

CHAPTER 1 – www.eisourcebook.org

1.3 Bridging the Knowledge Gap

Faced with these shifting patterns of demand for and supply of knowledge, the *Extractive Industries Source Book* has been developed as a contribution to the new sources of demand. Drawing upon many of the new sources of knowledge, and particularly upon an emerging network of knowledge centres and suppliers, it strives to create a compendium of established good practice, informed by recent research and including a critical exposition of principles, and analysis of relevant experiences and commonly used instruments. It seeks to meet demand by sharing this resource in printed and electronic forms, providing in a single place a concise, comprehensive, and dynamic guide, noting the diversity of opinion and experience. It is guided by the awareness that without good governance and management, dependence on extractive industries can lead to poor development outcomes, including environmental degradation and social dysfunction that will undermine the sustainability of that development.

The *Source Book* is therefore much more than an assembly of knowledge; it brings together diverse kinds of knowledge on the kind of operational issues that are driving demand, and frames them in a new way. It advances and expands the knowledge base on practical approaches for the management of resource wealth. Its 'creation' of knowledge includes rigor, accessibility and a style of knowledge and information that the *Source Book* shares with its users. Further, it aims to provide an overarching framework for the program of education now needed in this field, to guide knowledge exchange in the form of workshops, seminars and symposia. It has both an electronic and a hard copy version. The latter comprises the main narrative of the project.

The *Source Book* is based on *four* premises:

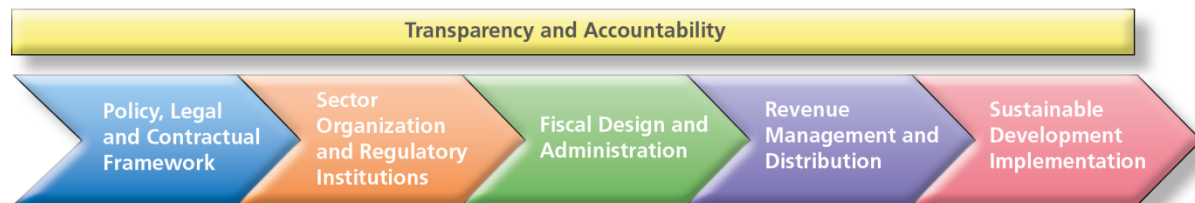
1. The oil, gas and mining industries or 'extractives' have sufficient common characteristics to justify a unified assessment such as this, united as they are by the notion of being taken from below the surface of land or sea-bed by human efforts and converted into more sustainable opportunities. Key elements follow from this: the importance of geology, ownership by a surface owner and the need for more or less complex technology. The infrastructure-heavy linkages to extractives such as transportation networks or grids, and complex manufacturing processes (crucial to both gas and mining) have fewer claims to homogeneity and can be treated as analytically distinct;

2. Successful management of the oil, gas and mining sectors requires that all stages of the value chain, and any cross-cutting themes such as transparency and accountability, be carefully considered, and viewed as belonging to a whole. Neglect of any one aspect may undermine the chances of success in dealing with another;
3. No single approach will suit all states. As noted, the *Source Book* is very much a *guide* to good practice, which will require adjustments to differing state contexts. The arbiters of that adjustment process reside in the states themselves. Not only will they need to tailor good practice to a particular national context but a particular policy is unlikely to suit each province or project or be suitable over time if circumstances – say, changed prospectivity, for better or worse – change; and
4. A focus on applied knowledge will serve the user well only if it is accompanied by a discussion of principles or general theory. Even if the *Source Book* provides the user with a very brief introduction to those general principles as they apply to particular topics such as award of rights or revenue management, and furnishes guidance on further reading, it seeks to share with the user the core assumptions that often guide customary practice in the extractive industries.

CEPMLP
1.3.1 The Value Chain
Centre for Energy, Petroleum and Mineral Law and Policy

The concept of a specific Value Chain for the extractives sector plays a central role in driving the *Source Book's* structure. When applied to the extractives sector, this framing device allows the capture of both the comprehensiveness and the integration of core activities. It is illustrated in Figure 1.1 below.

Figure 1.1: The Value Chain and EI



The EI Value Chain emphasizes five distinct but related features in the EI sector management process¹. Every resource-dependent state has to move through each of these if resource-led development is to take place². They cover: (1) the establishment of a legal framework that will convey and enforce rights to investors within a broad policy for development of publicly owned resources; (2) the institutional organization of the sector and particularly the regulation and monitoring of operations in the public interest; (3) the design and collection of taxes and royalties; (4) revenue management and distribution; and (5) the implementation of sustainable development policies. These *process* links are illustrated by the five chevrons in the diagram above.

The EI Value Chain concept allows the *Source Book* to better illustrate how good practice policy interventions need to be made in an integrated manner if natural resource assets are to be transformed into resource wealth along a sustainable path. Public policy decisions have to be taken at the various points in the chain, with the result that sometimes it may seem like a ‘decision chain’. A failure in decision-making at one stage in the value chain will disrupt the sequence and affect the value of the resource assets as they are transformed along the chain. Policy-makers therefore need to take a holistic approach to EI sector development.

For each link of the Value Chain there are common problems that will arise and practices that have evolved to address them. Knowledge of these problem-solving practices and their continuing evolution is the *Source Book*’s principal subject matter. This entails much more than an assembly and description of practices, instruments and principles. It requires interpretation and contextualization for a proper understanding and appraisal. The dynamic of shifting public policy priorities in problem-solving – sometimes in response to international or regional developments – also has to be taken into account.

The fifth chevron – sustainable development implementation - attempts to capture a number of related policy considerations that are aimed at the challenge of developing the resources in a sustainable way. This chevron differs from the other chevrons in that it is primarily policy-based rather than rule-based. *Of course, it presupposes that a strategic choice has been made to exploit the resources in the first place as the most sustainable scenario, with trade-offs and costs weighed up in a transparent manner.*

¹ World Bank (2009). *Extractive Industries Value Chain*, Extractive Industries for Development Series No. 3, 2009. Washington, D.C.: World Bank Publications.

² As a recent study notes, “the credibility, quality, transparency, and accountability of policy-making processes, public institutions, the legal and regulatory climate, and sector governance are major determinants of how successfully countries can channel their resource wealth into sustainable development”. World Bank (2011). *Rents to Riches? The Political Economy of Natural Resource-Led Development*. Washington D.C.: World Bank Publications, p. 11.

There are two parts to this approach to implementation. Firstly, as finite or depletable resources, they raise the question of whether policies are to be designed so that future generations will benefit from the resource development. Are the resources to be developed rapidly without concern about possible spin-offs in terms of infrastructure or other economic development? Or are these considerations to be built in to maximize benefits over the long-term and attempt a wider economic and social transformation? Secondly, it aims to capture environmental and social impacts of oil, gas and mining activities. Although these are evident at earlier stages of the Value Chain, where sustainability criteria should be developed, they are likely to be weighted more to this end of the chain, once production has commenced and revenues are flowing.

Three features of our approach to the Value Chain in the *Source Book* may be noted:

- It includes a cross-cutting feature on Transparency and Accountability to reflect its significance at all points in the Value Chain (see *Chapter 4*);
- It attaches an enhanced significance to the establishment of a legal and contractual framework (the Rule of Law), in contrast to some other versions of the Value Chain³; and
- It emphasizes the need to ground the good practice recommendations of the *Source Book* in a political economy context: that is, the constellation of specific institutional and governance features that will shape the application of good practice and require such practice to fit if it is to achieve its intended aim.

In a recent study of results chains and logical frameworks applied to the extractive industries⁴, the authors have emphasized the risks of their becoming “rigid frameworks (‘blueprints’) that give people reason to be lazy in their thinking”. They advise that to avoid this, “causal relationships, underlying assumptions and the measurement of change should be the objects of permanent, critical and self-critical debate”. The *Source Book* authors accept this advice and seek to implement it in their application of the EI Value Chain. In addition to the above

³ In some versions of the Value Chain the emphasis is upon ‘the decision to extract’ and ‘getting a good deal’ as the first links in the chain (Revenue Watch International/Natural Resource Charter) or ‘award of contracts and licences’(EITI). Our version takes explicit account of the need for a legal framework without which no investor will have security of tenure and will therefore be unable – in most cases – to secure finance to commence extraction in the event of a commercial discovery. The need to have such a legal structure in place may be assumed by the notion of ‘award of contracts and licences’, but this underplays the influence of EI laws and model contracts at the pre-discovery stage in attracting investment into the host country. In this respect the *Source Book* follows the work of Mehlum, Moene and Torvik (2006) who use a measure of institutional quality that takes into account the rule of law, bureaucratic quality, government corruption, a risk of expropriation and government repudiation of contracts (all common to political risk analysis), and conclude that the main reason for diverging country experiences of EI resource development is differences in the quality of institutions (‘Institutions and the Resource Curse’, *The Economic Journal* 116, 1-20). There are no direct measures of democracy or accountability used in this analysis.

⁴ BMZ/GIZ (Federal Ministry for Economic Cooperation and Development (Germany) (2011). ‘On the Use of Results Chains in Natural Resource Governance: Basic concepts and exemplary applications to the extractive industries’. Bonn: GIZ: <http://www.ipa-cologne.de/reports/bennett-leutner-roesch-2011-results-chains-eng.pdf> (last accessed 18 January 2014).

comments on our distinct approach, three caveats about the Value Chain concept are therefore noted; they have influenced its application in the *Source Book*. These are:

No ideal starting point Very few countries will be able to approach the design of their petroleum or mining regimes as if they were starting at Chevron 1 with a clean slate. All too often they will inherit old, poorly drafted laws and a patchwork of agreements which are in need of revision. The Value Chain used in the *Source Book* needs to be adapted to these less than ideal circumstances which all too often impose constraints upon policy makers and their advisers.

Governance The Value Chain assumes that a minimum level of governance or potential for governance of the EI sector is in place⁵. In certain states where there has recently been a high level of conflict or where the state itself might be classified as ‘fragile’, this assumption may not be tenable. Moreover, a feature of the EI sector that has attracted increasing comment is what may be called ‘fragmented governance’, the often fragile relationships between central and local organs of authority, which can be exacerbated when expectations are boosted by the prospects of resource wealth. Again, this context will impose limits on the assumptions about governance that the Value Chain makes. A final point on governance and the Value Chain is that it tacitly assumes a consensus about the kind of governance that is appropriate to optimal EI development. This is a brave assumption to make when (1) past experience shows plenty of evidence of failure in institutional design, and (2) contemporary governance requires a much greater level of integration of players for governance to be sustainable.

Player Diversity The sequential aspect of the Value Chain approach of the *Source Book* should not obscure an important feature of the EI industries. The dynamics of the EI sector mean that *the same players are not always present at the various stages of the chain in a particular project*. In practice, there are different types of players that are prepared to engage in EI activities and as a result have different business models.

1.3.2 Chapter Structure

Chapters 1 and 2 of the *Source Book* introduce the key topics with a brief discussion of the opportunities and challenges associated with resource wealth. This is an important and often

⁵ A recent research tool in this area is the World Bank’s Mining Governance Assessment (MGA) tool, designed to facilitate understanding of the convergence of governance, competitiveness, growth and investment issues related to the mining sector in developing countries: launched at the Cape Town Indaba, February 9, 2015.

contrasting balance, given the vivid examples of countries which have squandered resource wealth or have seen a significant rise in conflict following discoveries of minerals and/or hydrocarbons. Yet for any country that finds itself with this geological good fortune, there is the prospect of a new beginning in the development cycle, of a chance to leapfrog decades of grindingly slow progress and join the world's wealthier nations in a generation rather than a century. Realizing this vision requires that lessons are learned not only from the past: some countries with natural resource discoveries may have no past in the extractive industries. It requires a careful assessment of the experiences of other countries, often neighbours, whose policies were designed to reflect different (and sometimes very different) circumstances, constraints, pressures and hopes. For the *Source Book* authors, this leads them to direct attention to the problems that any country embarking upon natural resource development will typically need to address in making its goals a reality, and to pay particular attention to the detail of operations, and less attention to matters of high principle, leaving others (perhaps better qualified than we are) to address those important matters.

Chapter 3 provides an overview of the distinctive and relevant features of the oil, gas, and mining sectors. The very idea of 'extractives' has only gained wide currency in recent years. Previously, oil and gas were seen as very different from mining, an industry with a much smaller market capitalization but with a much larger propensity for controversy in its social and environmental impacts. To an outsider, however, it is self-evident that these sectors have much in common, and that insight lies behind their treatment within the *Source Book*. For those who wish to learn about the specifics of each sector – and natural gas development has many differences from oil – the treatment in various Chapters attempts to provide this. Laws, policies and fiscal frameworks need to understand and reflect these real differences, while at the same time benefiting from an awareness of their similarities. In development terms, the extractive industries are not however just another economic 'sector'. Where they predominate in a country's economy, they have a potential to transform the 'host' state like very few other industries. For all states in the global economy, the extractives have a role that is of fundamental importance at present, one which appears very unlikely to change in the near term. If so, it is all the more important to ensure that their role is as benign as possible for all parties concerned.

Chapter 4 addresses, as a cross cutting theme, issues of governance, accountability and transparency, which bring together several strands in the *Source Book* and look forward to practical implementation of this body of knowledge in specific contexts.

Chapters 5 to 9 sequentially follow the Value Chain. They examine in detail each of its chevrons: legal and policy frameworks, and conditions for access to mineral resources to regulation and monitoring of operations, revenue collection, management and investment, and sustainable

development. This body of knowledge is the most important and in our view the original contribution of the *Source Book* to current debates on the role of EI in development. The four Chapters adopt a problem solving approach, emphasizing the typical issues that countries will encounter in EI development and providing options in addressing them. The diverse material is linked together by means of the Value Chain concept. It underlines the importance of an integrated view to EI development and implicitly cautions against a piecemeal approach to policy and regime design, however tempting that may be given the many unknowns that exist about the exact resource potential of oil, gas and minerals.

1.3.3 Accessing the Source Book

The *Source Book* has two principal ways of meeting the new sources of demand for specialist knowledge. It has an electronic version (www.eisourcebook.org) and a printed version. In many countries access to electronic media is easier and faster than access to a printed copy. The scope of an online version is also as broad as the imagination of the persons creating and operating it, and as deep as the demands of its users dictate. It can provide a guide but also supply the user with case studies and examples of primary and secondary source material on a large scale. It can lay the foundations of a dedicated program of education in specific areas such as revenue management or contract design. It can allow the *Source Book's* objectives to be met in a way that the printed copy cannot.

The electronic version therefore taps the potential of a medium ideally suited to build a compendium of knowledge, using open- source architecture to permit new contributions from a global end-user community with frequent updates based on committee peer review of new submissions. This is reinforced by hundreds of examples of contracts, regulatory instruments, development tool-kits, and annotated bibliographies. Third party comments or contributions are invited and are posted subject to a light touch review. Research papers are specially commissioned from *Source Book* partners to address knowledge gaps and are publicly available.

Since its launch in late 2012 the online version of the Source Book has grown to reach an audience of almost 6,000 unique users a month, including visitors from all of the continents and most of the resource-rich countries on the IMF list.

The online version of the *Source Book* is also intended to facilitate end-user dialogue and discussion on its contents, which includes an interface allowing for comments and which also, interacts with several additional website platforms. One such platform is the United Nations

Development Program and World Bank Institute's Governance of Extractive Industries (GOXI) website.⁶

By contrast, the hard copy version is intended as a stand-alone document, complementing the online version but with a style and content that matches the potential and the limits of this particular form. Its justification is not only based on a recognition of individual preferences but also of the fact that in some countries internet connections are not yet reliable enough to permit regular access to the *Source Book*. For teaching purposes, a hard copy also has some advantages over an electronic form.

Both the hard copy and the electronic versions use a Box feature to highlight particular issues, national experiences or special initiatives.

Irrespective of the form, the way in which knowledge has been assembled in the *Source Book* is layered like a geological structure. The principal layer or 'bedrock' is the narrative contained in each of the *Source Book's* chapters. This is the principal content of the hard copy version, but is also available in the online version. This layer is the foundation for comments and diverse views and experiences that are added to the online version by users through online submissions. In the hard copy, such examples of diverse views and experiences are provided in the text, the footnotes and sections on Further Reading. The online version also provides access to an annotated bibliography, linked to brief summaries of documents, comprising both primary and secondary source material. A further level is provided in the online version by the growing body of attachments containing annotated sample texts and documents, such as laws, model contracts and actual contracts, commentaries and studies by independent bodies, industry associations and advocacy groups, and policy documents. This is in turn supplemented by a layer comprising papers on 'knowledge gaps' which have been commissioned by the *Source Book* to address issues that our consultations have identified as inadequately researched, or which have acquired a new significance in the existing body of knowledge. The cumulative effect of the layering approach is to allow the user to dig ever more deeply into a particular topic of interest.

⁶ UNDP/World Bank Institute: *Governance of Extractive Industries (GOXI)* website; available at: www.goxi.org (last accessed 6 June 2014).