Methodology of the Resource Governance Index

This methodology note explains what the Resource Governance Index (RGI) measures; how countries and sectors were selected; how data was collected and managed; how the Index was constructed; and the differences with the pilot Revenue Watch Index of 2010.

1. What the RGI measures

The 2013 RGI evaluates the governance of the oil, gas and mining sector in 58 countries. Transparency is a key component of good governance and the Index includes indicators that measure the disclosure of information about natural resources through official sources. Publication of information alone, however, is insufficient for good governance. The Index also pays attention to the overall governance enabling environment, including rule of law, corruption and democratic accountability, as well as the sector's legal setting, institutional arrangements, integrity safeguards and quality controls which can help to facilitate disclosure and public accountability, limit arbitrary powers, curb conflicts of interest, and clarify roles and authority.

Working during 2012, RGI researchers used a specially designed questionnaire to collect data about the 58 countries. This questionnaire is based on the standards put forward by the International Monetary Fund (IMF)'s 2007 Guide on Resource Revenue Transparency and the Extractive Industries Transparency Initiative (EITI), among others.[i] Its 173 questions are clustered into 45 indicators, each providing information about an aspect of the natural resource governance. These indicators emerging from the questionnaire are then mapped onto three (of the four) components of the RGI: Institutional and Legal Setting, Reporting Practices and Safeguards and Quality Controls. The fourth component, Enabling Environment, consists of five additional indicators that describe a country's broader governance environment. It uses data compiled from more than 30 external sources by the Economist Intelligence Unit, International Budget Partnership, Transparency International and Worldwide Governance Indicators (see figure 1). The RGI is therefore a hybrid index largely based on primary data collected through the questionnaire that assesses the governance and transparency of the specific sector, but incorporating several external measures of the context in which oil, gas and mining governance take place. It is not a survey of opinions.

The RGI's four components cover the following topics:

Institutional & Legal Setting: 10 indicators that assess whether the laws, regulations and institutional practices enable comprehensive disclosures, open and fair competition, and accountability.

Reporting Practices: 20 indicators that evaluate the actual disclosure of information and reporting practices by government agencies.

Safeguards and Quality Controls: 15 indicators that measure the checks and oversight mechanisms that guard against conflicts of interest and undue discretion, such as audits.

Enabling Environment: 5 indicators of the broader governance environment generated using over 30 external measures of accountability, government effectiveness, rule of law, corruption and democracy. The data reflect the extent to which the broader environment will help or hinder transparency and accountability efforts in the extractive sector. Box 1 below summarizes the discussion about including the enabling environment component in the Index.

Box 1: On the inclusion of the Enabling Environment (EE) component in the RGI

There are arguments for and against the inclusion of enabling environment indicators in the RGI score. Against their inclusion, one could argue that:

- The EE component dilutes the focus of the RGI on the oil, gas and mining sector by incorporating measures of overall governance.
- The EE component can have an undue effect on the scores, driving scores up or down, inflating or depressing performances beyond what countries actually show in their extractive sector.

On the other hand, one could argue in favor, noting that:

- External governance indicators reflect the influence of the broader country environment on the quality of natural resource governance. When considering the quality of transparency and accountability in a certain area, it does matter whether a country also has an authoritarian regime, a high risk of corruption or respect for basic freedoms.
- As an expert-based index, the accuracy and consistency of its findings suffers from the bias introduced by researchers, and by peer and RWI reviewers. Including an external measure reduces this margin of error.

Given these last two arguments, we chose to include the Enabling Environment component in the RGI and allocated a 20 percent weight to this component in the published composite scores (see below). However, the data tool on the RGI website allows users to experiment with assigning various weights to each of the four components, including the Enabling Environment.

Figure 1: The Resource Governance Index structure by component

	Institutional & Legal Setting (20 percent)	
	10 Indicators; 16 Questions	
	Indicators	***Questions***
1	Freedom of information law	
2	Comprehensive sector legislation	
3	EITI participation	
4	Independent licensing process	Licensing authority independent from SOC
		Open and competitive licensing process
5	Environmental and social impact assessments required	Requirement of EI assessment
		Requirement of SI assessment
6	Clarity in revenue collection	Clear authority to collect payments
		Clear transfers of payments to treasury
7	Comprehensive public sector balance	Includes SOC balance
		Includes fund balance
		Includes non-resource balance
8	SOC financial reports required	

	Reporting Practices (40 percent)	
	20 Indicators; 122 Questions	
	Indicators	***Questions***
1	Licensing process	Information before licensing
		Information after licensing
2	Contracts	
3	Environmental and social impact assessments	EI assessment
		SI assessment
4	Exploration data	Reserves
		Investment in exploration
5	Production volumes	Production volumes
		Production data by company and/or block
6	Production value	Value of resource exports
		Production costs
		Prices
7	Primary sources of revenue	Value of production streams

	Safeguards & Quality Controls (20 percent)	
	15 Indicators; 35 Questions	
	Indicators	***Questions***
1	Checks on licensing process	Limits to discretionary powers
		Legislative oversight
		Appeal process available
2	Checks on budgetary process	Legislative oversight
		Review of revenue by national audit institution
		Legislature reviews audit reports
3	Quality of government reports	Understandable reports
		Timely reports
4	Government disclosure of conflicts of interest	
5	Quality of SOC reports	Understandable reports
		Timely reports
6	SOC reports audited	Reports are audited
		Audited reports are published

	Enabling Environment (20 percent)	
	5 Indicators	
	Indicators	***Sources****
1	Accountability and democracy	WGI voice & accountability
		EIU Democracy Index
2	Open budget	IBP Open Budget Index
3	Government effectiveness	WGI
4	Rule of law	WGI
5	Corruption	TI Corruption Perceptions Index
		WGI control of corruption

***Each of the Enabling Environment indicators consists of dozens of questions from many sources, including: World Governance Indicators http://info.worldbank.org/governance/wgi/index.asp; International Budget Partnership http://internationalbudget.org/what-we-do/open-budget-survey/; Economist Intelligence Unit https://www.eiu.com/public/topical_report.aspx?campaignid=DemocracyIndex2011; and Transparency International http://cpi.transparency.org/cpi2012/**

9	Fund rules defined in law	Rules for deposits
		Rules for disbursements
10	Subnational transfer rules defined in law	

		Government's share in PSCs
		Royalties
		Special taxes
8	Secondary sources of revenue	Dividends
		Bonuses
		License fees
		Acreage fees
		Other
9	Subsidies	
10	Operating company names	
11	Comprehensive SOC reports	Cash flow statements
		Joint ventures
12	SOC production data	Reserves
		Production volumes
		Prices
		Value of resource exports
		Investment in exploration
		Production costs
		Production data by company and/or block
13	SOC revenue data	Value of production

		SOC audits include subsidiaries
7	SOC use of international accounting standards	
8	SOC disclosure of conflicts of interest	
9	Quality of fund reports	Understandable reports
		Timely reports
10	Fund reports audited	Reports are audited
		Audited reports are published
11	Checks on fund spending	
12	Government follows fund rules	Practice for deposits
		Practice for disbursement
13	Fund disclosure of conflicts of interest	
14	Quality of subnational transfer reports	Understandable reports
		Timely reports
15	Government follows subnational transfer rules	

			streams		
			Government's share in PSCs		
			Royalties		
			Special taxes		
			Dividends		
			Bonuses		
			License fees		
			Acreage fees		
			Other		
	14	SOC quasi fiscal activities	Comprehensive and quantitative data		
			Timely data		
	15	SOC board of directors	Composition		
			Decision-making rules		
	16	Comprehensive fund reports			
	17	Fund rules			
	18	Comprehensive subnational transfer reports			
	19	Subnational transfer rules			
	20	Subnational reporting of transfers			

2. Country and sector coverage

Out of the 58 countries in the RGI, 37 are defined as resource-rich by the IMF, meaning that their extractive sector contributes at least 25 percent of total fiscal income, GDP or export earnings. We also include four prospective resource-rich countries (Afghanistan, Mozambique, Sierra Leone and Tanzania); nine countries where minerals hold great potential for future fiscal revenue (Cambodia, Colombia, Egypt, India, Myanmar, Morocco, Philippines, South Sudan and Zimbabwe); two countries that participate in EITI but are not resource-rich (Ghana and Liberia); and six countries which are among the top 20 producers of hydrocarbons and minerals (Australia, Brazil, Canada, China, the United Kingdom and the United States).

All 58 countries included in the Index produce hydrocarbons and/or minerals. For countries that produce both types of resources, the Index assesses governance in the sector that generates the most revenue. Thus, oil and gas is assessed in 40 countries and minerals in the remaining 18. In the case of Ghana, the Index assesses the gold sector because at the time the research started it was a larger source of fiscal revenue than oil.[ii].

For the three federal countries with decentralized natural resource governance (United States, Canada and Australia), we assess one resource-producing region (the Gulf of Mexico, Alberta and Western Australia, respectively). For India, the Index focuses on the federally managed gas sector. These decisions limit the comparability of these four countries with those where petroleum and mining resources are managed centrally.

3. Data collection and research management

The team of RGI researchers included 20 local civil society experts, 12 independent consultants based in-country and 14 experts based outside the country they assessed. Researcher selection privileged expert knowledge (including relevant local languages) and prior work experience related to the extractive sector. They conducted the research between January and July 2012, and assessed the status of policies, practices and information availability.

Researchers completed a detailed questionnaire with 173 questions for each country and provided supporting evidence for their answers. The research process primarily involved the assessment of publicly available information. In addition, researchers conducted interviews, to the extent possible, with local experts, civil society activists and government officials to corroborate information, expand our sources of information and mitigate bias. Documents or information obtained through means unavailable to the average citizen (such as from informal exchanges with government officials) were *not* considered publicly available. RWI staff reviewed each submitted questionnaire for clarity and consistent application of the methodology.

Peer reviewers examined and verified each questionnaire between April and August 2012. Twenty peer reviewers were local civil society experts, 23 in-country independent consultants and 13 experts outside the country. Reviewers provided comments, suggested changes, challenged interpretations, provided overlooked evidence and identified mistakes. Upon receiving the reviewed questionnaires, RWI staff confirmed that the peer reviewer followed the methodology and shared the comments with the researchers. The researchers then responded with further evidence or information. If the peer reviewer suggestion led to changes in an answer, researchers made the change and provided appropriate notes about the modification, mistake or correction. RWI staff checked all final questionnaires for consistency of assumptions across countries when selecting scores and made changes where appropriate. This process ended around October 2012.

The entire process of research and peer review used Indaba, a research management platform designed by Global Integrity.[iii] Indaba provides users with standard instructions to complete and score the questionnaire, facilitates the collection of supporting evidence and remote collaboration, and creates a database of all the exchanges. To bring transparency to the research process, all 58 questionnaires are available online and contain the researcher and reviewer comments.

4. Scoring and organization of results

The RGI is made up of four different levels of information: questions, indicators, components and a composite. Each level follows a scoring process described below.

Questions

The Index questionnaire included 191 questions, of which 16 gather information about the country context.[iv] These context questions along with questions scored as "not applicable" are dropped from the calculation of the Index score. The RGI dropped two additional questions from calculation: one on disclosure of beneficial ownership, due to incomplete data, and another on the disclosure of the names of companies operating in the country, due to duplication. The remaining 173 scored questions are clustered in 45 indicators.

Indicators

Indicators are scored on a 0-100 scale and are composed of either one or multiple questions. Individual question scores are averaged to produce the indicator score. For indicators 4-10 in the Reporting Practices component, concerning reporting on payments and industry operations (a total of 20 individual questions), the RGI assumes that data could be provided by five different government agencies – ministries of finance, ministries of the extractive sector, regulatory agencies, central banks and other agencies. For these indicators, the Index assesses the information provided by the agency that produces the most complete reporting, in recognition of the fact that governments assign different roles to different bodies. This differs from the approach taken in scoring indicator 3 in the Safeguards and Quality Controls component which relates to the timeliness and understandability of government revenue reports. Regardless of what information an agency reports, this information should be timely and understandable. Therefore, in this case, we average scores that all agencies receive in order to determine the score.

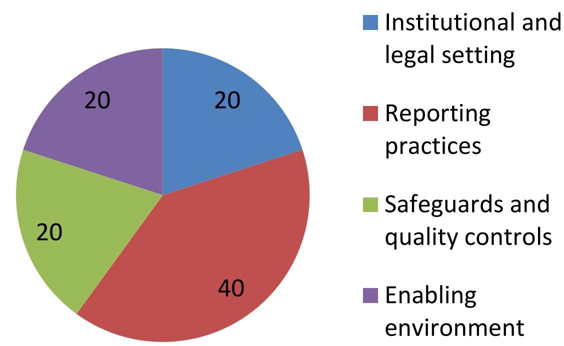
Components

Each component score in the RGI is the simple average of all the indicators it contains. For the Enabling Environment component, the value of the (external) indicators is first normalized to a 0-100 scale and then a simple average of the indicators provides the component score.

Composite

The RGI score is a weighted average of the scores of the four components. Because actual disclosure constitutes the core of transparency, the Reporting Practices component receives a greater weight. It also reflects a belief that without reporting information, rules and safeguards ring hollow. Therefore, Reporting Practices account for 40 percent of the final country score, and the other three components (Institutional and Legal Setting, Safeguards and Quality Controls and Enabling Environment) account for 20 percent each (see Figure 2). As part of the Index website, we provide a tool that allows users to change the weights for the different components, creating different composite scores that reflect their own sense of prioritization.

Figure 2: Percentage weights for the index four components



5. Margins of error

Margins of error have to be taken seriously in any cross-country data project, whether disaggregated or a composite index, in governance or other areas. The RGI is no exception. We estimate margins of error based on the extent of disagreement across indicators and components, which are all observed proxies for the unobserved 'true' level of governance in the extractive sector. To arrive at margins of error, for each country we calculated the simple average of the standard deviation (SD) within and across components. The sample average SD was 8. Thus, the implied margin of error around a country's point estimate is about +/- 13 (90% confidence interval). It is important to note that there is variance in the SDs across countries. The range is 6.5-9.5, and these bounds translate into rather different confidence intervals. The top and bottom performers tend to have lower SDs than average (4-7 in general), while those in the middle have higher SDs than average (9+). We also recognize that weighting decisions introduce additional uncertainty because the relative importance of different indicators/components is unknown.

6. Differences between the 2010 Revenue Watch Index and the 2013 RGI

RWI released a pilot index on natural resource transparency in 2010. It included 41 countries, focused on reporting practices only, used a more limited questionnaire, and did not estimate margins of error. Given these changes and other methodological adjustments, the 2010 and 2013 findings are not comparable.

The 2013 RGI measures levels of disclosure in its Reporting Practices component, but it also covers the legal and institutional setting as well as the checks and balances present in the sector, and incorporates external governance indicators as a measure of the enabling environment. In comparison, the 2010 index focused on disclosure of information only.

As described above, the 2013 RGI uses a four tier system of questions, indicators, components and a composite score. The composite score is a weighted average, meaning that indicators were clustered in components that received different weights rather than being treated equally. The 2010 index score was a simple average of all the questions included in the survey.

Finally, the 2013 index provides detailed information about each country's scores, including access to the country questionnaires. This level of detail makes the scores and the research process more transparent, as anyone can review how each score was determined.

[i] See: http://eiti.org/eiti/principles ; http://www.publishwhatyoupay.org/ and the IMF's Guide on Resource Revenue Transparency, available for download at: http://www.imf.org/external/np/pp/2007/eng/051507g.pdf

[ii] Oil production started in Ghana in 2011 and oil revenues might overtake gold as source of fiscal income in the future. For some petroleum producers (Brazil, China, the U.K. and the U.S.), this resource is not their main source of fiscal income. In the case of India, the hydrocarbon sector is the largest in terms of its contribution to the economy, but it is not a significant contributor of revenue to the government. In Afghanistan, the mining sector is seen as a promise for future fiscal revenue, but its contribution is negligible in comparison to international aid at present. In the case of mining countries, the Index follows the IMF Guide on Resource Revenue Transparency to decide the resource assessed: for Botswana, diamonds; Chile, copper; Democratic Republic of Congo, diamonds; Ghana, gold; Liberia, diamonds; Peru, gold, copper, silver; Sierra Leone, copper and gold; South Africa, gold; Tanzania, gold, diamonds; and Zambia, copper.

[iii] See: http://www.globalintegrity.org/technology/indaba

[iv] Context questions include, for example, questions about the authority that grants mining licenses, the existence of a state-owned company in the extractive sector etc.