



## LAND TENURE AND PROPERTY RIGHTS MATRIX MINERALS OVERLAY

SEPTEMBER 2013

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For more information about this tool, please contact:

**Dr. Gregory Myers**, Division Chief, Land Tenure and Property Rights, E3/LTRM, USAID, <u>gmyers@usaid.gov</u>.

**Dr. Michael Roth**, Task 3.01 Manager, Property Rights and Resource Governance Program, Tetra Tech, <u>michael.roth@tetratech.com</u>.

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## CONTENTS

ACRO	DNYM	S	ii
PREFA	ACE		iii
INTR	ODUC	TION	v
1.0	RESO	URCE CONFLICT AND DISPLACEMENT	I
	1.1	LTPR ISSUE	I
	1.2	VOLUNTARY GUIDELINES WITH RESPECT TO CONFLICT	4
	1.3	ILLUSTRATIVE INTERVENTIONS	6
	1.4	READINGS	9
2.0	WEAI	K GOVERNANCE	.11
	2.1	LTPR ISSUE	
	2.2	ILLUSTRATIVE INTERVENTIONS	. 1 3
	2.3	READINGS	.16
3.0	INSEC	CURE TENURE AND PROPERTY RIGHTS	.17
	3.I	LTPR ISSUE	.17
	3.2	ILLUSTRATIVE INTERVENTIONS	.19
	3.3	READINGS	.23
4.0	INEQ	UITABLE ACCESS TO MINERALS	.24
	4. I	LTPR ISSUE	
	4.2	ILLUSTRATIVE INTERVENTIONS	.26
	4.3	READINGS	.29
5.0	POOF	RLY PERFORMING MINERAL MARKETS	.31
	5.I	LTPR ISSUE	
	5.2	ILLUSTRATIVE INTERVENTIONS	.33
	5.3	READINGS	.35
6.0	UNSL	JSTAINABLE NATURAL RESOURCES MANAGEMENT/ BIODIVERSITY	
	LOSS		.37
	6.I	LTPR ISSUE	.38
	6.2	ILLUSTRATIVE INTERVENTIONS	.39
	6.3	READINGS	.42
ANN	EX A: I	MINERALS MATRIX OVERLAY, SUMMARY TABLES	.43

## ACRONYMS

ADR	Alternative Dispute Resolution
DRC	Democratic Republic of the Congo
EIA	Environmental Impact Assessment
EITI	Extractive Industries Transparency Initiative
FAO	Food and Agriculture Organizations
GIS	Geographic Information System
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
ILO	International Labor Organization
IQC	Indefinite Quantity Contract
LTD	Land Tenure and Property Rights Division
LTPR	Land Tenure and Property Rights
NRM	Natural Resources Management
OECD	Organization for Economic Cooperation and Development
PLACE	Prosperity, Livelihoods and Critical Ecosystems
PRRGP	Property Rights and Resource Governance Program
SMCRA	Surface Mining Control and Reclamation Act
UNITA	União Nacional para a Independência Total de Angola (National Union for the Total
	Independence of Angola)
USAID	United States Agency for International Development
USG	United States Government

## PREFACE

Resource tenure and property rights challenges are present in almost every country where the United States Agency for International Development (USAID) works. In many countries, tenure and property rights problems are so grave that they create political instability, violence, population displacement, famine, and environmental destruction, which significantly undermine or prevent successful implementation of many USAID programs. Over the last decade the demand to address property rights issues has increased from both USAID field missions and host country governments. The increase in demand is due, in part, to a growing awareness among development practitioners of the role played by property rights (and natural resource access and use) in economic growth, governance, and conflict and resource management.

USAID and its partners have learned a great deal over the last three decades about the relationship between property rights and economic growth, productivity, and to a lesser extent, natural resource management and conflict. There are several important lessons learned from the last decade of research and policy work on property rights with a particular emphasis on land and resource tenure.

- 1. Land tenure and property rights (LTPR) systems are fundamental to a wide variety of development outcomes. Secure land tenure improves food security, economic growth, and natural resource management and reduces the impacts of conflict and climate change. Securing the rights of women, youth and vulnerable populations and broadening their access to resources complements and deepens the impact of interventions aimed at improving these outcomes. This is the case for people across the economic spectrum from smallholder farmers to urban manufacturers. An effective land governance and property rights system is fundamental to the broad process of economic and political development.
- 2. Weak land governance systems limit economic growth; threaten good natural resource management; often promote conflict; and pose special problems for vulnerable groups, including minorities, indigenous people, the poor, and women. Recognition of customary rights to land resources and the devolution of management authority improves land and resource governance and is crucial to sustainable natural resource management. Although many countries have effective and secure land governance and property rights systems, in numerous places, systems and rights are weak. The results of these weaknesses include conflict over land and resources, corruption associated with poorly functioning land governance systems, resource degradation, and limited economic growth.
- 3. In development programming, property rights are most frequently dealt with in the context of land tenure reform, but they are increasingly being addressed through more integrated projects. Programming decisions made in a variety of sectors that consider land tenure can have profound impacts on land use and natural resource management, agricultural systems, and infrastructure development.
- 4. **Too often, LTPR reforms are measured in terms of** *outputs* **rather than** *impacts* (e.g., measuring the number of land titles that have been issued as opposed to focusing on market performance and investment increases, reduced conflict, or improved use of sustainable management practices). This focus

on outputs prevents USAID from fully understanding the efficacy and potential cross-sectoral benefits of its property rights reforms and programs. A greater emphasis on impact evaluation is needed.

5. The ultimate objective is to secure property rights that will promote economic growth, food security, natural resource management, and stability. Security of tenure can be achieved through a variety of approaches and should result in greater confidence that property rights will not be indiscriminately taken or unjustifiably restricted. Securing land and resource rights can be achieved through a variety of legal, administrative, and judicial means. It may require legal reform in one context and dispute resolution in another. USAID promotes the implementation of "secure enough" tenure rights and does not consider land titling or land formalization as the ultimate objective.

Issues and constraints regarding property rights vary from region to region, and they will continue to evolve over time. The most volatile of USAID-presence countries—and those that are often in the greatest need of property rights reform—are fragile states. Since property rights are so closely linked to development agendas across the globe, there is a need to understand how these rights shift as economies move through the stages of economic growth and democratization (and, in some cases, from war to peace) and how these shifts require different property rights interventions.

In light of these common concerns and issues, a whole-of-government approach to addressing land tenure and property rights has been developed through USAID and the Millennium Challenge Corporation (MCC). USAID's LTPR Division (LTD) coordinates issues of LTPR programming with other USAID bureaus, US government (USG) entities, and

#### BOX A: ILLUSTRATIVE USAID LAND TENURE PROJECTS

- Afghanistan Land Titling and Economic Restructuring
- Biodiversity Conservation of Public Lands in the
  Brazilian Amazon
- Egypt Financial Services Project
- Ethiopia Land Administration Program
- Ghana Commercial Agriculture
- Indonesia Marine and Climate Support
- Liberia Property Rights and Artisanal Diamond Development
- Property Rights and Resource Governance (Global)
- Rwanda Land Project
- Tajikistan Land Reform
- Timor Leste Strengthening Property Rights
- Ukraine Land Titling Initiative
- Uganda Supporting Access to Justice, Fostering Peace and Equity

See USAID Land Tenure and Property Rights Portal (http://www.usaidlandtenure.net)

multilateral organizations. USAID currently works in close to 30 countries around the world to promote land governance systems (both formal and informal) that enable broad-based economic growth, human rights protection, and effective natural resource management. Because weak land governance systems compound vulnerability, our efforts are particularly beneficial for vulnerable groups. These efforts are investing over \$800 million to strengthen the land tenure and resource rights of men, women, and children in the developing world.

## INTRODUCTION

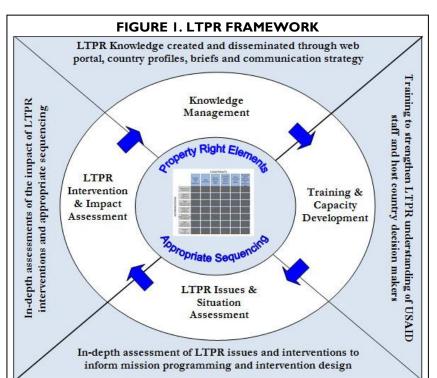
## A FRAMEWORK FOR LAND TENURE AND PROPERTY RIGHTS

USAID has developed a suite of tools and methodologies designed to enhance the understanding and programming of LTPR challenges and activities to advance USG Development Objectives in a number of areas, including food security, global climate change, conflict mitigation and women's economic empowerment. This body of work has been highly experimental, consultative, and developmental and has grown commensurate with growth of US investments in this sector.<sup>1</sup>

This work includes four components as summarized below, and are meant to be mutually reinforcing as illustrated in Figure 1: LTPR Framework.

1. The LTPR Framework serves as the overarching conceptual methodology tying together overarching themes, definitions, tools, assessments, designs, and training programs that USAID uses to improve LTPR programming and capacity building. The Framework also includes:

> LTPR Matrixes—A Methodology for determining USAID-recommended interventions for different asset and social classes (e.g., men and women); and a methodology for identifying constraints and opportunities.



#### LTPR Intervention

**Sequencing** of land tenure and land reforms tailored to each country, region, or project context that leads to stronger and more efficient property rights systems. Beyond identifying interventions to address LTPR constraints, sequencing in addition requires assessment of appropriate scale, timing, and ordering.

The LTPR Glossary is a guide to key LTPR terms and concepts, gathered from frequently cited international references.

<sup>&</sup>lt;sup>1</sup> This body of work updates tools that were originally produced under the Lessons Learned: Property Rights and Natural Resource Management contract

2. LTPR Assessment Tools—A Methodology for Assessing LTPR Constraints and Interventions includes two tools to guide USAID mission programming:

*LTPR Situation Assessment and Intervention Planning (SAIP) Tool*, which is a diagnostic and programming tool to help USAID missions understand and assess LTPR issues and determine how these contribute to or impede realization of Development Objectives; and

*LTPR Impact Evaluation Tool*, which provides a methodology for designing evaluations to determine the outcomes and impacts of land and natural resource tenure and property rights programming, whether as a project's main focus or a component of a broader set of goals.

In addition to these Framework and assessments tools, USAID has developed:

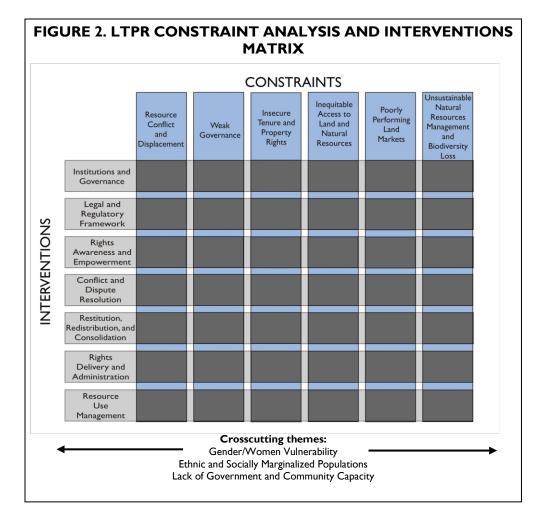
- 3. **LTPR training materials,** which include short courses and other trainings to transfer knowledge and best practices about land tenure and property rights and strengthen LTPR knowledge, capacity, and understanding of USG program staff and implementing partners. Curriculum may be found on the LTPR web portal at <u>www.USAIDlandtenure.net</u>; and,
- 4. **LTPR Knowledge Management,** which consists of USAID Program Briefs on land tenure projects, LTPR Country Profiles, Issues Briefs, films, and LTPR research. This can be found at the USAID Land Tenure and Property Rights Portal (www.usaidlandtenure.net), which serve as the foundation for LTPR knowledge management within the Agency.

The **intended audiences** for all of these tools are USAID missions, USAID Washington Bureau staff, and other USG personnel who seek to understand how property rights issues may be affecting program outcomes, how to design interventions that can help address those issues, and how to evaluate the impacts of those programs to inform new program development. The tools may likewise prove useful to a range of development practitioners outside the USAID sphere who encounter property rights challenges in their work and seek to understand and address them more effectively.

This report presents the **Matrix Overlay for Minerals**, one of the sub-tools comprising the Land Tenure and Property Rights (LTPR) Matrix and LTPR Framework, which are elaborated in the document *Land Tenure and Property Rights Framework* (USAID, September 2013). Both LTPR Matrix and LTPR Framework are briefly presented here to contextualize development of a base Matrix that is used to harmonize the population of five Matrix overlays—Land Tenure and Property Rights; Freshwater Lakes, Rivers, and Groundwater; Minerals; Trees and Forests; and Women, Land, and Resources—that serve the conceptual foundation for USAID LTPR programmatic interventions programming. This document presents the matrix *Minerals Overlay constraints and interventions*. The population of other overlays is contained in companion documents.

## LTPR MATRIX: A TOOL FOR VISUALIZING THE LTPR UNIVERSE

As early as 2004, USAID felt the need for a conceptual framework that would simply and eloquently help USAID and contractors identify and assess LTPR issues (constraints) and "toolboxes" of interventions to address those constraints. Land tenure and property rights is concerned with questions of access to land and natural resources, the distribution of rights to those resources within society, the security of tenure held by various individuals and groups over these resources, and the sustainability of their use.



The current generation base LTPR Matrix described in this section is aimed at addressing these questions and is the conceptual backbone of all interventions that follow. The Matrix illustrates a fairly complex but finite set of LTPR themes, constraints, and interventions. It is not meant to be read sequentially from left to right, nor from top to bottom; rather, it provides a menu of constraints and interventions to be considered within the realm of LTPR programming. The base Matrix consists of six categories of LTPR issues and potential constraints, three crosscutting constraints, and seven categories of policy and program interventions.

## **CATEGORIES OF LTPR CONSTRAINTS**

- 1. **Resource Conflict and Displacement (Column 1)** Conflict over access and use of land and natural resources often resulting in landlessness, squatting or population displacement due to macro causes of genocide and war, social and ethnic conflict, climate change, and resource scarcity.
- 2. Weak Governance (Column 2) Deficiencies in capacity to manage and/or disparities in power, influence, and wealth that lead to mismanagement, lack of accountability, and inability of individuals, communities, legal entities and groups to act upon and defend their rights in land, resources and property.
- 3. **Insecure Tenure and Property Rights (Column 3)** The consequence of inadequate rights awareness or the perception of having too few rights, inadequate duration of rights, or inability to protect rights

from encroachment by others due to problems of open access, weak governance, rights inequality, weak statutory and customary tenures, and expropriation without fair compensation.

- 4. Inequitable Access to Land and Natural Resources (Column 4) Disparities in access and control over resources between classes and gender that are often affiliated with poverty and social strife and result in problems of landlessness, uneconomical and fragmented holdings, squatting, informal settlements, and weak and unsustainable livelihoods.
- 5. **Poorly Performing Land Markets (Column 5)** Absent/weak sales, rentals, sharecropping, and exchanges that restrict the transfer of resources between willing sellers, buyers, lessors, and renters thereby constraining economic growth, or that fail to serve the poor and disadvantaged due to imperfect information, lack of capital, unequal bargaining power, or risk of distressed sales.
- 6. Unsustainable Natural Resources Management and Biodiversity Loss (Column 6) Overharvesting or degradation of land, water, forests, pasture, and wildlife resulting in unsustainable use and biodiversity loss, or in the context of minerals, environmental degradation and practices that abuse or usurp the rights of communities/miners due to weak property rights and governance systems.

#### **Crosscutting Constraints:**

- 7. **Gender/Women Vulnerability (Crosscutting)** This constraint category further nuances other constraint columns in the matrix by asking the question of LTPR constraints for whom, and addresses discrimination in property rights, land access, land markets, and ability to sustain natural resource management by women and men.
- 8. Ethnic and Socially Marginalized Populations (Crosscutting) The constraint categories to the left in the matrix are further nuanced in this constraints column by the questions of LTPR constraints to marginalized and disenfranchised populations including among others HIV/AIDS affected households, pastoralist societies, indigenous populations, and post-conflict and climatically vulnerable populations discriminated against or left behind by political and economic change, or needing LTPR support or protection in face of political, economic and climatic shocks.
- 9. Lack of Government and Community Capacity (Crosscutting) This constraints category relates to the identification and development of human capital in service to land property rights reforms.

## **CATEGORIES OF LTPR INTERVENTIONS**

- 1. **Institutions and Governance (Row 1)** Institutional arrangements that improve the governance of property rights from central to local levels by establishing rule of law, devolving authority, decentralizing decision making, ensuring impartiality of the judiciary, providing for citizen participation, and ensuring accountable and democratic governance.
- 2. Legal and Regulatory Framework (Row 2) Interventions that provide individuals, groups, communities, or legal entities with important legal rights of ownership, usufruct, exclusion, and transferability, and typically focus on legal and regulatory reforms that increase clarity of rights, strengthen rights ownership, and provide for legal recourse and due process.
- 3. **Rights Awareness and Empowerment (Row 3)** Interventions aimed at raising citizen awareness and understanding of their property rights as well as the procedures and facilities available to claim, defend

and enforce those rights. Illustrative interventions include mass media, human capacity training, communication strategies and informational meetings targeting beneficiaries.

- 4. **Conflict and Dispute Resolution (Row 4)** Formal and informal conflict mediation and dispute resolution strategies and mechanisms aimed at mediating conflict, resolving disputes, dispelling or averting violence, providing effective legal recourse and enabling compensation in the event of resettlement and public takings.
- 5. **Restitution, Redistribution, and Consolidation (Row 5)** Land reform and resettlement to redress land concentration, privatize ownership, restitute rights, resettle displaced populations, or consolidate small, fragmented units into larger ones with the aim of redressing historical injustices and achieving a more fair, equitable, and productive land and agrarian structure.
- 6. Rights Delivery and Administration (Row 6) Effective and low-cost land administration interventions that connecting rights to land, resources and property in law with the exercise of those rights in practice and focus on improving the effectiveness and reach of government in support of rights registration, land demarcation, surveying, mapping, and cadastral development.
- Resource Use Management (Row 7) Strengthened property rights and governance to improve land and natural resources management, conservation and bio-diversity protection, or land use planning for municipal/urban development, and include such interventions as participatory decision-making, zoning, trusts, conservancies, protected areas and co-management models.

The Base Matrix in Figure 2 serves as the template for regularizing and developing empirical overlays for five natural and human resource domains in Figure 3:

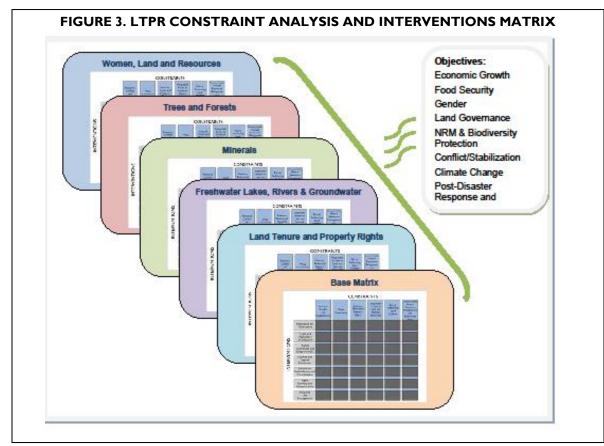
- Land Tenure and Property Rights;
- Freshwater Lakes, Rivers, and Groundwater;
- Minerals;
- Trees and Forests; and
- Women, Land, and Resources.

Each of these overlays is a standalone Matrix. Other domains are possible: pastures, wildlife, fisheries, and coastal areas. The overlay approach allows expandability by adding additional overlays in the future (e.g., coastal areas) as demand warrants.

## MATRIX OVERLAYS

In this document, sections 1.0 to 6.0 populate the *Minerals Matrix Overlay* with salient issues and key interventions, and link these to information sources for easy reference. Annex A provides summary tables on issues and interventions extracted from the overlay which serve as useful tools for training exercises or as "quick sheets" when undertaking assessments. Overlays and quick sheets for resource domains can be found in the following overlays, all developed under the USAID Property Rights and Resource Governance Task Order:

• Overlay 1: Land Tenure and Property Rights Matrix ;



- Overlay 2: Freshwater Lakes, Rivers, and Groundwater Matrix ;
- Overlay 3: Minerals Matrix ;
- Overlay 4: Trees and Forests Matrix ; and
- Overlay 5: Women, Land, and Resources Matrix

Each overlay is organized into chapters (see Sections 1.0 to 6.0) centered around constraint categories which:

- Provide an overview of issues and sub-issues related to respective constraints;
- Describe various policy and program interventions USAID recommends bundled according to intervention categories;
- Explain how the Food and Agriculture Organization of the United Nations (FAO)'s Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security addresses the constraint; and
- Include a list of related reading for each topic.

USAID programmatic recommendations are guided by the following principles:

• Land tenure and property rights systems that recognize, record, and administer a multiplicity of statutory and customary land tenure and property rights, whether held by individuals, groups or legal entities;

- Land tenure and property rights systems that protect the rights of women and other marginalized groups in society;
- Fully participatory processes to define, delimit, record, and administer land tenure and property rights and obligations;
- Market-mediated approaches to provide access to land;
- Land governance systems that are reasonably accessible, in terms of location and cost, to all members of society;
- Land governance systems that allow and support the creations of transparent and effective land markets, including land sales, leases, and the use of easements and other mechanisms; and
- The equitable application of laws, regulations, and administrative practices for all market participants.

Importantly, the US government does not support the following: Expropriations and forcible evictions/relocations (or the use of compulsory purchase/resumption) that violate rights to due process and do not award prompt, adequate and effective compensation or that take private property for private purpose."

The specific interventions mentioned in the Matrix and overlays, while illustrative, nonetheless serve to accelerate or expand thinking when needing to conduct "how to" courses and transfer knowledge in training programs, help to target or focus questions or lines of enquiry when conducting LTPR assessments, or recommend appropriate intervention strategies whether by way of making recommendations or formulating project designs. The Matrix is thus the conceptual framework for ordering and clarifying thinking on LTPR constraints and interventions, and the causal linkages between them.

## I.0 RESOURCE CONFLICT

		Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural Resources Management and Biodiversity Loss
INTERVENTIONS	Institutions and Governance						
	Legal and Regulatory Framework						
	Rights Awareness and Empowerment						
	Conflict and Dispute Resolution						
EZ	Restitution, Redistribution, and Consolidation						
	Rights Delivery and Administration						
	Resource Use Management						

## CONSTRAINTS

### I.I LTPR ISSUE

For thousands of years people have made productive use of a wide variety of minerals. Mineral production remains one of the most important economic sectors in the globalized economy and while many minerals have been developed in a peaceful and productive manner throughout history, they have been associated with

conflict. Valuable minerals such as diamonds and gemstones, gold, cobalt, copper, and phosphates have been used to finance small and large conflicts; insurgencies have been launched to possess mines. The profits can be huge: for example, in 2008, some 2460 tons of gold were mined globally, representing a total value of over \$79 billion. During the 1990s, Angola's UNITA rebels derived almost \$3.7 billion in diamond sales, which

they used to wage war against the government. It is estimated that 60 percent of the minerals in the Democratic Republic of Congo (DRC) are mined illegally by organizations linked to armed groups. Almost 3 percent of global gold production comes from the DRC or neighboring countries, although not all of this is necessarily linked to conflict. During the 1990s, some 15 percent of diamond production was associated with conflict, but the Kimberley process and other forms of regulation may have reduced this figure to as little as 1 or 2 percent today. Several West African countries, as well as Zimbabwe, have been associated with "blood diamonds." The struggle for control over extraction and sale of this portable concentration of wealth engages national governments, civil society, and the private sector, and begs the question: why is mineral production peaceful in some places but so violent in others?

#### SUB-ISSUES

**Financing conflict with minerals.** Governments and national militaries have drawn on mineral resources to fund wars against secessionist groups and rebels. Armed rebel groups have also generated revenue through mining and selling minerals or by demanding royalties from mine operators. Governments and rebels may ignore formal or informal property rights claims of local communities, local or foreign companies, and other actors to control mineral production. In some cases, the discovery of valuable minerals has led to attempts to overthrow the government to capture a share of future revenues. For example, the Government of the DRC has sold mineral rights to generate funds for buying weapons and hiring mercenaries. Such sales are rarely transparent and are not necessarily in the best interests of the country. In Cambodia, smuggling precious gems was a major source of revenue for the Khmer Rouge insurgency in Cambodia, and was a secondary source of income for drug-trafficking insurgent armies based in Burma. Both rebel groups and government armies have imposed illegal "taxes" on civilian populations, using violence and intimidation to coerce labor, suppress resistance, and seize minerals.

**Conflict created by legal plurality.** The tension between customary and statutory regimes may cause conflict in mineral-rich areas where the state contests or fails to respect legitimate customary ownership by local communities. Such tension is especially prevalent on lands where marginalized or indigenous groups have customary claims. In post-colonial contexts, struggles over mineral rights are underpinned by historical land injustices such as earlier displacements and encroachments left unaddressed by the state. A plurality of ownership regimes may also cause conflict in countries where the state retains rights to sub-surface resources on lands held in private ownership.

**Expropriation of land and resources without compensation.** In virtually all developing countries, governments grant mining concessions to the private sector (or develop mineral resources themselves through parastatals). Companies that acquire these rights need to explore and develop infrastructure on lands granted in concessions. However, asserting these rights often results in conflict. Governments may provide access to sites for seismic testing and exploratory drilling without informing or consulting resident communities, particularly indigenous peoples, whose rights to the land may be acknowledged in international treaties but are not recognized by national law. When mining begins, the relocation of communities often causes disputes. These are intensified if local people are excluded from decision making, find their livelihoods threatened, or are offered insufficient compensation. In some cases, the military is used to expel artisanal miners and local inhabitants by force. The eviction of artisanal miners can deprive communities of a

significant source of income and alienate underemployed youth. For these and other reasons, at the extraction stage, industrial mining sites are often heavily guarded by security forces to protect staff, minerals, and machinery.

**Inequitable distribution of wealth, employment, and benefits.** When a mining enterprise is established, local communities often have unrealistically high expectations to share in mining revenues. If negotiations related to benefits are not participatory, and agreements are not honored, communities occasionally resort to violence. This is directly related to perceived wrongs: communities have long-standing customary property rights claims, which are often based on (disputed) oral histories of origin, immigration, and long-term residence. The property rights claims among community members may vary, and the expectation of sudden wealth may exacerbate any existing intra- and inter-community tensions. The risk of violence increases substantially if local communities believe that a new mining operation has not employed enough local people or channeled sufficient benefits to them through direct compensation, community development funds, and broader social investments. At the national level, the general population is likely to expect that the share of profits from mining that accrue to the public treasury will be invested in social services, and the broader public sector (with a resulting increase in job availability). If such income is instead channeled into private pockets through corruption, or is invested in projects and infrastructure that tend to benefit only elite groups (such as 'prestige' airports, or housing and other benefits for high-level military personnel or civil servants), then dissatisfaction can mount. The result may be latent or violent socio-political conflict. In the context of a low-intensity conflict or a post-conflict situation which remains relatively insecure and/or militarized, women's access to mining opportunities may be curtailed. Under normal circumstances, women form a significant part of the artisanal mining workforce. But security of livelihoods and incomes wane, and sexual violence against female miners often becomes a serious issue, in conflict or post-conflict situations.

**Conflicts due to environmental degradation.** Large-scale mining causes widespread, sometimes harmful, change in natural landscapes and ecosystems, and the decision to develop a site has serious impacts on local communities and the natural resources in which they have rights. Such impact will be particularly severe when the community relies on intact ecosystems for livelihoods or has had little contact with industrialized societies. Conflict often arises because of this environmental contamination when it affects community health and livelihoods through discharge of waste, contamination of local water supply, or depletion of fish stock. Governments which dispute local claims to land or resources may not adequately acknowledge or compensate for these impacts. Local people suffering loss of income from the pollution of livelihood resources sometimes turn to petty crime, which may coalesce over time into more organized and violent forms of banditry and resistance.

Weak, vague, or unimplemented corporate social responsibility commitments. Most large mining operators have publically available positions on corporate social responsibility, which should include a commitment to a 'do no harm' (conflict sensitive) approach. In addition to formal legal permits, mining companies increasingly recognize the need for a 'social license to operate', which is dependent on local goodwill toward mining operations. Without such social license, local pressure groups, saboteurs, and others can slow or stop production. However, there are a number of common problems regarding corporate social responsibility commitments. The first and most obvious problem is that commitments may not be followed with action. Unless the institutional environment provides for relatively low-cost access to justice, it can be difficult to uphold such agreements. In addition, these statements may be narrowly conceived, both in geographic and sectoral terms. Rather than addressing fundamental structural socioeconomic problems, for example, a company may pledge to construct a school or achieve some other concrete and visible objective

which, while useful, does not necessarily address the communities underlying ownership claim or perception that its cultural resources have been stolen. Most importantly, many corporate social responsibility statements and programs developed from them are developed unilaterally by the mining companies themselves, and have not resulted from processes of consultation and negotiation with affected communities. Both the relevance and local credibility of these activities may therefore be limited, and communities may be angered by perceived hypocrisy or window dressing on the part of companies.

**Establishment of mineral traceability systems.** Artisanal and small-scale mining often occurs in remote areas of countries where governments have limited presence and control. This permits an environment where predatory actors can easily control mines and related proceeds. Due to concerns about the role minerals can play in financing weapons purchases and overthrowing governments, certification and traceability systems have been established to minimize the trade in "conflict diamonds" and other minerals. These international systems include the Kimberley Process Certification Scheme and Section 1502 of the Dodd-Frank Wall Street Reform, and Consumer Protection Act. In establishing these certification schemes, there is need to establish a traceability system to track minerals from their point of extraction to point of export. To do so successfully, it is necessary to understand who is mining where as a first step in developing a chain of custody. However, unclear and contested property rights at mine sites often present challenges in completing this objective.

## **1.2 VOLUNTARY GUIDELINES WITH RESPECT TO CONFLICT**

To address the above issues, Section 25 of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security includes:

- 1. "All parties should take steps to prevent and eliminate issues of tenure of land, fisheries and forests as a cause of conflict and should ensure that aspects of tenure are addressed before, during and after conflict...
- 2. States should ensure that all actions are consistent with their existing obligations under national and international law, and with due regard to voluntary commitments under applicable regional and international instruments, including as appropriate those of the Convention relating to the Status of Refugees and its Protocol, and the United Nations Principles on Housing and Property Restitution for Refugees and Displaced Persons ("Pinheiro Principles"). During and after conflicts States should respect applicable international humanitarian law related to legitimate tenure rights.
- 3. In order that tenure problems do not lead to conflicts, all parties should take steps to resolve such problems through peaceful means. States should revise relevant policies and laws to eliminate discrimination and other factors that can be a cause of conflicts.
- 4. When conflicts arise, States and other parties should strive to respect and protect existing legitimate tenure rights and guarantee that these are not extinguished by other parties. Consistent with existing obligations under relevant national and international law, States should not recognize tenure rights to land, fisheries and forests acquired, within their territories, through forceful and/or violent means. Refugees and displaced persons and others affected by conflict should be settled in safe conditions in ways that protect the tenure rights of host communities...
- 5. In situations of conflicts, whenever possible or when conflicts cease, States and other parties should ensure that tenure problems are addressed in ways that contribute to gender equality and support durable solutions for those affected...

6. Where appropriate, policies and laws should be revised to address pre-existing discrimination as well as discrimination introduced during the conflicts. Where appropriate or required, relevant agencies should be reestablished to deliver services necessary for responsible tenure governance."

### **1.3 ILLUSTRATIVE INTERVENTIONS**

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

	Resource Connict and Displacement						
Institutions and Governance	<ul> <li>Mobilize political will. Commit to arresting mineral conflict and promoting fair and transparent dialogue among all stakeholders to reach mutually agreeable decisions.</li> <li>Improve financial transparency. Strengthen government and corporate capacity to maintain and audit complete and accurate accounting systems. Help government tighten up and regulate the commodity chain from mine to final export to reduce theft and other "leakage".</li> <li>Enforce standards against trade in illicit minerals. Establish and enforce national mechanisms, and adhere to international standards such as the Kimberley Process Certification Scheme, to limit smuggling, reduce the use of minerals to fund armed conflict, and ensure minerals obtained through complicity in violent conflict are disfavored on the market.</li> <li>Train government and nongovernment actors. Build capacity of government and civil society to enforce and adhere to international standards such as the Kimberley Process Certification Scheme.</li> <li>Strengthen civil society. Expand capacity and role of civil society in advocating for the displaced and other affected populations, protecting human rights, and assisting these populations with service delivery.</li> <li>Establish reconciliation commissions. Openly hear grievances and settle upon mechanisms for restitution of rights or compensation for damages.</li> </ul>						
Legal and Regulatory Framework	<ul> <li>Reduce legal pluralism in statutory law. Clarify and formalize the relationship between customary regimes and statutory law.</li> <li>Devolve authority in managing and regulating mineral rights. Devolve land, property, and mineral rights and the authority to manage, control, and benefit from mineral assets to local communities and rightful holders of the assets involved.</li> <li>Institutionalize gender equity. Establish among institutions charged with land and mining concession rights formalization protocols that ensure men and women are treated equally; give female-headed households the same priority as the other households; take secondary rights into account; and treat women who are widowed, are in polygamous relationships, or are not formally married as co-owners.</li> <li>Conduct law review forums. Conduct information forums to acquaint the judiciary with relevant case laws on mineral rights.</li> <li>Strengthen eminent domain provisions. Ensure best practices regarding eminent domain, consultation, and resettlement are incorporated into the legal framework to avoid arbitrary displacement.</li> <li>Enforce compensation commitments to communities and artisanal miners. Delays or failure to fulfill commitments are a major cause of conflict and have negative impacts in terms of local land markets and investment in agriculture and other income-generating activities. Develop and enforce regulations requiring the monitoring of commitments to resettle or compensate local communities and artisanal artisanal and small-scale miners: designate and impose fines in case of major delays</li> </ul>						

	Resource Conflict and Displacement
Rights Awareness and Empowerment	<ul> <li>Raise awareness of indigenous perspectives. Train institutions involved in mining sector to recognize the particularities of indigenous communities found in existing or potential mining concessions. Focus not just on the possible obstacles (e.g., remoteness, low literacy levels) but also on their beliefs and perspectives on the environment and development.</li> <li>Increase mineral rights and conflict awareness. Lack of information and power imbalances can leave local communities and miners dissatisfied with their dealings with the state and mining companies. This can lead to sabotage, illegal mining, and violence. Raise awareness of the public, government, and mining companies regarding statutory and customary laws regarding land, minerals, water, and other natural resources to help guard against these imbalances and information gaps.</li> <li>Strengthen negotiation capacity. Strengthen civil society capacity to train communities and artisanal and small-scale miners on how to negotiate social benefit packages. Social disputes and conflicts may be reduced if these offer explicit benefits at the level of community and family, rather than just to individuals.</li> <li>Follow best practices on indigenous rights. A range of declarations, treaties, and principles exist to guide those working on indigenous territories (such as the United Nations Declaration on the Rights of Indigenous Peoples). Disseminate and follow such best practices as closely as possible</li> </ul>
Conflict and Dispute Resolution	<ul> <li>follow such best practices as closely as possible.</li> <li>Hire women for conflict/dispute resolution committees. Because many women are involved directly or indirectly in mining, provide that agencies or committees responsible for resolving conflicts and disputes hire women, using quotas if necessary.</li> <li>Build conflict awareness. Increase understanding of the mineral-conflict relationship among government officials, company staff, leaders of civil society organizations, and local community members. Promote dialogue on conflict prevention and mitigation.</li> <li>Raise corporate risk awareness. Increase understanding among company staff of the risks of conflict, such as destruction of physical assets and infrastructure, attacks on employees, increased costs of private security, disruption of supply chains, litigation, and loss of reputation and customer contracts as a result of boycotts.</li> <li>Strengthen judicial capacity. Educate law students and train judiciary to increase efficiency, fairness, and transparency of formal dispute resolution institutions. Improve their ability to serve the poor, the illiterate, those who speak only vernacular languages, and those unaware of their rights and responsibilities under the law. Expand prosecutors' and defenders' offices; extend their reach to remote mining communities.</li> <li>Bolster alternative dispute resolution (ADR). Identify and strengthen existing local and informal arbitrators on relevant statutes and procedures. Train local administrators, mining operators, and other actors involved in mediating disputes about indigenous perspectives on conflict to avoid cross-cultural misunderstandings.</li> <li>Provide legal aid. Make legal assistance accessible to members of affected communities; train paralegals in land and mineral tenure laws if necessary. Translate summaries of laws and regulations into local languages. Ensure such services target men and women equally, and are trailored as necessary to indigenous groups. Ensure women have the same</li></ul>

		Resource Conflict and Displacement					
	•	<b>Demilitarize security.</b> End military control of mines through government, civilian, and private sector collaboration.					
	•	Conduct public reviews and support restitution. Conduct reviews of					
	•	concessions, titles, and contracts after transition from conflict or authoritarian					
		regimes to nullify those that are illegal, unethical, or unjust and restitute land and					
		resource rights to rightful claimants.					
	•	Institutionalize compensation. Establish and enforce policies for the full and fair					
		value compensation to artisanal and small-scale miners and communities of assets					
		and livelihoods lost by takings.					
	•	Support development and application of social impact assessments.					
		Collaborate with all stakeholders when designing compensation plans to avoid,					
		mitigate, or justly compensate for negative impacts on community resources and					
		property rights from mining, environmental degradation, and the influx of outsiders.					
Restitution,	•	Make compensation packages culturally appropriate. Ensure compensation					
Redistribution, and		packages offer the appropriate livelihood assets and options for local communities					
Consolidation		(e.g., land offered as compensation for indigenous groups may have to include					
		hunting rights, or specific kinds of flora and fauna). Monetary compensation may be					
		appropriate for some groups but not others, depending on levels of group cohesion,					
		market penetration of local economies, and other factors.					
	•	Set up development trusts. Because of low literacy, weak human capacity,					
		poverty, and psycho-social trauma associated with conflict, support associations,					
		trusts, and other forms of group ownership or collective action to educate and					
		empower miners and communities, strengthen their negotiation skills, and improve					
		participatory management and planning of revenues and assets resulting from					
	_	restitution, redistribution, and compensation schemes.					
	•	Support development and application of resettlement action plans. Where					
		resettlement is unavoidable, ensure transparent, public negotiations of resettlement terms while ensuring that they are clear, fully documented, and publically available.					
	•	Bridge formal and informal systems. Develop systematic linkages and increase					
		information sharing between state, informal, and local dispute resolution structures.					
		Establish protocols for state formalization of local decisions to reduce power					
		imbalances between local institutions and mining corporations.					
	•	Formalize mineral rights. Provide legal basis for compensation, and prevent					
		illegal displacement, by concessions through the formal recognition of the mineral					
		and land rights of artisanal and small-scale miners and local landholders, and the					
		registration of access rights to common pool resources such as water and pasture.					
	•	Document mineral rights. Record use rights of artisanal and small-scale miners					
<b>Rights Delivery and</b>		and local landholders, and access rights to common pool resources through					
Administration		registration or contracts (formal or informal) to secure rights and provide basis for					
		compensation and restitution. This can be done to prevent or minimize conflict, or					
		to minimize 'secondary disputes' over minerals in a post-conflict context, when					
		population displacement leads to overlapping property rights claims.					
	•	Secure mineral records and registries. Take measures, including digitization, to					
		secure public records such as mineral concessions, contracts, titles, and production					
		figures to avoid their destruction or loss during conflict.					
	•	<b>Record mining disruptions to ensure mining concessions are maintained.</b> Establish government centers that enable mining firms, cooperatives, or individual					
		miners to formally record their inability to access or operate mines due to					
		insecurity, and thus maintain their rights to concessions.					
	•	Ensure public safety. Prioritize areas for removal of landmines used to protect					
Resource Use		mines during conflict, as local populations may quickly attempt to resettle in an effort					
Management		to reclaim land and property.					
	•	Publicize environmental hazards. Raise awareness of community members and					

Resource Conflict and Displacement
<ul> <li>visitors, such as human rights monitors, concerning environmental hazards— particularly mercury and other toxic substances—when mining operations continue during conflict and environmental protection measures are lax or ignored.</li> <li>Continue environmental enforcement. Maintain essential environmental monitoring and enforcement during conflict to limit the impact of mining externalities on the rights of neighboring communities.</li> <li>Conduct integrated land use planning. Link mining infrastructure development to regional development plans, taking into consideration ecosystem services and the interests of a broad spectrum of stakeholders and resource users. Where land use plans create latent conflict (e.g., through marginalizing or criminalizing some mining activities), facilitate a phased and conflict-sensitive approach to their implementation.</li> </ul>
<ul> <li>Identify specific zones for housing migrants and associated services.</li> <li>Respect diverse perspectives in impact assessment. Environmental services and natural resources are viewed, valued, and prioritized differently by men and women, and by different communities. Ensure the perspectives of women and indigenous or vulnerable minority communities are built-into environmental impact assessments (EIAs) and environmental quality monitoring procedures.</li> </ul>

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## 2.0 WEAK GOVERNANCE

CONSTRAINTS										
		Resource Conflict and Displacement	Weak Governance		Insecure Tenure and Property Rights		Inequitable Access to Minerals	Poorly Performing Mineral Markets		Unsustainable Natural Resources Management and Biodiversity Loss
	Institutions and Governance									
	Legal and Regulatory Framework									
	Rights Awareness and Empowerment									
	Conflict and Dispute Resolution									
R	Restitution, edistribution, and Consolidation									
	Rights Delivery and Administration									
	Resource Use Management									

## CONSTRAINTS

## 2.1 LTPR ISSUE

Whether a country's mineral wealth brings prosperity and social development or leads to power struggles and a downward spiral of corruption and violent conflict depends on issues of policy and governance. In many cases, mining operations and mining areas are controlled by governments, private companies, and/or elite sections of society. Through intimidation, violence, and corruption they may acquire wealth and control over the mining operations and the value chain associated with it. Economic and other benefits are then concentrated within a small minority of the population, while negative environmental, social and economic impacts are borne by many. Over time, such a dynamic can seriously distort economic development and democratic processes at the national level, as the mining sector and those associated with it gain strong

**INTERVENTIONS** 

political influence. The problem is particularly severe in countries that suffer from lack of government accountability to the public, high level of complicity between state and companies, and weak systems of administration of land and minerals.

Meanwhile, artisanal and small-scale miners may be active but typically lack organization, have limited institutional capacity and limited political clout. Supporting local artisanal and small-scale miners helps direct benefits to local communities as opposed to supporting large-scale operators who are likely to import semi-skilled labor from other areas. The highly localized nature of artisanal and small-scale operators, and the likelihood that they enjoy a close relationship with local communities, means that they do not control large swathes of land, unlike larger operators. Local communities therefore continue to access mining areas under artisanal or small-scale exploitation. In addition, the low investment and labor costs of artisanal and small-scale operations may generate profits from areas which are only marginally mineral-rich (areas frequently ignored by larger operations). More than 100 million people worldwide are dependent on artisanal and small-scale mining for their livelihoods, either directly as miners, processors, transporters, or middlemen, or indirectly as service providers to miners (for example selling food or other goods in mining camps).

#### SUB-ISSUES

Highly centralized control by central governments. In most countries, government control over formal mining concessions and mining operations is highly centralized. In many cases, companies can obtain mining permits from the national government, often with no consultation or consent of local government or local people directly affected. Many national governments also fail to share revenues with local governments or citizens. Without some degree of fiscal decentralization and sharing of revenues, local government may be unable to deliver services such as law enforcement and control of illegal mineral exports, mediation of conflict, environmental monitoring, water, and waste disposal. Indeed, it is common for local governments to bear the negative burden of mining but receive little in the way of benefits or decision-making power to address these problems. This in turn may initiate competition over resource access and benefit sharing between central and local governments.

Weak enforcement of government laws and policies. Often countries have sound laws and policies in place but weak application and enforcement. This can be due to a number of factors including poor knowledge and understanding of laws and implementing regulations, low salaries, lack of transportation, and insecurity. When corporate social responsibility is not backed with real corporate will, agreements are often neglected. Similarly, when laws and policies are opposed by vested interests, they are often not respected. As a result, an environment of corruption and illicit activity can flourish, undermining state credibility.

**Corruption and complicity between states and companies.** The diversion of revenue and other benefits derived from mineral production to the ruling elite, together with lack of government accountability, increases the power of the elite and can undermine rule of law. Poor governance and corruption also prevent equitable and efficient revenue collection. The compliance of companies with illegitimate and oppressive governments or rebel groups enables and increases oppression and can lead to violence. In some cases, companies actively engage in corruption and bribery, making large-scale corruption payments to government.

**Control by political, military, rebel, and wealthy elites.** In countries with weak governance structures, the mining of high-value minerals often leads to the formation of networks of political and military elites, business persons, and in some cases, rebel leaders. Through force and corruption, members of these networks assert control over the extraction and sale of minerals. They typically ensure the viability of their activities by using security forces to intimidate or carry out acts of violence to capture mineral revenues. Elite

networks engage in other complementary criminal activities such as theft, embezzlement, undervaluation of goods and assets, smuggling, evasion of taxes, and bribery of public officials. At times, they form companies that act as fronts for their illegal commercial activities.

**Poorly functioning administrative systems.** Administrative systems regulating and governing the mineral industry are weak and often incapable of effectively performing the many tasks necessary. These tasks include receiving applications for new licenses; processing requests for renewal, extension, or transfer of licenses; registering changes in ownership of mineral titles; ensuring compliance with payment of fees; and advising the granting authority when a mining title should be canceled. Even where working mineral administration systems are in place, they are often not transparent and have overlapping claims. Mineral cadasters, if they exist, often do not harmonize or take into consideration other existing property rights and land uses including protected areas, private property, and other existing concessions. In the case of land takings, compensation mechanisms may be non-existent, unimplemented, or regarded as unfair. Dispute resolution systems may be weak, and local communities often have limited access to them. At the local level, lack of effective integration of artisanal and small-scale mining into the regulatory and institutional framework may mean that ad hoc and often corrupt practices predominate. For example, fees and fines imposed on miners may not be transparent or reported to any centralized authority.

Absence of publically available data. Often, the only widely available geological maps and data sets on potential mineral-bearing soils and production levels in mining areas are outdated (dating from the colonial period, or immediate post-independence period). Similarly, data on private and public revenues, water quality, and other environmental indicators in mining areas may not be publically available. Few government agencies dealing with the mining sector have transparent protocols for the collection, tabulation, storage, and publication of such data. Large-scale mining corporations, which may have such data, rarely make it public unless forced to do so through national legislation or jurisprudence. As a result, it may be difficult for those with informal property rights claims, local communities, civil society "watchdog" organizations, or other stakeholders to access information necessary to understand what decisions have been made regarding concessions, how those decisions have been made, how concessions have operated, and who has materially benefitted from mineral extraction. This makes it difficult to press for transparent, accountable governance.

Lootable nature of most mineral resources. Most minerals have very high value per unit of weight. This means that valuable resources (particularly diamonds, gold, and other precious metals) can be easily concealed and smuggled out of mines or across borders, making it very difficult to monitor mineral extraction and regulate their transport and sale. In addition, some minerals can be easily extracted without the presence of infrastructure or use of sophisticated equipment (for example, alluvial diamonds can be mined using shovels, sieves, and other basic tools). This means that informal mining operations may be able to operate without the knowledge of central authorities, making it impossible to tax them, monitor production, or ensure that environmental standards are followed. The concentrated and remote nature of many mineral deposits (concentrated in seams of ore, rather than widely dispersed) means that criminal, military, or rebel groups can easily exercise control over them without close central government scrutiny.

### 2.2 ILLUSTRATIVE INTERVENTIONS

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint

categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

		Weak Governance
	•	<b>Decentralize mining governance.</b> Empower local governments to collect mining taxes from the private sector and determine, through a transparent public process, use of this revenue. Devolve administration of mineral rights, including monitoring and enforcement, to the lowest competent authority to speed license processing, reduce illegal activities such as use of proscribed chemicals in minerals processing, improve security, and improve management of environmental impacts. <b>Promote transparency and reduce corruption.</b> Make government licensing, mining operations, and financial reporting more transparent. Strengthen government and corporate capacity to maintain and audit complete and accurate accounting
		systems. Enforce compliance with the Organization for Economic Cooperation and Development's (OECD) <i>Convention on Combating Bribery of Foreign Public Officials in</i> <i>International Business Transactions</i> , and establish national industry-wide standards in collaboration with organizations such as Transparency International and the Extractive Industries Transparency Initiative (EITI).
Institutions and Governance	nd n	<b>Enforce accountability.</b> Increase transparency of corporate transactions through measures including public international registers of mining company payments to governments at all levels, regional ombudsmen, and National Contact Points (see OECD Guidelines for Multinational Enterprises).
	•	<b>Build enforcement capacity.</b> Train national- and local-level government personnel, and provide them with the tools necessary to enforce government regulations. In addition to improving knowledge of regulations and institutional morale, support transport and other logistical needs to enable agencies to spend adequate time in (often remote) mining locations.
	•	<b>Regularize taxation and minimize overlapping jurisdictions.</b> Standardize policies and procedures for taxing the extraction and sale of minerals. Assign and streamline clear responsibilities for mineral tax collection, regulation of environmental and social impacts, and service provision while minimizing overlapping jurisdictions to improve service delivery.
	•	<b>Support transparency and management of mining information.</b> Advocate for mining cadasters and information systems that help improve management and accessibility of mining information, including concessions, thereby allowing for greater accountability.
	•	<b>Reduce legal pluralism.</b> Clarify and formalize relationship between customary regimes and statutory law, including surface and sub-surface rights and how these various rights systems interact and affect each other. Devolve rights where feasible and as appropriate to regional and local authorities or communities to help improve transparency and promote participatory resource governance.
Legal and Regulatory Framework	•	<b>Strengthen rights regulation.</b> Establish and enforce legal and regulatory framework for the transparent and public allocation of mineral rights.
	•	<b>Safeguard procedural rights.</b> Recognize, in statutory law, the right to participate in political decision-making, the right to information, and the right to access justice. <b>Streamline tax collection.</b> Establish the legal and regulatory framework for streamlined tax regimes to improve efficiency and transparency.
Rights Awareness and Empowerment	•	<b>Strengthen civil society organizations.</b> Raise awareness and build capacity of civil society organizations concerning the promotion of transparency in the administration of the mineral sector.
	•	Create dialogue between mining companies, government, and

	Weak Governance
	<ul> <li>communities. Increase discussion among stakeholders concerning politically sensitive issues such as corruption, human rights violations, and state security.</li> <li>Support capacity of women's offices. Expand and strengthen the capacity of governmental offices responsible for women's development such as the Ministry of Women's affairs to identify and address issues related to mining.</li> <li>Comply with international standards. Raise awareness among all stakeholders of international standards, processes, and mechanisms, such as the Kimberly Process and EITI. Emphasize the importance of good recordkeeping and transparency in maintaining the integrity of the commodity chain, from mine to point of export.</li> </ul>
Conflict and Dispute Resolution	<ul> <li>Support civil society watchdogs. Build capacity of civil society organizations to provide early warning; and to assess, monitor, document, and report conflicts to deter mine operators and government from neglecting their responsibilities under law or contract. Where legal responsibilities are neglected, civil society can act to ensure compliance, and seek compensation or redress on the part of those affected.</li> <li>Use independent mediation. Level power relations between multinational mining corporations and other stakeholders in disputes involving direct foreign investment through independent resolution mechanisms such as a Mining Ombudsman Project.</li> <li>Broaden access to improved dispute resolution. Develop a systematic, accessible, transparent, efficient, and locally accepted approach to dispute resolution. In many cases, this will involve a combination of customary, alternative, and statutory systems. Key tools to improve governance of dispute resolution processes may include guidelines (distributed in local vernaculars) to standardize procedures used in customary and alternative systems, and processes which document the decisions made. Link resolution systems to institutions responsible for ensuring enforcement of</li> </ul>
Restitution, Redistribution, and Consolidation	<ul> <li>decisions, improve information sharing, and build in incentives to ensure compliance.</li> <li>Comply with international standards. Build government capacity to adhere, as appropriate under national law, to international standards such as the International Convention on the Elimination of All Forms of Racial Discrimination, the International Covenant on Civil and Political Rights, the African Charter of Human and Peoples Rights, and the UN Voluntary Guidelines on Land Governance. Observe such treaties to ensure that compensation and restitution measures meet acceptable standards of equity, transparency, and respect for indigenous and vulnerable groups.</li> <li>Decentralize restitution. Restitute illegally appropriated land and mineral rights through local government and civil society collaboration, to overcome national government inaction</li> </ul>
Rights Delivery and Administration	<ul> <li>government inaction.</li> <li>Develop and support improved information management. Develop information systems accessible to national and local-level stakeholders. Establish protocols and standards to maintain and update titles when rights are transferred. Take advantage of new technologies, such as GIS and remote sensing, to simply and accurately capture and disseminate data on concessions, especially informal, unregistered mines.</li> <li>Encourage sharing of concessions and mining information. Establish information-sharing protocols between ministries that manage land and related resources to avoid overlapping land allocations and uses.</li> <li>Document mining rights. Document and record surface and sub-surface rights through participatory processes.</li> <li>Make mining records accessible. Establish and implement procedures to create and maintain mining cadasters publicly, with provisions for citizens who are illiterate or lack technical knowledge.</li> <li>Improve mining administration services. Develop and implement standardized and transparent processes for the application and approval of concessions, the demarcation of concession areas, recordkeeping, and mine inspections.</li> </ul>
Resource Use	Require and support EIAs. Require companies to develop and follow

	Weak Governance
Management	environmental monitoring and management plans based on independent ElAs conducted prior to the commencement of operations to protect the resource rights of surrounding communities from pollution. Fund ElAs for small-scale miners through mineral industry taxes.
	• <b>Create multi-stakeholder environmental management bodies.</b> Establish multi-stakeholder environmental management bodies with clear roles and responsibilities for all stakeholders in governance, mitigation, management, and environmental rehabilitation initiatives.
	• <b>Conduct integrated land use planning and zoning.</b> Balance local, regional, and national priorities in an integrated land use management process that engages all stakeholders, which negotiates competing interests as well as ecological and social constraints. Incorporate degrees of ecological sensitivity—areas in which environmental and social assessments indicate relatively relaxed rules, intermediate zones with rigorous conservation and mitigation requirements, and "no-go" areas off limits to mining.
	• Incentivize rehabilitation of mining sites. Assist government and communities to put in place incentives to encourage post-mining land rehabilitation, including provision of long-term surface rights for rehabilitated mining sites.

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## 3.0 INSECURE TENURE AND

		Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural Resources Management and Biodiversity Loss
INTERVENTIONS	Institutions and Governance						
	Legal and Regulatory Framework						
	Rights Awareness and Empowerment						
	Conflict and Dispute Resolution						
	Restitution, Redistribution, and Consolidation						
	Rights Delivery and Administration						
	Resource Use Management						

## CONSTRAINTS

## 3.1 LTPR ISSUE

Security of tenure is critical for the mining industry, often regarded as second only to geology when assessing the viability of new mining projects, whether small or large. Industrial mining is a high risk, capital-intensive

industry with long lead times between discovery and production. Companies rely on secure titles including transformation of an exploration license into a mining license to reduce risks and ensure that they can enjoy future revenue. Mining rights also need to extend for a sufficiently long period and be easily renewed to create incentives for companies to undertake such risks. Given this, mining companies often favor investments in countries in which governments promote secure tenure. However, the search for mineral wealth also raises questions of tenure security for members of communities living near potential and existing mines, whose rights to mineral, land, and natural resources may be transferred by governments to mining companies via concessions. Artisanal and small-scale miners may also lose their rights to larger operators, or may themselves use force or bribery to access mining areas and not recognize the rights of others. Land and natural resources may be destroyed or rendered useless through mining or pollution. When compensation, relocation, or restitution for the loss of land and resources is not made to the satisfaction of local communities and/or miners, the result can be tenure insecurity for local-level actors, and for the companies. Securing rights of artisanal and small-scale miners can provide an important means for strengthening local livelihoods, reducing poverty, and mitigating conflict. Securing rights of companies to mineral resources can provide the needed incentive for long-term investments, including compliance with environmental regulations, adoption of fair labor practices, and benefit sharing with local communities. In addition, enabling access to long-term surface and sub-surface rights to artisanal miners can reduce conflict, encourage improved mining practices, and rehabilitation of mining sites.

#### SUB-ISSUES

Legal contradictions between surface and sub-surface rights. In most countries, laws and regulations governing sub-surface rights allocate mineral resources to the state, even when exclusive surface rights are granted to private landholders. This results in legal and tenure insecurity for companies engaged in mining, artisanal and small-scale miners, and indigenous/resident communities alike unless government clearly identifies, adjudicates, and assigns rights in the process of granting a mineral concession. For example, land tenure laws and forestry laws and regulations may provide local communities, particularly indigenous groups, with rights to land and considerable decision-making power regarding how land is to be used. Conversely, laws on mining may grant all sub-surface rights to the state, without addressing how existing rights to land may be harmonized with the state's right to allocate mineral concessions. Because of the profitable nature of the minerals sector, government institutions may follow mining laws in practice while ignoring land tenure, forestry, and other laws. Communities and civil society institutions may take the government to court, hence creating uncertainty at all levels of the mining sector, or in the worst-case situation, resort to conflict.

**Contradictions between statutory law and customary tenure systems.** In many countries, statutory and customary land tenure systems have not been harmonized. Customary systems may grant local leaders authority to allocate land and mineral rights, but there may be lack of clarity on how state legislation interacts with these customary systems. Many governments explicitly outlaw artisanal and small-scale miners while others simply ignore their claims, creating tenure insecurity for them. Often, artisanal miners continue to stake their customary claims and come into conflict with governments and large mining operations; the productivity of both artisanal and small-scale miners and large operations is reduced as a result.

Forcible eviction of resident communities. Governments typically negotiate terms, grant concessions, and provide access to mining sites without informing or consulting local communities. The latter are often obliged to surrender land and water rights to a mineral company, but get little in return, whereas national government may gain substantial benefits. Communities and local governments may be unaware of statutory laws that protect their tenure rights. Governments and companies may call upon the military to expel local farmers and

other land users by force. Displacement of resident communities may result in landlessness, homelessness, loss of income, loss of access to commons resources (including rights to water, fisheries, grazing land, and forests), food insecurity, marginalization, and increased morbidity and mortality. Where compensation is provided to primary landowners, secondary right holders may receive little or nothing. Women responsible for collecting common property resources (water, firewood, and fodder for livestock) are often more affected by loss of access and less likely to receive compensation.

**Displacement of indigenous peoples.** While precise figures are unknown, studies suggest that a significant percentage of the world's remaining unexploited minerals, particularly ore deposits, lie under indigenous lands. Studies also estimate that by 2030, around half of all copper and gold will be mined on lands claimed by indigenous communities. Mining activities and associated displacement pose a significant threat to the livelihoods and basic survival of indigenous populations, perhaps more so compared to others who are part of the dominant culture. Mining activities can threaten indigenous peoples' sovereignty, leading to loss of rights to their lands and culture, and increase in exposure to new diseases. Many governments and companies lack the knowledge, ability, and communication skills (including language) to consult with these groups adequately.

**Insecurity of tenure for all stakeholders.** Governments will often grant overlapping exploration rights for the different mineral and natural resources that may exist in a particular site. This leads to tenure insecurity and conflict between land users. To avoid such conflict, government ministries should improve information sharing on rights, concessions, and land use. Tenure security will in turn increase incentives for land users to make long-term investments and comply with environmental regulations.

**Unclear and overlapping boundaries.** Public and private sector capacity to survey and demarcate mining concessions is often weak. Boundaries are often ill defined and create problems once they come into conflict with competing land uses and claims.

### 3.2 ILLUSTRATIVE INTERVENTIONS

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

	Insecure Tenure and Property Rights
Institutions and Governance	<ul> <li>Decentralize to lower levels of government. Decentralize government structures, roles, and responsibilities from national to regional, municipal, or local levels. Transfer administration of mineral rights, including monitoring and enforcement, to the lowest competent authority to speed license processing, ensure tenure security, and reduce conflict among stakeholders.</li> <li>Improve administration of mining rights. Ensure local authorities effectively coordinate and share information with higher-level institutions to keep national</li> </ul>

		Insecure Tenure and Property Rights
		rights and boundary information, taxation requirements, and other systems current.
	•	<b>Improve surveying capacity.</b> Ensure public and private sector surveyors are trained in how to complete quality surveys and demarcate mining activities to avoid
		conflict with other land users.
	•	Devolve mining rights to local communities. Empower local communities
		with mineral rights and seek their assistance in monitoring, implementation, and
		enforcement of law that secures the resource tenure of communities, small-scale
		miners, and mining companies.
	•	Support organization and strengthening of mining associations. Support
		creation of federations, associations, and cooperatives of artisanal and small-scale
		miners to strengthen their bargaining skills, negotiation power, communication, and technical capacity to secure tenure to mineral resources.
	•	Enforce mining contracts in concession areas. Responsible government
		agencies should ensure a system of monitoring and enforcement is in place before
		issuing mining contracts. Government agencies should ensure that these
		enforcement systems are implemented.
	٠	Strengthen corporate social responsibility. Instill ideas for corporate social
		responsibility and respect for customary land and mineral tenure within the mining
	•	sector. Seek assistance from an independent observer where necessary. <b>Target and stamp out corruption.</b> Put in place systems to address corrupt
	•	practices that lead to conflict and tenure insecurity by supporting transparency in
		government licensing and mining operations. Create opportunities for "whistle-
		blowers" to safely and anonymously report corruption within the cadastral office,
		local authorities, and traditional institutions.
	•	Harmonize national mining policy. Harmonize mining policies with other
		national priorities such as pro-poor policies and Millennium Development Goals to recognize and secure rights and needs of local communities.
	•	Reduce legal pluralism. Clarify and formalize the relationship between
		customary land and mineral rights regimes and statutory law, including stipulating
		when decisions under customary regimes are backed by the state, and when
		customary options must be exhausted before filing with the formal system.
	٠	Reduce contradictions between land and mineral laws. Review and harmonize
		land and mineral laws to remove conflicting clauses, provide mineral rights to
		landowners where appropriate, and allow exploitation of specified minerals for subsistence. Ensure clauses on expropriation promote fair/transparent compensation.
	•	<b>Promote formalization of mining rights.</b> Establish legal and regulatory
		framework for transparent licensing and incorporation of both companies and
Legal and Regulatory		artisanal and small-scale miners. Provide framework and support necessary for
Framework		incorporation of small and informal mining operations.
	•	Secure durable tenure for mining interests. Provide mining companies and
		artisanal and small-scale miners with secure and durable tenure, simplify procedures, reduce costs, increase accessibility, and remove unreasonable
		governmental discretionary powers.
	•	Protect rights of indigenous populations. For indigenous populations that
		reside within mining areas, there is a specific need to ensure that their land rights
		are protected. Ensure the legal framework protects ancestral domains and rights of
		indigenous peoples, and provides for due process and fair compensation when
	•	takings are made. Codify free, prior, and informed consultation. Organize and systemize in law
	•	and regulation the principles and procedures of free, prior, and informed
		consultation to enable communities to demand compensation for damages or a
		continuing share of the profits of resource extraction. Institutionalize their
		implementation and enforcement.

LAND TENURE AND PROPERTY RIGHTS MATRIX – MINERALS OVERLAY

	Insecure Tenure and Property Rights
	• Raise rights awareness among communities. Conduct public awareness campaigns among affected communities, civil society organizations, and artisanal and small-scale miners to spread accurate and reliable information on land and mineral law and opportunities to formalize rights, obtain legal assistance, or seek legal recourse. Ensure that groups advocating for indigenous groups and women receive and disseminate information to these segments of the population.
Pickts Awarapass and	• Raise rights awareness within government. Raise awareness among mining companies and all levels of government, and police and state security forces, regarding the rights of indigenous populations under international law, mineral rights of local communities, rights to secondary resources (pasture, water, and forests), and international law concerning rights to clean, potable water free of contamination, and other livelihood resources.
Rights Awareness and Empowerment	• <b>Conduct mining stakeholder forums.</b> Prior to granting any exploration rights, hold multi-stakeholder forums to negotiate and clarify land and mineral rights in concession areas. Actively create avenues for participation of customary institutions, women, and other vulnerable groups.
	• <b>Strengthen mediation.</b> Strengthen capacity of civil society organizations to facilitate advocacy by communities for law and policy reforms to secure land tenure in mining areas. Place special attention to strengthening indigenous, female, and vulnerable group leaders to effectively communicate, negotiate, mediate, and
	<ul> <li>advocate for their rights.</li> <li>Promote social impact monitoring and corporate social responsibility. Support mining company adoption of independent social impact monitoring and evaluation systems that give specific attention to rights of local communities, indigenous groups, women, and other vulnerable groups.</li> </ul>
	<ul> <li>Monitor mining disputes and conflict. Establish mechanisms to monitor conflicts and disputes between mining operations and resident communities, with special emphasis on vulnerable populations such as indigenous groups, women, and migrants. Maintain a national database on disputes that have been formally and informally resolved.</li> </ul>
Conflict and Dispute Resolution	• Strengthen legal recourse for small or artisanal miners. Strengthen the capacity of the judiciary, courts and magisterial systems to clarify and protect property rights for all citizens. Train national, traditional, and local authorities, and arbitrators in both formal and informal dispute resolution methods and opportunities.
	• <b>Support ADR.</b> Promote neutral third-party mediation or arbitration as a tool to manage mining-related conflicts. Emphasize inclusion of women, indigenous populations, and other vulnerable groups in formal and alternative dispute resolution.
	Offer legal aid. Make legal assistance accessible to members of affected communities. Train paralegals in land and mineral tenure laws and support their services, particularly in remote areas where local government bodies are difficult to access.
Restitution,	<ul> <li>Support artisanal and small-scale miner's associations. Support development of artisanal and small-scale miner's associations and provide them with legal and technical support, business planning, skills training, marketing and credit assistance.</li> <li>Institutionalize restitution and prompt, adequate, and effective</li> </ul>
Redistribution, and Consolidation	<b>compensation.</b> Establish and implement procedures to restitute original lands, resettle to equivalent lands, or otherwise compensate for lost rights to land and resources.
	• <b>Provide for fair and transparent compensation.</b> Set up clear, fair, and transparent systems of valuation and compensation for lands expropriated. Support training and certification to build capacity of independent professionals to

	Insecure Tenure and Property Rights
	<ul> <li>determine the market value of land, natural resources, buildings, and other property which must be compensated.</li> <li>Adhere to international standards. Ensure restitution of rights to indigenous communities according to international norms.</li> <li>Mainstream indigenous, women, and vulnerable populations and interests. Mainstream awareness of indigenous populations, women, and other vulnerable groups into all aspects of restitution, redistribution, and consolidation programs to ensure secure rights.</li> <li>Engage civil society. Build civil society capacity to monitor compliance with corporate social responsibility and negotiated compensation and restitution agreements.</li> </ul>
	• Formalize mining claims and concessions. Develop protocols and registries to clarify, demarcate, adjudicate, and record customary land rights and secondary rights of community residents and artisanal and small-scale miners in concession areas to prevent evictions and serve as a foundation for compensation and restitution negotiation. Publicly negotiate rights of different stakeholders, including secondary resource users such as women, mineral, and forest-dependent communities, and pastoralists.
Rights Delivery and Administration	<ul> <li>Demarcate concessions. Clearly mark boundaries of each concession area. Ensure the concession mapping process is highly transparent and participatory and includes customary land claims, mines of artisanal and small-scale miners, and secondary resource users.</li> <li>Create transparency in mining concessions and transactions. Strengthen institutions, protocol, and information management at both central and local levels to ensure transparency in the awarding and renewal of mining concessions, contracts and licenses to eliminate confusion and strengthen tenure security.</li> <li>Strengthen national coordination of central/local licensing offices. Create and/or strengthen national coordination of central and local levels information.</li> <li>Develop mineral information management systems. Develop information systems accessible to national and local-level stakeholders. Establish protocols and standards to maintain and update titles when rights are transferred. Take advantage of new technologies, such as GIS and remote sensing, to simply and accurately capture and disseminate data on geology and concessions, especially informal, unregistered mines.</li> <li>Integrate data systems. Where possible, unify mineral rights licensing system (including quarries and small-scale activity) into a single national database under the responsibility of one cadastral agency and make available to the public. Digitize existing paper documents, such as titles and contracts, and integrate into</li> </ul>
Resource Use Management	<ul> <li>centralized database.</li> <li>Provide security and infrastructure for resettlement and restitution. Provide necessary security conditions and complementary infrastructure, such as roads, access to water, and agricultural extension services to make new holdings safe and viable.</li> <li>Conduct participatory land use planning. Develop, implement, and monitor publically accessible integrated land use plans to clarify and secure tenure. Engage a broad spectrum of stakeholders, especially women and vulnerable populations, to ensure rights are protected and land use decisions are inclusive and participatory.</li> <li>Strengthen monitoring of mineral rights interventions. Establish multi-stakeholder institutions to monitor mining activities, and ensure compliance with laws and regulations, as well as prevailing land use plans. Use GIS and remote sensing technologies where appropriate. Seek participation from indigenous</li> </ul>

**Insecure Tenure and Property Rights** 

leaders, women's groups, and others in monitoring activities.

### 3.3 READINGS

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# 4.0 INEQUITABLE ACCESS

	CONSTRAINTS						
		Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural Resources Management and Biodiversity Loss
	Institutions and Governance						
<b>N</b> S	Legal and Regulatory Framework						
<b>INTERVENTIONS</b>	Rights Awareness and Empowerment						
	Conflict and Dispute Resolution						
INTE	Restitution, Redistribution, and Consolidation						
	Rights Delivery and Administration						
	Resource Use Management						

# CONSTRAINTS

# 4.1 LTPR ISSUE

Mineral resources can provide poor countries with large revenue streams that help improve economic growth, livelihoods, and income. However, recent studies show that mining is more likely to exacerbate than alleviate

poverty, particularly in situations where individuals or communities relying on mineral resources for livelihoods find their access restricted or fail to reap potential benefits when access is denied. Governments and companies also face insecure access to mineral resources when mineral deposits fall on protected ancestral lands, resources lie in remote areas requiring extensive road and physical infrastructure development (often across customary lands), or when government and companies fail to fully negotiate mutually beneficial contracts and enforce them. Studies also suggest that mineral-dependent states have significantly higher levels of inequality than other states with similar income levels. The more states rely on mineral exports, the smaller the share of income that accrues to the poorest 20 percent of the population. Centralized control of mineral rights by government authorities, often asserted through unilateral power and force combined with scale efficiencies in mineral extraction that favor large companies, can create or reinforce inequitable access to mineral extraction, and the benefits derived therefrom. This situation is more common in the developing world and in situations where weak human capital, poor governance, weak institutions, asymmetric information, and lack of financial capital can undermine the capacity of local communities and mining firms to access and develop mineral resources or mine them efficiently. According to the International Labor Organization (ILO), artisanal and small-scale miners are responsible for approximately 15-20 percent of the world's non-fuel mineral production. Women account for 60 percent of all artisanal miners in Africa, and almost a third of all artisanal miners worldwide. The tenure and livelihoods of these artisanal and small-scale miners are all too frequently threatened when large companies enter the market. Mining operations, backed by the state, have also gained control of, or polluted land and critical natural resources, such as water that deprive local populations of essential resources critical to their livelihood.

#### SUB-ISSUES

Dispossession of ancestral lands by the state and mining companies. Large-scale state or rebel-backed mineral exploitation can result in the dispossession of land and mineral resources. As mining operations are established, states usually claim exclusive access and control, failing to recognize customary rights. Governments may also fail to adequately consult or inform local stakeholders when concessions are granted to large mining companies; the international standard of free, prior, and informed consultation is rarely adhered to in its entirety. The large size of many mining concessions can mean key natural resources or culturally significant areas become unavailable to local people. While some compensation may be provided to primary landowners, secondary rights holders often receive little or nothing. In some cases, customary leaders may be corrupted, so that, while claiming to negotiate on the behalf of the wider community, they receive personal payments or incentives in return for agreeing to a very disadvantageous settlement for the community. Displacement may result in landlessness, loss of income, and loss of access to common pool resources including rights to water, fisheries, grazing land, and forests. Indigenous populations may be affected more than others who are part of the dominant culture, as mining can threaten their sovereignty and culture, and increase exposure to new diseases. Mining operations often also increase competition for local land and natural resources because migrant labor arrives from other regions. As well, after mining operations have closed, the land may not be rehabilitated and remains unsuitable for cultivation.

**Marginalization of artisanal and small-scale miners.** There is emerging consensus that artisanal and small-scale mining activities can play a vital role in local livelihood and employment, and contribute to development goals when they are officially recognized, regulated, and supported. Increasingly governments are making efforts to recognize rights of artisanal and small-scale miners legally, but major challenges remain. The size of the concessions granted to them is small, sometimes limiting their ability to attain efficiencies of scale in mining or processing. Licenses and concessions granted to artisanal and small-scale miners are often non-transferable. The duration of mineral rights for most of these miners is usually very short with no

guarantee for renewal. Given these restrictions, miners may have few incentives to formalize their claims. Investors too have few incentives to support artisanal miners whose claims, formal or informal, are tenuous. Most artisanal and small-scale miners do not have access to adequate technology, resulting in production of impure mineral products that command low market prices. They may have limited access to information regarding concessions, laws, and policies, as such information is only available in central locations (such as in major cities) and may only be available in certain languages (e.g., Spanish, French, or English) rather than in local languages. In some countries, the formal incorporation of more advanced small-scale mining operations has allowed them to expand through the mobilization of capital and joint ventures with larger companies.

**Process for legalization of artisanal mining rights not compatible with local contexts.** Processes, accessibility, and costs for legalization of artisanal mining activities are not compatible with the incomes and resources available to local populations, therefore reducing incentives for legalization and access to formal mineral markets.

**Inequities in benefit sharing.** Central and regional governments get tax and royalty revenues from mining companies but often fail to compensate resident communities. When governments do provide compensation, it is often inequitably distributed, and may exacerbate existing inequalities. Typically, primary rights holders, such as settled farmers, are compensated while secondary rights holders, such as pastoralists, receive no compensation. Meanwhile, compensation or revenues received by communities may be distributed unfairly by customary chiefs who favor some community members over others. Mining often places obstacles for women in pursuing other economic and subsistence activities such as farming, or harvesting of natural resources for subsistence or commercial use. Yet they may not receive funds from the benefit-sharing agreements negotiated. Governments should be encouraged to be more transparent in the process of granting concessions, and more inclusive in determining and engaging rightful beneficiaries and stakeholders when designing benefit-sharing plans.

# 4.2 ILLUSTRATIVE INTERVENTIONS

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

	Inequitable Access to Minerals
Institutions and Governance	<ul> <li>Decentralize government structures. Decentralize government roles and responsibilities from national to regional, municipal, and local levels. Transfer administration of mineral rights, including monitoring and enforcement, to the lowest competent authority to ensure equity in processing, and reduce conflict between different stakeholders.</li> <li>Strengthen national coordination of central/local licensing offices. Create and/or strengthen national coordination of central and local licensing offices; ensure procedures are homogenous, correct, and legal; implement security measures to</li> </ul>

		Inequitable Access to Minerals			
		prevent unauthorized alteration of license information.			
	•	Support watchdog groups. Put in place systems to address corrupt practices that			
		facilitate and reinforce inequities in sector in relation to land and mineral rights.			
	•	Encourage corporate social responsibility. Support robust corporate social			
		responsibility policies in regard to fair and equitable benefit distribution into the			
	•	earliest stages of mine design and operation. Harmonize national mining policy. Explicitly recognize potential of artisanal			
		mining sector to contribute to poverty reduction. Harmonize mining policies with			
		other national priorities (e.g., pro-poor policies, Millennium Development Goals).			
	•	Enact policy that empowers artisanal miners. Enact policies that facilitate the			
		legal sourcing and export of minerals by artisanal and small-scale mining actors.			
	•	Clarify legal definitions of mineral rights. Correct unclear or inaccurate legal			
		and policy depictions of artisanal and small-scale mining as a basis for more equitable			
		adjudication of claims. Promulgate clear and accurate definitions.			
	•	Recognize and formalize customary rights to mineral holdings. Support			
		development of laws that prevent loss of access to land and related natural			
		resources including minerals, timber and non-timber forest products, and water unless holders receive due process and fair and adequate compensation.			
	•	<b>Reform laws to ensure equity.</b> Review and revise all laws and regulations related			
	Ť	to land and mineral resources to ensure local communities, indigenous groups,			
		women, and other vulnerable groups have equitable access to land and minerals.			
		Strengthen rights of landowners, tenants, sharecroppers, and artisanal and small-			
		scale miners to prevent unregulated displacement. Base reforms on public input and			
Legal and Regulatory		an understanding of customary practices.			
Framework	•	Promote equitable benefit sharing. Review and develop legal and policy			
		frameworks for benefit sharing of mineral resource revenues with local			
		communities.			
	•	<b>Defend rights of indigenous groups.</b> Reform legislative framework to meet international standards regarding protection and restitution of the rights of			
		indigenous populations to land and mineral resources.			
	•	Codify free, prior, and informed consultation. Recognize. in law. the principle			
		of a local community's right to free, prior, and informed consultation to			
		development of concessions. Introduce regulations for timely and sufficient			
		compensation for those lawfully displaced by takings.			
	•	Safeguard procedural rights. Recognize, in statutory law, right to participate in			
		decision making about mining, right to information, and right to access justice.			
	•	<b>Require corporate transparency.</b> Develop policy requiring companies to monitor and report on social impacts of their operations, as well as finance			
		independent evaluations targeting impact on women and vulnerable groups.			
	•	Impose time limits to curb land hoarding. Establish a legislative framework to			
		require commercial operators to complete prospecting within reasonable timeframe			
		and relinquish less profitable portions to artisanal or small-scale sector.			
	•	Raise mineral rights awareness. Inform artisanal and small-scale miners and			
		local communities about mineral deposits; proposed mining concessions; and their			
		rights to resources, benefit sharing, compensation, and relocation.			
	•	Spread legal literacy within government. Improve understanding of customary			
<b>Rights Awareness and</b>		and statutory laws regarding access to and governance of mineral resources among local and national government officials, including members of the judiciary.			
Empowerment	<ul> <li>Strengthen community voice. Build capacity of local communities to particip in decision making and advocate for access to mining in their areas. Provide</li> </ul>				
	accessible forums for dialogue and negotiation.				
	•	Strengthen civil society advocacy. Strengthen independent and credible civil			
		society actors advocating in support of land and mineral rights, and equitable benefit			

	Inequitable Access to Minerals
	<ul> <li>distribution of mining revenues. Support efforts to monitor and sanction the activities of companies and governments.</li> <li>Empower small enterprises. Support small and informal mining operations, including technical, marketing, and business training; creation of business association</li> </ul>
	and credit opportunities. Where suitable, promote mutually beneficial corporate- community partnerships between small-scale operators and large companies.
	• Enable early dispute detection and resolution. Build civil society capacity to
	<ul> <li>identify disputes between large mining operations, artisanal and small-scale miners, and local communities; resolve at early stages. Ensure disputes regarding women's access to livelihood resources are identified and addressed early.</li> <li>Expand ADR. Create and strengthen institutions for ADR and manage potential</li> </ul>
	conflicts regarding equitable access to mineral rights and benefit distribution
	between communities/artisanal miners and companies, and within local communities
Conflict and Dispute Resolution	• Increase access to the courts. Strengthen capacity and reach of judiciary to mediate mineral rights and uphold principles of equity and efficiency concerning mineral resource access and use.
	Provide legal aid. Facilitate access to formal and informal bodies that preside ove mineral-related disputes through support for community paralegals and subsidized
	legal assistance. Support indigenous, women's, and vulnerable population groups.
	Reduce bias in adjudication of mining claims. Promote inclusion of indigenous
	representatives, women, and other vulnerable groups in the judiciary and ADR bodies through education, training, and other measures to tackle bias in mineral
	resource access and use, for both subsistence and commercial needs.
	• Expand artisanal and small-scale sector mining. Increase area to which local
	communities have secure access through widespread creation of artisanal and small
	scale miners associations. Establish government unit dedicated to supporting
	artisanal and small-scale miners. Set appropriate tax and fee rates levels to their
	scale to facilitate their inclusion in the formal system.
	Review concessions for illegal takings. Review titles and mineral concessions to
	identify illegal or unfair aspects. Nullify illegal or unjust concessions and redefine
	boundaries of these concessions through transparent procedures.
	• <b>Promote equitable benefits sharing.</b> Employ transparent negotiated process supported and enforced by state to ensure local rights holders derive adequate
	benefits from mining resources and contracts with mining companies. Engage neutra
	third parties to overcome asymmetries in power and ensure all parties comply with
Restitution, Redistribution, and	agreements. Reinforce systems of accountability between local leaders and their constituents, particularly women and other vulnerable groups.
Consolidation	• Restitute rights of artisanal and small-scale miners. Design, implement, and
Consolidation	enforce regulations supporting transparent and equitable process for negotiating
	restitution of artisanal/small-scale miners deprived of rights to land and resources.
	Mainstream gender, indigenous populations, and vulnerable groups into all aspects or restitution, redistribution, and consolidation programs.
	Strengthen artisanal and small-scale miners associations. Support
	formation of associations and marketing cooperatives that enable miners to gain
	access to financial capital and know-how, achieve more competitive pricing of input
	and mineral sales, and take advantage of chains of custody and markets that improve
	competition, incomes, profits, and livelihoods.
	<ul> <li>Provide the means for resettlement and compensation. Where necessary,</li> <li>develops implement and manifor policy and processes to engage all stakeholders in</li> </ul>
	develop, implement, and monitor policy and processes to engage all stakeholders in assuring resettlement to alternative lands and compensation is prompt, adequate,
	effective, and equitable; and reaches the intended beneficiaries, not the elites.
	Promote equity in the artisanal mining sector. Strengthen artisanal and
Rights Delivery and	small-scale miners associations, and promote practices that reinforce equitable
	sinal scale millers associations, and promote practices that remote equilable

	Inequitable Access to Minerals
Administration	<ul> <li>distribution of mineral rights between and within local communities. Provide equitable representation by women and other vulnerable groups.</li> <li>Formalize customary land and mineral claims. Clarify, document, adjudicate, and formalize customary land rights of communities, and artisanal and small-scale miners residing in and around potential mining areas. Protect common property and adjudicate secondary resource rights, including those of indigenous groups, women, pastoralists, and others through participatory processes. Adapt concession size, duration, issuance, and transfer procedures to their special needs.</li> <li>Empower women in mining. Provide technical training, facilitate the creation of women miners associations or cooperatives, and develop credit, such as revolving funds, for female-owned businesses. Level the playing field to allow women-owned operations better access to mining concessions.</li> <li>Strengthen mineral cadaster systems. Establish and institutionalize procedures to create and maintain accurate mining cadasters publicly, with provisions for citizens who are illiterate or lack technical knowledge.</li> <li>Streamline formalization of mineral rights and mining concessions. Simplify administrative procedures and maintain affordable fees for purposes of</li> </ul>
	<ul> <li>applying for and receiving rights to mineral resources by artisanal miners.</li> <li>Promote transparent transactions. Strengthen institutions, protocols, and information management at both central and local levels to ensure equity in the award and renewal of mineral concessions, contracts, and licenses.</li> </ul>
	<ul> <li>Develop integrated land use plans. Develop, implement, and monitor land use plans that balance and accommodate the needs of all stakeholders and sectors. Partially support plans through taxes and fees on mining. Designate specific areas for artisanal and small-scale mining.</li> <li>Develop EIAs. Develop and enforce EIA requirements adapted to the capacity of small-scale mining operations so that environmental services vital to community livelihoods are protected.</li> </ul>
Resource Use Management	<ul> <li>Strengthen monitoring of land and mineral use. Engage local communities in monitoring of land and mineral resource use, and ensure compliance with laws and regulations as well as land use plans.</li> <li>Develop rehabilitation initiatives. Work with mining companies to ensure rehabilitation plans are fully developed and implemented. Allocate benefits to resident communities for meaningful participation in these efforts.</li> <li>Promote local participation in resource use management. Require companies to provide financial support for participatory decision making, land use planning, and monitoring activities. Actively seek participation from resident communities, women's groups, indigenous leaders, and others.</li> </ul>

# 4.3 **READINGS**

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# 5.0 POORLY PERFORMING

					-	
	Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural Resources Management and Biodiversity Loss
Institutions and Governance						
Legal and Regulatory Framework						
Rights Awareness and Empowerment						
Conflict and Dispute Resolution						
Restitution, Redistribution, and Consolidation						
Rights Delivery and Administration						
Resource Use Management						

# CONSTRAINTS

# 5.1 LTPR ISSUE

**INTERVENTIONS** 

Relations of power strongly influence mineral markets. A handful of companies and individuals dominate mineral export in most countries. Elite dealers and middlemen working with government officials take advantage of the poorly regulated, corruption-riddled market through tactics that include price fixing and gouging, fencing, and smuggling. Poorly functional information systems obscure the true value of minerals, and small-scale producers and collectors receive unfairly low prices. The absence of accurate mineral price information is also a factor in the sale of land in which minerals are found. In a well-functioning market, prices are clear and responsive to movements in supply and demand, and the value of minerals is well understood and finely honed by competition and good communication networks. The big problems lie at the bottom end of the value chain, where corrupt governments limit access to information or where people are too poor to have good access to up-to-date information, or lack market power to compete.

Residents displaced by mining, unaware of the true value of their lands, are often under-compensated. Corruption originating in mineral markets not only reduces the state's capacity to collect fees and taxes, it may also weaken government capacity and trust beyond the sector. In terms of corruption involving foreign direct investment, the extractive industries sector (which includes mining, gas, and oil production) is more often the subject of international anti-bribery enforcement actions than any other sector. While there is little hard data on the extent of corruption, it is clear that the allocation of concessions to large mining firms can involve millions of dollars and unscrupulous dealings. In recent years, the rising prices for many minerals such as gold have encouraged multinational mining companies to invest in countries that are prone to such corruption.

During the exchange and transportation of minerals within the country of origin—for example, between the mine, processing facilities, certification system, and mineral dealer's offices—illegal fees and bribes may be demanded or offered. The remote location of many mines, far from administrative and police headquarters tends to facilitate corruption. Although the amounts of money involved in such individual transactions may be relatively small, the overall impacts on trade can be significant. This is especially the case in countries which are a source of "conflict minerals", where attempts to implement the Kimberley Process may be seriously undermined by corruption. The cumulative cost of corruption means that transaction costs between buyer and seller in the market effectively limit market transactions, lower the price of minerals that small miners receive, and reduce the investment value of people and firms engaging in licit transactions. Corruption also discourages the reinvestment of profit in technological improvements, which could further increase production and/or reduce environmental and social impacts of mining.

#### SUB-ISSUES

Power relations and criminal elements disadvantage small-scale miners. Markets for high-value minerals are often highly skewed, favoring elite buyers or middlemen rather than miners. Middlemen often control mineral markets and small-scale miners have difficulty finding adequate markets for their minerals, or receive very low prices. At the broadest possible scale, good governance at the local level—such as effective investment of local taxes in infrastructure, transport networks, and other public goods—can help reduce inequalities in market access as can educating miners on the true value of their resources. At the micro scale, the bargaining power of smaller operators can be improved through formalization of their property rights (as tenure security to their mines allows them a more secure bargaining position) and effective regulation of middlemen can increase competition by reducing corruption and intimidation, hence leading to fairer market prices. In areas of conflict, bandits and rebels sometimes covertly supported by government control access to markets. Transnational organized crime syndicates also control portions of the international market for certain minerals. Smuggling of minerals, which is often conducted by informal or formal, small- or large-scale

organized groups—without the knowledge of the government—may also be facilitated by corrupt customs officials. This also introduces a market bias at the national and regional levels.

Land market speculation. Land markets around areas thought to contain minerals may become highly volatile due to well-funded companies acquiring concessions and building housing and roads to service the mining site. Rumors or perceptions of mineral wealth tend to fuel speculation and land grabs. Tenants and sharecroppers will lose out as agricultural land is purchased for speculative purposes. Due to lack of market information, or weak bargaining position, some sellers may engage in distress sales. Land prices may be further driven upward by competition between companies for a particular mineral, yet communities may be compensated at a rate that reflects a statutory set land price. When alternative land is not provided, community members are unable to afford to buy other land in the same area, leading to landlessness and migration. Some landowners may be forced out through intimidation. Overall, there may be increased risk for land disputes to multiply.

**Inability of artisanal miners to access mineral markets.** A concentrated or cartelized market for minerals introduces distortions that artificially depress prices received by artisanal and small-scale miners. Cooperatives of artisanal miners exist in some countries, yet they are often controlled by political figures and part of broader exploitative socio-political structures which limit their capacities to organize and demand fair prices. Poor mineral collection methods employed by artisanal miners result in low-quality mineral products that fetch low market prices. While many countries have shown interest in improving the technology used by small-scale miners, emphasis has tended to be placed on improving productivity, ensuring health and safety standards and minimizing environmental impact. However, not enough support has been provided to improving the quality of the output or in promoting value-added activities. More secure rights to mineral concessions would encourage greater investment in technologies which increase the quality of the mined material, and would encourage artisanal miners to take a longer-term sales strategy, rather than selling rapidly due to fears that access to mineral-rich areas may be lost.

# 5.2 ILLUSTRATIVE INTERVENTIONS

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

	Poorly Performing Mineral Markets
Institutions and Governance	<ul> <li>Decentralize regulation of land markets. Decentralize regulation of land sales to local governments, and improve market information and transaction records. Capture and formalize informal land transactions by clarifying and consistently applying simplified procedures for leasing and selling of land for mining.</li> <li>Monitor and prosecute corruption. Build government technical capacity to identify corruption. Establish simple, standardized, and transparent tax and customs procedures. Collaborate with importing governments to verify taxes were collected.</li> <li>Eliminate protection that unfairly favors large corporate interests.</li> </ul>

	Poorly Performing Mineral Markets
	<ul> <li>Identify and eliminate impediments to fair and equitable mineral trade such as subsidies and trade barriers that favor large companies. Simplify and standardize cross-border trade regulations and licensing procedures to reduce delays, and increase predictability of costs to traders.</li> <li>Monitor supply chains to promote licit sales. Encourage companies in importing countries to conduct proper due diligence of their supply chains when sourcing mineral inputs to minimize risk to their corporate reputation.</li> </ul>
	<ul> <li>Promote transferability of mineral rights. Establish legal and regulatory framework for trade in mineral rights to facilitate access to credit by rights holders, such as artisanal and small-scale miners.</li> <li>Enforce reporting of mineral transactions. Implement and enforce regulations requiring reporting by licensed mineral dealers and brokers on minerals</li> </ul>
Legal and Regulatory Framework	<ul> <li>Promote equity in land markets in mineral-rich areas. Enact laws and promulgate implementing regulations to promote and protect the efficient performance of land markets, and assure equal opportunity for all citizens and equal protection of both formal and customary legal systems. Secure rights of</li> </ul>
	<ul> <li>communities leasing land, or losing land to concessions.</li> <li>Enable community governance of mining concessions. Create enabling legal and institutional framework for local communities to grant and manage licenses to mining operations to exploit their common natural resources and land.</li> </ul>
Rights Awareness and Empowerment	<ul> <li>Strengthen transparency in mineral sales and transmission of price information. Publicize prices minerals are sold to importing countries; conduct auctions with reputable buyers periodically; regularly audit accounts of exporting agencies; and conduct workshops on valuation in mining areas to provide artisanal and small-scale miners with a better knowledge of true value of their product.</li> <li>Raise legal awareness. Raise awareness of laws and regulations concerning markets in minerals, and land and mineral rights.</li> <li>Widely disseminate market information. Increase access to information on land availability, value, sales, and leasing in areas affected by mining. Create a formal land valuation process. Increase access to accurate market information and publicize results of mineral commodity chain analyses to limit information asymmetries and financial exploitation.</li> <li>Train artisanal and small-scale miners in mineral marketing. Enable small operators to move up the commodity value chain through training in management, minerals valuation, processing techniques, and value added.</li> <li>Disseminate reliable, current information on mineral prices and financing opportunities. Broaden access to markets in minerals and mineral rights through the dissemination of reliable, current, mineral price information to artisanal and small-scale miners and communities; and through improved financing through loans, mobile commercial banks, and cooperative banks.</li> <li>Provide women with business skills and financial literacy. Although women provide much of the labor in artisanal and small-scale mining operations, they are not able to participate equally in other aspects of the value chain. Provide women mineral and land market information, as well as training in financial literacy and negotiation skills to help them move up the value chain.</li> </ul>
Conflict and Dispute Resolution	<ul> <li>Enable early dispute detection and resolution. Build civil society capacity to identify disputes between large mining operations, artisanal and small-scale miners, and local communities; resolve at early stages. Ensure disputes regarding women's access to livelihood resources are identified and addressed early on. Build government and private sector awareness of potential conflicts associated with land and mineral markets, and options for conflict resolution.</li> <li>Provide legal aid. Facilitate access to formal and informal bodies that preside over</li> </ul>

	Poorly Performing Mineral Markets
	<ul> <li>mineral-related disputes through support for community paralegals and subsidized legal assistance. Support indigenous, women's, and vulnerable population groups.</li> <li>Reduce bias in adjudication of mining claims. Promote inclusion of indigenous representatives, women, and other vulnerable groups in the judiciary and ADR bodies through education, training, and other measures to tackle bias in mineral resource access and use, for both subsistence and commercial needs.</li> </ul>
Restitution, Redistribution, and Consolidation	<ul> <li>Enable equity sharing arrangements. Provide training and information to encourage arrangements between large companies and small-scale miners that help the latter gain access to finance and mineral markets. Such arrangements may include out-mining schemes, wage labor in the company, or development of miner associations or trusts.</li> <li>Enable consolidation (pooling) of mineral rights. Set legal and institutional framework to enable mining cooperatives (specializing in exploitation or marketing of minerals) to consolidate mineral rights and take advantage of economies of scale and improve technical resources.</li> </ul>
Rights Delivery and Administration	<ul> <li>Prioritize and target government regulation. Centralize monitoring and recordkeeping of mineral sales at the national level, while assigning actual data collection to lower levels.</li> <li>Strengthen mineral markets and the chain of custody. Improve land demarcation, mapping, and development of concession records and encourage land markets in mining areas. Improve land market information, limit extra-legal transfers, and record and register land transfers.</li> <li>Formalize mineral markets. Simplify licensing procedures for dealers and traders. Establish local marketing committees to ensure efficient operation of mineral markets and to maintain records. Improve transparency and traceability along the mineral commodity chain. Encourage companies to publish all payments to governments following EITI standards.</li> <li>Encourage competition. Enable and facilitate the creation of competitive mineral markets close to mining areas. Increased competition will lead to more equitable pricing and, over time, provide smaller operators with financial means to formalize their mineral rights.</li> </ul>
Resource Use Management	<ul> <li>Employ land use planning. Ensure that mining is not zoned with other uses. Where mining and other uses do overlap, identify potential conflicts. Inform all stakeholders in land where mining concessions are created of legal provisions associated with those concessions.</li> <li>Support land use zoning. Demarcate mining areas. Exclude highly sensitive ecosystems and watersheds from mining, and specify and enforce sustainable levels of extraction elsewhere. Ensure that zoning procedures are transparent and free from corruption or excessive political influence.</li> </ul>

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# 6.0 UNSUSTAINABLE NATURAL RESOURCES MANAGEMENT/

	CONSTRAINTS					
	Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural Resources Management and Biodiversity Loss
Institutions and Governance						
Legal and Regulatory Framework						
Rights Awareness and Empowerment						
Conflict and Dispute Resolution						
Restitution, Redistribution, and Consolidation						
Rights Delivery and Administration						
Resource Use Management						

### CONSTRAINTS

**NTERVENTIONS** 

# 6.1 LTPR ISSUE

Unlike forestry operations, mines require supporting infrastructure such as roads and electricity, processing facilities sometimes located far from the extraction site, and waste disposal areas. As a result, the environmental impacts of mining can extend well beyond the concession area. Both surface (e.g., open-pit), and sub-surface mining (e.g., drift or shaft) lead to wide-ranging and severe environmental impacts. Yet governments often inadequately consider these externalities when granting mineral rights. Governments also lack the capacity or incentive to enforce environmental regulations. Meanwhile, local communities bear long-term consequences of environmental degradation while receiving little or no compensation (unless directly inhibiting mining activity). These communities may relocate to adjacent and less-affected areas on their own initiative, or gradually gravitate to nearby towns and urban areas to avoid exposure to toxins.

Poorly regulated mining and associated infrastructure development can cause fragmentation of natural ecosystems, loss of biodiversity, and irreversible damage to arable land, entire watersheds, vast areas of dense forests, wildlife, and hunting and fishing grounds. Mining wastes contaminate soil and water and expose resident communities to disease, health hazards, and livelihood loss. Meanwhile, positive economic benefits often accrue elsewhere. Small-scale miners contribute to greater environmental cost per unit of output than large-scale enterprises, key concerns being mercury and cyanide pollution, river siltation and damage in alluvial areas, dumping of tailings and effluents into rivers, erosion damage, and deforestation.

While figures of environmental degradation from international mining operations are unavailable, data on impact of surface mining in the US are instructive. Until the Surface Mining Control and Reclamation Act (SMCRA) was passed in 1977, data show that over 264,000 acres of cropland, 135,000 acres of pasture, and 127,800 acres of forest had been lost. Over 29,000 acres of reservoirs and impoundments had been seriously damaged. More than 11,000 miles of streams had been polluted by sediment or acid drainage from surface and underground mining combined. Surface mining had caused at least 3,000 miles of landslides and left 34,000 miles of highwalls. Two-thirds of the land mined for coal was not reclaimed, and the cost of reclamation was estimated at \$10 billion to \$35 billion. While some of the worst abuses have been addressed by SMCRA, problems remain in the US. In countries where mining is largely unregulated, the scale of environmental degradation is potentially enormous.

### SUB-ISSUES

**Biodiversity loss.** According to a World Resources Institute 2003 analysis, three-quarters of active mines and exploratory sites overlap with areas of high conservation value and areas of high watershed stress. Through its life cycle, mining indirectly and directly affects biodiversity in significant ways. Large-scale activities involve clearing of land and forests for the construction of access roads, exploration drilling, mine site establishment, construction of workshops and residential quarters, construction of roads and railroads, and construction of tailings impoundments. The resulting impact on biodiversity is widespread, ranging from alteration of ecological processes and disruption of ecosystems, fragmentation of ecological habitats, decline in local plant diversity, and loss of endangered and endemic species of flora and fauna. Mining may also interrupt hydrological regimes and alter aquatic ecosystems in the topsoil. The impact of mining on weather disturbances and pests can make ecosystems and species more vulnerable and less resilient to change. Dust from blasting and smelter emissions contaminate the air, contributing to loss of habitat or species. An increase in human population in and around mining sites can further increase land clearing, hunting, and water extraction at unsustainable levels.

**Pollution from improper toxic waste and wastewater disposal.** Acid drainage and dumping of waste and chemicals used for processing have serious implications for toxicity and loss of fish and endangered aquatic species. Accidental spillage of fuel oil or other hazardous construction materials causes extensive and unanticipated pollution of air, water, and soil. Mine closures create issues of long-term waste storage, contributing to soil and water contamination. Artisanal and small-scale mining contributes heavily to mercury pollution, dumping of tailings and effluents into rivers, thereby affecting water quality and stream flow. Furthermore, improper construction of tailing dams and inadequate tailing management result in toxicity of soil and water, sedimentation, and river siltation and erosion damage.

Adverse local environmental health impacts. Governments often see mining as an activity of unequivocal public interest; however, communities residing close to the resource often suffer most of the negative impacts and see few of the benefits. Mining activities expose local populations to health problems, including HIV/AIDS, tuberculosis, malaria, cholera, dysentery, and diarrhea. This is in part due to occupational health hazards, poor sanitation, and lack of access to measures for protection and treatment. These issues can be exacerbated by the lack of social and physical infrastructure to manage a growing and transient population which must often reside in difficult-to-reach locations.

# 6.2 ILLUSTRATIVE INTERVENTIONS

The range of possible interventions relevant or applicable to this particular issue constraint can be quite broad depending on circumstances, and the need in any policy context to carefully adapt, target, sequence and nuance interventions according to institutional context and need. The interventions cited below are thus generalized and illustrative. The reader is further encouraged to review interventions for other constraint categories as well as a single intervention can be relevant to multiple constraints, particularly in contexts when multiple constraints across columns of the matrix are present or when of bundle of interventions across rows is required. Issues and interventions should thus be addressed holistically rather than concentrating on a single column or row.

	Unsustainable Natural Resources Management and Biodiversity Loss
	• Designate and strengthen appropriate regulatory body(ies). Designate an appropriate regulatory body to enforce monitoring of mining operations and mining-related activities. Strengthen its capacity in planning, prevention, monitoring, and management for sustainable natural resource use and biodiversity conservation in and around mining areas. Assist clarification and assignment of monitoring and enforcement responsibilities down to the local level.
Institutions and Governance	• Strengthen local institutional capacity. Strengthen local-level institutions such as community groups, and nongovernmental organizations in planning, monitoring, and management of biodiversity and natural resources in and around mining areas.
	• Establish forums and joint management committees. Establish joint management committees for planning, monitoring, and enforcing environmental regulations and natural resource management plans. Include staff of appropriate government agencies (e.g., forestry and protected areas), mining companies and artisanal and small-scale miners, leaders of local communities and vulnerable populations. Support forums to address environmental impact of mining.
	• <b>Support civil society watchdogs.</b> Strengthen nongovernmental organization capacity to identify, assess, and mitigate environmental impacts.
	Develop communication systems to disseminate mining and mineral

	Jnsustainable Natural Resources Management and Biodiversity Los
	<b>information.</b> Ensure mining cadasters and related concessions consider and do not conflict with protected areas and other sensitive ecosystems.
	Harmonize legal codes related to land, minerals, and other natural
	<b>resources.</b> Identify and eliminate contradictions between mining laws and policies and those related to other areas, such as biodiversity conservation, forestry, wate and land tenure.
	<b>Strengthen customary rights.</b> Recognize, in law, customary ownership and management of ecosystems that provide services such as carbon sequestration, provision of clean water, continued biodiversity, and ecotourism. If necessary, create easements to ensure , rights to water (e.g., for basic needs) are not impede
Legal and Regulatory Framework	by land ownership issues (e.g., where water sources are situated on private land). <b>Strengthen environmental regulation.</b> Clarify, establish, and enforce legal and regulatory frameworks that minimize environmental impact of mining operations within the mining site, in the larger concession area, and the broader area of influence such as affected water courses. Adopt international conventions on biodiversity and protected areas. Focus on issues particular to the mining sector, such as use of particular chemicals in mineral prospecting and processing, but link to general environmental standards and monitoring practices, such as water qualit indicators and monitoring practices, such as water qualit
	<ul> <li>indicators and monitoring methods.</li> <li>Establish or update mining regulations. Revise regulations to reflect best current technical knowledge for sustainable mining, mitigation and management of mining impacts, and post-mining disposal of waste and rehabilitation. Such action will increase opportunities for restitution of lands to local communities once mines are closed.</li> </ul>
	<ul> <li>Promote corporate social responsibility and monitoring for compliance</li> <li>Engage companies in a participatory and public process to develop biodiversity</li> <li>policy statements in compliance with environmental laws, as well as policies on</li> <li>protection of communities around mining areas from environmental hazards.</li> <li>Ensure that mining companies engage with communities which have convincing</li> <li>customary or informal claims to land and resources, not just formal legal title.</li> </ul>
	Promote environmental awareness. Raise awareness of environmental and
	natural resource impact of mining operations among all stakeholders at national and local levels. Promote cost-effective strategies for avoiding or mitigating negative impacts on ecosystems and human health.
Rights Awareness and Empowerment	Raise mineral rights awareness. Raise awareness in local communities and among women and vulnerable populations of their rights regarding environmental restoration and rehabilitation, as per the natural resource management plans developed for specific mining activities.
	Support civil society groups. With revenues generated from mining, support
	nongovernmental organizations in mitigating and managing environmental impacts.
	Monitor environmental disputes. Put in place mechanisms for identifying and monitoring disputes stemming from the environmental impacts of mining operations on resident communities.
Conflict and Dispute Resolution	Improve dispute resolution. Strengthen mechanisms for rapid resolution of disputes concerning environmental impacts. Address disputes through multi- stakeholder forums and joint management committees where possible. Often, the presence of a mining operation will trigger land and resource ownership disputes
	<ul> <li>between local communities. Help local stakeholders resolve their issues before resolving disputes with companies.</li> <li>Strengthen judicial procedures. Strengthen judicial procedures and rights arbitration systems in upholding environmental law pertaining to mining impacts. Train judiciary and arbitrators as necessary.</li> </ul>

	Unsustainable Natural Resources Management and Biodiversity Loss				
	<ul> <li>Provide legal aid. Provide legal aid to local communities in mining affected areas, including communities that have convincing customary or informal claims to land and resources, not just formal legal title.</li> <li>Enhance participation of women and vulnerable groups. Women, indigenous communities, and others may be more aware of, and more vulnerable to, the environmental and health impacts of mining than other groups. Strengthen their participation in formal and informal dispute resolution systems at local, regional, and national levels.</li> </ul>				
	<ul> <li>Avoid or minimize population displacement. Support or require that natural resource plans for mining activity avoid or minimize population displacement and adverse environmental impact on local communities. Rehabilitate or compensate for unavoidable impacts. Compensate communities that have convincing customary or informal claims to land and resources, not just those with formal legal title.</li> <li>Create systems for paying compensation. Establish mechanisms to transfer</li> </ul>				
Restitution, Redistribution, and Consolidation	<ul> <li>Payments from governments and other stakeholders who benefit from mining to those who bear a direct environmental and health-related cost or consequence from mining operations.</li> <li>Compensate lost primary and secondary rights. Consider primary and secondary rights in statutory and customary regimes in development of plans for</li> </ul>				
	restitution and compensation due to environmental or natural resource degradation.				
	• Strengthen common property rights. Involve resident communities in the identification and formalization of primary and secondary rights to commonly held community resources, such as water, forest, and pasture. Where possible, register rights to these resources via community demarcation and group registration.				
Rights Delivery and Administration	• Enforce environmental regulations. Create, implement, and enforce the legislative and regulatory framework for natural resources management in areas around concessions.				
	• Strengthen surface rights of artisanal miners. Using participatory processes, clarify and strengthen surface rights of artisanal mining actors to incentivize rehabilitation of mine sites and conversion to other long-term land uses.				
	• Develop land use management plans. Develop integrated land use management plans that protect biodiversity and ecosystem services and recognize competing local, regional, and national interests related to mining and mineral resources. Ensure land use planning is transparent and free from corruption or excessive political influence.				
	• <b>Demarcate and zone land use.</b> Demarcate mining areas. Exclude highly sensitive ecosystems and watersheds from mining, and specify and enforce sustainable levels of extraction elsewhere. Ensure zoning procedures are transparent and free from corruption or excessive political influence.				
Resource Use Management	• <b>Require mitigation and monitoring plans.</b> Require mining operations to develop environmental mitigation and monitoring plans to minimize impacts on biodiversity, natural resources, climate change, and environmental health of resident communities. Develop baseline data and conduct regular environmental monitoring against the plan. Engage mine employees, responsible government agencies, local community members, and staff of nongovernmental organizations in data collection using simple and reliable methodology.				
	<ul> <li>Establish reclamation regulations. Develop and enforce standards and protocols for reclamation of mined areas, to enable indigenous flora and fauna species to recolonize the area, re-create as closely as possible the original hydrological regime, and enable local communities to return to their lands and resume their livelihoods.</li> <li>Fund reclamation and safety. Rehabilitate exhausted mines and degraded</li> </ul>				

Unsustainable Natural Resources Management and Biodiversity Loss
<ul> <li>natural resources using mineral sector revenues.</li> <li>Train miners in environmentally friendly methods. Train artisanal and small-scale miners in environmentally friendly mining methods. Work with artisanal and small-scale miner associations to develop mitigation, monitoring, and rehabilitation plans for implementation. Fund research into low-cost environmental protection and reclamation measures; private-public partnerships (e.g., between mining firms and universities) may be effective in harnessing knowledge and funds.</li> <li>Provide conservation incentives. Provide incentives to mining companies and artisanal and small-scale miners for the conservation of biodiversity and sustainable ecosystem management. Reward land uses and development that protect ecosystems and natural resources.</li> <li>Engage women in sustainable natural resource management. Build capacity of and engage women in planning for mitigation and prevention of biodiversity loss, monitoring of environmental impact, and decision making regarding the sustainable management of natural resources.</li> </ul>

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# ANNEX A: MINERALS MATRIX OVERLAY, SUMMARY TABLES

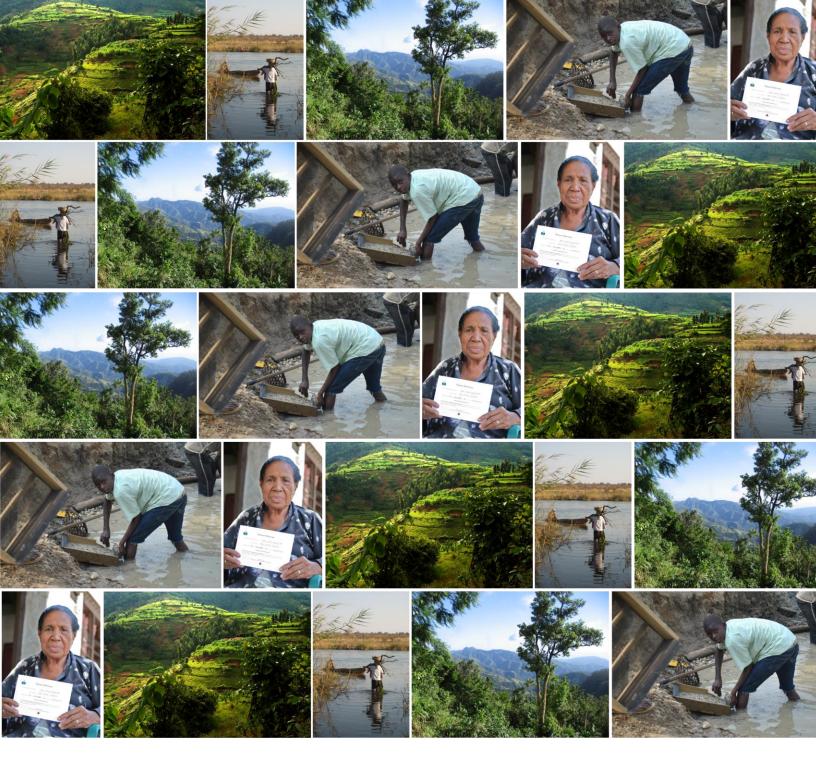
Resource Conflict and Displacement	Weak Governance	Insecure Tenure and Property Rights	Inequitable Access to Minerals	Poorly Performing Mineral Markets	Unsustainable Natural resources management and Biodiversity Loss	
<ul> <li>Financing conflict with minerals</li> <li>Conflict created by legal plurality</li> <li>Expropriation of land and resources without compensation</li> <li>Inequitable distribution of wealth, employment and benefits</li> <li>Conflicts due to environmental degradation</li> <li>Weak, vague, or unimplemented corporate social responsibility commitments</li> <li>Establishment of mineral traceability systems</li> </ul>	<ul> <li>Highly centralized control by central governments</li> <li>Weak enforcement of government laws and policies</li> <li>Corruption and complicity between states and companies</li> <li>Control by political, military, rebel, and wealth elites</li> <li>Poorly functioning administrative systems</li> <li>Absence of publicly available data</li> <li>Lootable nature of most mineral resources</li> </ul>	<ul> <li>Legal contradictions between surface and sub-surface rights</li> <li>Contradictions between statutory law and customary tenure systems</li> <li>Forcible eviction of resident communities</li> <li>Displacement of indigenous peoples</li> <li>Insecurity of tenure for all stakeholders</li> <li>Unclear and overlapping boundaries</li> </ul>	<ul> <li>Dispossession of ancestral lands by the state and mining companies</li> <li>Marginalization of artisanal and small- scale miners</li> <li>Process for legalization of artisanal mining rights not compatible with local contexts</li> <li>Inequities in benefit sharing</li> </ul>	<ul> <li>Power relations and criminal elements disadvantage small- scale miners</li> <li>Land market speculation</li> <li>Inability of artisanal miners to assess mineral markets</li> </ul>	<ul> <li>Biodiversity loss</li> <li>Pollution from improper toxic waste and wastewater disposal</li> <li>Adverse local environmental health impacts</li> </ul>	
Crosscutting Constraints						
Gender / Women Vulnerability						
Ethnic and Socially Marginalized Populations Lack of Government and Community Capacity						
		Lack of Government an	a Community Capacity			

### TABLE A-I. MINERALS OVERLAY: CONSTRAINTS AND COMMON SUB-ISSUES

#### LAND TENURE AND PROPERTY RIGHTS THEMES AND CONSTRAINT CATEGORIES Unsustainable Natural **Resource Conflict and** Insecure Tenure and Inequitable Access to Poorly Performing Mineral resources management Minerals Displacement Weak Governance **Property Rights** Markets and Biodiversity Loss Decentralize government Mobilize political will Decentralize mining governance Decentralize to lower levels of Decentralize regulation of land Designate and strengthen Improve financial Promote transparency and reduce appropriate regulatory government structures markets transparency corruption Improve administration of mining Strengthen national coordination Monitor and prosecute body(ies) Enforce standards against Enforce accountability of central/local licensing offices corruption Strengthen local institutional rights trade in illicit minerals Build enforcement capacity Improve surveying capacity Support watchdog groups Eliminate protection that unfairly capacity Devolve mining rights to local Train government and Regularize taxation and minimize Encourage corporate social favors large corporate interests Establish forums and joint **TENURE AND PROPERTY RIGHTS INTERVENTIONS** nongovernment actors overlapping jurisdictions communities responsibility Monitor supply chains to promote management committees Institutions and Strengthen civil society Support transparency and Support organization and licit sales Support civil society watchdogs Governance Establish reconciliation management of mining strengthening of mining Develop communication systems commissions information associations to disseminate mining and mineral information Enforce mining contracts in concession areas Strengthen corporate social responsibility Target and stamp out corruption Reduce legal pluralism in Reduce legal pluralism Harmonize national mining policy Promote transferability of mineral Harmonize legal codes related to Harmonize national mining policy Strengthen rights regulation Reduce legal pluralism Enact policy that empowers land, minerals, and other natura statutory law rights Devolve authority in managing Safeguard procedural rights Reduce contradictions between artisanal miners Enforce reporting of mineral resources and regulating mineral rights Streamline tax collection land and mineral laws Clarify legal definitions of mineral transactions Strengthen customary rights Institutionalize gender equity Promote formalization of mining rights Promote equity in land markets in Strengthen environmental Conduct law review forums rights Recognize and formalize mineral-rich areas regulation Strengthen eminent domain Secure durable tenure for mining customary rights to mineral Enable community governance of Establish or update mining holdings regulations provisions mining concessions interests Legal and Enforce compensation Protect rights of indigenous Reform laws to ensure equity Promote corporate social Regulatory commitments to populations Promote equitable benefit sharing responsibility and monitoring Framework Codify free, prior and informed Defend rights of indigenous communities and artisanal for compliance miners consultation groups Codify free, prior, and informed consultation Safeguard procedural rights Require corporate transparency Impose time limits to curb land hoarding Raise awareness of Strengthen civil society Raise rights awareness among Raise mineral rights awareness Strengthen transparency in Promote environmental Spread legal literacy within mineral sales and transmission indigenous perspectives organizations communities awareness government Increase mineral rights and Create dialogue between mining Raise rights awareness within of price information Raise mineral rights awareness LAND Strengthen community voice conflict awareness companies, government, and government Raise legal awareness Support civil society groups Conduct mining stakeholder Strengthen negotiation communities Strengthen civil society advocacy Widely disseminate market Rights capacity Support capacity of women's forums Empower small enterprises information Awareness and Follow best practices on offices Strengthen mediation Train artisanal and small-scale Comply with international Promote social impact Empowerment indigenous rights miners in mineral marketing standards monitoring and corporate Disseminate reliable, current social responsibility information on mineral prices and financing opportunities Provide women with business skills and financial literacy

#### TABLE A-2. MINERALS OVERLAY: INTERSECTION OF CONSTRAINTS AND INTERVENTIONS

Restitution, and Consolidation       Conduct public reviews and support restuituen       Comply with international standards       Support artismal and small-scate application of social impact assessments       Enable equity sharing application of social impact assessments       Brait development and application of social impact assessments       Provide for air and smaplersch application of social impact assessments       Enable equity sharing application of social impact application of social impact assessments       Provide social and smaplersch application of resettions and and vincersch applications       Enable equity sharing application (social impact application of resettions and interests Encourage sharing of concessions and mining information are maintaced       Support artismal and small-scate application (social impact assessments)       Enable equity sharing application (social impact application (social impact application (social impact application of resettionent action plans       Provide for air and smaplersch aming and support improved information management Encourage sharing of concessions and mining information are maintaced       Provide social impact application (social impact and vincersch and encourage sharing of concessions and information are maintaced       Develop and support improved information are maintaced       Provide social impact application (social impact applic	Conflict and Dispute Resolution	Hire women for conflict / dispute resolution committees Build conflict awareness Raise corporate risk awareness Strengthen judicial capacity Bolster alternative dispute resolution Provide legal aid Encourage private sector engagement in conflict resolution Create peace constituencies Demilitarize security	Support civil society watchdogs Use independent mediation Broaden access to improved dispute resolution	Monitor mining disputes and conflict Strengthen legal recourse for small or artisanal miners Support alternative dispute resolution Offer legal aid	Enable early dispute detection and resolution Expand alternative dispute resolution Increase access to the courts Provide legal aid Reduce bias in adjudication of mining claims	Enable early dispute detection and resolution Provide legal aid Reduce bias in adjudication of mining claims	Monitor environmental disputes Improve dispute resolution Strengthen judicial procedures Provide legal aid Enhance participation of women and vulnerable groups
systems formalize mineral rights Document mineral rights Scure mineral records and ensure mining concessions are maintainedinformation management encourage staining of concessions and mining information Document mining rights Document mining administration are maintainedconcessions and concessions and mining concessions and mining concessions and mining strengthen mining classral of central/local licensing officesmining sector concessions concessions and transactions of central/local licensing officesmining sector concessions concessions are maintainedregulation the chain of custody formalize mineral markets strengthen mining classral systemsStrengthen mineral calarstral systemsStrengthen mineral calarstral systemsStrengthen mineral calarstral systemsStrengthen mineral calarstral mining sectorStrengthen mineral markets the chain of custodyEnforce environmental regulationsResource Use Management planning angementEnsure public safety Publicize environmental enforcement Conduct integrated land use planning conduct integrated land use planning in impact assessmentsProvide security and infastructure for resettlement and restitution Conduct integrated land use planning strengthen monitoring of mineral rights interventionsDevelop environmental impact assessmentsEmploy land use planning strengthen monitoring of land and mineral use strengthen monitoring of land and mineral use provide conservation incitatives Provide conservation incitatives Provide conservation incitatives Provide conservation incitatives Provide conservation incitatives Provide conservation incitatives Provide conservation incitatives <br< th=""><th>Redistribution and</th><th>Conduct public reviews and support restitution Institutionalize compensation Support development and application of social impact assessments Make compensation packages culturally appropriate Set up development trusts Support development and application of resettlement action plans</th><th>standards Decentralize restitution</th><th>miner's associations Institutionalize restitution and prompt, adequate, and effective compensation Provide for fair and transparent compensation Adhere to international standards Mainstream indigenous, women, and vulnerable populations and interests Engage civil society</th><th>sector mining Review concessions for illegal takings Promote equitable benefits sharing Restitute rights of artisanal and small-scale miners Strengthen artisanal and small- scale miners associations Provide the means for resettlement and compensation</th><th>arrangements Enable consolidation (pooling) of mineral rights</th><th>displacement Create systems for paying compensation Compensate lost primary and secondary rights</th></br<>	Redistribution and	Conduct public reviews and support restitution Institutionalize compensation Support development and application of social impact assessments Make compensation packages culturally appropriate Set up development trusts Support development and application of resettlement action plans	standards Decentralize restitution	miner's associations Institutionalize restitution and prompt, adequate, and effective compensation Provide for fair and transparent compensation Adhere to international standards Mainstream indigenous, women, and vulnerable populations and interests Engage civil society	sector mining Review concessions for illegal takings Promote equitable benefits sharing Restitute rights of artisanal and small-scale miners Strengthen artisanal and small- scale miners associations Provide the means for resettlement and compensation	arrangements Enable consolidation (pooling) of mineral rights	displacement Create systems for paying compensation Compensate lost primary and secondary rights
Publicize environmental hazardsenvironmental impact assessmentsinfrastructure for resettlement and restitution Conduct participatory land use planningplansSupport land use zoningplansResource Use ManagementConduct integrated land use planning Respect diverse perspective in impact assessmentsenvironmental impact assessmentsinfrastructure for resettlement and restitution Conduct participatory land use planningDevelop environmental impact assessmentsSupport land use zoningDemarcate and zone land use Require mitigation and monitoring of and mineral useRespect diverse perspective in impact assessmentsconduct integrated land use planning and zoning Incentivize rehabilitation of mining sitesconduct integrated land use planning sitesSupport land use zoningSupport land use zoningProvide conservation incentives Engage women in sustainable natural resources managementinfrastructure for resettlement and restitution conduct participatory land use planingplans Develop environmental impact assessmentsSupport land use zoningDemarcate and zone land use Require mitigation and monitoring of mineral rights interventions	and	systems Formalize mineral rights Document mineral rights Secure mineral records and registries Record mining disruptions to ensure mining concessions	information management Encourage sharing of concessions and mining information Document mining rights Make mining records accessible Improve mining administration	concessions Demarcate concessions Create transparency in mining concessions and transactions Strengthen national coordination of central/local licensing offices Develop mineral information management systems	mining sector Formalize customary land and mineral claims Empower women in mining Strengthen mineral cadastral systems Streamline formalization of mineral rights and mining concessions Promote transparent	regulation Strengthen mineral markets and the chain of custody Formalize mineral markets	rights Enforce environmental regulations Strengthen surface rights of
		Publicize environmental hazards Continue environmental enforcement Conduct integrated land use planning Respect diverse perspective	environmental impact assessments Create multi-stakeholder environmental management bodies Conduct integrated land use planning and zoning Incentivize rehabilitation of	infrastructure for resettlement and restitution Conduct participatory land use planning Strengthen monitoring of mineral rights interventions	Develop integrated land use plans Develop environmental impact assessments Strengthen monitoring of land and mineral use Develop rehabilitation initiatives Promote local participation in resource use management		plans Demarcate and zone land use Require mitigation and monitoring plans Establish reclamation regulations Fund reclamation and safety Train miners in environmentally friendly methods Provide conservation incentives Engage women in sustainable natural resources



# **U.S. Agency for International Development**

1300 Pennsylvania Avenue, NW Washington, DC 20523 Tel: (202) 712-0000 Fax: (202) 216-3524 <u>www.usaidlandtenure.net</u>