

Subnational Governance of Extractives: Fostering National Prosperity by Addressing Local Challenges

Andrew Bauer, Rebecca Iwerks, Matteo Pellegrini and Varsha Venugopal

INTRODUCTION

Since 2008, NRGi has conducted research and implemented interventions to better understand and respond to local impacts of the exploitation of oil, gas and minerals. These efforts have been aimed at distilling practical governance solutions to maximize the benefits from the use of non-renewable natural resources while mitigating the negative impacts for the people living closest to extraction sites. NRGi's interventions engaged local actors—such as local governments and councils, civil society organizations and media—and national policy makers. Learning from these projects, as well as subsequent projects and research undertaken by others, NRGi produced seven policy papers that touch on a range of subnational extractive governance issues, from whether there is a subnational “resource curse” to optimizing natural resource revenue sharing regimes. (See table 1 for a list and links to all the papers.)

This paper summarizes what NRGi has learned from eight years of work and should serve as a high-level summary for national and local policy makers seeking to make the most of natural resources. Foundationally, the paper argues that a national perspective on natural resource management is necessary but not sufficient to ensure long-term sustainable development for all in a resource-rich country. Using the framework of the Natural Resource Charter, the paper then offers a subnational perspective on the natural resource decision chain.¹ For each element of the decision

CONTENTS

Introduction.....	1
I. Cross-cutting challenges in subnational governance.....	6
II. Key policy decisions impacting subnational governance of extractives.....	8
Conclusion and areas of further analysis	22

ABOUT THE SERIES

To help local communities advance their social and economic development, NRGi is pioneering regional approaches to planning and management of natural resource wealth. This paper is the capstone of a suite of research comprising seven other publications. To learn more, visit resourcegovernance.org/subnational.



1 For details, see <http://www.resourcegovernance.org/publications/natural-resource-charter-second-edition>.

chain, the paper articulates whether and how governance challenges differ on the subnational level from the national level. It then provides policy recommendations for national and subnational governments to address the specific challenges that emerge at the subnational level of governance. Finally, it offers observations on areas where additional research is necessary to advance the impact of engagement at the subnational level.

Paper	Author(s)	Content
Is There Evidence of a Subnational Resource Curse?	Jim Cust and Claudia Viale	Reviews literature on the subnational resource curse and identifies implications for policy making
Assessing Mineral Licensing in a Decentralized Context: The Case of Indonesia	Varsha Venugopal	Discusses the impact of decentralizing mineral licensing powers in Indonesia and makes recommendations for reform; aimed at Indonesian audiences, but carries transferrable recommendations
Corporate Direct Social Expenditures: A Monitoring Guide for Civil Society Organizations	Rocio Moreno Lopez	Presents different forms of company social expenditures and provides recommendations for civil society organizations on monitoring them
Local Content Initiatives: Enhancing the Subnational Benefits of the Oil, Gas and Mining Sectors	Ana Maria Esteves, Bruce Coyne and Ana Moreno	Analyzes approaches to local content policy and practice; provides recommendations for designing and monitoring initiatives to increase the sourcing of goods, jobs and services from the local economy
Natural Resource Revenue Sharing	Andrew Bauer, Uyanga Gankhuyag, Sofi Halling, David Manley and Varsha Venugopal <i>(Produced in partnership with UNDP)</i>	Reviews key considerations for governments planning to share resource revenue with subnational authorities; intended to inform debates in countries considering the introduction of reform or revenue sharing provisions
Subnational Oil, Gas and Mineral Revenue Management	Andrew Bauer	Provides guidance on options available to national and subnational governments on how to manage volatile and finite resource revenues at the subnational level
It Takes a Village: Routes to Local-Level Extractives Transparency	Rebecca Iwerks and Varsha Venugopal	Explains the need for subnational transparency, explores different mechanisms to pursue it, and analyzes the kinds of disclosures that are most relevant for local stakeholders

Table 1. NRG subnational policy papers²

Why subnational perspectives matter for resource governance

The questions of whether, why and how to work at the subnational level are ever present in the strategic thinking of organizations seeking to improve natural resource governance. The resource curse literature predominantly responds to the national challenges that come from extractives, such as Dutch disease. Tools to improve resource governance, such as the Extractive Industries Transparency Initiative (EITI) and Natural Resource Charter also focus on how countries can get the best deal as a whole and generally speak to national level policymakers or civil society.³ From a national perspective, local social or environmental impacts are often viewed as costs and risks that should be mitigated and offset by wider benefits

2 These papers are housed at <http://www.resourcegovernance.org/analysis-tools/collection/subnational-research-and-policy-papers>.

3 See <http://resourcegovernance.org/approach/natural-resource-charter> for details.

accruing to the nation.⁴ The generalization that comes from this perspective is in stark contrast to the on-the-ground discussions between governments, companies, civil society groups and affected residents in many countries that focus on the local consequences of extraction.

Academic debates also question whether and to what extent subnational resource governance matters. The natural resource curse literature originated from an observation that natural resource-dependent countries' economies were performing well below potential, and in some periods, may have had lower economic growth rates than non-dependent countries. Since then, economists and political scientists have found robust links between non-renewable resource wealth and higher rates of conflict and authoritarianism, and lower rates of economic stability, public spending efficiency, institutional development and gender equality.⁵ NRGi's review of the subnational literature, *Is There Evidence for a Subnational Resource Curse?*, found that many researchers measure local impacts differently, leading to conflicting results.⁶ For instance, while some studies found that real income levels rose in districts closest to a mine compared to those further away, others found that local economies were harmed when windfall revenues suddenly led to larger public sector spending. Across the research, NRGi found little evidence of a net harmful effect in resource-rich subnational areas, but highlighted the need for more research in different channels of impact at the local level.⁷

Despite ambiguous and incomplete findings with respect to a subnational resource curse, there is growing evidence from the field that subnational effects matter, not just for local residents, but also for whole countries' development prospects. In a context where communities are disproportionately impacted and their needs are not adequately addressed, those living close to an extraction can fuel conflicts to make their voices heard. Violent conflict in producing or transit areas, for instance, can choke off revenues for the entire country, as we have seen recently in Libya and Nigeria. There have been at least 20 resource-fueled civil wars since World War II, and several countries' political debates and elections have been largely influenced by local strife over the impact of extraction.⁸ Economically, studies have shown that natural resource wealth enhances economic inequality, particularly between urban and rural areas.⁹

There have been at least 20 resource-fueled civil wars since World War II, and several countries' political debates and elections have been largely influenced by local strife over the impact of extraction.

4 This list does not include issues of human rights violations. Unlike negative impacts, human rights violations cannot be weighed against potential extractive revenues. The government has the responsibility to protect its citizens from human rights violations no matter the potential revenue stream. We emphasize this point because when human rights violations occur related to extractive projects, they tend to be at the local level and there is often confusion about how human rights impacts factor against these other issues.

5 NRGi, "The Resource Curse" (March 2015), http://www.resourcegovernance.org/sites/default/files/documents/nrgi_primer_resource-curse.pdf.

6 The research articulated three specific streams of impact: the direct impacts of the projects, the indirect impacts from the spending of resource revenues often by subnational governments, and finally the regional spill overs from producing to other regions, including infrastructure and other supply side responses to resource wealth.

7 See Jim Cust and Claudia Viale, "Is There Evidence for a Subnational Resource Curse?" (NRGI, April 2016).

8 See Andrew Bauer et al., "Natural Resource Revenue Sharing" (NRGI and UNDP, 2015), 26.

9 Brock Smith and Samuel Wills, *Left in the Dark? Oil and Rural Poverty* (OxCarre, June 2016).

Subnational resource governance also matters because, while the revenues from extractive activities generally accrue to national governments, the social and environmental costs of exploitation are usually concentrated in communities located close to project sites.¹⁰ Furthermore, locals often do not proportionately benefit from jobs and other non-fiscal benefits when extraction companies import labor and technology to meet their highly specialized needs. Even when the social and environmental impacts are agreed to at the national level and there is an understanding at the national level about the relatively low opportunity for skilled jobs, the expectations of local communities are often not in accordance with those at the national level. Research from Harvard University's Kennedy School of Government found that community conflicts over environmental and social concerns can cost up to \$20 million a week in lost value for large-scale operating mines.¹¹ Similarly, in its 2014-2015 analysis of the mining industry, EY found that losing a social license to operate among local communities was the third-largest risk facing the mining industry—well ahead of price volatility and finding appropriate talent.¹²

This discontinuity between national benefits and local costs has contributed to the decentralization of some aspects of natural resource governance in at least 60 countries.¹³ Momentum for fiscal federalism and greater local management of the resource sector is particularly acute in resource-rich countries where political bargaining often focuses on the sharing of government revenues from resources.¹⁴ The resource revenues that national governments share with subnational governments can be substantial. In Nigeria and Peru, for instance, more than 80 percent of some subnational governments' budgets depend on resource revenue transfers from the central government. Bolivia decentralized more than USD 2 billion of its oil revenues in 2012. In this context, subnational governments must tackle the special challenges associated with managing resource revenues, often in the absence of the all policy instruments that are available to national governments.¹⁵

In addition to this growing demand, subnational areas can be important hubs for experimentation and innovation on how to best respond to natural resource wealth. As often happens when powers are decentralized, some subnational governments have created new tools and approaches to manage the challenges and opportunities coming from extractives. With careful attention to the subnational level, government officials and development experts can adapt these tools to the national level or other subnational communities. For example, subnational multi-stakeholder groups in the Philippines have included information about environmental and mercury effects with the hopes of folding these issues in the national level implementation of the EITI.¹⁶

A discontinuity between national benefits and local costs has contributed to the decentralization of some aspects of natural resource governance in at least 60 countries.

Subnational areas can be important hubs for experimentation and innovation on how to best respond to natural resource wealth.

10 Researchers have studied impacts ranging from toxicity levels in streams to rental prices to HIV rates. See Patricio Aroca and Miguel Atienza, "La conmutación regional en Chile y su impacto en la Región de Antofagasta," (Instituto de Economía Aplicada Regional, Universidad Católica del Norte, 2008).

11 Rachel Davis and Daniel Franks, *Costs of Company Community Conflicts in the Extractive Sector* (Harvard University Kennedy School of Government, 2014), www.hks.harvard.edu/m-rcbg/CSRI/research/Costs%20of%20Conflict_Davis%20%20Franks.pdf.

12 EY, *Business risks facing mining and metals 2014-2015*, [www.ey.com/Publication/vwLUAssets/EY-Business-risks-facing-mining-and-metals-2014%E2%80%932015/\\$FILE/EY-Business-risks-facing-mining-and-metals-2014%E2%80%932015.pdf](http://www.ey.com/Publication/vwLUAssets/EY-Business-risks-facing-mining-and-metals-2014%E2%80%932015/$FILE/EY-Business-risks-facing-mining-and-metals-2014%E2%80%932015.pdf).

13 Jess Ribot, "Waiting for Democracy: The Politics of Choice in Natural Resource Decentralization" (World Resources Institute, 2004).

14 Giorgio Brosio, "The Assignment of Revenue from Natural Resources," in *Handbook of Fiscal Federalism*, ed. Ehtisham Ahmed and Giorgio Brosio (Cheltenham: Edward Elgar Publishing, 2006).

15 NRGI and UNDP's paper "Natural Resource Revenue Sharing" provides a substantive overview of the challenges associated with sharing resource revenues with subnational governments.

16 See Marietta Cauchi and Rebecca Iwerks, "Improving Impacts of Extractive Resource Wealth Through Multi-Stakeholder Groups in the Philippines" (NRGI, 2016), www.resourcegovernance.org/analysis-tools/publications/improving-impacts-extractive-resource-wealth-through-subnational-multi.

Lastly, addressing subnational resource governance is important because there are some issues that only arise at the subnational level. Companies often negotiate community development agreements (CDAs) outside of a licensing agreement that can include provisions for anything ranging from service delivery to employment training. Local governments or communities need special skills to understand the scope of these agreements and negotiate them effectively. In the same vein, many companies provide *ad hoc* benefits to local communities as part of their corporate social responsibility (CSR) portfolios. In order to take advantage of these benefits without distorting the local government role, local officials and communities need specific training to coordinate and monitor company social interventions. Figure 1 illustrates the different ways that locals can benefit from extraction.

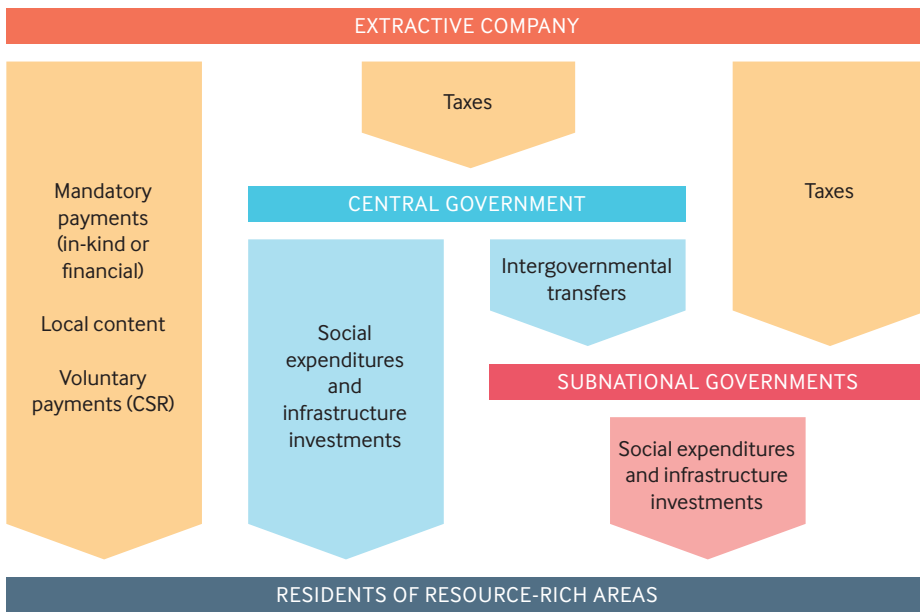


Figure 1. Types of resource benefits flowing to local residents¹⁷

17 Andrew Bauer et al., "Natural Resource Revenue Sharing" (NRGI and UNDP, 2015), 21.

I. CROSS-CUTTING CHALLENGES IN SUBNATIONAL GOVERNANCE

Subnational governments face different governance challenges than their national counterparts. Understanding these differences is important to fashion policy solutions that are most appropriate for ensuring that locals benefit from resource extraction.

Subnational governments are subject to special constraints on resource governance choices.

In most countries, especially unitary states, national rules constrain subnational governments' ability to pass legislation or manage their public finances. These rules can either forbid governments from interfering in certain activities; can require national approval for certain activities; or can constrain their options absolutely. For instance, in most countries subnational governments have no authority to negotiate the revenue terms for a particular extraction deal. In many, they are not allowed to take on public debt in order to smooth year-to-year fluctuations in fiscal revenues. On the revenue side, in Bolivia, Brazil, Colombia, Papua New Guinea and Peru, the law or the central government earmark resource revenue transfers to specific investment projects, limiting subnational government discretion to spend their resource revenues.¹⁸ Furthermore, many subnational governments are highly dependent on intergovernmental transfers from the national government to finance their spending and thus under de facto control by national authorities. Policy options on how to take full advantage of resource wealth therefore differ for subnational governments.

In decentralized context, local governments may suffer from capacity gaps.

When highly technical policy functions are decentralized to several subnational governments, subnational officials may find it hard to deliver these services for many reasons, including inability to offer salaries commensurate with the national level, smaller budgets to purchase ICT equipment and software, or a smaller pool of residents to draw on for expertise. While lower capacity may be a constraint, it is not insurmountable. Subnational governments can develop sufficient technical capacity to contend with the challenges that come from extractives. In Piura, Peru, regional planners were hoping to better plan for the natural resource revenues they received from the national government by creating forecasts. When they started asking questions of the national government, they were told: "You won't understand it." With training from NREGI and civil society partners, the regional planners were able to create revenue projections that were accurate and timely enough to improve their medium term planning.¹⁹

Power asymmetries and misalignment of interests complicate subnational governance.

The distribution of functions between national and subnational governments may not always be rooted in a consensus on the role that different tiers of government should play in the governance of extractive industries. This may lead to power struggles between levels of government and different interpretations of respective roles and responsibilities. One common example is that when a local body approaches an extractive company to address concerns, the extractive company may not recognize local leaders as having authority or leverage to negotiate for any company

18 Andrew Bauer, "Subnational Oil, Gas and Mineral Revenue Management" (NRGI, 2013).

19 NREGI video, available at www.youtube.com/watch?v=TEG3QsT94Nw.

action. This power imbalance can make it difficult for local governments to enforce collections, coordinate development goals, and create pressure for compliance with environmental regulations. Lack of consensus also can create a misalignment of interests and priorities between national and local leaders. For instance, Filipino law gives local governments the authority to issue local environmental regulations effectively banning large scale mining in their district. Over the years, many national policymakers have labeled local governments exercising these rights as “contrary to national policy” and as “lost opportunities.”²⁰

Differences in national and subnational systems can hinder coordination.

Different governance tools and systems often exist between national and subnational governments and between subnational jurisdictions within the same country. For example, subnational governments may use cash accounting systems while national governments use accrual accounting. Subnational governments within the same country often use different record management systems ranging from pen and paper to complex software developed by donors. The variations in systems and tools used to document the systems are problematic in both accounting and land tracking.²¹ This can make it difficult for subnational actors to share the same data with the national government on a consistent basis.

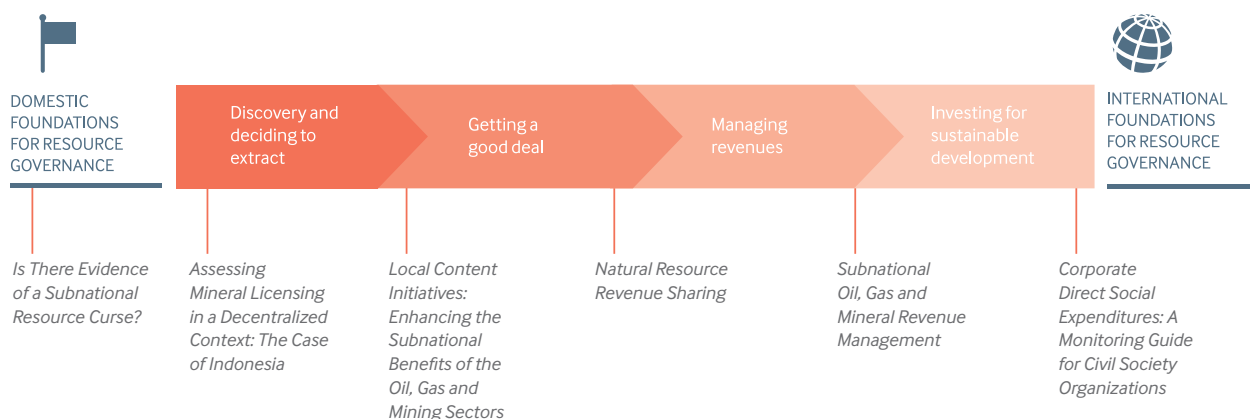
20 See Varsha Venugopal, “Thinking Locally: Community Consultation in the Philippines” (NRGI, April 2016), 5.

21 See, e.g., Varsha Venugopal, “Assessing Mineral Licensing in a Decentralized Context: The Case of Indonesia (NRGI, October 2014): “lack of uniform licensing implementation means that companies must examine the licensing regime and comply with confusing and potentially contradictory rules in each jurisdiction); Also, e.g., ZEITI, Zambia Reconciliation Report for the Year 2013 (Zambia EITI, 2014) p. 68 <http://zambiaeiti.org/index.php/ct-menu-item-13/zeiti-2013-reconciliation-final-report-18-12-2014> (noting the audit process and rules for local governments differ from those at the national level).

II. KEY POLICY DECISIONS IMPACTING SUBNATIONAL GOVERNANCE OF EXTRACTIVES

For the remainder of the paper, we use the natural resource decision chain as a framework to examine natural resource governance challenges and opportunities at the subnational level.²² For each element of the decision chain, we consider how the challenges and opportunities of governance are similar and different from the national level.²³ We then provide policy recommendations for national and subnational government officials based on the latest research and learning on subnational resource governance. Figure 2 maps NRG’s different policy papers to the relevant policy solutions that they tackle.

Figure 2. Subnational policy papers mapped to the subnational decision chain



Deciding to extract: licensing

Governance issues at the subnational level

Licensing authority includes the power to assign, manage, and terminate the rights to search for or extract minerals and hydrocarbons from the ground. Most countries maintain licensing powers at the national level, but some give partial or complete licensing power to subnational authorities. This can range from requiring approval of local authorities for artisanal mines, as in the Philippines, to putting all authority for mineral licensing for small or medium-scale mines in the hands of local authorities, as in Indonesia.

The arguments for decentralizing some licensing approval or authority are centered on the premises that because local decision makers are more familiar with the potential environmental, social, and economic impacts and their involvement with licensing can ensure that the potential benefits of a project are worth the costs borne by citizens and streamlined with local plans. In practice, local licensing in weak institutional environments has led to over-exploitation and environmental degradation as officials either have not had land management capacity or have sold excessive numbers of licenses in exchange for formal or under-the-table payments.

22 This is based on the Natural Resource Charter, available at www.resourcegovernance.org/analysis-tools/publications/natural-resource-charter-2nd-ed.

23 In focusing on the lessons from NRG’s field work, this paper explores issues related to licensing and revenue management. It does not address in detail how subnational governments can and should be involved in monitoring or regulating the environment and human rights.

At any level of government, efficient mineral licensing requires good knowledge of the geology and clear recordkeeping.²⁴ While some national governments struggle to maintain a complete and dependable cadaster, the fragmentation of licensing responsibilities that occurs with subnational licensing can make it more difficult for all regions to maintain credible cadasters. When Indonesia decentralized its mining licensing system in 2001, for example, companies reported that it had become more difficult and costly to identify promising areas for licensing applications.²⁵ As companies had to spend more time understanding each local jurisdiction's regulations, subnational government officials in Indonesia suddenly noticed they could only attract medium and small extraction companies.²⁶ When licensing rights were computerized and made publicly available in Indonesia local civil society groups were able to cross-reference the mining licensing boundaries with other local land use, improving local land use planning and monitoring of land use.²⁷ Argentina provides another salient lesson: Through the 1980s licensing was decentralized at the provincial level, but conflicting boundary information, poor cadaster tracking, and insecurity of tenure kept many mining companies at bay. In 1993, the provinces signed an agreement to create a uniform cadaster system throughout the country. With this guaranteed system, the number of foreign mining investments in Argentina went from four in 1989 to 80 in 2009.²⁸ In both cases, subnational governments faced additional challenges attracting mining companies because of their licensing practices, but improved their competitiveness by increasing coordination and transparency.

In addition to addressing the challenge of tracking who holds what rights, the government must pace its licensing in a manner so that it gradually develops the capacity to monitor impacts and collect benefits from a project.²⁹ The specialization required to undertake compliance monitoring may be more difficult to acquire at the subnational level because of the additional volume of personnel needed—each district may need its own staff.³⁰

Policy recommendations

National and subnational governments must coordinate their licensing information systems. Decentralized mining licensing systems require coordination mechanisms both vertically (between the national and subnational) and horizontally (between subnational governments). A uniform cadaster system, like Argentina's, can improve efficiency at all levels of government. Requiring all subnational bodies to use and be trained on the same system makes it easier to share data across districts and build investor confidence in the data management. Further, national governments should work with subnational authorities to identify and address inconsistencies or conflicts in licensing jurisdiction. National governments can play a part in building the capacity of subnational governments to negotiate and monitor licenses when extraction activities commence.

National and subnational governments must coordinate their licensing information systems.

24 See EITI, *Guidance not on License Registers Requirement 3.9* (12 August 2013), <https://eiti.org/files/Guidance%20note%20on%20license%20registers.pdf>; Enrique Ortega Girones et al., *Mineral Rights Cadastre: Promoting Transparent Access to Mineral Resources*, Extractive Industries for Development Series No. 4 (Washington DC: World Bank, 2009).

25 Venugopal 2014, 8.

26 *Ibid.* Smaller companies come with additional risks to environmental and social impacts as they tend to not have the same pressure to conform with international standards and do not always have the technical capacity to ensure best practice.

27 See Rebecca Iwerks and Varsha Venugopal, "It Takes a Village: Routes to Local-Level Extractives Transparency" (NRGI, February 2016), 29; and Swandiri Institute, "EI Spatial Transparency," <http://editor.giscloud.com/map/230430/eispatialtransparency>.

28 Venugopal 2015, 7.

29 *Ibid.*, 13.

30 Ribot, 59-62.

Governments must make efforts to recognize the full spectrum of land rights. Whether licensing responsibilities are decentralized or not, national and subnational governments must commit to documenting the full spectrum of land rights for the communities around the mining area. Subnational governments are often in a position to understand formally and informally held land rights. Understanding and documenting these rights before extraction begins can help reduce the likelihood of conflict and facilitate better local planning. When relocation is necessary, understanding land rights can help facilitate timely and accurate compensation of displaced communities.

Getting a good deal: revenue sharing and collection

Governance issues at the subnational level

Local authorities can be entitled to collect revenues from natural resource extraction through various channels. Revenue sharing refers to national governments sharing extractive revenues with subnational governments by allowing them to directly collect certain taxes from oil, gas and mining companies and through special resource-based intergovernmental transfer systems.³¹ Figure 3 illustrates how oil and mineral revenues are shared in Mongolia as an example. NRG1 and UNDP's report, *Natural Resource Revenue Sharing*, provides extensive detail on the structure of these systems as well as 10 recommendations on how to ensure that these systems do benefit local residents in resource-rich regions.

We can group countries in three categories according to their resource revenue sharing systems:

- 1 Countries that treat natural resource revenues in the same way as non-resource revenues (e.g., personal incomes taxes, manufacturing sector taxes) for distribution purposes
- 2 Countries that treat natural resource revenues differently from non-resource revenues and distribute them based on derivation
- 3 Countries that treat natural resource revenues differently from non-resource revenues and distribute them based on indicators

31 Bauer et al.

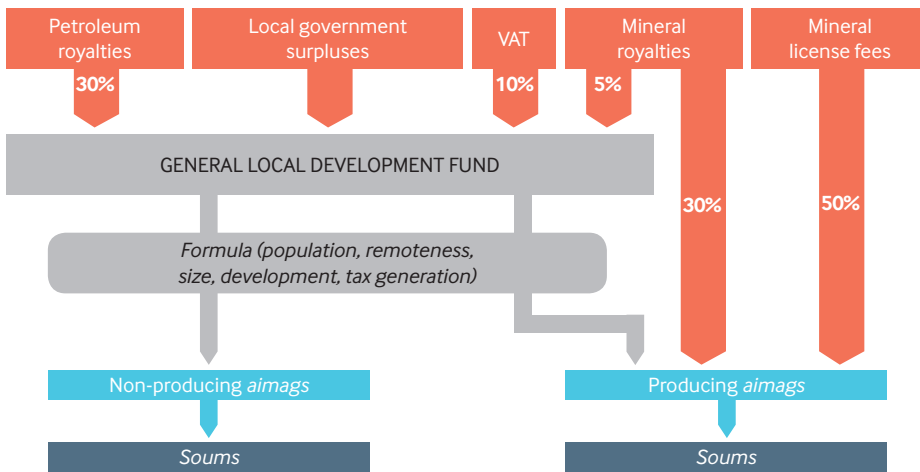


Figure 3. Mongolia's resource revenue sharing system³²

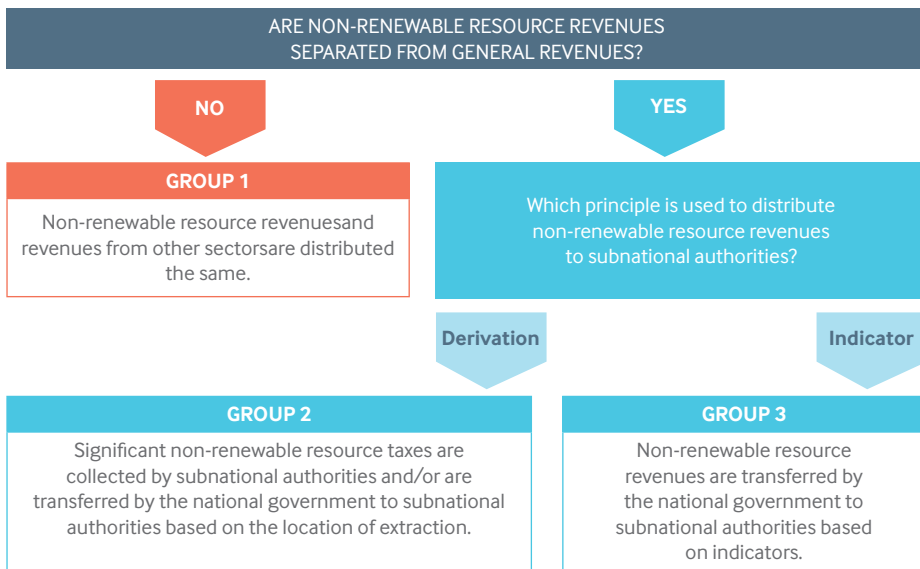


Figure 4. Decision tree: methods of non-renewable natural resource revenue sharing

32 Ibid., 38.

33 Ibid., 32.

Arguments for resource revenue sharing systems include that it would raise standards of living in resource-rich regions; provide additional financing for governments in poor or underserved regions; compensate affected areas for the social and environmental impacts of exploitation; and contribute to lasting peace in regions suffering from resource-related violence. As with the decentralized licensing arguments, poorly designed revenue sharing regimes can exacerbate, rather than mitigate, resource management challenges. For example, when commodity prices rose between 2005 and 2008, some local leaders in Peruvian mining regions attempted to instigate violent protests in order to extract additional transfers from the national government and control over municipalities where mines were located.³⁴ Moreover, social services provided by the government do not necessarily improve when the subnational governments received more revenues. In Brazil, for example, municipalities that received large oil royalty windfalls suffered a significant decrease in efficiency of social service provision.³⁵

Once a system is established, calculating expected revenue shares—whether taxes or intergovernmental transfers—is an essential component of “getting a good deal” at all levels of government. This can be particularly challenging for local governments. When revenue is collected by the national government before being transferred to local governments, local governments need to understand the assumptions and calculations at each link in the revenue chain. This includes the agreement between the government and extractive company, the production amount, the payment between the company to the national government, and the share due to the local government. The national governments in Iraq and Malaysia, for example, have failed to clarify resource revenue transfer rules, leaving local governments in the dark about how much resource revenues they should expect.³⁶ Even when the rules are well defined, it can still be challenge for local governments to access enough information to predict and monitor their revenues. For instance, the Cameroon Mining Code states that the local councils and local communities are entitled to 15 and 10 percent respectively of the *ad valorem* tax paid by companies for projects in their jurisdiction. These payments are collected by the central tax authorities and then transferred to the local governments. Civil society organization RELUFA has noted how without project-level fiscal data, local populations have been unable to cross-check whether they are receiving their share of revenues.³⁷ (Issues of transparency are discussed in more detail later in this paper.)

Even when local governments have sufficient information to understand expected revenues, they may not have the appropriate levers to enforce collection from companies. That is, local governments usually have fewer political tools to sanction non-compliance by companies. Local governments are also unlikely to have influence on international treaties that may allow companies accounting loopholes, thereby protecting their profits. When revenues are initially collected by the national government, local governments may not have clear lines of influence to enforce transfers.

34 Javier Arellano-Yanguas, *Local politics, conflict, and development in Peruvian mining regions* (Institute of Development Studies, University of Sussex, 2010), 106.

35 Ardanaz, Martin (2014) *Fiscal Windfalls, Transparency, and the Efficiency of Public Good Provision: Evidence from Brazilian Local Government*, in *Transparent Governance in an Age of Abundance: Experiences from the Extractive Industries in Latin America and the Caribbean*, ed. Juan Cruz Vieyra and Malaika Masson (Washington, D.C.: Inter-American Development Bank, 2014).

36 See NRG, *Resource Governance Index 2013*.

37 Valery Nodem, Jaff Napoleon Bamenjo and Brendan Schwartz, “Subnational Natural Resource Revenue Management in Cameroon: Forest and Mining Royalties in Yokadouma, East Cameroon” (RELUFA, 2012), <http://www.relufa.org/documents/subnationalrevenuestudy.pdf>.

Lessons from NRGIs work in Ghana show how imbalanced power dynamics and lack of access to information can reduce revenue collection. Asutifi, Ghana became resource-rich when Newmont broke ground on a gold mine near the town in 2006. Local officials soon noticed that there was no mining revenue recorded in the local budget. Though local leaders knew they were entitled to a property tax they did not have access to the contract between the company and the national government and therefore did not understand the exact amount due. District leaders also knew they were due a percentage of the royalties collected by the national government. The leaders complained that there was a long bureaucratic procedure to get the royalties, which resulted in unpredictable delays from the national government. As a result, the money was spent wastefully and haphazardly when it came in, reducing trust in the government among the community.³⁸

Policy recommendations

Governments should clarify the objectives of any resource revenue sharing system, and officials should keep expenditure responsibilities in mind.

NRGI and UNDP's analysis of revenue sharing programs found that revenue sharing has the greatest chance of success when national policy makers agree on underlying objectives for revenue sharing and ensure that the arrangements address explicit objectives. In general, decentralization of revenues should be aligned with public service expenditure responsibilities. For instance, the Indonesian regency of Bojonegoro—a subnational authority governing a population of more than one million and assigned with health and education responsibilities—may be better able to absorb an increase in revenues or cope with a revenue decline than a Kyrgyz *aiyl aimak*, a subnational government unit with a population of less than 10,000 people and fewer expenditure responsibilities.

National governments should assign revenue streams to subnational governments aligned with their collection capacities.

If countries do decentralize revenue collection to subnational governments, the type of revenue stream that is decentralized is important. Calculation, collection, and monitoring of property taxes and license fees require less expertise and time at the subnational level than the management of profit taxes. Zambia's system of collecting property taxes based on the land area of the extraction sites at the district level, for example, is easier to calculate and track than the returns on equity that subnational governments can elect to receive in Indonesia.³⁹

38 See Owusu Boampong, "Ghana's Golden Opportunity: A District Struggles With Striking It Rich" (NRGI, 2012), 3, http://resourcegovernance.org/sites/default/files/documents/ghanacasestudy7.10.121_0.pdf

39 See ZEITI, Zambia Reconciliation Report for the Year 2013 (Zambia EITI, 2014) p. 68 <http://zambiaeiti.org/index.php/ct-menu-item-13/zeiti-2013-reconciliation-final-report-18-12-2014>

More broadly, subnational governments should invest in improving capacities to collect revenue. This includes ensuring local officials have adequate information to calculate taxes and enforce collection. NRGi's programs in Peru and Ghana have shown that with training local government officials can better understand the complexities of revenues due, and apply that understanding to their budgeting and planning cycles.⁴⁰ Work with multistakeholder groups in Indonesia and the Philippines has led to more specific advocacy aimed at companies and national governments seeking the information necessary collect the revenues.⁴¹

Managing resource revenues

Governance issues at the subnational level.

The special characteristics of natural resource revenues that create management challenges for national governments—that they are finite, potentially large and destabilizing, and volatile—also affect subnational governments when resource revenue sharing systems are in place. In the short term, the volatility of revenues can undermine development planning. Years of huge excess followed by years of smaller budgets can lead to wasteful spending, poor quality investments, an unpredictable business environment, and ultimately slow growth in non-resource sectors. Over the medium term, the large nature of the revenues can distort the private and public economy.⁴² Last, the finite nature of the resources can lead to a long period of economic growth followed by a depression over the longer term.⁴³ (Strategies to tackle this policy challenge are outlined in the section on investing in sustainable development.)

At the national level, key approaches to addressing these challenges include decoupling expenditures from revenues to protect from volatility, offsetting for long term depletion, and parking some funds (or paying down public debt) during boom times to ensure spending efficiency and integrational equity. As mentioned above, the national legal framework often limits governing power at the subnational level. For instance, balanced-budget rules in the United States prevent most state governments from borrowing. In Indonesia, district governments have a disincentive to save, since unspent money is “clawed back” from the central government transfer the following year. Some of these constraints may be in place for good reason—for example, to protect the subnational government from over-indebtedness or debt crises. However, they may also limit the choices available to address the challenges associated with resource revenue management. NRGi's studies in Peru between 2010 and 2011 revealed that where local governments had limited options to offset the volatility of resource revenue transfers, local governments increased public spending in response to windfall revenues, creating local price inflation and crowding out traded sectors, like manufacturing and agriculture, from resource-rich regions.⁴⁴ In addition, subnational governments rarely have any control over monetary policy, further limiting the levers they have to manage the impact of large revenues.

40 See NRGi, *Peru: Better Forecasting* (2012), available at: <https://vimeo.com/50561450>; Owusu, p.3.

41 See Matteo Pellegrini and Varsha Venugopal, *From Conflict to Collaboration: Lessons Learned From RWI aWork at the Subnational Level* (NRGI 2013), available at: <http://www.resourcegovernance.org/analysis-tools/publications/conflict-collaboration-lessons-learned-rwi-work-subnational-level>; Marletta Cauchi and Rebecca Iwerks, “Improving Impacts of Extractive Resource Wealth Through Subnational Multi-Stakeholder Groups in the Philippines” (NRGI 2016), available at: <http://www.resourcegovernance.org/analysis-tools/publications/improving-impacts-extractive-resource-wealth-through-subnational-multi>

42 Jim Cust and Claudia Viale, “Is There Evidence of a Resource Curse?” (NRGI, 2016).

43 The challenges and solutions to subnational revenue management are outlined in more detail in Andrew Bauer, “Subnational Oil, Gas and Mineral Revenue Management” (NRGI, July 2013).

44 See Cust and Viale.

Lack of project level information from national governments and extractive companies combined with a lack of mechanisms to hold national governments to account can amplify traditional resource revenue planning challenges. For instance, in the absence of information on how much revenue it was entitled to receive from the national government, the government of the oil-rich Nigerian state of Bayelsa underestimated revenues by 97 percent in 2000 and overestimated revenues by 20 percent in 2007.⁴⁵

Policy recommendations

Subnational governments should implement resource revenue management best practices, including using fiscal rules. When subnational governments have the authority, they can apply many of the lessons on best practice of managing national resource revenues.⁴⁶ For example, to address short- to medium-term revenue volatility, subnational governments can improve their management of natural resource wealth by considering ways to decouple revenues from expenditures. To prevent long-term booms and busts, governments can also save a portion of resource revenues for future generations, as well as invest in the local economy to generate future growth. Fiscal rules can underpin these policies, constraining government spending decisions and compelling government bodies to adopt a long-term perspective on public finances. Wyoming, a resource-rich state in the U.S., has a self-imposed, legislated limit on spending growth, called the spending policy amount (SPA). The SPA is a fiscal rule designed to reduce volatility and save natural resource revenues for future generations. The surplus revenue is saved in a natural resource fund for oil, gas and mineral revenues. To ensure that future generations benefit from the revenues, the SPA rule states that the Wyoming government is only allowed to spend 5 percent of a five-year running average of revenues saved in its resource fund.

National governments must allow subnational governments the tools to manage revenue windfalls. Savings are only possible where subnational government have the legal mandate and tools to implement wise revenue management strategies. This requires in turn that national governments grant a degree of power to subnational governments to set aside a portion of resource revenues, or that national governments set aside a portion on subnational governments' behalf. Further, national governments should ensure that local governments receive accurate and timely forecasts of projected revenues based on clear and dependable legal terms.

45 Banabo Ekankumo and Henry Koroye Braye, "Stimulating internally generated revenue in Nigeria: the entrepreneurial option revisited," *European Journal of Social Sciences* 24:4 (2011).

46 Natural Resource Charter, precepts 7 and 8.

Getting a good deal: local content

Governance issues at the subnational level

Resource-rich countries often struggle to convert resource extraction into sustainable economic development, be it creating jobs and developing local businesses or building skills and improving technologies. In response, some national governments have passed local content rules and legislation incentivizing or requiring extractive firms to use local products, businesses, resources and workers.

“Local content” is an economic term that includes the indirect benefits from an extractive project, such as employment, local business development through procurement policies, technology transfer from foreign to local companies, and skills. But at the subnational level, the question is often “How local is the local content?” For example, when a project contract requires an extractive company to hire local staff, does that mean people from the country generally, or the specific region near the extraction site? This question has become so important in Burkina Faso and Mozambique that the EITI reports include employment data disaggregated by workers’ area of origin.⁴⁷

As is the case at the national level, it is hard for subnational regions to meet the specific needs of natural resource companies—both in terms of personnel and in terms of goods and services—and expectations of benefits from extraction are generally highest among communities in the vicinity of extractive projects.⁴⁸ Yet, it is exactly at the subnational level that a weaker industrial base and a more limited number of skilled workers undermine the materialization of local content benefits in the extractive sector. Also, short-term political dynamics at the local level may incentivize a focus on increasing the quantity instead of the quality of goods, services and jobs sourced locally by an extractive project. For instance, local governments may push for maximizing the quantity of jobs sourced from within the local economy, which in the short-term may be mostly low-skilled jobs that are intrinsically linked to the demands of the extractive project.⁴⁹ This runs the risk of making the area more dependent on the extractive project in the long-term. At the same time, businesses at the local level may have less access to capital and lower capacity compared to those in the capital or other regions in the country.

At the subnational level, there are a few recent examples of legislation requiring sourcing local goods and services and/or training workers in communities affected by oil, gas and mining companies. One example is the Regulation of Regents Number 48/2011 on local content for the oil and gas industry in the district of Bojonegoro, Indonesia. This law requires oil and gas operators in the district to train local personnel and give preference to local people in hiring.⁵⁰

Overall, while some policies and companies have been effective at developing local businesses and capacity, others have created new channels of nepotism, corruption and generally failed in their objectives.⁵¹ At the national level, this can

47 BF-EITI, Burkina Faso: Rapport de conciliation des paiements des sociétés minières à l'état et des recettes perçues par l'état des dites sociétés pour l'exercice 2012 (BF-EITI, 2014), 29, <https://eiti.org/files/2012%20Burkina%20Faso%20EITI%20Report%20Final.pdf>; MEITI, Mozambique Reconciliation Report 2012, 63.

48 For example, see expectations of oil-rich Bojonegoro district in Indonesia discussed in this video: <https://www.youtube.com/watch?v=41dLvDXIDhw&feature=youtu.be>.

49 For example, in Peru and Mongolia, subnational governments have been seeking ways to increase local hiring by companies.

50 Ana Maria Esteves, Bruce Coyne and Ana Moreno, “Local Content Initiatives: Enhancing the Subnational Benefits of the Oil, Gas and Mining Sectors” (NRGI, July 2013), 11.

51 *Ibid.*

take the form of a web of middlemen that establish companies with nominally local ownership but direct decisionmaking and beneficiary to elites or foreign nationals. The government of Nigeria crafted the policies of “Nigerianisation,” for example, to encourage the employment of Nigerians in the oil sector and indigenous ownership through a variety of quotas and regulations. Instead, the policies resulted more in elite capture of oil rents than the creation of local industry.⁵² At the subnational level, local content may induce instances of nepotism, whereby local power brokers or decisionmakers position relatives or individuals from their political bases to access opportunities that may be arise from local content policies or practices.

Policy recommendations

National and subnational governments should coordinate development plans with local content plans. To avoid these pitfalls, national and subnational governments should include local content development in their long-term development strategies and medium term-development frameworks (as discussed below), coordinating closely with the extractive companies to map out demands for goods, services and jobs that could be met by the national and local economy and putting in place financing options and workforce and supplier development programs. Securing lasting benefits for localities requires that local governments and stakeholders focus on whether these jobs add knowledge and skills that are transferrable to other emerging economic sectors. National and subnational governments could also establish business support agencies and simplifying business processes, making it easier for local people to start businesses to meet the needs of extractive companies and transform those businesses long term drivers of the economy.

The Sudbury region in Ontario, Canada provides an interesting example of a subnational extractive labor force transforming their skills into long-term economic development assets. During one of the earlier mining boom-bust cycles, two nickel mining companies, Inco and Falconbridge, formed the core of a cluster of mining firms in the Sudbury region. These mines used predominantly local labor. In the mid-1970s, when mines in the region were closing, highly skilled employees from this cluster went on to establish their own mining supply and services companies with support from local universities and government training facilities. Over time, an extensive network of mining suppliers developed, servicing the Canadian and global mining industries.⁵³

Governments should build consensus about local content objectives and foster transparent monitoring. Governments at all levels should be mindful that asking for local content concessions may require give-and-take on fiscal terms or other negotiation points. Setting ambitious “local” local content targets may satisfy the demands of local people. However, if the targets are too high and are not accompanied by an adequate assessment of the local economic base and the development of a well conceived capacity building and monitoring strategy for the area, the result may be a mismatch of demand and supply for the extractive project, unduly onerous costs for the investor, and unmet local expectations that in turn fuel local strife. National governments can build understanding among subnational communities of the implications of local content demands by being transparent about the negotiating process and the extraction deal. (See the section

52 Jesse Salah Ovadia, “Indigenization vs. Domiciliation: A Historical Approach to National Content in Nigeria’s Oil and Gas Industry” in *The Political Economy of Development and Underdevelopment in Africa*, ed. Jessica Achberger and Toyin Falola (London: Routledge, 2013), 47-73.

53 Bauer et al., 64-65.

on transparency for more information about what types of information national governments and companies can disclose to foster consensus.)

Establishing a clear system for monitoring company obligations can build further trust. Governments should establish oversight institutions with relevant capacities, and monitor and enforce compliance with local content commitments.⁵⁴ Governments and extractive companies can proactively publish data about local employment and services used to show when there is compliance with rules and targets.

Spending for sustainable development

Governance issues at the subnational level

In order to foster development beyond the life cycle of extraction, the Natural Resource Charter encourages countries to use their resource wealth to improve spending efficiency and diversify the economy.⁵⁵ But subnational governments can face the same political and economic challenges as national governments, inhibiting diversification. Resource revenue volatility can slow non-resource sector growth because of wasteful spending, poor quality investments and an unpredictable business environment. Politicians, who often think in short-term election cycles, have the challenge of convincing their constituents to manage the resource revenues with inevitable depletion of the resources in mind. When production begins to decline, subnational jurisdictions are often starved of cash, leading to government spending cuts. Regions that have not planned in advance, such as sections of the Karas region in Namibia, have been left with idle infrastructure, undiversified economies, local recessions or economic depressions once resources are depleted. Good revenue management policies, including a plan to save and invest a portion of resource revenues, can only partly address these challenges unless they are accompanied by a solid development plan and investment in developing public financial management systems.⁵⁶

The state of Alaska in the United States is known for its oil wealth and distributing small amounts of that wealth directly to its citizens. It also provides a strong illustration of the limitations of short-term savings in the absence of long-term economic diversification. During the boom of oil wealth the government did little to diversify its tax base and by 2015 90% of the state government's revenues came from oil revenues. In 2016, as the 40 year life cycle of the oil wells were drying up and oil prices crashed, the state government faced a \$4 billion dollar budget shortfall. The governor, Paul Walker, had the unenviable task of trying to convince his constituents that they should receive less money in direct distributions from oil in order to have a longer fiscal cushion of oil revenues while trying to diversify the economy.⁵⁷ Governor Walker felt so strongly about the state's need for drastic change that he vetoed a legislative budget that took funds from an emergency petroleum fund and instead instituted cuts to industry tax credits and citizen's direct distribution checks. Calling it a "day of reckoning" the governor justified this

54 The different activities that comprise monitoring government policy and company obligations in natural resource management are discussed further in Erin Smith and Peter Rosenblum, *Government and Citizen Oversight of Mining: Enforcing the Rules* (New York: Revenue Watch Institute, 2011).

55 Natural Resource Charter precepts 9 and 10.

56 Bauer 2013.

57 Jennifer Oldham, "The Party's Over in Alaska," Bloomberg News, 6 May 2016, available at www.bloomberg.com/news/articles/2016-05-06/the-party-s-over-in-alaska.

unpopular decision by explaining that Alaskans had “40 years of a free lunch” and could no longer bet the future of their state on a depleting industry.⁵⁸

As with other policy issues discussed in this paper, subnational governments may be constrained in how and where they spend resource revenues to promote this long-term development. Many subnational governments must comply with budgeting procedures and procurement processes that are dictated by the national government. Furthermore, when company social spending, which can be high when compared to local government spending, is not coordinated with local authorities and focused on short-term priorities, it can undermine long-term development efforts.

Policy recommendations

Local and national governments should plan for economic diversification.

Both national and subnational governments should invest in formulating development plans and multi-year expenditure frameworks, in preparation for the future after resources have been depleted. When companies invest in an area and provide a number of social services, their investments should be accounted for and reconciled in the local development plan.⁵⁹ An interesting example is offered by the Appalachia region, which straddles several U.S. states (Pennsylvania, West Virginia, Kentucky, Tennessee and Alabama). Shale oil and gas discoveries have begun to transform what was already a traditional coal-producing area. In response to an over-reliance on revenues and jobs from the natural resource sector, several counties have begun to implement diversification strategies. Upshur County in West Virginia, for example, is now diversifying into agriculture, value-added forestry products and tourism. Along with several neighboring counties, it has also created the Hardwood Alliance Zone, an organization focused on marketing and investing in the infrastructure needed to attract value-added hardwood companies to the region.⁶⁰

Local and national governments can invest in subnational investment systems. Even where development plans exist, poor public service provision can undermine the achievement of development plan objectives. Resource wealth can represent an opportunity to invest in systems that will make investments more productive and diverse, and in non-extractive sectors that will grow the local economy.⁶¹ In public financial management, this means creating strong planning, budgeting, procurement, and monitoring processes.⁶² National governments can increase the probability for success by allowing subnational governments to improve on existing investment systems and relaxing constraints on which sectors local governments can invest in. National officials can also be supportive by asking local leaders to explain how they intend to diversify the economy using resource revenues.

58 Alex DeMarban and Yereth Rosen, “‘Day of reckoning’: Gov. Walker vetoes hundreds of millions in spending, caps Permanent Fund dividend at \$1,000,” *Alaska Dispatch News*, 30 June 2016, available at www.adn.com/politics/2016/06/29/walker-budget-vetoes-include-capping-permanent-fund-dividends-at-1000/.

59 Bauer 2013.

60 Bauer et al., 65.

61 Natural Resource Charter precept 10.

62 Natural Resource Charter precept 9.

Transparency across the decision chain

Governance issues at the subnational level

Throughout the decision chain, governments can use transparency to build the trust necessary to implement good resource management policy while providing citizens with enough information to effectively monitor the activities of the government and companies. At all levels of government, people and institutions need capacities to produce and understand information efficiently. Global and national mechanisms, such as EITI, government data portals and civil society reporting, provide examples of great strides in natural resource-related transparency over the last decade.

As the impacts of extraction are distinct at the local level, so too are the needs for information. Provision of big picture figures, like national production and overall economic growth, do little to assuage the questions and mistrust that can easily grow at the local level. Similarly, corporate disclosure in the form of thick environmental reports and aggregated financial figures often fail to help the local community understand the intentions and impact of the company. To reach local stakeholders, the national government and companies should share information in different formats. For example, information shared through public posters, local speeches, local radios, booklets and local government bulletin boards may reach local communities more easily than content conveyed through some other media used more commonly at the national level. Mongolia is an example of a country trying to bring national experiences of transparency to the local level. In addition to passing national requirements for government agencies to publish budgets at each level of government, the national government paid for the construction of halls in each municipality so citizens have a physical space for local information exchanges.⁶³

As the impacts of extraction are distinct at the local level, so too are the needs for information.

Timeliness becomes more crucial at the subnational level, as local stakeholders are preoccupied with relatively immediate concerns such as local spending, execution of investment projects and employment. Information that is timely, disaggregated and relevant to subnational actors can result in positive impacts, be it a social license to operate for companies, improved civil society monitoring of governments and companies, better local revenue collection for governments, or decreased conflict.

Policy recommendations

Figure 5 shows lessons, summarized in *It Takes a Village: Routes to Local Level Extractives Transparency*, about what information national governments, local governments, and extractive companies should disclose throughout the stages of extraction projects to improve subnational governance.⁶⁴ For each stage of extractive governance, it is necessary for companies and governments to ensure that information is available to the communities closest to the extractive site. Many communities have found that multi-stakeholder dialogue platforms help companies, as well as national and local governments, better understand and conform to the transparency needs of communities. Communities and local governments in many countries have taken initial steps to use available data to facilitate better planning and monitoring of local extractive activities.

63 Iwerks and Venugopal, p. 13.

64 *Ibid.*

Figure 5. Areas and approaches to disclosure along the subnational decision chain

	Land rights and licensing	Revenue collection	Social expenditures	Local content	Social and environmental impact	Local government spending
	<ul style="list-style-type: none"> Map of spectrum of land rights for entire community around the extractive area Land associated with all extraction licenses Compensation given to those needing resettlement and explanations about resettlement requirements and decisions Licensing or contracting process Contracts 	<p><i>Direct payments</i></p> <ul style="list-style-type: none"> Taxes and levies – rates, reconciled amounts, basis for calculation, land areas Equity shares – percentage of equity, total equity, reconciled amount received, loan provider and payments Social payments – basis for payments, reconciled amounts, earmark requirements <p><i>Indirect payments (Transfers)</i></p> <ul style="list-style-type: none"> Non-resource specific – total government revenues, revenue shared with each subnational government, sharing formula, time table Resource specific – reconciled revenues by project, cost recovery, 	<p><i>Before social projects</i></p> <ul style="list-style-type: none"> Company social priority areas Baseline social impact and needs assessments Plans for social investments, including timeline and budget <p><i>During social projects</i></p> <ul style="list-style-type: none"> For each project – nature of project, amount spent by company, reconciled receipt when necessary, number of locals employed <p><i>After social projects</i></p> <ul style="list-style-type: none"> Impact assessment or evaluation Recommendations to meet social need 	<p><i>Overall</i></p> <ul style="list-style-type: none"> National or local requirements for local content Contract or other agreement of project specific local content obligations <p><i>Direct employment</i></p> <ul style="list-style-type: none"> Number of employees at each project site disaggregated by share of national versus foreign and regional versus national affiliation Health and safety record for employees Types of jobs that will become available over the life cycle of the project and the training necessary for those tasks Pay scale Hiring practices Company spending on training programs <p><i>Indirect economic development</i></p> <ul style="list-style-type: none"> Needs of goods and services Recipients of contracts broken down by locally versus foreign sourced Procurement process and qualifications Participation/equity share 	<p><i>Before extraction</i></p> <ul style="list-style-type: none"> National and local obligations for social and environmental management Social and environmental impact assessments Funds available for restoration Plans for infrastructure development and use Process for reviewing impacts and qualifications of persons involved <p><i>During extraction</i></p> <ul style="list-style-type: none"> Actual environmental and social impacts monitored by companies and government Actions taken by companies Costs of actions taken Fines or citations Plan for closure Actual infrastructure use <p><i>After project completion</i></p> <ul style="list-style-type: none"> Closure process Funds spent on closure and restoration Remaining environmental risks in the area Status of infrastructure 	<ul style="list-style-type: none"> Basic budget documents, including the pre-budget statement, executive's budget proposal, enacted budget, citizen's budget, in-year report, mid-year report, year-end report and audit report Basic planning documents Expenditures for revenues not recorded in the budget, such as savings/stabilization and state owned enterprises
What should be disclosed						
How this information could be used	<ul style="list-style-type: none"> Creating a common understanding of who will be impacted by the extraction project and to what extent Creating a common understanding of who deserves compensation and what compensation will be or has been given Facilitating local land use planning Reducing conflict between large-scale and small-scale mining about extraction rights 	<ul style="list-style-type: none"> Better short and long term local planning Local forecasting of revenues Monitoring of payments and receipts Monitoring corporate obligations Improved social license to operate through understanding of payments 	<ul style="list-style-type: none"> Coordinating better service delivery (government and company projects) Long and short term government planning Monitoring corporate obligations and impacts 	<ul style="list-style-type: none"> Monitoring company obligations Training relevant workforce Fostering relevant local businesses Local economic planning Local government receipt of/ entitlement to corporate profits Monitoring actual economic beneficiaries of extraction projects 	<ul style="list-style-type: none"> Understanding potential environmental impact Monitoring actual impacts and ensuring agreed compensation Preparing restoration/mitigation Preparing for shared use or alternative resource needs (ie local water use plan) Preparing for potential shared infrastructure 	<ul style="list-style-type: none"> Monitoring actual spending Connecting development impacts to resource revenues Short and long term planning Coordination between company and government projects Backstop against corruption

CONCLUSION AND AREAS FOR FURTHER ANALYSIS

NRGI's subnational governance work over the last eight years, captured in its subnational policy paper series, offers key reflections on how to effectively tackle many challenges that come with subnational governance of non-renewable natural resources. Despite inconclusive evidence on the existence of a subnational resource curse, there are several compelling reasons to focus on subnational governance of the extractive sector. Communities near extraction sites are often disproportionately affected by social and environmental impacts yet do not share proportionally in the jobs and other non-fiscal benefits that extractive projects generate. Unmet community expectations and deepening inequality between urban and rural areas can in turn lead to social conflict, which, in addition to risking lives and livelihoods in producing regions, can delay extractive projects, with significant costs for countries as a whole. When conflicts escalate into sustained violence, national peace and cohesion are at stake.

In response to local community demands, many countries have decentralized several aspects of natural resource governance. Possible policy responses to manage natural resource wealth at the subnational level are constrained or complicated by a number of factors. Policy choices available to subnational governments may be limited by national directives, particularly in unitary states. Differences in systems between levels of government or subnational jurisdictions, such as those tracking finances or land, may hinder coordination. Local governments often find it difficult to find staff well qualified in natural resource management as the need for specialized individuals multiplies through the number of levels of government involved. In addition, there are certain issues that are purely subnational, such as the negotiation and implementation of community benefit agreements and ensuring that "local content" policies actually benefit locals rather than nationals in other areas.

Effective subnational governance of natural resources requires careful consideration of these factors under an integrated framework that covers a spectrum of policy decisions. NRG's subnational paper series covers some of these key policy areas including licensing, revenue collection, resource revenue distribution to subnational authorities, revenue management, and investment of revenues for the long-term development of resource-rich areas. The Natural Resource Charter, while primarily focused on national-level policymaking, can offer a useful organizing framework to map out the interconnected web of subnational policy challenges and decisions. While some of these challenges and solutions mirror national ones, the paper series also identifies issues that are unique to the subnational level and that therefore require different policy responses.

Communities near extraction sites are often disproportionately affected by social and environmental impacts yet do not share proportionally in the jobs and other non-fiscal benefits that extractive projects generate.

When conflicts escalate into sustained violence, national peace and cohesion are at stake.

Policy choices available to subnational governments may be limited by national directives, particularly in unitary states.

The policy paper series also surfaces additional areas of research and analysis; investigation into these areas could yield better understanding of the extent to which subnational areas are impacted by natural resource wealth and how to best respond to those impacts. Some areas of future research are:

- *Investigating the relative costs and benefits of decentralizing mineral licensing.* While NRG1's paper on decentralized mineral licensing looks into the benefits and challenges for Indonesia, a multi-country financial analysis of costs and benefits—including rates of licensing—is necessary to better understand the implications decentralizing licensing.
- *Understanding the impact of different types of resource revenue sharing arrangements on local spending efficiency, socioeconomic indicators at the local level, and income inequality within a country.* Investigations that compare the efficiency of subnational governments within a country or between countries could better inform policymakers about what form of resource revenue sharing is best for their country. While some studies have explored the implications within one revenue sharing system, none has compared efficiency and socioeconomic indicators across types of revenue sharing arrangements.
- *Understanding how resource revenue formulas were agreed, and their impacts on resource-driven conflict.* Resource revenue sharing agreements are by nature political compromises. Little is known, however, about how central governments and local communities negotiate the formulas and the extent to which such arrangements help mitigate violent conflicts. Additional research is needed to determine whether or what type of resource revenue sharing can generate a "peace dividend."
- *Exploring the impact of different types of local content measures, implicit and explicit costs associated with local content, and the net benefit of promoting local content at the subnational level.* Researchers could compare the local economic impacts of prescriptive requirements versus measures supporting the enabling environment. Such an investigation could also consider the quantity versus quality of jobs produced, and whether they could result in skills and knowledge transfer.
- *Understanding the channels and extent of corruption at the subnational versus national levels, in each part of the decision chain, and the link between improved transparency and corruption at the local level.* While there is some empirical evidence that fiscal decentralization correlates with lower levels of corruption,⁶⁵ decentralization also distributes the opportunities for corruption more widely and often with less formal oversight, through agencies with at least some degree of autonomy.
- *Identifying the kinds of transparency measures that result in better accountability outcomes.* NRG1's analysis brings forth many lessons from subnational transparency efforts and highlights some positive outcomes. More research can be done, however, to see what types of subnational transparency are most effective in promoting accountability and fostering community cohesion.

65 For instance, see G.G. Arikan, "Fiscal decentralization: A remedy for corruption?" *International Tax and Public Finance* 11(2) (2004): 175-195; R. Fisman and R. Gatti, "Decentralization and corruption: evidence across countries," *Journal of Public Economics* 83(3) (2002): 325-345. More on the link between decentralization and corruption is available from Pranab Bardhan and Dilip Mookherjee, "Decentralization, Corruption and Government Accountability: An Overview" in *Handbook of Economic Corruption*, ed. Susan Rose-Ackerman. (Edward Elgar, 2005).

The Natural Resource Governance Institute, an independent, non-profit organization, helps people to realize the benefits of their countries' oil, gas and mineral wealth through applied research, and innovative approaches to capacity development, technical advice and advocacy.
Learn more at www.resourcegovernance.org

