investment, scaling production, enhancing geological data through surveys, and fostering private sector participation.[45]

Zambia has made commendable progress in establishing policy frameworks to attract climate and transition-aligned investment, including through green finance initiatives. However, the absence of explicit land governance and social safeguard provisions means that increased financing could indirectly intensify land-based investments with implications for tenure security and livelihoods.

4.2.2 Documented land-related impacts and challenges

Zambia's dual land tenure system, which comprises state and customary land,[46] creates overlapping authorities and blurred responsibilities. Customary land, which accounts for 70% of the land in Zambia,[47] is administered by traditional leaders whose position is recognized in law but whose roles in land governance and resettlement processes are not clearly defined. Traditional leaders are formally involved in the allocation and management of land and natural resources, particularly in the approval of conversion of customary land to leasehold. However, in practice, they are often engaged late in the process and have limited substantive influence over approval or rejection decisions.

These gaps in authority, timing, and clarity have direct implications for how land tenure conversions take place at the community level. Conversion of customary land to state land for investment has been documented across Zambia, often resulting in the permanent loss of customary status and weakening of local decision-making and community control over land and natural resources.[48] These conversion processes are often characterized by limited transparency, uneven or limited community consultation, and weak protection of customary rights, especially where investment pressures are high. Although Zambia has procedures for community consultation through an environmental and social impact assessment (ESIA), there is no statutory requirement for free, prior, and informed consent (FPIC). ESIA processes provide a formal channel for community consultation, but their effectiveness varies and the absence of legal recognition of Indigenous Peoples and a statutory requirement for FPIC means that affected communities have limited ability to withhold consent or exercise veto over land conversion decisions.

Further, while the National Resettlement Policy, which was reviewed in 2024, addresses coordination gaps and compensation for internally displaced persons, it primarily targets disaster-induced displacements and lacks robust, enforceable safeguards for mining-related cases. Variable enforcement, inadequate livelihood restoration, unclear roles of traditional authorities in land decisions, and opaque customary to state land conversions exacerbate insecurity and fuel community mistrust in affected areas.

Gender and social inequities also deepen the impacts of land tenure conversion and investment pressures, with women and marginalized groups facing the highest risks of exclusion under current customary tenure arrangements. Zambia's ongoing land reform process, which includes the review of the Lands Act of 1995[49] and discussions on establishing a legal framework for customary lands, offers an opportunity to strengthen tenure security, clarify institutional roles, and embed safeguards that ensure land governance supports a just energy transition.

4.2.3 Cross-cutting governance gaps and readiness for a just transition

Much of the policy focus remains heavily oriented toward expanding extraction of transition minerals. The mechanisms for addressing potential negative impacts of these investments, such as environmental and social safeguards, adequate compensation, and resettlement of land-related displacement, remain comparatively underdeveloped.

a. Land governance and tenure insecurity

Zambia's dual land tenure system, comprising state and customary land, remains a central governance challenge. About 70 percent of land falls under customary administration, but the legal recognition of traditional authority is partial and inconsistently applied across the country. The process of converting customary land to leasehold for mining, infrastructure, or renewable energy investments often occurs without adequate transparency or early community involvement.

Weak coordination between the Ministry of Lands and Natural Resources, local councils, and traditional leaders has resulted in unclear decision-making authority, inconsistent enforcement, and diminishing community control over land and natural resources. These governance gaps heighten tenure insecurity, social conflict, and mistrust toward government and investors.

These challenges are compounded by Zambia's legal framework, which vests mineral rights in the state irrespective of surface land rights, allowing mining licenses to be granted over customary land even if surface rights remain insecure or contested.

b. Community consultations and social and environmental safeguards

Although Zambia mandates Environmental and Social Impact Assessments (ESIAs) for large-scale projects, the quality and inclusiveness of these processes vary widely. There is no statutory

requirement for FPIC, and the ESIA framework provides limited channels for effective community participation or grievance redress.

The National Resettlement Policy (2024), while a step toward improved coordination, primarily addresses disaster-related displacement rather than land-based investment-related displacement. As a result, compensation, livelihood restoration, and post-resettlement monitoring remain weakly institutionalized, exposing affected transition-adjacent communities to vulnerabilities. Strengthening safeguard enforcement and embedding rights-based consultation mechanisms are thus critical preconditions for a just transition.

c. Institutional capacity and readiness

Zambia's transition policies are distributed across multiple institutions, including the Ministries of Green Economy and Environment, Mines and Minerals Development, Lands and Natural Resources, and Local Government. Overlapping mandates and insufficient interagency coordination may lead to institutional fragmentation and duplication of functions (discussed in detail in Section 5.4).

Frameworks such as the National Critical Minerals Strategy (2024–2028) and National Green Growth Strategy (2024–2030) align with sectoral ambitions, but the absence of a harmonized implementation mechanism reduces efficiency and coherence. This fragmentation also impedes systematic monitoring of land conversion, environmental compliance, and social outcomes across sectors.

In addition, limited technical and financial capacity—particularly at subnational levels—at the provincial and district levels has constrained Zambia's ability to enforce mining, environmental, and land legislation. District offices often lack trained personnel and data-management systems to track land allocations, resettlement processes, and compensation outcomes.

Energy projects are critical for Zambia's economic growth, but they are unfolding faster than the institutional systems needed to manage land and social impacts equitably and sustainably.[50] National strategies acknowledge the need for equitable distribution of transition benefits, but Zambia has not fully institutionalized a comprehensive just transition framework with enforceable social and environmental safeguards that go beyond existing ESIA-based procedures.

As a result, the energy transition is proceeding within a governance system that is still developing the capacity to ensure that transition-linked investments deliver development outcomes in a just and inclusive manner. Zambia is also consolidating the capacity required to guarantee meaningful participation, secure tenure, environmental sustainability, and equitable benefit sharing. To make the transition more inclusive and sustainable, it will be important to define government priorities and trade-offs, strengthen institutional capacity, clarify land tenure systems, and ensure that communities—especially the most vulnerable—can effectively participate in and benefit from transition-linked investments.

5 LESSONS AND STRATEGIES

This section distills key lessons and strategies for strengthening land governance in support of a just energy transition. Drawing on ALIGN's experience in Indonesia and Zambia, it identifies lessons on practical entry points within existing systems as well as priorities for broader policy reform, across tenure security, spatial planning, investment scaling, and multilevel coordination.

The form that lessons take differs across the two country contexts, and not all land-governance elements were examined in each country, reflecting differences in ALIGN's modes of engagement and leverage points. In Indonesia, lessons emerge primarily from subnational planning and implementation processes, while in Zambia they derive largely from national policy and legislative reform, which were informed by partner activities at the local level.

5.1 TENURE SECURITY

5.1.1 Tenure security and its relevance to energy transitions

As discussed in Section 3, energy transition-linked investments are land intensive and interact with existing land uses in ways that can reinforce or mitigate inequities. A core determinant of whether these investments support or undermine a just transition is the extent to which the tenure rights of Indigenous Peoples, local communities, and other land users are recognized, protected, and made visible within land governance systems through appropriate tenure rights recognition processes. This section focuses on securing legitimate tenure rights as a foundational entry point for shaping just energy transitions. Box 3 defines key concepts as used in this section.

BOX 3: LAND TENURE, LEGITIMATE TENURE RIGHTS, AND TENURE SECURITY[51]

Land tenure refers to the relationship among individuals or groups, whether formal or customary, with respect to land and natural resources.[52] This includes, for example, the right to access (e.g., water sources), use (e.g., grazing or growing crops), control (e.g., deciding how it is used), or transfer (e.g., selling or leasing) a parcel of land.

Tenure rights that lack legal recognition or formal documentation may still be legitimate if they are broadly accepted by local actors, and they should therefore be respected. The UN Voluntary Guidelines for the Responsible Governance of Tenure, endorsed by most countries through the Committee on World Food Security, call on states to respect **all legitimate tenure rights**, including those that are socially legitimate.[53] Examples of tenure rights that may be socially legitimate even without legal recognition include those based on Indigenous customary tenure systems, shared forests accessed and used by multiple communities, and traditional fishing grounds.[54] In 2021, the High Court of Kenya found that land titles for a wind-power project were unlawfully obtained and that the project failed to address nomadic pastoralists' ancestral grazing rights.[55]

Tenure security refers to the guarantee for land users, such as rural, forest, and coastal dwellers, that their capacity to access and use their land and resources will not be groundlessly contested, that their tenure rights will be recognized and protected, and that they will be able to continue to benefit from those rights, including from the ongoing use and management of their land and natural resources.[56]

National laws typically determine formal tenure arrangements by allocating types of rights (e.g., use, access, property) and specifying how these rights are acquired (e.g., inheritance, lease, purchase). However, these frameworks often diverge sharply from how land is used and managed in practice and who holds legitimate tenure rights, including socially legitimate rights that remain weakly recognized or excluded from formal systems in many countries.[57] Like in most investment contexts, these gaps are consequential in transition-linked investments, where large-scale projects increase pressure on land and heighten risks of physical and economic displacement and dispossession.

Weak or insecure tenure in energy transition contexts can undermine several essential developmental and environmental imperatives. These include sustaining livelihoods and food security when access to farmland, grazing areas, or fishing grounds risks being disrupted; protecting cultural identity when sacred sites or cultural landscapes are affected; enabling meaningful participation in decision-making by clarifying who should be consulted and included in benefit-sharing or compensation processes; and reducing planning and investment risks by ensuring that official land-use data reflect actual land-use and tenure arrangements.

Recognizing and securing tenure rights is integral to reconciling social, development, environmental, and climate goals within the energy transition. A growing body of evidence shows that stronger tenure security and community decision-making over land and natural resource governance can contribute to improved development outcomes, reduced conflict, and enhanced environmental stewardship, including progress toward climate mitigation and adaptation goals.[58] International commitments, including the Glasgow Declaration on Forest and Land Use[59] and the Indigenous Peoples and Local Communities Forest Tenure Pledge, reinforce this link.[60] Aligning energy transition-linked land-use decisions with secure tenure can thus strengthen the social legitimacy and climate coherence of transition pathways.

5.1.2 Responsible approaches for governing and securing tenure

Tenure should ideally be secured before decisions are made about the granting of use, access, exploration, or extraction of rights over any territory. In places where concessions have already been allocated, this recognition becomes even more urgent. Because concession licenses are typically time bound, clarifying rightful ownership (or other forms of tenure rights) is necessary to ensure that communities meaningfully contribute to the project setup and receive appropriate benefits during project operations and to determine who the land returns to at closure, including who bears responsibility for rehabilitation. Efforts to secure tenure, whether through land titling or other relevant recognition processes, should be fair, inclusive, and contextually and culturally appropriate.[61]

Strengthening tenure governance in transition contexts requires: (1) recognizing and protecting all legitimate tenure rights through fair and inclusive land titling and other relevant recognition processes; (2) ensuring clear, transparent, and coherent institutional mandates; and (3) guaranteeing meaningful participation and access to remedy. The experiences from Indonesia and Zambia illustrate how gaps across these areas shape transition risks.

5.1.3 Experiences from Indonesia

Indonesia's experience illustrates how gaps in tenure recognition can shape the distribution of benefits and harms from land-based investments linked to the energy transition. When tenure rights are unrecognized or only partially secured, investments have been associated with land disputes, social unrest, livelihood precarity, and food insecurity, particularly in regions experiencing intensive expansion of extractive and plantation activities. [62]

5.1.3.1 Tenure recognition in Indonesia: Challenges in policy and practice

Indonesia's legal framework provides several pathways for recognizing land and resource rights, but these confer differing levels of security and authority.[63] Permanent recognition is available through the recognition of Adat (customary) status, including Adat territories and Adat forests. Other mechanisms, such as social forestry schemes, grant time-bound management rights without conferring ownership.[64] Agrarian reform initiatives, including the land redistribution program (TORA), seek to transfer land to farmers under defined eligibility and spatial criteria.[65]

In principle, permanent recognition of customary tenure offers the highest level of security, particularly when accompanied by meaningful participation in land and natural resource decision-making. Indigenous organizations have long advocated for such recognition. In practice, however, tenure recognition faces significant structural constraints.

Despite these formal pathways, as a practical matter tenure recognition in Indonesia faces significant structural constraints:

- **Recognition remains politically contingent and highly discretionary.** The Constitution recognizes Indigenous Peoples (Article 18B), but Indonesia lacks a comprehensive national law that operationalizes this recognition or establishes a clear, uniform legal framework for recognizing, registering, and enforcing customary tenure.[66] As a result, recognition depends heavily on political will at provincial and district levels, producing uneven outcomes across regions.
- **Institutional fragmentation complicates recognition processes.**[67] Customary territories may fall under different land classifications and ministerial mandates, such as forestry, coastal, or general land administration (see Sections 5.2 and 5.4). When customary territories span multiple administrative or sectoral jurisdictions, communities must navigate overlapping procedures and authorities, increasing the complexity and timelines for recognition.
- **The scale of unrecognized tenure remains substantial.** As of March 2025, BRWA had mapped 33.6 million hectares under customary territories, while the government had formally recognized only 6.3 million hectares across 320 communities, of which only 332,505 hectares are designated as Adat forests.[68]
- **Dominance of state data and maps in verification processes.** Recognition processes also privilege state maps and data as authoritative, with participatory maps treated as secondary evidence. This epistemic imbalance often results in reduced or distorted recognition of Indigenous territories, including inaccurate boundaries and significantly smaller areas than those claimed.

These tenure recognition gaps constrain Indonesia's ability to manage land-intensive energy transition investments in a socially legitimate and equitable manner. When customary tenure remains insecure, transition-linked investments are more likely to proceed on land deemed available or underused, increasing risks of conflict, displacement, and livelihood disruption. In the absence of more systematic and secure tenure recognition, Indonesia's energy transition risks reinforcing inequalities and undermining the social foundations needed for durable and legitimate transition outcomes.

5.1.3.2 Lessons learned and approaches for securing tenure in Indonesia

The tenure recognition gaps described above create significant barriers for communities seeking formal recognition of their status as land custodians. These challenges are illustrated here through the Indonesian context, but they reflect broader patterns faced by Indigenous Peoples and local communities globally, particularly in land-intensive transition contexts.[69] ALIGN

partners' experience in Indonesia highlights that advancing tenure security under such conditions typically requires a dual strategy: working pragmatically within existing systems to secure incremental gains while engaging in policy processes to address structural gaps.

a. Working within a flawed system

Despite these limitations, many local and Adat communities, often with the support of civil society groups, have pursued strategies to strengthen tenure security within existing legal and administrative frameworks. A central element of this approach has been **participatory mapping** of territories, including land uses, cultural sites, and resource areas.

In Indonesia, ALIGN partners AMAN Kalteng, LBH Palangka Raya, and JKPP supported participatory mapping initiatives across the country. These initiatives involved a combination of **community consultation, legal empowerment, and consolidation of local bylaws and cultural practices**, while generating spatial and documentary evidence required for formal recognition processes. When formal recognition pathways exist, this evidence has been used to **support applications for Adat recognition** or other tenure schemes. Even if recognition is not immediately achievable, participatory mapping and documentation serve multiple functions: (1) preserving a record of communities' history and their relationship with their land, (2) strengthening internal governance systems and enhancing cohesion, particularly if those are weakened by external factors, (3) supporting advocacy with government or investors, and (4) building community capacity and positioning them to push for recognition when legal or political conditions shift.

b. Engaging in multilevel policy and legal reform

Incremental gains at the community level have been accompanied by efforts to address structural constraints through policy engagement at district, provincial, and national levels. In Central Kalimantan, a limited number of districts have adopted regulations enabling Adat recognition, and a provincial regulation was not adopted until 2024. In practice, however, recognition through local regulations often faced significant challenges due to processes being politically contingent (as discussed above).[70]

In response, national and subnational civil society coalitions have focused on influencing the content of subnational regulations and the broader national legal framework. These efforts have included facilitating bottom-up community consultations; convening dialogues among community representatives, legal experts, and policymakers; and developing coordinated reform proposals aimed at reducing discretion and fragmentation in tenure recognition.

At the national level, ALIGN partner YLBHI, as part of a broader civil society coalition, has supported efforts to advance the adoption of a national Indigenous Rights Bill. This included facilitating community consultations on the draft bill in Sumatra, where local and Adat communities are heavily affected by land-based investments.

At the provincial level, a coalition of civil society organizations in Central Kalimantan, consisting of ALIGN partners AMAN Kalteng, LBH Palangka Raya, WALHI Kalteng, Save Our Borneo, and YBBI, engaged around the provincial regulation on Adat recognition. They conducted community-level consultations and convened community representatives, academics, and legal experts to assess weaknesses in the regulation and develop proposals to strengthen tenure recognition across diverse Indigenous contexts.

At these different scales, citizens and civil society groups work and engage with government bodies to change or adopt new laws that adequately protect tenure. It takes a coordinated, multilevel approach to ensure that recommendations that get to the national level reflect the interests and tenure arrangements of land users.

5.1.4 Experiences from Zambia

Zambia's experience highlights how weaknesses in tenure governance, particularly under a dual (combination of customary and statutory) system create heightened risks of exclusion, conflict, and loss of land rights in the context of land-intensive energy transition investments. Gaps in tenure recognition, coupled with the prioritization of land-based investments over other existing land rights, have contributed to land disputes, community displacement, and environmental degradation. These risks may intensify as demand for land increases under the energy transition.

5.1.4.1 Tenure recognition in Zambia: Challenges in policy and practice

a. Structural pressures on customary land

Zambia's dual land tenure system—comprising both customary and statutory tenure—is a central feature shaping tenure security in the country's just energy transition.[71] Most land remains under customary tenure, governed through unwritten norms, practices, and traditions administered by traditional leaders.[72] Customary land is central to rural livelihoods, cultural identity, and social cohesion, providing access to agricultural land, grazing areas, forests, and other natural resources that underpin community resilience.[73] However, these customary rights are not formally registered, and they are recognized only insofar as they do not conflict with statutory law.[74] This fundamental asymmetry exposes customary land users to tenure insecurity, especially in areas targeted for transition-linked investments.

The pressure on customary land has intensified[75] as Zambia seeks to expand the extraction of transition minerals for clean-energy technologies,[76] while simultaneously scaling up renewable energy investments.[77] These ambitions require sizable land areas and will accelerate the conversion of customary land into state land. It also does not provide a mechanism for reconverting back to customary tenure once it has been converted.[78] As a result, land conversion operates as a one-way, permanent process. The cumulative impact of ongoing conversions has led to the gradual loss of land under customary tenure.[79] As customary land shrinks, so does the authority of customary institutions that manage local resources.[80]

b. Unclear roles of chiefs in land and natural resource governance

Traditional leaders play an integral role in resolving land disputes, allocating land, and supporting community access to natural resources. Yet their role, particularly in land and natural resource governance, remains unclear within Zambia's formal governance architecture.[81] Customary land in Zambia is held and managed by chiefdoms, and chiefs are formally recognized under Zambian law.[82] However, variation in how their authority interacts with statutory institutions leads to unclear mandates, inconsistencies in customary-to-state conversions, and weakened community protection.[83]

The Constitution establishes the House of Chiefs, linking traditional authorities with the government, but the role of traditional authorities in land and natural resource governance remains unclear. The Lands Act of 1995 requires the chiefs' consent for customary land to be converted to state land. Although the Chiefs Act of 1965 provides for the functions of chiefs, it does not expressly define their role in relation to land. Therefore, there is a disconnect between the two pieces of legislation, which also plays out on the ground.

Further, investors often negotiate and seek consent from traditional authorities when investment approvals are already at an advanced stage, limiting the ability of the traditional leaders to scrutinize investments and consult their communities.

c. Unclear rights of customary tenure holders in investment and policy processes

As a result, conversions of customary land to state land have frequently resulted in community displacement, including for renewable energy and mining-related projects. Zambian law provides

only for traditional leaders' consent—in this case, chiefs but not community members—for the conversion of land from customary to statutory land. With a lack of robust community engagements, compensation is frequently inadequate, and affected households have limited influence over decisions related to land allocation and resettlement. Weak implementation of land- and climate-related legislation compounds these concerns.

d. Lack of tenure security considerations in national climate frameworks

The tenure security challenges described above unfold against the backdrop of Zambia's rapidly evolving policy landscape. Frameworks such as the National Green Growth Strategy[84] and the Green Economy and Climate Change Act[85] establish new mandates for climate action but do not provide for comprehensive social safeguards to address land-related risks inherent in the energy transition. Existing land, climate, and energy related laws and policies fall short of guaranteeing meaningful participation, equitable benefit-sharing, and adequate compensation for displacement, leaving communities without robust protection.

5.1.4.2 Lessons learned and approaches for strengthening tenure security in Zambia

Against this backdrop, ALIGN partners pursued a dual strategy: engaging with ongoing policy and legislative reforms while supporting dialogue and accountability mechanisms to address tenure insecurity in practice.

a. Engaging traditional authorities and land-law reform

Traditional leaders exercise authority and decision-making power in land governance. As a result, effective land governance reforms should acknowledge this agency and provide clear, accountable mechanisms through which traditional leaders can engage in reform processes alongside government and communities. In Zambia, for example, ALIGN partners in 2024 facilitated and engaged in the provincial chiefs' consultations on the Lands Act of 1995. ALIGN partners further facilitated a high-level dialogue with the House of Chiefs Land Committee and organized land reforms in consultation with all 29 chiefs in Central Province to gather input on Lands Act amendments and related land reform processes.

b. Mainstreaming land tenure considerations within sectoral planning processes

Efforts to tackle energy transition-linked tenure insecurity should seek to mainstream land tenure considerations within sectoral planning process. In Zambia, for example, ALIGN partners engaged in stakeholder dialogue on the land and transition mineral nexus through several forums. This included participation in several Alternative Mining Indabas (platforms for dialogue among stakeholders in the mining sector), as well as parliamentary submissions (written opinions, insights, and evidence submitted to Parliament on a specific issue) and appearances, emphasizing the need to strengthen land and mineral governance amid the energy transition in Zambia.

c. Engagement with national legislative reform processes

Ongoing legislative reforms present an opportunity to strengthen land governance. As part of its engagement with these reforms, ALIGN partners made submissions to the parliamentary Committee on Agriculture, Land, and Natural Resources on the Lands Tribunal (Amendment) Bill No. 6 of 2024, advocating for the decentralization of the tribunal to expand community access to justice in land-related disputes.

ALIGN also contributed to shaping the Minerals Regulation Commission Act of 2024 through an issue paper highlighting gaps in compensation and resettlement frameworks for communities affected by mining operations and urging alignment with the National Green Growth Strategy. These findings were later presented to members of Parliament and the Ministry of Mines as well as the Ministry of Green Economy and Environment to emphasize integrating community development agreements and benefit-

sharing provisions into mineral legislation. Underpinning these engagements was the need to ensure that customary tenure systems are recognized, safeguarded, and integrated into national climate and development strategies to contribute to a just and equitable energy transition.

ALIGN partner ZLA also sits on the National Land Audit Reference Group and a technical working group at the Ministry of Lands and Natural Resources, contributing to the National Land Audit and legislative review. To ensure that their engagement with reform processes remained responsive to community priorities and needs, they also routinely convened dialogues between traditional leaders from districts including Mkushi, Serenje, Solwezi, and Kalumbila and the government to discuss the progress and implications of land law reforms.

d. Support responsive reform processes through civil society coordination and multistakeholder dialogue

Civil society coordination can be a powerful tool in ensuring that ongoing reforms adequately respond to land tenure issues as experienced by communities. In Zambia, for instance, ALIGN partners facilitated civil society dialogue around land law reform and supported the development of unified positions on key priority issues.

ALIGN partner ZLA also contributed directly to reform processes through participation in the National Land Audit Reference Group and a technical working group within the Ministry of Lands and Natural Resources, while also convening dialogues between traditional leaders and government officials in districts including Mkushi, Serenje, Solwezi, and Kalumbila.

BOX 4: TENURE SECURITY: SUMMARY OF EMERGING LESSONS AND POLICY RECOMMENDATIONS

Lessons learned for practitioners:

- Advancing tenure security in fragmented or discretionary systems requires a dual strategy: working pragmatically within existing frameworks while engaging in parallel reform efforts. Community documentation and legal empowerment can deliver incremental gains even under structural constraints.
- Participatory mapping is central to strengthening tenure security. Making land use, customary boundaries, and governance systems visible challenges assumptions of land availability and supports engagement with governments and investors.
- Building community capacity through legal empowerment and participatory mapping initiatives can strengthen efforts to secure tenure by positioning communities to build and share collective evidence of local land uses.
- Tenure security underpins participation and benefit-sharing. When tenure is unclear or insecure, communities face significant barriers to meaningful inclusion in consultation, compensation, resettlement, and benefit-sharing processes.
- Multilevel engagement is critical. When tenure recognition depends on district, provincial, or national decisions, community-level action alone is insufficient; coordinated engagement across governance levels increases the likelihood that community interests are reflected in outcomes.
- Government has a key role in supporting positive community-investor relationships. Ensuring transparency, equitable treatment, and access to information, particularly for communities, can prevent tensions. Proactive mediation and facilitation can help resolve conflicts and build community trust.

Recommendations to strengthen policy:

- Integrate tenure considerations into energy transition-linked land-use decisions, including mining, renewable energy, and infrastructure planning, to reduce conflict and displacement risks.
- Recognize and protect all legitimate tenure rights, including customary and socially legitimate rights, through clear and accessible legal frameworks that reduce discretion and uneven application.
- Base the definition of community territories on participatory mapping, undertaken by communities themselves with independent support when needed.
- Guarantee meaningful participation and access to remedy for all legitimate tenure rights holders in tenure-related lawmaking and decision-making, including when land has already been allocated or converted.
- Strengthen safeguards for customary land, including clear rules on land conversion, compensation, benefit-sharing, and responsibilities at project closure, particularly when concessions overlap with unrecognized customary or community land.
- Where relevant, recognize and formalize the role of traditional leaders in land governance by clarifying mandates and strengthening their capacity to support effective stewardship and community engagement amid increasing land pressures from energy transition investments.

5.2 SPATIAL PLANNING

Preparing for energy transitions requires land governance systems that can anticipate and mediate competing land uses—across energy development, food systems, conservation, infrastructure, and community livelihoods.[86] Drawing on ALIGN partners' experience, this section illustrates how spatial planning regimes shape energy-transition impacts, and how more responsible planning approaches can help manage competing land uses to better align investments with tenure systems, ecological priorities, and development goals.

Spatial planning refers to the technical and public policy processes through which governments assess, allocate, and regulate land uses across a territory to guide sustainable development.[87] It is a core mechanism through which governments articulate land-use priorities and restrictions and reconcile different sectoral ambitions—renewable energy, mining, agriculture, restoration, and housing—under increasing pressures on land. Robust planning systems are particularly important in rural and Indigenous territories, where large-scale energy transition investments often intersect with customary land tenure systems, ecological sensitivities, and locally embedded livelihood systems.[88]

5.2.1 Transition-effective and responsible spatial and land-use planning: International standards and good practice

Spatial planning policy regimes vary significantly across jurisdictions depending on the degree of centralization, stakeholder participation, the integration of sustainability, the climate, social considerations, and the recognition of informal and customary tenure. However, not all planning regimes are conducive to effective and just energy transitions. The degree to which they support such transitions depends on the quality of spatial data, decision-making processes around land allocation, and the priorities and interests underpinning those decisions.

Based on guidance from international frameworks, such as the Voluntary Guidelines on the Responsible Governance of Tenure, the Food and Agriculture Organization's guidance on land-use planning, and the United Nations Convention to Combat Desertification, responsible, transition-effective spatial planning tends to share several core characteristics: [89]

- **Opportunities for bottom-up input:** Reflects local priorities, customary tenure, and legitimate tenure rights, drawing on community-informed spatial data.
- **Participatory:** Enables affected stakeholders to influence planning at key stages, improving legitimacy and reducing conflict.
- **Inclusive and equitable:** Ensures groups facing differentiated impacts—such as women, youth, Indigenous Peoples, and small-scale farmers—can meaningfully shape decisions.
- **Transparent:** Provides public access to spatial plans, data, concession boundaries, and decision criteria.
- **Cross-sector:** Integrates land-use decisions across energy, agriculture, mining, water, biodiversity, and infrastructure, helping governments manage competing uses and surface opportunities to realize cross-sector co-benefits (e.g., through shared use of investment infrastructure to benefit surrounding communities, opportunities for colocation of agriculture and renewables infrastructure).
- **Coordinated:** Aligns government, civil society, customary institutions, and technical actors to reconcile competing land-use interests (see Section 5.4) and to materialize opportunities to generate co-benefits.

ALIGN partners' experience underscores that these characteristics are not abstract principles but practical determinants of whether community and environmental concerns are reflected in real land-use outcomes.

5.2.2 Experiences from Indonesia

5.2.2.1 Spatial planning in Indonesia: Challenges in policy and practice

Indonesia's spatial planning regime illustrates how gaps in law, institutions, and practice can shape the distribution of benefits and harms from land-based investments, including those linked to the energy transition.

Indonesia uses a multilevel spatial planning regime, anchored in Law No. 26/2007 on Spatial Planning, comprising national, provincial, and district spatial plans ("RTRW").[90] Spatial planning is overseen by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency ("ATR/BPN"), with subnational governments responsible for drafting and adopting plans through regional regulations. Sectoral laws and national and regional development plans ("RPJMD" and "RPJPD," respectively) complement this framework.[91] Recent reforms, including the Job Creation (Omnibus) Law that introduced the spatial suitability ("KKPR") system, aim to align business licenses with spatial plans, while the One Map Policy seeks to harmonize overlapping and inconsistent sectoral and land-use maps.[92]

This framework is designed to enable coordinated planning, but ALIGN partners' experiences show that several structural features limit its ability to support responsible and just land governance in practice:

- **Centralized power and limited subnational government discretion:** Despite formal decentralization, decision-making power remains concentrated among national-level sectoral ministries.[93] Subnational spatial plans must align with national priorities and strategic projects, limiting responsiveness to local tenure systems, livelihoods, and ecological conditions.
- **Fragmented authority and weak coordination:** Authority over land and spatial data is fragmented across ministries and datasets. Forest, mining, plantation, and RTRW maps often rely on different base maps and classifications, leading to overlapping claims.[94] While the One Map Policy has improved harmonization, community-generated maps and customary territories are frequently excluded or treated as nonauthoritative.[95]
- **Participation requirements weakly implemented:** The spatial planning regime recognizes public access and participation,[96] but consultations are frequently conducted as procedural formalities—often late, inaccessible, or disconnected from final decisions—reinforcing biases toward politically and economically powerful actors.
- **Incomplete recognition of customary tenure:** Pathways for recognizing customary tenure and integrating it into spatial plans remain fragmented and politically contingent. In many areas, Adat territories remain off the map, classified as state forests, plantation, or empty land, leaving communities particularly vulnerable when RTRWs are revised or concessions are allocated.[97]
- **Limited data and integration of environmental and climate risks:** Despite growing emphasis on environmental assessment, biodiversity, ecosystem, and climate-risk data are not systematically integrated into spatial planning. When included, environmental considerations are typically incorporated reactively rather than guiding initial land-use allocation.
- **Lack of alignment between the spatial planning regime and the agrarian reform agenda:** Although the government promotes agrarian reform (a measure to address land inequality) as a national priority, its mechanisms and outcomes are not consistently integrated into spatial planning documents. Agrarian Reform Land Objects (Tanah Objek Reforma Agraria, TORA), redistribution areas, and recognized Adat territories are often not promptly reflected in revised RTRWs. This lack of alignment creates legal uncertainty and reopens the risk of overlapping claims, even after redistribution or recognition processes have been completed.

Together, these features result in spatial plans developed with limited local input and weak safeguards, leaving land users vulnerable when land is allocated to energy transition investments in ecologically sensitive or livelihood-critical areas.

5.2.2.2 Lessons for advancing responsible and transition-effective land use planning

In Indonesia, ALIGN partners operated within the constraints of the spatial planning regime to strengthen how spatial decisions are made. These experiences suggest that, even when broader structural reform remains necessary, practical entry points exist through which communities, civil society, and government actors can improve spatial data quality, strengthen environmental and social safeguards, and make planning processes more inclusive and evidence informed. Three approaches emerge as particularly relevant.

a. Making invisible land uses and impacts visible through participatory mapping and data collection

A persistent challenge in Indonesia's spatial planning regime is that many communities, local land uses, and ecologically sensitive areas remain absent from official maps. Where community land uses are not formally recorded, planning processes treat their lands as unoccupied or available for allocation to large-scale investments. One practical response has been the generation of community-produced spatial data documenting land uses, environmental impacts, and customary territories in forms usable by planners.

Across multiple regions in Indonesia, ALIGN partners supported participatory mapping efforts to document farmland, rivers, biodiversity areas, customary territories, and livelihoods affected by mining and plantation expansion. In Southeast Sulawesi, community-generated maps and datasets documented environmental degradation, including water contamination, sedimentation, and land loss, making visible how nickel mining and plantations intersect with farmlands, fishing areas, and village land. In Central Kalimantan and other provinces, participatory mapping similarly documented concession overlaps with community and Indigenous territories, helping make customary land uses more visible for government agencies responsible for land, forest, coastal, and small-island governance. These efforts aimed to support recognition of communities and their territories as legitimate land users in future spatial planning and land-use decisions.

b. Using community-generated maps and data to inform formal planning and policy processes

Visibility alone does not shift planning outcomes; spatial evidence must enter formal decision-making processes. Even in the absence of structural reform, existing institutional mechanisms can sometimes be leveraged to ensure that bottom-up evidence informs official plans. Community-generated data not only make local impacts visible but can also create entry points for affected communities to engage in broader development and transition planning processes.

In Southeast Sulawesi, for instance, ALIGN partners Komunitas Teras, KOMDES, Puspaham, WALHI Sultra, and RPS engaged regularly with the Provincial Spatial Planning Task Force responsible for revising the Provincial RTRW. Through this process, they were able to share community-generated maps with the task force for consideration in the spatial plan revision process. Community-generated maps helped point policymakers to where mining overlapped with and created risks for biodiversity, sensitive ecosystems, and other land uses.

Community-generated data can also inform spatial planning-adjacent development planning processes. In North Konawe, Southeast Sulawesi, for instance, Komunitas supported the development of biodiversity datasets that supported the development of the District Biodiversity Management Master Plan ("RIP Kehati"). Similarly, spatial evidence on farming areas and environmental impacts of plantations informed the development of the Regional Action Plan for Sustainable Palm Oil ("RAD-KSB").

Across these cases, engagement with existing planning institutions suggests that spatial planning can become more inclusive when bottom-up data systematically inform formal decision-making processes. These experiences also underline the importance of establishing institutional channels that consistently recognize community-generated evidence in spatial planning and energy transition decision-making, enabling transition pathways to be planned not only in terms of mineral and energy supply but also in relation to land use, livelihoods, and environmental sustainability.

c. Strengthening subnational government capacity to use spatial evidence in land-use decision-making

Civil society engagement can also contribute to strengthened subnational government capacity to interpret and use spatial evidence in land-use decision-making. In North Konawe, Southeast Sulawesi, for instance, Komunitas Teras supported the District Environmental Office to prepare the RIP Kehati by consolidating biodiversity data and mapping ecologically sensitive areas. This helped officials identify parameters and considerations that should guide land-use decision-making.

In Konawe Islands Regency (Wawonii), Komdes provided inputs to the development planning agency during the drafting of the Regional Development Plan, ensuring that community land-use priorities, such as food security, watershed protection, and sustainable agriculture and fisheries, were incorporated into government planning.

At the provincial level, evidence-based engagement by ALIGN partners strengthened the Provincial Spatial Planning Task Force's ability to assess biodiversity, environmental risk, and community land-use data, contributing to key zoning changes in the draft RTRW.

BOX 5: SPATIAL PLANNING: SUMMARY OF EMERGING LESSONS AND POLICY RECOMMENDATIONS

Lessons learned for practitioners:

- Actors seeking to advance responsible spatial planning should prioritize making community land uses, customary tenure, and ecological values legible in the datasets and formats that planners rely on, since invisibility within official spatial information systems systematically biases land allocation toward extractive and infrastructure uses.
- Efforts to promote inclusive spatial planning are more likely to shape outcomes when engagement is strategically aligned with concrete processes and political windows such as RTRW decisions or sectoral action plans.
- The ability of subnational governments to interpret, manage, and apply spatial, environmental, and tenure data strongly shapes planning outcomes; when such capacity is limited, land-use decisions tend to default to national priorities or sectoral interests.
- Actors should prioritize influencing land-use allocation at the planning stage since relying solely on downstream safeguards makes it harder to address environmental and social risks once spatial designations and concessions are in place.

Recommendations to strengthen policy:

- Strengthen the integration of tenure, environmental, and livelihood data into spatial planning.
- Institutionalize pathways for community-generated data to be incorporated into formal planning processes.
- Enhance meaningful participation throughout the spatial planning and project lifecycles.
- Institute stronger coordination mechanisms to align spatial planning with forestry, energy, agriculture, and biodiversity governance to reduce overlapping claims and conflicting land-use decisions.
- Invest in subnational planning capacity, including targeted support for data collection, management, and interpretation that can strengthen the ability of local governments to use spatial planning as a tool for balancing energy transition objectives with sustainable development and environmental goals.

5.3 RESPONSIBLE USE OF APPROACHES FOR SCALING INVESTMENTS IN THE ENERGY TRANSITION

5.3.1 Responsible scaling and its role in just energy transitions

Responsible use of approaches for scaling investments in the energy transition means selecting and applying policy, regulatory, and investment strategies to increase low-carbon infrastructure investment in ways that are explicitly guided by robust environmental, social, and governance standards, tailored to local conditions, and accountable for outcomes to communities and the climate.[98]

In practice, governments commonly pursue a range of approaches from investment promotion and protection to sectoral strategies and climate laws, which could either reinforce or undermine just energy transition outcomes depending on whether and how they address land governance (and relatedly, community participation and benefit sharing, among other issues).

5.3.2 Experiences from Zambia

5.3.2.1 Responsible scaling in Zambia: Challenges in policy and practice

Zambia is rapidly scaling investment in transition minerals (discussed in Section 4) through a combination of new strategies, legislative and policy reforms, and regional initiatives. However, these scaling approaches also create significant risks for land governance, particularly where investments occur on customary land.

Drawing on ALIGN's work in Zambia, this section outlines the approaches Zambia is using to scale investment and the responsible use practices needed to ensure that land-based investments support and do not undermine a just energy transition.

a. Policy and legal reform as a driver of investment scaling

Scaling investments responsibly requires that legal and policy reforms embed participation, land rights protections, and clear benefit-sharing mechanisms, rather than focusing solely on regulatory certainty for investors.[99] As discussed in detail in earlier sections of the report, Zambia is scaling investment in transition minerals and energy transition through new and revised strategies, including through the National Critical Minerals Strategy, the copper production strategy (increasing to 3 million metric tons), and the Green Growth Strategy (2024–2030). This is also supported by recent and ongoing legislative reforms such as the Minerals Regulation Commission Act of 2024, the Green Economy and Climate Change Act of 2024, and carbon market regulations and reviews of key land and mining laws.

These approaches demonstrate how governments mobilize and are encouraging investment, but they also reveal why responsible use safeguards are needed and why land governance should be a central consideration. Rapid expansion of energy related infrastructure increases the demand for land, accelerates customary-to-state land conversions,[100] and heightens the risk of communities' marginalization when current and emerging governance systems are not equipped to manage social and environmental impacts.[101]

b. Investment promotion and protection frameworks

Investment-protection mechanisms are another approach Zambia is using to scale investments in all sectors, including all energy transition-linked sectors. The Investment, Trade and Business Development Act of 2022 (ITBD) supports scaling investment in sectors, including the energy sector, by providing strong investor protections and regulatory certainty.[102] Through ministerially-approved agreements with investors, the ITBD provides guarantees on issues such as licensing, employment, and repatriation of funds, alongside protections against compulsory acquisition and incentives for priority sectors. These measures help de-risk large scale projects, but they prioritize investor interests, highlighting the need for responsible use measures to safeguard communities.[103]

Responsible use approaches demand that ITBD protections integrate enforceable social and environmental obligations, such as community consultations and benefit-sharing beyond basic ESIAs. ALIGN research[104] in Zambia highlights the need to integrate comprehensive community impact assessments into investment agreements, enabling communities to influence project design and negotiate benefits before project cycles advance. Without such reforms to the ITBD framework, consultation tends to occur late in the project cycle, reinforcing investor-centric decision-making at the expense of local rights and interests.

Effective energy-transition planning depends on integrating responsible use approaches that protect tenure security and ensure early, meaningful community participation. Countries pursuing similar transitions must therefore balance investment objectives with rights-based protections to deliver socially just and sustainable outcomes.

5.3.2.2 Lessons on responsible investment scaling from Zambia

ALIGN's work in Zambia illustrates what the responsible application of such approaches entails and how some of the many facets of responsible scaling can be realized in practice by a range of stakeholders.

a. Supporting meaningful community engagement in the development and reform of investment scaling frameworks

In response to gaps in consultation processes, ALIGN supported inclusive stakeholder engagement across key legislative and policy reforms, working with government institutions, the private sector, and affected communities at national and subnational levels. For example, ALIGN supported the Ministry of Mines and Minerals Development in conducting sensitization and consultation processes for major reforms. These included the National Critical Minerals Strategy and the Geological and Minerals Development Bill of 2024, and manganese, gemstone, artisanal and small-scale mining strategies in 2025, with a strong emphasis on facilitating meaningful community participation in decision-making processes.

b. Anchor community benefit-sharing requirements in energy transition-related legislation, licensing processes, and project contracts

An important aspect of community consultations is community benefit sharing, which is more effective when anchored in legislation and energy transition-related project contracts. The Green Economy and Climate Change Act of 2024, together with emerging national benefit-sharing plans for climate and forest programs, demonstrates how legally anchored community development and benefit-sharing agreements can link performance-based revenue to locally defined priorities, such as electrification of schools and clinics, support for small businesses, and climate-resilient livelihoods. ALIGN partners shaped and advocated for the community benefit-sharing provisions in the Green Economy and Climate Change Act,[105] offering lessons for the wider energy transition—particularly the importance of embedding benefit-sharing obligations in licensing and approvals, designing transparent revenue-sharing mechanisms, and ensuring accountable governance of benefit flows over time.[106]

The experience from Zambia demonstrates that a just energy transition is not only a technical or financial process but also fundamentally a governance and social process. As demand for transition minerals and large-scale energy investments accelerate, the risks of exclusion, land disputes, and community harm also increase if governance frameworks are not people centered. Placing local communities at the heart of decision-making strengthens the legitimacy, equity, and long-term viability of energy transition strategies.

BOX 6: SCALING INVESTMENTS: SUMMARY OF EMERGING LESSONS AND POLICY RECOMMENDATIONS

Lessons learned for practitioners:

- Influencing investment frameworks early is critical for protecting community interests. Once investment laws, strategies, or agreements are finalized, opportunities for meaningful community influence can narrow significantly.
- Influencing investment frameworks to align mining, land, climate, and investment legislation can be done by leveraging specific high-impact opportunities for legislative or regulatory reform. Such opportunities are context dependent, but they may include supporting the mandatory integration of environmental and social safeguards in all investment licensing procedures, or clearly identifying the lead ministry or agency responsible for the implementation of these safeguards.

- Participation influences outcomes only when embedded in the design of policies and strategies to scale investment. Engagement that occurs at the policy and legislative stage has far greater effect than consultation limited to downstream project approvals.
- Benefit-sharing delivers results when it is legally binding, not discretionary. Embedding consultation and benefit-sharing obligations in law or contracts is critical to translating scaled investment into tangible and durable local benefits.
- Scaling investment without strengthening customary land governance increases the risk of conflict and exclusion. Responsible scaling depends on parallel efforts to reinforce local governance capacity and recognition of customary land systems.

Recommendations to strengthen policy:

- Align mining, land, climate, and investment legislation to ensure that investment-scaling frameworks include robust environmental and social safeguards.
- Institutionalize early and iterative frequent community engagement, including consultations on benefit sharing to ensure communities shape project design and benefit pathways from the outset.
- Embed legally enforceable benefit-sharing obligations, such as community development agreements and transparent compensation rules, across mining, renewable energy, carbon, and infrastructure investments.
- Strengthen local governance and customary land governance to minimize harm to local communities.

5.4 FOSTERING INTERGOVERNMENTAL COORDINATION AND SUBNATIONAL GOVERNMENT LEADERSHIP

5.4.1 The role of coordination in advancing just energy transitions

Making the energy transition just in nature and practice is complex—multifaceted, multilayered, and multidimensional—and it involves many actors and issues to coordinate. The realization of a truly just transition can occur only within the realities inherent in different countries. Global South countries are prioritizing economic development as they grapple with advancing just transition requirements.[107] These unique contexts and starting points call for effective vertical and horizontal coordination. This includes intragovernmental coordination within government structures at national (among relevant ministries, departments, agencies and offices) and subnational (among provincial- and district-level government and including traditional authorities) levels. Coordination should also include other key factors such as local communities and peoples, civil society organizations (CSOs), and the private sector.

5.4.2 Structuring coordination to support integration of land governance in energy transition policy

The central role of government: Coordination involves bringing together key stakeholders to achieve a common goal. In the context of a just transition, the government serves as the starting point and plays a central role in coordination. It is responsible for governance by establishing the rules, regulations, and implementation strategies.

Elements of intergovernmental coordination: Intergovernmental coordination includes the sharing of information, facilitating communication, and engaging in negotiations. This process covers policy, strategy, and decision-making coordination, and it enhances the accountability of government to communities as well as to the overarching international and national climate frameworks and guiding

principles. Moreover, it should also create avenues for meaningful representation of diverse community voices, which is essential to a just transition.

Coordination across different levels and stakeholders: Different coordination processes happen simultaneously at different levels.[108] Coordination occurs horizontally (with departments and agencies at the same level) and vertically (with hierarchy between bodies at different levels within the government ecosystem).

Effective coordination facilitates fair processes in the implementation of a just transition—in particular, transparency in decision-making. Ultimately, effective coordination within government allows for the inclusion of different perspectives and expertise by sharing of a broad range of information. It also creates an opportunity for participation and negotiation with relevant stakeholders, which in turn builds the legitimacy and effectiveness of government decisions and actions, facilitating improved public confidence in government action.[109]

Considerations for effective coordination: There is no one-size-fits-all approach to coordination, and it will depend on a country's context, including institutional, legal, political, and geographic factors.[110] To guide the development of an effective coordination framework, governments should consider the following questions:

- Which actors, policy sectors, and government departments and agencies should be involved?
- At what time and at what level?
- To what extent?
- At what point and to what extent can each actor meaningfully shape decisions?

5.4.3 Experiences from Zambia and Indonesia

5.4.3.1 Coordination in energy transitions: Challenges in policy and practice

Achieving effective coordination within government and with other stakeholders remains a challenge in many countries. Within the ALIGN project, various aspects of coordination—within government and with other stakeholders—were explored with a view of identifying blockers, testing approaches, and strengthening coordination. Some of the barriers identified include:

a. Conflicting or overlapping mandates

Conflicting or overlapping mandates occur when the law assigns identical or contradictory functions and responsibilities to multiple government bodies. Such overlaps often cause confusion and conflict due to ambiguous roles, leading to inefficiencies in policy implementation and regulation. In Indonesia, overlapping mandates in spatial planning (as described in Section 5.2) have resulted in conflicting maps and concessions being granted over ecologically sensitive areas.

Zambia experiences similar challenges, but these manifest through the interaction between statutory land law and customary tenure systems. Zambia's dual system illustrates how socially legitimate authority over land is misaligned with formal legal mandates. Traditional authorities derive their authority from customary tenure systems grounded in cultural practices, customs, and traditions, and they are recognized by communities as custodians of customary land within culturally defined territories. The law, however, vests all land in Zambia in the president; therefore, traditional authorities can only be administrators of land on behalf of their local communities.

This misalignment becomes particularly consequential in the context of land-based investments. To secure customary land for investment, chiefs must give consent for customary land to be converted to state land and a title issued. Once converted, however, there is no legal mechanism for reconversion to customary

tenure, and each conversion therefore permanently reduces quantity of customary land.[111] This structural asymmetry has generated significant contention, contributed to increasing reluctance among chiefs to approve land conversions, and prompted calls for legal reforms, including mechanisms for reconversion and the recognition of customary land on equal legal footing with state land to resolve misalignments between customary and formal legal authority.

b. Lack of information sharing

Sharing of information between government bodies responsible for licensing, regulating, and monitoring land-based energy transition investments is essential. Information sharing should be supported by clear systems and procedures as well as reduced bureaucracy to ensure effective coordination. ALIGN's experience with spatial planning in Indonesia (as explained in Section 5.2) demonstrates this. The lack of information sharing in Indonesia, between community stakeholders and government and between subnational and national governments, has undermined spatial planning processes and their ability to consider local land uses and impacts in energy-transition planning.

Similar considerations are also relevant in Zambia. In the Nansanga farm block, for instance, licenses for transition mineral mining have been issued in an area earmarked for large-scale agricultural development, displacing communities and jeopardizing local food production. This reflects the absence of information sharing and integrated land-use systems across ministries. The Ministry of Mines has indicated that it has no mechanism to assess surface land uses before licensing, pointing to a gap in the legal framework since there is no formalized way for resolving such issues besides ad hoc initiatives.

c. Excessive discretionary power

Discretionary power grants the authority to make or veto a decision of an individual. In many countries, government ministers are accorded a wide range of discretionary powers, which in practice discourages negotiation and joint decision-making processes. This affects the legitimacy of government action.

For example, in Zambia, the Zambia Environmental Management Agency (ZEMA) rejected the initial ESIA report for the proposed copper-mining project in Lower Zambezi National Park. The mining company appealed ZEMA's decision to the then minister of lands, natural resources, and environmental protection. The minister revised ZEMA's decision and approved the ESIA, allowing the project to proceed.[112]

d. Insufficient human and financial resources

Lack of or insufficient resourcing hinders participation by actors in coordination processes. It hinders institutional capacity to undertake regulatory and monitoring of transition-linked investments. For example, in Zambia, ZEMA has experienced financial and capacity constraints, making the monitoring of environmental impacts of investments difficult. Subnational government actors in Southeast Sulawesi, Indonesia, have similarly reported capacity constraints in being able to undertake participatory planning and monitoring of transition-linked investments.

e. Limited subnational government leadership

Effective coordination is constrained where subnational governments lack decision-making authority and political leverage. As outlined in Section 5.2, spatial planning in Indonesia is formally decentralized but substantively shaped by national priorities, limiting the ability of provincial and district authorities to convene actors, resolve trade-offs, or assert leadership in coordinating land-use decisions across sectors.

f. Lack of bottom-up planning processes to facilitate horizontal coordination

Weak bottom-up planning processes further limit coordination across agencies and sectors. When community participation and locally generated spatial data are marginal to formal planning processes

(as described in Section 5.2), horizontal coordination is skewed toward sectoral and national-level interests, reducing opportunities to align land-use decisions with tenure systems, livelihood needs, and ecological conditions at the local level. Indonesia's spatial planning framework (as discussed in Section 5.2) illustrates this challenge. In Zambia, provisions for bottom-up planning exist but have not been fully implemented. All 116 districts in Zambia are required to develop integrated development plans spearheaded by local authorities, but only few have developed them.

5.4.3.2 Lessons for effective coordination from Zambia and Indonesia

Across the ALIGN project, partners pursued different but complementary strategies that can provide valuable lessons for strengthening coordination across national, subnational, and community levels. In Indonesia, efforts focused on building regional civil society coalitions and strengthening community participation in transition-linked land governance. In Zambia, partners emphasized community-level coordination, engagement with traditional authorities, and structured collaboration with national and subnational government actors. Across both contexts, four core approaches emerged as critical for effective coordination.

a. Reestablishing national-level dialogues on key land-based investment issues

National-level dialogues provide a platform for the public to learn, voice their concerns, and propose localized solutions on issues of environment and land governance in the context of a just transition. It creates space for all key stakeholders to meet and engage, promoting coordination.

CEJ in Zambia, for example, established the Environmental Protection Dialogue (EPD), an annual event that brings together key stakeholders in the environmental sector in Zambia to help find solutions to environmental challenges in the country. With support from the ALIGN project, CEJ hosted the first Traditional Leaders Caucus during the 2022 EPD with the goal of raising the voices of traditional leaders on environmental matters. The EPD has created an annual national platform in Zambia to co-create solutions to environmental issues with a focus on sustainable energy, climate resilience, ecosystem restoration, and other issues.

b. Establishing and strengthening local coordination structures

Accessible and well-functioning local structures are essential for coordinating community engagement, monitoring investments, and linking local concerns to national-level governance processes. In Zambia, for example, ALIGN partners supported the establishment of community land advocacy committees (CLACs) in ALIGN project sites—which are predominantly mining-affected districts—strengthening community capacity, coordination, and engagement with traditional authorities, CSOs, and regulatory bodies. In regions where CLAC structures exist, community members reported improved awareness of land-based investment issues and greater capacity to engage collectively with government and investors.

In Southeast Sulawesi, Indonesia, ALIGN partner RPS supported the establishment of community-led grievance posts in several villages as locally anchored mechanisms for documenting land-related impacts of mining investments and pursuing remedy. Beyond addressing individual grievances, these posts functioned—and were recognized by local government actors—as coordination hubs linking communities with CSOs, subnational government actors, and companies, including through structured engagement with district-level authorities. This demonstrates how community-based mechanisms can strengthen coordination across governance levels while grounding decision-making in lived impacts.

c. Collaboration between civil society organizations and government

Because of their proximity to investment sites and investment-affected stakeholders, CSOs tend to have an in-depth understanding of the key issues relating to the energy transition, including its land-related

impacts. Coordination between CSOs and government institutions is therefore critical for ensuring that policies and regulatory processes reflect on-the-ground realities.

In Zambia, for example, ZLA worked closely with ZEMA officials to support monitoring land-based investments. CTPD contributed to ongoing law-reform processes and engaged in policy development
related to mining, land, and climate action by providing inputs to the Green Economy and Climate Change Act. This led to the inclusion of community development agreement and benefit-sharing provisions in the legislation. These collaborations helped translate community-level evidence into policy inputs and strengthened government capacity to engage with affected communities.

d. Coordination among civil society organizations

Coordination among CSOs supports learning, strategic alignment, and efficient use of resources. In Zambia, collaboration between CTPD and ZLA combined national-level policy expertise with local-level community engagement, strengthening both organizations' impact and effectiveness. These partnerships also enabled the production of joint CSO positions and submissions on land- and environmental-law reform.

In Indonesia, ALIGN adopted a coalition-based approach that brought together civil society actors with complementary expertise under shared regional strategies. These coalitions enabled horizontal coordination across CSOs, while creating structured pathways for engagement with subnational and national government processes. By leveraging the complementary expertise and approaches deployed by coalition-members (ranging from community legal empowerment and participatory mapping to policy engagement), Indonesia ensured that community-level evidence was able to inform spatial planning and sectoral policy discussions.

BOX 7: COORDINATION: KEY LESSONS AND POLICY RECOMMENDATIONS BEYOND ALIGN

Lessons learned for practitioners:

- Coordination is most effective when tied to concrete government decisions. Engagement has a greater impact when aligned with specific decision-making and implementation processes, rather than stand-alone dialogue or coordination forums.
- Community-based structures can function as coordination infrastructure. Local mechanisms that aggregate grievances, monitor investments, and organize collective action are most effective when they provide structured channels linking communities with subnational government decision-making.
- Civil society coordination strengthens engagement with the government based on complementary roles to the government. Coalition approaches that leverage distinct mandates and expertise improve strategic engagement and reduce duplication.
- Information gaps are a central coordination failure. Fragmented data, unclear procedures, and weak information sharing across institutions undermine coordination and reinforce discretionary decision-making.
- Coordination requires sustained, iterative engagement. One-off interventions are insufficient to address structural coordination challenges.

Recommendations to strengthen policy:

- Clarify mandates and roles across institutions relating to land, investments, agriculture, mining, water, and environment to reduce overlapping and conflicting responsibilities related to land, environment, energy, and investment governance.
- Institutionalize intergovernmental coordination mechanisms at multiple levels. Establish national, provincial, and district-level platforms with clear mandates for information sharing and joint decision-making.
- Strengthen subnational authority and capacity. Enable provincial and district governments to convene actors and coordinate cross-sector decisions.
- Embed community participation within coordination systems. Ensure that coordination processes incorporate consultation, participation, and FPIC if land-based transition investments affect communities.

6 CONCLUSION

This report has shown that the energy transition is not only a technological or financial transformation but a profound reorganization of how land is allocated, used, and governed. Experiences from Indonesia and Zambia demonstrate that whether transition-linked investments advance or undermine a just transition depends fundamentally on the strength and orientation of land governance systems. Across diverse contexts, common patterns emerge: insecure tenure, weak or exclusionary spatial planning, investment-scaling approaches that prioritize speed and certainty over social or environmental safeguards, and fragmented coordination across institutions and scales all heighten the risk that transition pathways reproduce inequality, conflict, and environmental harm.

At the same time, the lessons from ALIGN's engagement illustrate that these outcomes are not inevitable. Practical entry points exist within existing systems to make land governance more responsive, inclusive, and transition effective—particularly when actors intervene early in decision-making processes, make legitimate land users visible, embed participation and benefit-sharing in binding frameworks, and strengthen subnational leadership and coordination. Taken together, the strategies outlined in this report underscore that advancing a just energy transition requires deliberate attention to land governance as a foundational pillar of transition planning. Embedding land governance considerations across climate, energy, investment, and development policies can help ensure that energy transitions are not only rapid but also socially legitimate, environmentally sustainable, and capable of delivering shared and durable benefits.

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ccsi.columbia.edu

Columbia Center on Sustainable Investment

475 Riverside Drive, Suite 504
New York, NY, 10115

Phone: +1 (212) 854-1830