

The Mining Sector Diagnostic (MSD)

Description and Methodology

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1. Introduction

Governments of mineral-rich countries use various legal and administrative instruments to attract investment to the sector and to ensure it contributes to socio-economic development. In this endeavor, policymakers are usually confronted with at least four key questions, as follows:

1. Why are some countries better able to manage and derive benefits from their mineral resource wealth while others struggle with corruption, poverty and conflict?
2. Why do well-designed laws and policies in some mineral rich countries not lead to expected outcomes in terms of increased investment, revenues, employment, industry and economic growth?
3. Why are there often gaps between the laws and policies in the mining sector and their actual implementation in practice?
4. How can the mining sector become a driver for inclusive economic growth, shared prosperity and sustainable development, especially at a time when many critical non-hydrocarbon minerals are expected to be in strong demand as the world decarbonizes?

These questions touch on three main aspects of mineral resources and extractive industries more broadly: investment environment, governance, and development impact. If not guided by effective policy and implementation, mining is often weakly integrated with the rest of the economy, its benefits accrue to a small subset of the population, government revenues are relatively modest, and the environmental and social impacts are largely negative.

Given the complexity of inter-related issues, it is often difficult to identify what reforms to prioritize and how to sequence them. Governments that try to better harness the potentially large benefits of mining for sustainable development are often unsure of the main issues to address. Even if a problem is identified, they are unsure about where to start solving it. The roles and responsibilities of important agencies and stakeholders may not be clearly defined and delineated and they may work at cross-purposes. A consistent dialogue between government, its investors and civil society on relevant sector issues may be lacking or ineffective. The Mining Sector Diagnostic (MSD) is the tool that the World Bank has developed to assist governments and inform the dialogue among stakeholders wanting to improve the functioning of the mining sector and to better harness its potential for economic development.

MSD is a diagnostic tool which comprehensively assesses the laws, policies and regulations which define the framework for managing a country's mining sector. It identifies strengths and weaknesses of the framework in three ways: the nature of rules in place, the extent to which these rules are implemented in practice, and the roles and influence of key stakeholders in their functioning. As a systematic and practical diagnostic tool, it informs objectively. The results of an MSD can form the basis for sector reforms that bring about a more vibrant mining sector; one that contributes to growth and prosperity for the entire population.

MSD collects and shares information on the mining sector's management structure, governance, and how mining activities affect national development. It analyses the rules and policies that exist in the mining sector and the gap between these rules and their actual implementation. It reviews

sector performance from the perspective of three main stakeholder groups—government, investors in the mining value chain (“industry”) and civil society.

The first version of the methodology (which was then called The Mining Sector Investment and Governance Review (MInGov)) was developed by Adam Smith International (ASI) and the Natural Resource Governance Institute (NRGI) in close cooperation with the World Bank and experts in relevant fields. Following testing in eight pilot countries the World Bank substantially revised and enhanced the MInGov methodology in close cooperation with the Intergovernmental Forum on Mining, Minerals, Metals, and Sustainable Development (IGF) using input from a range of experts with the aim of turning MInGov into a comprehensive sector diagnostic tool. The resulting methodology which is described in this document is unique in its comprehensive coverage and the way in which it combines the use of primary data with information gathered through in-country interviews. Key characteristics of the MSD methodology are as follows:

- **Comprehensive and Systematic Sector Diagnostic:** MSD is a comprehensive approach identifying the laws, regulations and policies through a four-step process beyond a limited focus on ‘good governance’. It is also systematic in that it identifies rules at every stage of the mining value chain.
- **Measures the gap between rules (*de jure performance*) and their actual implementation (*de facto performance*):** MSD analyses the function as well as the form of institutions in the mining sector. This is the extent to which the rules in the extractive industries (EI) value chain in any one country are implemented in practice. It moves the focus of reform efforts away from ‘best practice’ laws, policies and regulations to what is a ‘good fit’ for that particular country context.
- **Objective and Reliable Data:** MSD is based on the collection of verifiable objective information, through an expert review of the country’s existing legal and regulatory framework and interview information from in-country participants. Interviews with government officials, mining industry representatives and civil society organizations provide information on de facto realities. Combining these two data sources provides more reliable data than single-source expert surveys.
- **Roles, Responsibilities and Priorities of Key Stakeholders:** MSD allows to identify the governmental actors responsible for designing and implementing these rules. It also tries to ensure a balanced representation of views from governments, industry and civil society stakeholders in the sector without being biased towards any one of them. Lastly, it also shows areas of consensus where all or two of these three stakeholder groups want to see changes.
- **Actionable Indicators for Sector Reforms:** MSD is designed to respond to demand by governments for actionable measures to guide their reform efforts. It is not meant to rank countries in a perceptions-based index. Rather than being an isolated review of mining sector governance, the MSD focuses on areas which can improve the functioning and development impact of the sector. Proposed reform actions are prioritized on the basis of stakeholder consensus, closing implementation gaps and other criteria for improved sector outcomes.
- **Contributes to global debate on institutions:** MSD contributes to clearing the fuzziness in the global debate around institutions important for the extractives sector. It identifies the rules important for mining sector investment, governance and development impact and their actual function. MSD provides a more context-specific approach to institutions rather

than equate them with ‘good governance’ or ‘good policies’. It complements and goes beyond existing initiatives on demand-side governance reforms that enable transparency and accountability. MSD re-focuses on the basics of legal, policy and regulatory capacities and efficiency.

This document describes the MSD methodology.

II. Overview

The MSD is comprised of four components: (i) mining sector importance, (ii) mining sector management, (iii) mining sector performance along the EI value chain, and (iv) stakeholder priorities.

- i. **Mining Sector Importance** describes the importance of the mining sector for a given country—measured in terms of geological potential, the level of foreign direct investment and contribution to exports, national revenue, employment and industry; it also provides relevant basic information on the sector (e.g., main minerals mined, number and size of mining and exploration activities, and extent of state involvement).
- ii. **Mining Sector Management** examines the structural organization of the sector and the key governmental actors involved. This aspect is analyzed in terms of four topics—sector policy, sector dialogue, roles and responsibilities of various agencies, and intra-governmental coordination.
- iii. **Mining Sector Value Chain** examines the mining sector rules and their implementation along the entire EI value chain. The stages of the value chain are: Contracts, Licenses and Exploration; Operations; Taxation; Revenue Distribution and Management; and Local Impact. Two themes are examined along each stage of the value chain covering *de-jure* and *de-facto* dimensions as follows:
 - a. *De jure performance* analyzes the nature and quality of the existing legal and regulatory framework.
 - b. *De facto performance* analyzes the ability of governmental actors (individuals and organizations) to implement the intent of rules and laws and the extent to which this is done in practice.

The intersection of the two dimensions with the EI value chain stage determines a relevant topic of mining sector performance—yielding a total of 10 topics. Each topic is comprised of two or more relevant indicators which cover specific areas of interest within a topic.

- iv. **Stakeholder Priorities** identifies the importance that different stakeholders attach to the various relevant indicators—all of which have an impact on sector performance. Priority indicators are defined as those areas for which stakeholders feel that reform efforts are most needed and/or most likely to significantly improve sector performance and the contribution of the sector to overall sustainable and inclusive economic development. Three stakeholder groups are being consulted—government, industry, and civil society.

Mining Sector Importance

Mining sector importance is the descriptive part of the MSD. It is grounded in a set of commonly used standard indicators (see Annex I for an example). The form in Annex I can be adapted to country-specific circumstances. This section also covers a description of the sector in terms of the scope of exploration and mining activities, the number of large-scale mining operations, a description of the ASM sector, and a discussion of state participation in the mining sector—either directly through state-owned enterprises (SOEs) in the mining sector or through equity participation in mining sector operations.

Mining Sector Management and Mining Sector Value Chain

MSD presents mining sector management and performance along the EI value chain in the form of the MSD dashboard (see Figure 1 below). The dashboard shows the 14 topics and their aggregate scoring.

Figure 1: MSD Dashboard¹

Mining Sector Diagnostic					
Mining Sector Management					
	Sector Policy	Sector Dialogue	Roles and Responsibilities	Intra-Governmental Coordination	
II. Extractive Industries Value Chain					
	Contracts, Licenses and Exploration	Mining Operations	Mining Taxation	Revenue Management and Distribution	Local Impact
De Jure Performance	Rules for License Allocation, Oversight, and Transfer	Mining Legislation/Processes, Land/Compensation/Resettlement, Environmental and Social Impact Management, ASM, OHS, A,	Tax Policy and Tax Administration Rules	Revenue Sharing and Fiscal Stabilization--Rules	Local Content, Employment, Community Engagement, CSR and Social Issues
De Facto Performance	Collection/Maintenance of Geological Information and Effective License Allocation and Management	Land/Compensation/Resettlement, Environmental and Social Impact, Support for ASM, OHS, A, Mine Closure--Practice	Mining Tax Administration and Auditing	Revenue Sharing, Fiscal Stabilization and Resource Revenue Transparency--Practice	Local Supplier Development, Employment, Community Engagement, CSR and Social Issues--Practice
Scoring Key:					
	Very low (1.00 - 1.75)	Low (> 1.75 - 2.50)	High (> 2.50 - 3.25)	Very High (> 3.25 - 4.00)	

Each topic (e.g. each cell in the dashboard) is composed of two or more indicators. The actual MSD assessment is performed through a combination of desk research and in-country interviews. Desk research uses primary data which consists mostly of domestic laws, regulations and similar documentation that are being reviewed to determine the *de jure* performance of the mining sector. In-country interviews with a range of stakeholders are used to assess the *de facto* performance of the mining sector. The data underlying the dashboard are collected through a questionnaire which is described in more detail in the next section.

¹ The color-coding in the dashboard reflects the scoring of the topics (cells) for a hypothetical country. Section IV provides further details on scoring.

Stakeholder Priorities

Stakeholder priorities are gathered in the context of in-country interviews with stakeholders from government, industry, and civil society (see Section V below).

III. MSD Questionnaire

The data underlying the MSD dashboard are collected based on a questionnaire that consists of a total of 308 questions. The 308 questions include 114 based on primary desktop sources and 194 on in-country interviews. All questions are designed to be fact-based and independently verifiable, actionable by governments, and comparable across countries. The questionnaire is structured around the topics listed in the dashboard in Figure 1—with separate sections for each indicator. Figure 2 below lists all 14 topics and 38 indicators in the order in which they appear in the questionnaire. The table also shows how many questions (broken down by information source) are used to develop each indicator.

Respondents answer the questions in their questionnaire by picking one answer from a range of answer choices provided. In addition to that, respondents have the opportunity to make comments which can be used to explain a particular answer choice and/or provide more background, examples, etc.

Data Sources

Each question is based on a well-defined data source—primary or interview. Questions based on primary data are mainly concerned with the existence of legally binding provisions and the extent to which these provisions are consistent with internationally accepted “good practice”.² Primary questions are typically answered by a person who is very familiar with the legal and regulatory framework in the specific country. This could be either a locally hired expert (e.g., a mining lawyer) or someone who has worked for some time on the country in question. Primary questions are answered based on published official documents (laws, regulations, implementing guidelines) and other publicly available sources. Answers to primary questions are backed up with supporting evidence in the form of links to documents or notes explaining relevant provisions.

In-country interviews are used to assess the deviation of *de facto* practice from *de jure* practice, specifically the extent to which *de facto* practice measures up against the country’s own goals. In addition, the in-country interviews are used to assess the capacity of existing institutions as well as the extent to which respondents from all three stakeholder groups are satisfied with existing

² The primary source for internationally accepted “good practice”, is the [EI Sourcebook](#) (Cameron, Peter D. and Michael C. Stanley: “Oil, Gas, and Mining—A Sourcebook for Understanding the Extractive Industries”, The World Bank Group, 2017. The EI Sourcebook also provides additional references. Internationally accepted “good practice” captures knowledge based “a critical review of the many country and regional case studies, elaborations of general principles, published models, and recent research” (page 55/56 of the Sourcebook). It should not be confused with the outdated standard of “best international practice” which refers to the strict application of an ideal “model” without any regard for specific country context—a practice that often resulted in reform efforts that were not effective.

Figure 2: Structure of the MSD Questionnaire

Number	Topics and Indicators	Data Source		Total
		Primary	Interview	
A	<i>Mining Sector Management</i>	10	40	50
A1	Sector Policy	2	9	11
A2	Sector Dialogue	2	14	16
A3	Roles and Responsibilities	6	3	9
A4	Intra-Governmental Coordination	0	14	14
B1	<i>Rules for License Allocation, Oversight, and Transfer</i>	16	0	16
B1.1	License Allocation Rules	10	0	10
B1.2	License Management and Transfer Rules	6	0	6
C1	<i>Collection/Maintenance of Geological Information and Effective License Allocation and Management</i>	2	40	42
C1.1	Collection and Maintenance of Geological Information	2	14	16
C1.2	Effective License Allocation	0	15	15
C1.3	Effective License Management	0	11	11
B2	<i>Mining Legislation/Processes, Land/Compensation/Resettlement, Environmental and Social Impact Management, ASM, OHS, Mine Closure--Rules</i>	40	1	41
B2.1	Mining Legislation and Processes	4	1	5
B2.2	Land, Compensation and Resettlement Rules	4	0	4
B2.3	Environmental and Social Impact Management	17	0	17
B2.4	Artisanal and Small-Scale Mining	6	0	6
B2.5	Occupational Health and Safety	2	0	2
B2.6	Mine Closure and Financial Sureties for Decommissioning	7	0	7
C2	<i>Land/Compensation/Resettlement, Environmental and Social Impact, Support for ASM, OHS, Mine Closure--Practice</i>	0	58	58
C2.1	Land, Compensation and Resettlement--Practice	0	4	4
C2.2	Environmental Impact	0	18	18
C2.3	Social Impact	0	8	8
C2.4	Support for Artisanal and Small-Scale Mining	0	9	9
C2.5	Occupational Health and Safety	0	4	4
C2.6	Mine Closure and Financial Sureties for Decommissioning	0	15	15
B3	<i>Tax Policy and Tax Administration Rules</i>	23	2	25
B3.1	Tax Policy and Instruments	14	2	16
B3.2	Mining Tax Administration Rules	9	0	9
C3	<i>Mining Tax Administration and Auditing</i>	1	17	18
C3.1	Mining Tax Administration	1	11	12
C3.2	Mining Tax Auditing	0	6	6
B4	<i>Revenue Sharing and Fiscal Stabilization--Rules</i>	4	0	4
B4.1	Revenue Sharing Rules	2	0	2
B4.2	Fiscal Stabilization Rules	2	0	2
C4	<i>Revenue Sharing, Fiscal Stabilization and Resource Revenue Transparency--</i>	1	7	8
C4.1	Revenue Sharing Arrangements	0	2	2
C4.2	Fiscal Stabilization	0	2	2
C4.3	Resource Revenue Transparency	1	3	4
B5	<i>Local Content, Employment, Community Engagement, CSR and Social Issues</i>	17	0	17
B5.1	Local Content Rules	4	0	4
B5.2	Employment Policies	5	0	5
B5.3	Rules on Community Engagement	4	0	4
B5.4	CSR and Social Issues--Rules	4	0	4
C5	<i>Local Supplier Development, Employment, Community Engagement, CSR and Social Issues--Practice</i>	0	29	29
C5.1	Local Supplier Development	0	5	5
C5.2	Employment	0	7	7
C5.3	Community Engagement	0	5	5
C5.4	CSR and Social Issues	0	12	12
		114	194	308

practices. In many instances, similar questions are posed to all three stakeholder groups to ascertain differing views and assessments. Questions used in in-country interviews are answered by subject-area experts in government, industry, and civil society as follows:

- Government: Key involved agencies, including (but not limited to) the Ministries of Mines, Finance, and Environmental and Social Protection; the Geological Survey Department; the Revenue Authority; and Local Government;
- Industry: Companies involved in exploration or mining, the Chamber of Mines or similar organization, associations representing artisanal and small-scale miners. Usually, the interview is with an individual closely associated with operational and policy matters, such as the company country manager, the person dealing with local employment and content, or the individual responsible for company/government relations;
- CSOs (Civil Society Organizations): representatives of national CSOs and local branches of international CSOs that are concerned with mining-related issues, representatives of local communities affected by mining, and landowners (where applicable).

The 194 interview questions in the MSD questionnaire can be further broken down into three sets—94 questions are directed at various government ministries/agencies, 55 questions are for industry respondents and 45 questions are for civil society respondents. Some government questions are typically answered by only one respondent (the “responsible” entity), but many are addressed to and answered by a wide range of government respondents. All industry and civil society questions are addressed to and answered by multiple respondents in individual interviews.

Types of Questions

There are several types of questions in the MSD questionnaire. First, questions can be either simple or compound questions—the latter being defined as “umbrella” questions that are comprised of a list of sub-questions. Second, questions can also be classified depending on their answer choices. Some questions have dichotomous answer choices, typically requiring either a “Yes” or “No” answer. Other questions have more granular answer choices—either to allow a more differentiated answer (e.g., Always/Often/Sometimes/Never) or to express satisfaction on a scale (e.g., Very satisfied/Satisfied/Dissatisfied/Very Dissatisfied).³

The simplest question structure is illustrated in Figure 3 below—a factual question about the existence of a Chamber of Mines that can be answered with either “Yes” or “No”. The (open) drop-down menu in Figure 3 shows these two answer choices as well as a third one (“N/A”) which is provided for all questions to be used in cases where a question is not applicable to a specific country.

³ The answers to the MSD questionnaire are compiled in an EXCEL spreadsheet—the so-called “MSD tool”. For each question, the EXCEL spreadsheet contains drop-down menus with answer choices.

Figure 3: Simple Primary Question

11	Is there a Chamber of Mines(or similar organization) that represents the mining industry?	...
	Is there a Chamber of Mines (or similar organization) that represents the mining industry?	N/A
	Source:	Yes
	Notes:	No
		N/A

To illustrate a compound question, consider the question in Figure 4 below which is concerned with the legally binding procedures for granting exploration and mining licenses—but not just their existence but also to extent to which they are consistent with internationally accepted “good practice”. To elicit all this information through “simple” questions, the umbrella question is broken down into six sub-questions—all of which can be answered with either “Yes” or “No”. In this case, the answer to the umbrella question would most likely not fall into the Yes/No category as it covers a more complex process.

Figure 4: Compound Primary Question⁴

42	Are there legally binding procedures for granting exploration and mining licenses and , if so, are they consistent with good practice?	3.0
	Are there legally binding procedures for granting exploration and mining licenses?	Yes
	Are the steps involved laid out in the procedures?	Yes
	Are the procedures readily accessible to potential applicants and other interested parties?	No
	Are the procedures compatible with land access legislation?	N/A
	Are the procedures compatible with environmental protection legislation?	Yes
	Are the procedures compatible with social protection legislation?	N/A
	Source:	No
	Notes:	N/A

The examples in Figures 5 and 6 below illustrate simple interview questions that utilize more granular answer choices. The question in Figure 5 is concerned with how consistently a legal framework is being applied in practice. Providing additional answer choices between the two extremes of “Always” and “Never” means that the questionnaire will be able to capture a more differentiated picture of the situation on the ground.

⁴ In this example, answer choices have been picked for the first three sub-questions. The drop-down box with answer choices for the fourth sub-question is open. The number “3.0” in the red box at the top indicates the scoring for this question (see the next section for details on scoring).

Figure 5: Simple Interview Question with Granular Answer Choices

75	Are the procedures in the legal framework for the award of exploration and mining licenses followed in practice?	...
	<p>Are the procedures in the legal framework for the award of exploration and mining licenses followed in practice?</p> <p><u>Comments:</u></p>	<div style="border: 1px solid gray; padding: 5px;"> <div style="background-color: #008000; color: white; padding: 2px; margin-bottom: 2px;">N/A</div> <div style="background-color: #ff0000; color: white; padding: 2px; margin-bottom: 2px;">Always or almost always</div> <div style="padding: 2px; margin-bottom: 2px;">Often (more than half of the time)</div> <div style="padding: 2px; margin-bottom: 2px;">Sometimes (less than half of the time)</div> <div style="padding: 2px; margin-bottom: 2px;">Never or rarely</div> <div style="padding: 2px;">N/A</div> </div>

The example in Figure 6 illustrates a type of question that is not factual but elicits the views of stakeholders—in this case the views of government regarding the mining sector dialogue with the mining industry. The four answer choices provide a range from “Very satisfied” to “Very dissatisfied”.

Figure 6: Simple Interview Question with Satisfaction Scale as Answer Choice

15	How satisfied is the government with the dialogue between the government and the mining industry on mining sector issues?	...
	<p>How satisfied is the government with the dialogue between the government and the mining industry on mining sector issues?</p> <p><u>Comments:</u></p>	<div style="border: 1px solid gray; padding: 5px;"> <div style="background-color: #008000; color: white; padding: 2px; margin-bottom: 2px;">N/A</div> <div style="padding: 2px; margin-bottom: 2px;">Very satisfied</div> <div style="padding: 2px; margin-bottom: 2px;">Satisfied</div> <div style="padding: 2px; margin-bottom: 2px;">Dissatisfied</div> <div style="padding: 2px; margin-bottom: 2px;">Very dissatisfied</div> <div style="background-color: #ff0000; color: white; padding: 2px;">N/A</div> </div>

IV. Scoring and Aggregation of Data

The answer to each question is translated into a score ranging from 1 (lowest) to 4 (highest). For all primary and interview questions, scores are derived from the answer(s) provided to the question (or list of sub-questions). The following table shows the scores that apply to some of the most common answer choices. Note that there is no need to manually apply this scoring guidance to individual questions. In a typical MSD assessment, data are compiled in an EXCEL file (the “MSD tool”). The MSD tool is equipped with formulas that mirror the scoring guidance and aggregate the data across multiple respondents as well as into indicators and topics as described below.

For compound questions, the score for the “umbrella” question is the average of the sub-question scores. If no answer is provided for a question or sub-question, it is marked “N/A” and is excluded from further aggregation, i.e.. it does not enter into the calculation of the question (if applicable), indicator, and topic scores.

Figure 7: Scoring Guidance⁵

Score	Dichotomous	Frequency	Satisfaction Scale	Applicability
4	Yes	Always or almost always	Very satisfied	Fully
3		Often (more than half of the time)	Satisfied	
2.5				Partially
2		Sometimes (less than half of the time)	Dissatisfied	
1	No	Never or rarely	Very dissatisfied	Not at all

For interview questions with multiple respondents the final question score is arrived at by averaging the question scores from individual respondents. In cases where several government entities provide answers to the same question, the final score requires some judgement in terms of the “relevance” of the response which will need to be made on a case-by-case basis. In some cases, the answer from the responsible government entity will be the primary determinant of the score if it may be assumed that other government entities lack relevant information. However, if it may be assumed that other government agencies can provide relevant input (the question on the capacity of a particular government agency might be a good example here), an adjustment might be made. In many other cases, though, it is reasonable to average the answers from a range of government respondents. Averaging would apply, for example, to questions about coordination and views on the overall policy framework.

Figure 8: Interpretation of Indicator and Topic Scores

Score	Interpretation of Topic and Indicator Scores
>3.25 - 4.0	Very high
>2.50 - 3.25	High
>1.75 - 2.50	Low
1.0 - 1.75	Very low
N/A	No sufficient information or not applicable

The scores of individual questions are then aggregated into the indicator they comprise. Where there are multiple indicators for a topic, indicators are aggregated to create topic scores. At each level, aggregation occurs through simple arithmetic averages, with each question or indicator receiving equal weight. As a result, each indicator and topic is also associated with a score

⁵ The table assumes that positive answers (e.g. “Yes” or “Always”) should be scored high. However, for some questions the scoring scale needs to be reversed as positive answers indicate problematic issues—see “MSD Questionnaire and Scoring Guidance”.

between 1 and 4. The scores are then divided into four equal ranges: Very high (>3.25-4.0), High (>2.50-3.25), Low (>1.75-2.50) and Very low (1.0-1.75)—see Figure 8 which also shows the MSD color coding scheme.

V. Stakeholder Priorities

A final piece of information that is gathered during in-country interviews is a structured view of stakeholder priorities based on 24 indicators used in the MSD framework. To avoid overwhelming respondents with too long a list of indicators to choose from, the distinction between *de jure* and *de facto* performance is dropped when eliciting stakeholder priorities. For example, the indicator “Environmental Impact Management” covers both the legal framework as well as the implementation side. Priority areas are defined as those areas for which stakeholders feel that reform efforts are most needed and/or most likely to significantly improve sector performance and the contribution of the sector to overall sustainable and inclusive economic development.

Specifically, interview respondents are provided with a list of indicators (see Annex II) and asked to allocate a total of 100 votes across these indicators in a way that best reflects their priorities. It might help to think about the 100 votes in terms of money, e.g. respondent should ask themselves what they would do if they were given \$100 and asked to “put their money” where they thought it would be most helpful.

Respondents can allocate the 100 votes any way they want, and Figure 9 below illustrates a few of these for a simplified example with only five indicators. Respondent 1 is of the view that all reform efforts should concentrate on a single area (Indicator 2) and thus allocates his entire 100 votes to this indicator. For Respondent 2 two areas are of equal importance and therefore she splits her 100 votes equally between Indicators 3 and 4. Respondent 3 thinks that Indicator 2 is the most important one, but that efforts in two other areas would also help improve sector performance. He therefore allocates most of his votes (60) to Indicator 2 and splits the remainder between Indicators 4 and 5—although not equally. Respondent 4 feels that two areas are very and equally important and a third one is of much lesser importance. She therefore allocates most of her votes to Indicators 1 and 2 (45 votes) and the remainder to Indicator 5 (10 votes). Respondent 5 is of the view that all five areas are of equal importance and therefore splits his votes equally between all indicators. Note that each respondent allocates all 100 votes. It is, however, not only possible but likely that one or more areas (indicators) receive 0 votes from a particular respondent.

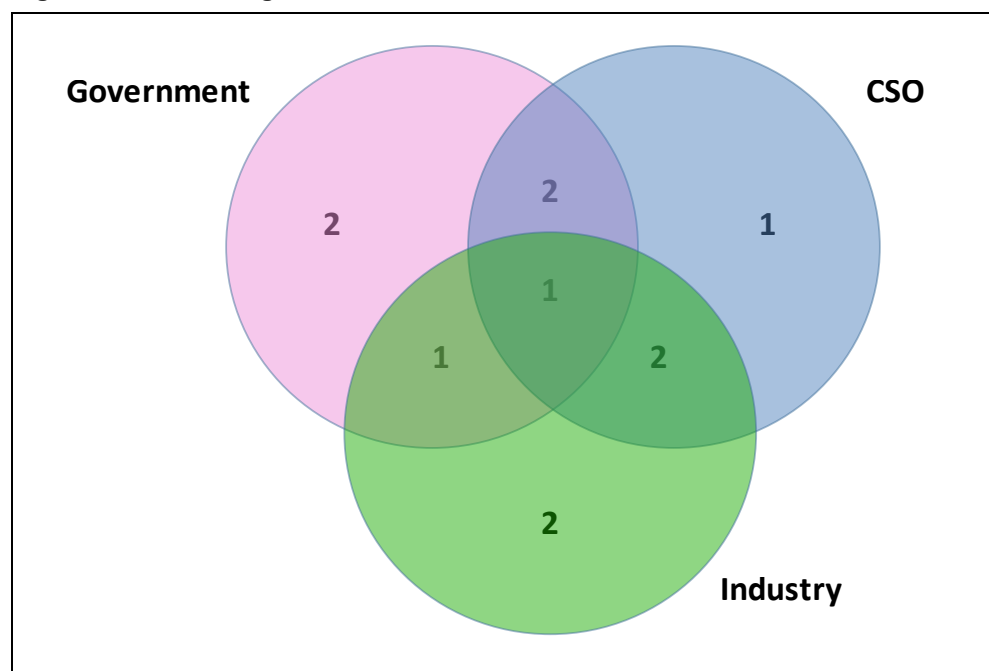
Respondents are given some time to review the list of indicators and then write down their votes. Alternatively, the score sheet in Annex II can be emailed to respondents for a later response if more time is required.

Figure 9: Stakeholder Priorities--Allocation of Votes

Indicator	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
Indicator 1				45	20
Indicator 2	100		60	45	20
Indicator 3		50			20
Indicator 4		50	25		20
Indicator 5			15	10	20

Stakeholders' votes are aggregated within each of the three stakeholder groups and then analyzed further. First, within each stakeholder group, the top priorities are identified by number of total votes and percentage of total votes. A concentration of votes on a few priorities (4-8 out of the total of 38 would be a sensible number) is an indication of consensus on priorities within a stakeholder group. As a second step, overlapping priorities between the three stakeholder groups are analyzed and presented in a Venn diagram with an accompanying table that lists the overlapping priority areas for each segment of the Venn diagram (see an example of a Venn diagram in Figure 10⁶).

Figure 10: Venn Diagram for Stakeholder Priorities



⁶ The Venn diagram shows overlap between stakeholder groups in their chosen priorities based on the top 6 priorities identified for each group for a hypothetical country.

ANNEX I: INDICATORS OF MINING SECTOR IMPORTANCE

Main minerals mined:

Mining's contribution to the economy:

- (i) Mining as a percent of GDP
- (ii) Mining exports as a percent of total exports:
- (iii) FDI in mining in US\$
- (iv) FDI in mining as a percentage of total FDI:
- (v) Mining Contribution Index (MCI, ICCM):

Mining's contribution to revenue:

- (i) Mining sector revenue as a percent of total revenue:
- (ii) Mining sector revenue as a percent of GDP:

Employment in the mining sector:

Total employment in the mining sector

o/w employment in ASM mining

o/w employment in SOEs

Employment in the mining sector as % of total formal employment

Procurement:

Percentage of good and services for the mining sector that are locally procured:

State participation in the mining sector:

Is there state participation in the mining sector?"

What form does it take?

SOE or equity share in mining projects?

Total turnover of mining SOEs:

as a percentage of GDP

ANNEX II: VOTING TEMPLATE FOR STAKEHOLDER PRIORITIES

Instructions: Below you will find a list of 25 topics that are relevant for the functioning of a country's mining sector. These are organized into six broad areas—mining sector management plus the five stages of the EI value chain. Now think about the topics where changes/improvements are most needed in your country's mining sector. You have 100 votes—please allocate these votes across the 25 topics in such a way that the number of votes indicates how important you consider a topic to be. You can split your votes across as many or as few topics as you like. Specifically, if you think there is only one important topic, put your 100 votes there. On the other hand, if you think four topics are equally important, then give 25 votes to each of these four. Or, if you think one topic is very important, but two others are still relatively important, you might want to split your votes 60-20-20.

	Indicators	Votes
Mining Sector Management	Sector Policy	
	Sector Dialogue	
	Roles and Responsibilities	
	Intra-Governmental Coordination	
Contracts, Licenses and Exploration	Collection and Maintenance of Geological Information	
	License Allocation	
	License Management and Transfer	
Mining Operations	Mining Legislation and Processes	
	Land, Compensation and Resettlement	
	Environmental Impact Management	
	Social Impact Management	
	Artisanal and Small-Scale Mining	
	Occupational Health and Safety	
	Mine Closure and Financial Sureties for Decommissioning	
Tax Policy and Administration	Tax Policy and Instruments	
	Tax Administration	
	Tax Auditing	
Revenue Management & Distribution	Revenue Sharing	
	Fiscal Stabilization	
	Resource Revenue Transparency	
Local Impact	Local Content/Local Supplier Development	
	Employment	
	Community Engagement	
	CSR and Social Issues	