

In nearly every country, subnational governments receive public funds through a combination of direct tax collection and transfers from the national government. In most, non-renewable natural resource revenues are apportioned no differently than other revenues. However, in more than 30 countries—most of them resource-rich—distribution of non-renewable natural resource revenues is governed by a set of rules that are distinct from those governing distribution of general revenues.

In a majority of these countries, revenues from the oil, gas and mineral sectors are collected by the national government and transferred back to their area of origin or adjacent areas. Angola, Bolivia, Brazil, Cameroon, Canada (some regions), Chad, China, Colombia, the Democratic Republic of the Congo (DRC), Ecuador, Ethiopia, Ghana, Guinea, India, Indonesia, Iraq, Italy, Kyrgyzstan, Madagascar, Malaysia, Mexico, Mongolia, Niger, Nigeria, Papua New Guinea, Peru, the Philippines, South Sudan, Uganda, the United States (some regions) and Venezuela each have enacted a 'derivation-based' intergovernmental transfer system for all or part of their mineral, oil or gas revenues.

Some resource-rich subnational governments are extremely dependent on these transfers. In Nigeria and Peru, for instance, more than 80 percent of the budgets of some subnational governments depend on resource revenue transfers from the central government.

A few countries also transfer some of their natural resource revenues to subnational governments using an 'indicator-based' formula. In these countries, the national government distributes natural resource revenues to subnational authorities based on a

set of objective indicators—such as population, revenue generation, poverty level or geographic characteristics (e.g. remoteness)—irrespective of where the natural resources are extracted. Ecuador, Mongolia, Mexico and Uganda are examples of countries which use indicator-based resource revenue sharing formulas.

In another set of countries—including Argentina, Australia, Canada, China, India, the United Arab Emirates and the United States—subnational governments collect substantial revenues directly from oil, gas or mining companies. Direct tax collection from the natural resource sector can constitute a significant proportion of local budgets. For example, from 2012 to 2014 more than 25 percent of all fiscal revenues collected in Alberta, Canada came from direct petroleum taxation. In the United States, severance taxes from the oil sector in 2014 constituted 72 percent of total fiscal revenues in Alaska, 54 percent in North Dakota, and 39 percent in Wyoming.

These resource revenue sharing systems can raise standards of living and reduce poverty in resource-rich regions, provide additional financing for governments in poor or underserved regions, and compensate affected areas for the social and environmental impacts of exploitation and depletion of natural resources. For example, after years of recession following the collapse of the fisheries, economic prosperity was restored to Newfoundland, Canada in the mid-2000s as a result of an accord that guaranteed the province a large share of the revenues generated from offshore oil. The US state of California levies a volume-based fee on oil and natural gas; this fee is remitted to the Department of Conservation as an environmental compensation payment.

Resource revenue sharing can also help address local groups' special claims on natural resources and contribute to lasting peace in regions suffering from resource-related violence. For example, local 'rights' to a share of resource revenues have been codified in constitutions or legislation in Argentina, Colombia, Malaysia and South Sudan. In Indonesia, special resource revenue sharing agreements with the regions of Aceh and West Papua helped end years of violent conflict.

At the same time, revenue sharing systems can generate perverse incentives for subnational governments trying to transform natural resource wealth into well-being. Since non-renewable natural resource revenues are notoriously volatile—responding sharply and unpredictably to fluctuations in commodity prices—and exhaustible, large transfers or collection of taxes linked to natural resource extraction can exacerbate boom-bust cycles in mineral producing regions, with disastrous consequences for economic growth and development. Studies carried out in Brazil, Colombia and Peru indicated that neither economic growth, nor housing, education or health outcomes improved following the collection of large oil or mineral revenue windfalls by subnational governments. In Brazil, access to piped water, trash collection and connection to sewage networks actually deteriorated as more oil revenues flowed into municipal coffers. Corruption and mismanagement within subnational governments as well as local Dutch disease—which refers to absorption of revenue windfalls through higher

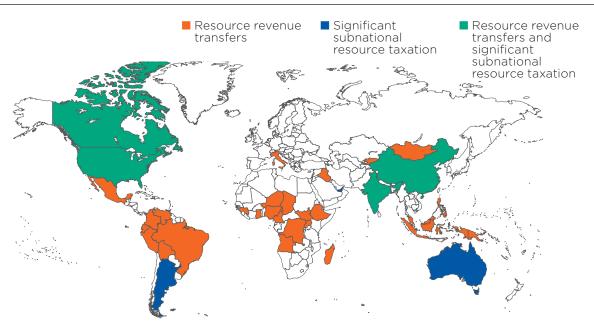
prices rather than more projects and services—have been suggested as explanations of these counterintuitive results.

Poorly designed revenue sharing regimes can also exacerbate regional inequalities. For instance, the revenue sharing regime in Brazil disproportionately benefits oil-rich Rio de Janeiro, the nation's third wealthiest state in terms of gross domestic product (GDP) per capita.

What is more, poor design of a revenue sharing regime has exacerbated, rather than mitigated, violent conflict in some countries. In Peru, for example, the resource revenue sharing system contributed to violent protests. In an effort to secure additional fiscal transfers from the central government, some local leaders in mining regions aggressively attempted to gain control over municipalities where mines were located.

These difficult experiences call for a better understanding of natural resource revenue sharing practices and policies so we can determine which are most likely to succeed. This comprehensive review of international experiences by the Natural Resource Governance Institute (NRGI) and the United Nations Development Programme (UNDP) draws out a number of trends in legal regimes and revenue sharing formulas, and explores which systems have been most effective. Based on this review, we provide 10 recommendations for designing and implementing efficient, fair and stable resource revenue sharing systems.

Countries with Natural Resource Revenue Sharing (Confirmed Cases)



# 10 RECOMMENDATIONS FOR EFFICIENT, FAIR AND STABLE RESOURCE REVENUE SHARING

### 1 INSIST ON CLEAR OBJECTIVES.

Resource revenue sharing systems are often established without agreement on why they are being created. As a result, their design often fails to meet any specific objective, be it compensation for extractive activities, sharing benefits with producing regions, or prevention or mitigation of conflicts. It is also difficult to build consensus on a formula when the objectives have not been clarified. A regime need not have a single objective, but the objectives ought to be made clear in policy or legislation.

### 3 KEEP EXPENDITURE RESPONSIBILITIES IN MIND.

In general, decentralization of fiscal revenues should be largely aligned with the costs of public service delivery given subnational expenditure assignments. Alignment prevents unsustainable public sector wage increases, local inflation and wasteful infrastructure spending when revenues greatly exceed the cost of local expenditure responsibilities. It also helps avoid underprovision of essential public services when revenues are inadequate for meeting local spending requirements. This is equally true of decentralization of revenues derived from natural resources.

#### 5 KEEP EXPENDITURE RESPONSIBILITIES IN MIND.

Large and unpredictable transfers of natural resource revenues can destabilize a local economy. Cycles of boom and bust also harm economic growth, as governments are likely to spend on ostentatious projects during booms and not plan appropriately for downturns. It is therefore incumbent upon central governments to either provide a predictable and smooth source of financing to local governments, or provide them with the tools to cope with resource revenue volatility. This can mean smoothing intergovernmental transfers to local governments or allowing them to address resource revenue volatility autonomously through debt management or saving a portion of their revenues in a sovereign wealth fund.

### 2 ALIGN THE REVENUE SHARING SYSTEM WITH ITS OBJECTIVES.

One reason that resource revenue sharing systems often do not meet their objectives is that the rules governing distribution of resource revenues do not reflect those objectives. This can be addressed by aligning tax collection assignments or the intergovernmental transfer formula with the goals of the system. For instance, a system intended to benefit affected subnational jurisdictions must target those jurisdictions by properly defining them. Similarly, if the objective is to reduce poverty, introducing an explicit poverty indicator into the formula would help achieve that goal.

## 4 CHOOSE APPROPRIATE REVENUE STREAMS AND FISCAL TOOLS.

A government earns revenues from extractive industries through a variety of fiscal tools, including royalties, corporate income taxes and property taxes. In assigning or transferring natural resource revenues to subnational authorities, governments should consider how easy it is to calculate, collect and verify particular revenue streams. Royalties, for instance. are generally simpler to calculate, collect and verify than corporate income taxes. In addition, political considerations must also play a role in determining which revenue streams to share and choosing between intergovernmental transfers or direct tax collection of resource revenues by subnational authorities. For instance, if national level oversight of the extractive sector is weak or extractive sector data is not published by the national government, subnational governments may not trust the national government to transfer the amount they are entitled to and might seek to collect resource taxes themselves.

# 6 MAKE ANY REVENUE TRANSFER FORMULA SIMPLE AND ENFORCEABLE.

Any revenue transfer formula must be simple enough for local government authorities or civil society groups to verify compliance, even if they lack the tools to carry out sophisticated economic calculations. The ability to verify subnational entitlements and actual sums transferred builds trust between different levels of government and between governments and their citizens. Simplicity also helps prevent corruption since transfers are more easily verified under a simple system. In practice, this means setting a maximum of two objectives for any resource revenue transfer regime and including just a few variables in any resource revenue sharing formula.

#### 7 BUILD A DEGREE OF FLEXIBILITY INTO THE SYSTEM.

Once decisions on resource revenue sharing have been agreed, it may be difficult to change them. However, political circumstances and economic conditions change and, in turn, it should also be possible to make small adjustments to any revenue sharing formula. Therefore, some countries have built-in provisions to regularly reconsider resource revenue sharing arrangements.

## 8 ACHIEVE NATIONAL CONSENSUS ON THE FORMULA.

Building consensus on a revenue sharing formula is extremely important for the stability of the formula and for meeting the regime's objectives, especially in politically contested and ethnically diverse environments. If key stakeholders disagree on the formula and it is implemented nonetheless, the regime might be viewed as illegitimate and not addressing local concerns, leading to even greater conflict.

### 9 CODIFY THE FORMULA IN LAW.

Any revenue sharing formula should be codified in legislation or regulations. Codification improves predictability and forces authorities to discuss the objectives of any revenue sharing formula. It also encourages public debate on the advantages and disadvantages of certain proposals.

### 10 MAKE REVENUE SHARING TRANSPARENT AND FORMALIZE INDEPENDENT OVERSIGHT.

Subnational governments can only know whether they are receiving their legal share of resource revenues if they can verify the value of revenues collected from mines and petroleum fields in their jurisdictions. Where these conditions do not exist, the resulting confusion undermines national government efforts to use resource revenue sharing to promote trust between levels of government or, in some cases, secure a lasting peace. Project-by-project and stream-by-stream data on revenues must be made publicly available. Independent audits covering revenue transfers and subnational tax collection should be carried out annually and the results made public.

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