

Precept 1. Planning

Technical Guide

1. Introduction: Objectives, trade-offs and general principles

Natural assets can be transformative; they often have far more potential than either aid or remittances to transform low-income societies into prosperous ones. For resource-rich low-income countries the value of natural assets is large relative to the current stock of their invested capital. Furthermore, many low-income societies are probably sitting on undiscovered natural assets, due to the uneven pattern of global exploration.

However, this potential can only be realized if countries apply good policies. The other Precepts of the Natural Resource Charter provide advice on what countries should do in specific areas involved in resource extraction and public financial management. This Precept looks at some of the overarching themes that can help countries implement this advice across all these areas.

Features of natural resources that make management difficult

Under international law, governments typically have the sovereign right to use a country's natural resources to benefit their own people¹. In practice, natural resource wealth has often been a curse. Natural assets have three features that make the government's role exceptionally important in pursuing a comprehensive approach that secures maximum benefit and minimizes negative impacts.

Firstly, it is not easy to identify the natural owners of natural assets, since they are inherited from the past, rather than produced, like other forms of asset. A key objective must be the assigning of property rights by society. This contrasts with the state's role in most other areas of economic activity, where it *enforces* property rights but does not have to *assign* them. Without clearly assigned property rights there will be insufficient investment in prospecting, and it typically falls to the government to assign these. In order to ensure maximum and equitable benefits for all citizens, the government must be careful in how it assigns property rights and distribution of revenues.

Secondly, the scale of the potential revenues involved. The rents from resource extraction should accrue to the society, not to those private actors who are

¹ Natural Resources Declaration, United Nations General Assembly Resolution 1803 (XVII), 14th December, 1962; Principle 21, Declaration of the United Nations Conference on the Natural Environment of 1972 (Stockholm Declaration); et al.

exploiting the resource, beyond a competitive risk-adjusted return on capital. Ensuring that resource rents accrue to the government is difficult; as is ensuring that they are subsequently used for maximum social benefit. Revenues from the depletion of natural assets are unsustainable and volatile; they are also often very large relative to other revenues and can periodically generate sizeable windfalls. Not only will the typical state in a resource-rich country be larger, but the sudden revenue boom can lead to either deterioration or innovation in the management of public spending. In order for development to be sustained, therefore, revenues must be used distinctively.

Thirdly, natural assets intrinsically concern the future. The governments of resource-rich countries, as the owner of the resource in most cases, correspondingly have a larger role in planning the future than they have in other societies. This is true for both 'upstream' and 'downstream' issues within the decision chain; upstream issues cover the processes from discovery to revenue accrual, while downstream issues relate to how revenue is used. Each of these requires a perspective of around a generation, though for different reasons.

Extraction issues are long-term because it takes many years to identify and extract subsoil assets. Extraction typically requires large up-front investments, which must then be amortized over decades of resource extraction. To attract the necessary investment—which is largely irreversible and hence risky for the investor—the government must provide the investor with contracts that can stand the test of time. The extraction process can also cause enduring environmental damage and disruptions to communities. The solutions to these problems must be similarly enduring. This can pose special challenges to governments, which must make commitments that their successors will adhere to.

Spending issues also require a long-term perspective to bridge the gap between short-term revenue windfalls and the need to produce enduring benefits. Government will want to offset the depletion of natural assets with the accumulation of other kinds of assets: schools, roads, industrial capital, telecommunications etc.

The aim in adopting a comprehensive approach addressing and understanding each stage of the decision chain is to properly account for the unique perils and opportunities faced by resource-rich countries. The extractives decision chain has a weakest link problem.

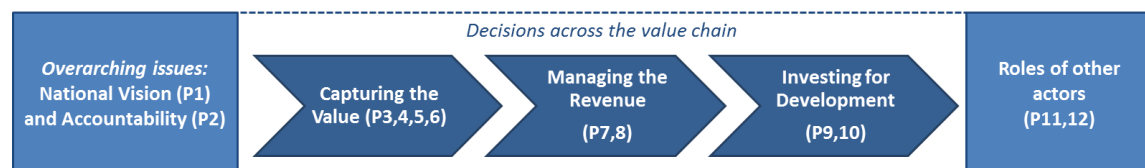
Objective

An abundance of natural resource wealth is of no immediate benefit to people unless this wealth can be transformed into useful productive assets that can

produce a stream of income for a country's citizens. Undertaking this transformation process is not easy and has often resulted in a significant amount of a country's natural wealth being wasted or squandered. Furthermore, the process itself has the potential to inflict further economic, social and environmental costs on the country. Given such potential failures, the ultimate objective of natural resource management is therefore to undertake this transformation process as efficiently as possible to secure the greatest social and economic benefit for people, while minimizing the environmental and social consequences.

Evidence shows that those resource-rich countries that achieve this objective are those with good governance. What good governance means in practice is where each of the many processes required to take natural resource wealth and transform it into benefits for people is appropriately managed. This set of processes is called the '*decision chain*'. Precepts 3 to 10 cover each element of the decision chain.

The decision chain of natural resource management



National Vision

A long-term strategic plan, or 'national vision' is the first link in the decision chain. The first action should be to conduct a wide ranging consultation with the various stakeholders in the country to gather the information necessary to make long-term plans, build support for the policies that must be implemented in the future, and ensure this support is maintained over generations.

The nature of the decision chain described here is that if one of the links is absent or not functioning properly, extraction can merely result in a country depleting its natural resource without fully benefiting. This is not only a wasted opportunity, but can might make reforms in the future harder to accomplish as special interest groups, funded by the new flow of resource revenue, may fight to keep the status quo.

A country must therefore consider how well it can manage the process across the whole decision chain before starting extraction. An alternative is to control the rate of extraction; by allowing some resource revenues to flow, a country's

systems can be tested and improved, without having to manage far larger revenues and its consequences.

Ownership of the resource should be clearly defined and agreed upon by all stakeholders. Without clearly defined property rights, there is no way to tell which party should get the value of the resource.

A good national vision will define the roles of all relevant actors in the decision chain. Ensuring that each actor correctly performs their assigned role requires the means for the ultimate owners of the resource, the public, to hold them to account. Accountability requires the availability of information, the capacity to use this information, and the freedom to challenge those in positions of authority. Building these systems into the planning framework will be a crucial element to the success of the national vision.

Having clearly defined who owns the relevant mineral and environmental assets, the next stage is to *find* the resource. It is important that this is done after the ownership stage since otherwise no party has an incentive to explore. Exploration, or more precisely geological information, is a public good.

Capturing the value

Having defined who owns the resource, and actually found where the resource lies, the next stage is to extract it in the most efficient manner possible.

The owner of the resource should receive the value of the resource, but there will be costs to extraction. The objective here is to minimize these costs to ensure that the resource owner receives the maximum possible value of the resource.

The owner has to ask four questions directly concerning extraction activity:

1. Who should provide the capital that is needed to undertake extraction and exploration?
2. Who should provide the services to extract the resource?
3. What should be the share of risk and return between owner and extractor?
4. How to manage the external costs and benefits arising directly from extraction?

All four questions must be considered together. Capital can be provided by either the state, or by a foreign investor. Precept 6 argues that for many low-income countries, who are likely to be capital constrained, the best approach is for a private (possibly foreign) investor to provide this capital.

Low-income countries often face scarcities in technical expertise, which may be better deployed in non-operational roles. One option, which in many cases will be preferred, is contract with some private sector agent to provide extraction

services. The form of this relationship can vary from country to country and resource to resource.

The provider of capital and provider of services may be the same private company, but this is not strictly necessary, and the country may find that a different relationship is better. In some cases, capital and extraction services may be provided by the government itself, or in partnership with private sector firms.

Whatever the route chosen, the problem remains the same: how to attract the capital and services, and efficiently as possible. This requires allocating risk and return to each party through time. This should be efficient; leaving just enough to attract investment, but no more. Getting this balance right is difficult, but important. Leave too much for the investor and the country is getting a suboptimal return on its resources, and this may lead to reactive reforms or instability. Take too much and the attracting the necessary capital and the best companies to extract may prove challenging.

As well as capturing as much of the value of the resource as possible, a corollary to this problem is to minimize the local damages (and accentuate local benefits) that extraction can create. This requires effective regulation of the industry's activities, and also well designed contracts that ensure the correct party is responsible for mitigation and/or compensation for damages and is encouraged to act on opportunities for creating local benefits.

Managing the revenues

Once the resource value has been effectively captured by the country,, the next set of decisions concern how much to consume today and how much to invest. The issue here is how to convert a flow of resource revenues that is variable and uncertain, into uses that will generate the greatest benefit for the country both now and for generations to come.

The decisions are:

- How to spread the benefit over different generations;
- How to convert a volatile revenue stream into a steady flow of cash ready to be used when opportunities arise.

In the case where natural resources are the property of both the current and future generations, Precept 7 argues that most of the resource revenue should be saved to be able to spread the benefit across generations. However, some can be used to benefit the current generation, particularly where countries face urgent unmet needs. Deciding how much to save and how much to consume today is the first of the spending decisions.

Because resource revenues are volatile and uncertain, a country needs instruments that can manage these flows to support a steady rate of investment. Precept 8 explains how instruments such savings funds can help in this respect.

Investing for development

Having captured the value from extraction and decided on the correct distribution and timing of resource revenue use, the final link in the decision chain concerns using revenues to support economic development.

Here the decisions are:

- How to ensure the best spending opportunities are found, and the cash spent efficiently; and
- How to use the cash to leverage the even greater resources of the country's economy and other foreign investors.

To ensure domestic expenditure is efficient, the country must improve its spending systems (Precept 9 calls this process 'investing-in-investing'). The second decision is to choose in which part of the economy to invest. There may be some opportunities to invest in the resource sector to capture more of the value of the upstream and/or downstream processes. However, while maintaining strong resource extraction industry, a resource-rich low-income country is likely to need to diversify its economy towards other industries. The best way to do this, is to use the resource revenue to attract even more private capital to the country. In this way, the larger cash flow from the country's can leverage even larger pools of capital. Manage the whole decision chain, in the correct sequence

Resource management suffers from a weakest link problem

A country that is abundant in natural resources is not necessarily wealthy in the sense that its people can benefit from it. It is only through this process of transforming the natural resource wealth into other assets and consumption that they benefit. The decision chain discussion above shows that if one part of the chain is missing, the country cannot receive the full benefit from its resource. This therefore leads to the objective of this Precept: *manage every part of the decision chain*.

This next objective follows on from this. Not only should a country ensure that every part of the decision chain is managed, but each stage should be done in the correct sequence.

The idea here is that there are some elements that need to be in place before others can be considered. There are also some elements that are more important than others in terms of ensuring the whole system remains stable.

The key stage that must be sequenced correctly is the decision to extract. Only once all the others elements are in place can a country hope to benefit from its resource. The preceding discussions have argued that if an element is missing, value will be lost. Therefore it is important to correct these problems before extraction begins.

In the case of non-renewable resources, a further argument for delaying extraction until the key instruments and actors are operational is that extraction and exportation of the resource represents a lost opportunity for the country to benefit properly.

Strengthening the weakest links in the decision chain can dramatically increase the benefit the country can get from its natural resources.

For example, perhaps the country is able to capture a good portion of the value from extraction, but has a poor record at managing expenditure projects. This may result in resource revenues being inappropriately consumed or spent on unnecessary projects. The country can focus on two elements on the decision chain in this case: first, it might seek to reform the ministry of planning to ensure public spending projects are better managed; secondly, in conjunction with this, it can construct a savings fund to 'store' the resource revenue until the government's spending powers have improved.

Improving links in the chain can benefit other links further up the chain too. For instance, better public infrastructure spending on transport and energy can improve the investment environment necessary to attract further foreign capital into the extractives sector.

Trade-offs

Where the country only suffers from one weak link in the decision chain then the policy direction is quite clear – strengthen that link. For many countries however, there could be many links that need attention. While the advice to 'ensure every element of the decision chain is working properly' is good in theory, it is likely that a government will have limited resources (whether these are financial or political) to implement reforms across so many areas of governance. With such constraints, countries may face trade-offs over what reforms it can manage.

General Principles

Whatever particular decisions and trade-offs are made, there are a number of general principles that can help a country manage its natural resource wealth.

The key message here is to plan properly, in a comprehensive manner including all possible stakeholder groups.

Whatever is in the national vision, it is helpful to conduct a meaningful nation-wide debate. Political support is likely to be the scarcest of resources required by the government to undertake reforms. Involving a wide range of stakeholders can help provide such support. Because natural resource management requires a long-term planning horizon, political support is required over terms longer than the life span of the average government. A benefit of many stakeholder groups is that they can operate on longer time horizons.

The national vision will also allow policy makers to take a comprehensive view of the decision chain and be able to focus the nation's resources on improving the most important elements of the chain.

The national vision process can also prompt actors to start planning for events that may be some time off, but which require action now. For example, ensuring the Ministry of Finance is involved from the outset, as well as the Ministries responsible for the extractive sector issues, can improve the country's readiness for large scale expenditure programs. Planning also makes external costs such as environmental damage easier to manage. The inclusion of local stakeholder groups can identify these risks before they occur.

Planning helps ensure good legal and fiscal systems are built too. If these are left too late, ad-hoc arrangements must be made as each resource company starts operations. This can result in a chaotic landscape of contracts which will make administration difficult, and lead to opportunities for corruption. Furthermore, future changes to these contracts to rectify the problems will cause instability and uncertainty for investors. It is better for both sides that these systems are in place as soon as possible.

A final principle to follow is for the government to gather as much information on its geology and operating conditions as possible. Having good data will help in the planning process and attract exploration investment. Where data is not yet available, public geological surveys should be undertaken. These can be financed by donors.

2. Design and Implementation

Planning

A national plan to manage the reforms across the decision chain can help coordinate government resources and stakeholder groups. It can also provide the long-term impetus required to manage a process that can last for many decades. There are a number of characteristics of natural resources that suggest a national plan or strategy is required:

- *The process can last many generations.* Not only will resource extraction last for decades on average, it can take a number of years before even production starts, and if certain fiscal systems are chosen, revenues may be further delayed. Such long time horizons can conflict with the political cycle, and other planning tools.
- *The process must be managed across many areas of government.* Managing the entire decision chain means reforming institutions across much of government. This is both an opportunity and a threat. For example, building capacity in the tax authority can benefit tax administration across all economic sectors. However, building capacity within the a specific minerals unit within the tax authority can divert resources away from other uses.

To be useful, a strategic vision should be realistic and context-specific. Many strategies will simply be infeasible in particular contexts. For example, a country that has limited high-quality land and rapid population growth cannot realistically base its strategy on agriculture, and a country where the population does not speak any of the major international languages cannot realistically base its strategy on the export of e-services. In developing the strategy it is important to guard against the triumph of hope over realism. Thus the strategy should be tested against both expert and commercial opinions and revised accordingly.

Once developed, a strategic vision has two key uses:

- The primary use is to guide and coordinate investment, both public and private. For example, the Malaysian government's successful decision in the 1970s to develop an Export Processing Zone for light electronics in Penang, an impoverished part of the country, requires substantial public investment in both physical and social infrastructure, and pertinent private investors had to be induced to cluster there. Today, Penang is an economic powerhouse which has transformed its region.
- The additional use of a strategic vision is to reassure citizens that there are realistic prospects of a more hopeful future. Economic development takes time and in a poor society hope of change is potentially far more important than in a rich society. But realism is necessary; citizens are unlikely to be fooled by over-optimistic scenarios and, even if fooled temporarily, will become dangerously disillusioned once they are not realized. In Malaysia, creating such a sense of credible hope was critical to social stability.

Multiple stakeholder approach

Because the process can last many generations, decisions made now must be held stable even over the political cycle. This calls for a multi-stakeholder approach to ensure that there are groups that have a longer-term horizon than a political party, and that can hold policy makers to account. Conducting a ‘national conversation’ about the strategy and the choices to be made can help ensure this long-term support.

This process can provide a large amount of information that government institutions by themselves may not have. Dialogue with industry representatives, for instance, can help determine what policies are actually implementable and supported by investors.

This approach also provides legitimacy to the plan. If views are fairly considered, and are seen to be so, then the potential for long-term stability of the plan is strengthened.

Embedding plan within national plan

A national plan to manage natural resource reforms is crucial to coordinate the various actors across government and other stakeholders. There are four main types of resources that are required to implement reforms:

- Political.
- Financial.
- Human capital. Setting up institutions requires human capital, like tax authorities, NORCs, stabilization funds, etc.
- Civil service. Extra responsibilities on civil service institutions can reduce their efficiency, strain management infrastructure, etc.

Most countries already have national plans to undertake economy-wide and sector specific reforms. To work as intended, these plans must be aligned to ensure resource use is not conflicted.

Establishing property rights

As the discussion on the decision chain showed, establishing property rights over both the natural resources to be extracted, as well as natural assets that the extraction process may damage, is a crucial link in the decision chain, and likely to be the first element that a country should consider.

Getting this wrong can result, at best, in correct incentives to operate efficiently, or, at worst, violent conflict.

Often, the state is the ultimate owner of the resource, however even in this case, the 'state' may not be well defined, nor constant, i.e. witness secessionist movements.

In addition, the 'state' is a somewhat amorphous term as it is the custodian of the people. It is important to define which generations has ownership of the resource. Precept 7 argues that it belongs to all generations. This has implications for the savings decision.

These points demonstrate that it is important not only to clearly define property rights, but to also ensure this definition is supported by stakeholders. Such support makes the ownership decision legitimate and long-lasting.

Property rights are key to building the correct incentives throughout the rest of the decision chain. If there is uncertainty about who owns the resource, then there will be difficulties over which parties can be involved in operating contracts, and there will be less incentive to invest in exploration and development activities.

In addition to defining the ownership of the mineral resource, the ownership of other assets that might be affected by extraction, such as local environmental assets, should be defined.

This is important for two reasons:

Firstly, the owners of local environmental assets may potentially contest the ownership of the mineral resource as well. Defining property rights of environmental assets therefore can add to the stability and legitimacy of the mineral resource regime.

Secondly, the objective is to extract the resource as efficiently as possible, i.e. with as little environmental cost as possible. Having defined property rights of environmental assets sets out which party should be compensated if these assets are damaged by the extraction process. This in turn ensures that there is an incentive to minimize such costs, as the party undertaking the extraction will want to minimize any compensation payment.