



DIIS REPORT

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Extractive Natural Resource
Development:
Governance, Linkages and Aid

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Contents

Chapter 1. Introduction: extractives, linkages and governance	5
Chapter 2. The potential for resource-based development in Africa	14
2.1 Introduction	14
2.2 Changing views about the ‘resource curse’	14
2.3 Africa’s extractive sector resource endowment	15
2.4 Trends in commodity prices	17
2.5 Expectations of Foreign Direct Investments in extractive industries	20
2.6 Managing rents from extractive FDI	24
2.7 Promoting broader development effects through linkages and spill-overs	27
2.8 The changing political incentives for the governance of extractive industries	28
2.9 Conclusion	30
Chapter 3. Review of literature on linkages in African extractives	32
3.1 Introduction	32
3.2 The debates on linkages in extractives	32
3.3 The breadth and depth of linkages in African extractives	34
Overall, linkages are few and shallow!	36
But there is evidence of linkage potential	37
Linkages are often with local representatives of foreign suppliers	40
Inter-industry spill-overs are larger than intra-industry spill-overs	40
Backward linkages may have greater potential than forward linkages	43
3.4 The factors promoting and constraining linkage formation	43
Government strategies and capabilities	44
MNC strategies and capabilities	48

Local industry strategies and capabilities	52
Donor strategies and capabilities	55
3.5 Conclusion	60
Chapter 4. The political economy of linkage development	62
4.1 Introduction	62
4.2 Resource curse, good governance and industrial policies	63
4.3 Political incentives for industrial policies in African countries	69
Elite-business-bureaucracy relations influence ‘good fit’ at micro-level	69
Political settlements: ruling coalition and domestic capitalist characteristics that influence ‘good fit’	74
Donor contributions to ‘good fit’ industrial policies	75
4.4 Conclusions	78
Chapter 5. Key findings and implications	80
5.1 Introduction	80
5.2 The need for more approaches to linkages development	83
5.3 Governance matters: ‘good fit’ approaches to linkage development	86
5.4 A new role for donor assistance in linkage development	90
Literature	94

Chapter I. Introduction: extractives, linkages and governance

Natural resource-driven development in Africa has emerged as a hot topic in recent years. *Extractive industries*,¹ by which is meant energy (i.e. gas, oil, and coal), minerals and metals, are an important part of this agenda. The renewed interest among governments, firms and donors in these industries hinges on the assumption that they will generate foreign revenues, create jobs and boost economic growth. Indeed, Africa's abundant endowments of natural resources may speed up economic transformation, economic diversification and poverty alleviation. Industrial policies are thought to be particularly important to achieve this by helping to develop the linkages of the extractive industries sectors and the local economy, and by using resource rents and revenues to generate growth and employment in agriculture, industry and services more broadly (Jourdan 2008; Morris, Kaplinsky et al. 2011a).

These issues are the focus of several recent reports from international organisations, for example, the 2013 Economic Report on Africa by United Nations Economic Commission for Africa entitled '*Making the most of Africa's commodities: industrializing for growth, jobs and economic transformation*' (UNECA 2013); the special theme, '*Structural transformation and natural resources*' in the African Economic Outlook 2013 issued by the African Development Bank, UNDP and others (AEO 2013); and the '*Commodities and development report: perennial problems, new challenges and evolving perspectives*' by UNCTAD (2013a). The recent European Union conference on '*Africa's economic transformation: the role of natural resources*' is another indicator of the rapidly spreading interest in Africa's natural resource wealth among donors.² Foreign Direct Investment (FDI) is central to such strategies because many commodity chains – right from resource exploration to the marketing of final products – are increasingly dominated by multinational corporations (MNCs) (Jourdan 2007; UNCTAD 2007). Most importantly, many African countries have recently prioritised the exploitation of extractive natural resources in their development strategies. In short, a new development agenda is emerging in many African countries, which will have many and important implications for donor agencies.

¹ This is a subset of industries involved in natural-resource sectors, which also include production related to land (i.e. forestry, agriculture) and to fisheries. See Morris, Kaplinsky and Kaplan (2011a: 8) for a recent classification.

² See <http://www.friendsofeurope.org/Contentnavigation/Events/Eventsoverview/tabid/1187/EventType/EventView/EventId/1213/EventDateID/1217/PageID/6569/AfricaseconomictransformationTheroleofnaturalresources.aspx>. Accessed 22 June 2013.

One important strand in this new focus on extractive industries is *linkage development*, which is ‘by definition about achieving optimal and best-fit alignment between the commodity producers and their current and potential suppliers and the processors of their output. It is about extending the scope of such alignment by growing the scale, range and depth of domestic capabilities. It is about putting into place visions, policies, strategies and implementation plans to bring about the systemic competitiveness of any particular commodity value chain’ (Morris, Kaplinsky and Kaplan 2011c: 9).

To promote such linkages, governments and donors employ a range of measures: local content requirements, local ownership requirements, local processing standards, local hiring of staff, compulsory corporate social responsibility (CSR) programs, mandatory local content reporting requirements and supplier development programmes – as well as signing up to international agreements such as the Extractive Industries Transparency Initiative (EITI), etc. (UNCTAD 2010).

The purpose of this ReCom Report – based on literature reviews and limited field-work in Mozambique, Tanzania and Uganda – is to identify the main factors which influence the *political incentives* for governments in African countries to use industrial policies and other measures to create linkages between extractive industries and other parts of the economy so as to generate more jobs, sustain growth and alleviate poverty. This governance perspective complements analyses of the economic implications of resource-based development strategies, and it helps to identify *some main implications for donor assistance* of support to extractive natural resource-driven development.

Working with linkage formation in extractive industries is a relatively new field for donors. It is only during the last ten to fifteen years that rising commodity prices and changing economic policies in many African countries have led to rapidly increasing investments in extractive industries and consequently to a growing donor interest in mobilizing these investments for development objectives, for example, by supporting industrial policies and other measures to strengthen linkages in and around extractive industries. For from a donor point of view the potentials – and risks – of natural resource-driven development are large if aid prioritises poverty alleviation and inclusive growth, as well as if aid is aimed to promote donors’ own commercial interests in Africa. This report seeks to provide some insights into this emerging field of (possible) donor intervention.

Briefly, the arguments for the renewed focus on extractive natural resource-driven development and linkages builds on five propositions. First,

Box 1. The resource boom challenges donors: examples from East Africa

The management of resource rents and taxes from extractive FDI has been subject to dedicated donor initiatives for more than a decade. In contrast, the issue of linkages and local content has only recently become a concern for donors in Mozambique, Tanzania and Uganda, where donors are seeking to develop modalities for addressing this challenge.

In Mozambique the donor community organised in the Programme Aid Partnership (PAP) that brings together the nineteen leading donors that have provided budget support since 2004 (popularly known as the G19) has become increasingly fragmented as individual members promote and protect partisan interests in the new natural resource-driven economy. Under Danish leadership over the last year the G19 has nonetheless made Dialogue on Natural Resources and Transparency one of its three key policy fields. Many studies have been launched by individual members of the donor community on the political economy of land and transport directly or indirectly linked to the exploitation of natural resources (DfID), the support given so far to capacity-building of the governance of extractives (NORAD), the regional and national political space for dialogue (SIDA), the supply potentials for linking donor economies to the Mozambican extractive economy (Danida) and the political economy of an inclusive growth agenda (Dutch embassy), as well as a multitude of studies on agricultural potentials, growth corridors (World Bank) and so forth. Furthermore donor missions and embassies have become instrumental in organizing business exchanges directly linked to the extractive economy that is developing just as donor missions increasingly begin to promote projects and programmes that stabilize and support large-scale investments. One example is the DfID-funded AgDecCo program worth USD 9 million and focusing on resettled communities attached to the Rio Tinto Coal Mozambique (RTCM) exploitations in Tete Province.

In Tanzania, the discovery of uranium, coal, nickel and in particular gas has recently made donors scramble to position themselves on this issue. Donors are organizing lunch meetings to coordinate their efforts on this rising issue and to curb potential internal rivalry over it. Several donors, including the World Bank, DFID, NORAD and the Dutch development agency, have commissioned position papers and reviews aimed at identifying gaps in local capacity and exploring, seeing how local content can be increased. Donors are also promoting value chains related to extractives, strengthening institutional capacity for managing extractive investments, promoting extractives-related training and skills-upgrading activities, and sharing and disseminating best practices.

In Uganda, several donors are trying to support the strengthening of local capacity in order for the Ugandan economy to make the most of oil investments. The donors interviewed for this study all had programs to help build local capacity to benefit from oil investments, and they were interested in focusing on the issue. The like-minded donors (e.g. the Irish, the British, Danida etc.) are also interested in pursuing the issue of transparency in oil management. The Ugandan government has not yet signed up to the Extractive Industries Transparency Initiative (EITI), but it has pledged to do so and is allegedly waiting until all the legal frameworks are in order. In general, it has become clear that the Government of Uganda's relations with donors have changed significantly over the last two decades. Throughout the 1990s and into the new millennium, the government had a close and frequent dialogue with the World Bank, probably its closest development

partner. However, recent corruption scandals have caused what the EU head of delegation has called 'a breach of trust' between the government and the donors. At the same time, the biggest long-term donors to Uganda such as the World Bank, England, Denmark and the USA are having a harder time getting into a good dialogue with the GoU, whereas the Chinese apparently have an easier access, as does Norway because of its technical support to the Petroleum Exploration and Production Department.

the growth performance of many African countries has improved significantly since the mid-1990s – often averaging more than 2 per cent per capita for at least a decade (Radelet 2010; Devarajan and Fengler 2013). 'Yet this impressive growth story has not translated into economic diversification, commensurate jobs or faster social development: most African economies still depend heavily on commodity production and exports, with too little value addition and few forward and backward linkages to other sectors of the economy' (UNECA 2013: 6).

Second, such linkages from natural resource exploitation (and related spill-overs) must be strengthened through more pro-active industrial policies if African economies are to benefit and generate sufficient jobs for rapidly growing populations, as well as lift significant numbers of people out of poverty. African economies must, in other words, undergo economic transformation to meet these challenges (Rodrik 2006; Cimoli et al. 2009; Lin and Chang 2009; Whitfield et al 2013; Whitfield et al. forthcoming).

Third, African countries will be able to pursue such transformative industrial policies much more actively in the future because states will obtain resource-generated revenues (despite obvious problems with illicit capital transfers and tax evasion). Such revenues will potentially be available both to fund industrial policies (which typically also require substantial investments in infrastructure, education and health), and to reduce aid dependency. In the past this dependency on western donors has often prevented states from taking a pro-active role in extractive natural resource development (Campbell 2003, 2009). Government-donor relations have begun to change as commercial interests in the continent's resource wealth potential have grown. The most prominent example of this is, of course, the rapid emergence of China (both the government and Chinese firms) as major actors in extractive industries in Africa (Brautigam 2009), but western

donors are also increasingly paying attention to the commercial potential of such natural resource exploitation.³

Fourth, the potential benefits of this extractive natural resource-driven development have increased significantly over the last couple of decades because the global demand for such resources has grown considerably as China in particular – spurred by global trade liberalisation – has become the manufacturing powerhouse of the world. This makes industrialisation elsewhere, particularly for newcomers, more difficult, but it has also resulted in a reversal in the long-term declining trends in commodities-manufacturing terms of trade of the past and made high and more stable commodity prices in the foreseeable future more likely (UNCTAD 2012).

Fifth, shifts in the global commodity value chains have given more power to MNCs – the typical lead firms in such chains. Competitive pressures are increasingly forcing them to focus on their core activities and to outsource non-core operations, thereby encouraging linkages to local firms (Morris et al. 2011a). Such linkages are driven by market forces. In addition, corporate social responsibility pressures and various international regulations (the Extractive Industries Transparency Initiative, the Kimberley process, etc.), plus domestic industrial policies, may also (but not always) push in the same direction (AEO 2013: 162).

In short, according to influential researchers and international organisations, the huge (potential) resource wealth of many African countries is opening up considerable opportunities for the acceleration of economic transformation and sustained poverty alleviation through industrial policies promoting linkages between extractive natural resource sectors and the rest of the economy, through increased revenues to spend in productive and social sectors, and through governments' greater room for manoeuvre in pursuing their own policies as aid dependency declines.

This does not mean that there is a broad consensus within and outside African countries about the desirability of resource-based development or its feasibility. Nevertheless, past arguments and evidence that this strategy will lead to lower growth

³ See, for example, the 'Joint Africa EU Strategy Action Plan 2011-2013' and the High-Level Conference EU-Africa Partnership on Raw Materials 'Translating Mineral Resource Wealth into Real Development for Africa' in January 2012, which discusses how to implement raw materials aspects of the strategy (see <http://www.africa-eu-partnership.org/newsroom/all-news/high-level-conference-eu-africa-partnership-raw-materials-translating-mineral>). On Norway's interests, see Norad Report 7/ 2012 Discussion.

and a slower pace of industrialisation and technology transfer (as argued by, e.g., Prebisch (1950) and by Singer (1950)) and to perverse economic and political outcomes (see, e.g., Moore 2004, footnote 10 for major contributions to the political economy literature on the resource curse) have been challenged by much more optimistic views. A reading of the three major recent multilateral agency reports mentioned above clearly illustrates that. Likewise, the past critical and pessimistic views about the developmental potential of FDI have changed significantly recently – certainly among many aid organisations, African policy-makers and academics. Nevertheless, there are still disagreements about the priorities and content of the governance arrangements that are most likely to lead to sustainable growth and poverty alleviation in Africa, such as the controversies between adherents of the good governance paradigm versus the different views on the political settlement or heterodox economic development paradigms respectively (Lauridsen 2010, 2013).

We highlight some of these controversies in Chapters 3 and 4, since they help to contextualise the political economy of growth-enhancing governance issues – in particular the governance of creating linkages related to extractive industries-based development. The latter is our main focus here, for this crucial issue has been neglected in a very substantial part of the literature on extractive natural resources, linkages and FDI. In particular, our focus is on the political economy that hinders or promotes the incentives of ruling political elites to design and implement linkages through extractive industry-driven industrial policies. We argue that:

- Active industrial policies for extractive industry-driven development have a considerable technical potential for increasing the linkages and spill-overs to other sectors and thereby creating a more diversified economy (see Chapters 3 and 5)
- The extent to which this will actually happen depends on specific features of the international and local firms present in the economy (in particular ownership, technological capabilities and relations with ruling political elites) and of the country's political settlement, for these shape the incentives facing political elites in designing and implementing industrial policies (see Chapters 3, 4 and 5).
- The economic importance of Africa's natural resource wealth will reduce the influence of western donors and force them to adjust their relations and interactions with recipient African governments in most countries. Western donors can, however, still play a potentially positive role in this resource-driven development, provided they can offer industry-specific technical advice and the financing of learning rents that are demanded by recipient governments, and provided that their support is coordinated (see Chapter 5).

- Policy recommendations should reflect the ‘good fit’ with local contexts, institutions and politics, and not only the ‘best practices’ on which donors typically base their advice. There is a tendency to discuss linkage formation purely in terms of economic efficiency terms, thus neglecting especially the political context in which such policies are implemented.

These findings and recommendations (and more detailed ones presented in Chapter 5) are based on a literature review and field-work in Mozambique, Tanzania and Uganda that focus on linkages related to extractive natural resources such as ‘energy’ (gas, oil, coal, etc.) and ‘hard commodities’ (minerals, metals, etc.). The three countries chosen for fieldwork vary in the extent to which extractive industry development has – or will – take place. Uganda has just embarked on the process of exploiting its extractive natural resources. In Mozambique and Tanzania this development started earlier, so they are intermediate cases. A few examples from Nigeria, based on a literature survey, are also included because the country’s economy has already been extractive industry-driven for some time. This variation in cases provides insights into past and present experiences in reaping the benefits of extractive industry endowments and industrial policy, as well as what have been the constraints. Thus, this report provides a profile of an emerging field of donor intervention through a consolidation and review of the existing literature on linkage formation in natural resources in Africa and through illustrative case studies of the political and economic dynamics of natural resource linkage formation in three donor-dependent African countries, Mozambique, Tanzania and Uganda.

Obviously, the report cannot cover all aspects of linkage formation in extractive industries. Some limitations of the report should therefore be kept in mind. First, we base many of our examples on brief periods of fieldwork in the Mozambique, Tanzania and Uganda. Obviously, generalizations from these case studies to other African countries must be made with great care, especially when considering – as we argue – that the economic and political dynamics of linkage formation are highly context-dependent.

Second, we only look at western donors in relation to extractive industries (not the BRICS donors, although they are becoming very important).⁴ Moreover, it is only relatively recently that extractive industry-driven development has moved to

⁴ See Braütigham (2009) and Morrissey and Zgou (2011) for discussions of Chinese and Indian investments in Africa.

the top of the agenda in many African countries, as well as among international aid organisations such as UNCTAD, AfDB and UNECA. Therefore the analytical literature on western donor involvement in resource-driven development is limited. Consequently, we often use our general insights into the political economy of industrial policy to deduce the challenges and opportunities related to linkage formation in extractive industries development.

Third, tax revenues from extractive industries are important because they provide host governments with the financial clout to pursue active industrial policies. However, issues related to taxation, tax avoidance, tax evasion and illicit capital flows are only dealt with in passing in the volume; a thorough review of these thorny and widely discussed topics would require another volume. We have not focused much on the macro-economic implications of extractive industry-driven development either. Nor do we assess the implications (macro-economic or otherwise) of recent proposals to use extractive natural resource revenues for cash transfers to the poor, as suggested, for example, by Sala-i-Martin and Subramanian (2003) and Moss (2011). Instead we have chosen to focus on the linkage issue and only deal with taxation and revenue use to the extent that it impacts on and shapes linkage formation. Fourth, institutional development and capacity development related to extractive industries are obvious issues to deal with in any meaningful government/donor initiative on linkage development. However, we have not spent much effort in presenting the findings and recommendations on this. There is a burgeoning literature on the subject, most of which is fairly generic and not focused directly on the extractive natural resource industries. One exception is Andrews (2013), who presents a recent and useful contribution in this field that is consistent with the political economy approach taken in this paper.

Finally, we have not looked specifically at linkage-relevant literature on states that are clearly fragile – the so-called ‘basket case’ countries like South Sudan and Sierra Leone. Our findings and recommendations may therefore not apply to such countries.

The rest of this report is organised as follows. Chapter 2 outlines some of the potentials for resource-based development in Africa and introduces the debates on the effects of extractive FDI-based development. It also argues that a greater focus is needed on the role of linkages between foreign investors and local industries in extractives. Chapter 3 provides an overview of the linkage literature. Based on this review, the chapter assesses the state of linkage formation in African extractives and

the main factors shaping these linkages. The chapter concludes that the literature on linkages is dominated by economic and business-economic perspectives and that only rarely is the political context in which linkages are formed analysed. Hence, Chapter 4 moves on to highlight some of the factors that help to explain the political conditions under which active industrial linkage policies are likely to be formulated and implemented. A summary of findings and recommendations is presented in Chapter 5.

Chapter 2. The potential for resource-based development in Africa

2.1 Introduction

Many countries in sub-Saharan Africa are well endowed with mineral and energy resources. The potentials for economic and social development in Africa based on its natural resources are therefore huge. This chapter provides a brief outline of some of the economic and political factors which – directly or indirectly – influence the use of mineral endowment to pursue industrial policies that strengthen the linkages of extractive industries to the economy. In many countries Foreign Direct Investments (FDI) and rising commodity prices have been central in the recent boom in the extractive industries. This has, in turn, brought the limited job creation, taxation and illicit capital flows related to extractive industries and multinational corporations to the fore. The chapter ends with a short summary of the significant changes in the governance context for extractive industries that have occurred during the last twenty years.

2.2 Changing views about the ‘resource curse’

Natural resource-based development strategies have had a somewhat ambiguous reputation in the past due to the influence of an apparent resource curse: a tendency of countries with abundant natural resource endowments to exhibit the worst political and economic outcomes. More specifically, the resource curse argument holds that many developing countries that are rich in oil and minerals have failed to transform the income from these resources into sustainable economic growth, improvements on development indicators or industrial development (see Ross et al. 1999; Stevens 2003). This is due to the fact that foreign currency income from natural resources may make government revenues unpredictable because of the volatility of commodity prices, currency appreciations (Dutch disease), the reduced competitiveness of manufacturing sectors and ‘deindustrialisation’, the diversion of talent and resources away from productive sectors, and eventually, increased aid dependence (Gylfason 2001; Killick 2004; UNCTAD 2013a; UNECA 2013). In addition there is a political dimension to this curse because mineral and energy resource abundance may lead to ‘political deterioration’ in the forms of rent seeking, greater corruption and weaker accountability (Moore 2004; Morrisson 2010).

However, recently the resource curse arguments have been challenged theoretically and empirically. The basic proposition is that the cause of the curse (and of com-

modity dependence) is weak institutions rather than the other way around. Hence, it is the way in which the resource rents are managed rather than the rents in themselves that creates problems for resource-rich countries (Brunnschweiler and Bulte 2008; UNCTAD 2013a). Morris et al. (2011a) argue that the apparent correlation between natural resource development and weak industrial development and low diversification is a consequence of weak manufacturing capacity in many resource countries rather than the crowding out effect of natural resources.

This 'revisionist' position also holds that there are numerous examples of countries that have used natural resources to spur industrial development. Some of the world's leading economies are in fact strongly resource-driven (Canada, Norway, Australia) and the leading industrial nations based their early industrialization on their own natural resources (USA, Sweden, Germany, UK). Several developing countries have also benefited from resource-based development, such as Botswana, South Africa, Indonesia, Malaysia and Argentina (Raines et al. 2001; UNECA 2013).

However, the extent to which such arguments are applicable to African countries depends on the political economy of individual countries, as argued in Chapter 4. It cannot be deduced from developed rich-country experiences or from a few individual success cases among developing countries, such as Botswana and Indonesia).

2.3 Africa's extractive sector resource endowment

While there remains disagreement about the causes and effects of resource-based development, as mentioned in the Introduction a number of recent reports have called for a greater emphasis on the huge untapped potential in natural resource-based development in Africa. The African Development Bank (AfDB) argues, for example, that natural resources have accounted for 35% of the African continent's growth since 2000, 80% of African export products in 2011 and more than 60% of greenfield FDI (AEO 2013). If agriculture is included, natural resources account for 50-60% of employment in resource-dependent African countries. In mining, some 400,000 direct and possibly many more indirect jobs have been created by foreign-owned mining firms (AEO 2013; McMahan and Tracy 2012). However, a further six million Africans are informally employed as artisanal miners and have benefitted from the recent rises in commodity prices.⁵ Nevertheless, these informal sectors and its development has not received much political and policy attention, in spite of the fact that they un-

⁵ AEO (2013: 141-142, 150, 170).

doubtedly have lifted many people out of poverty (Bloch and Owusu 2011; Nylandsted Larsen et al. 2009; Hilson and Garforth 2013 on Ghana; and Thekildsen and Bourgooin 2012 on Tanzania).

For minerals such as platinum, cobalt and diamonds, Africa accounts for the majority of the world's production. For minerals such as chromite, manganese, gold and uranium, Africa is a very significant player, and huge reserves of oil and gas have also recently been found there. A 2013 report from the United Nations Economic Commission on Africa argues that, with the right policies, linkages and skills base in place, resource-based development can lead to positive development impacts, including a diversification of the industrial base (UNECA 2013; see also de Ferranti et al. 2002). Hence, 'the question then is not whether Africa can industrialize by "ignoring" its commodities, but rather how the latter can be used to promote value addition, new service industries and technological capabilities that span the sub-regions of the continent. In other words, how can African countries add more value to their commodities to reap larger benefits from them?' (UNECA 2013: 95).

UNIDO's 'Promoting Industrial Diversification in Resource Intensive Economies' (2012) examines experiences and options for using natural resource sectors to promote manufacturing and industrial development in Africa and Asia and argues that the boom in natural resources offers 'a new development opportunity' for Africa in terms not only of fiscal revenues and direct jobs, but also of the diversification and development of manufacturing industries through linkages and spillovers. Even UNCTAD's 2013 Commodities and Development report, which is otherwise very critical of the current global private and public governance structure for commodities, agrees that commodity-based development, given the right institutions, offers an opportunity for resource-dependent developing countries to embark on 'sustainable growth paths' and that it is an 'essential source of employment, income and government revenues for most developing countries' (UNCTAD 2013a).

Table 2.1 provides an overview of Africa's production and future potential in the extractive industries. Together with other sources of information, it shows five significant trends of the 2000s: (a) real output growth has been significant in all commodities except gold; (b) substantial increases are expected in both minerals and gas over the next five to ten years; (c) African countries are the most important producers of many commodities – especially metals – in which the continent also has the largest known reserves; (d) Africa is likely to overtake the Middle East as the largest net exporter of liquid natural gas (LNG) in the next twenty years, and it will become an increasing-

Table 2.1 Africa's extractive industries production 2000, 2010 and future potential

	2000			2010			Real output growth 2000-10 in %	Difference in countries	Future potential
	Africa's share of global production in %	Value of Africa's production (2010 USD million)	Number of countries 2000	Africa's share of global production in %	Value of Africa's production (2010 USD million)	Number of countries 2010			
PGMs	55	10588	2	74	14191	4	34	2	By 2017 33% output increase
Cobalt	43	490	6	62	1775	8	262	2	By 2017 87% output increase
Diamonds	45	4265	16	54	4967	17	16	1	By 2017 14% output increase
Chromite	51	1578	4	42	2442	4	55	0	
Manganese	32	493	4	30	3131	8	535	4	
Phosphates	28	4607	10	26	5662	10	23	0	
Gold	24	25568	36	19	19947	39	-22	3	By 2017 53% output increase
Uranium	17	111	3	19	1013	4	813	1	
Copper	3	2871	11	8	7806	12	172	1	By 2017 86% output increase
Nickel	5	1225	5	5	1535	5	25	0	
Iron ore	5	4637	10	4	6404	9	38	-1	By 2017 466% output increase
Mining total	14	59592	44	12	73286	44	23	0	
Oil	10	216001	18	11	284875	19	32	1	
Gas	5	39036	14	7	68423	18	75	4	15-20% growth additional to normal expansion from new fields in Mozambique and Tanzania
Coal	6	21266	15	4	23759	13	12	-2	
Energy total	10	276303	11		377056	36			

Source: AEO (2013, Table 6.2). Note: the figures are for the whole continent. Note(2): We have come across that there is a divergence from the sum of the individual resource values and the and the mining total value, furthermore there are two minor rounding errors Real output growth 2000-10 in %.

ly important source of fossil fuel exports; and (e) the potential for extractive natural resource-driven development varies a lot among countries because endowments are unequally distributed (AEO 2013; UNECA 2013; British Petroleum 2013).

However, the continent's deposits have not been mapped in detail, and often multinational companies – and apparently foreign governments – know more about endowments than the country's own authorities (Jourdan 2008: 23). This weakens the negotiating position of host countries.

2.4 Trends in commodity prices

Natural-resource endowment does not mean wealth. The investments in exploration, exploitation and distribution can be huge, and the risks are high, as technologies and demand can change rapidly. Commodity prices are therefore often very volatile and short-term trends unpredictable.

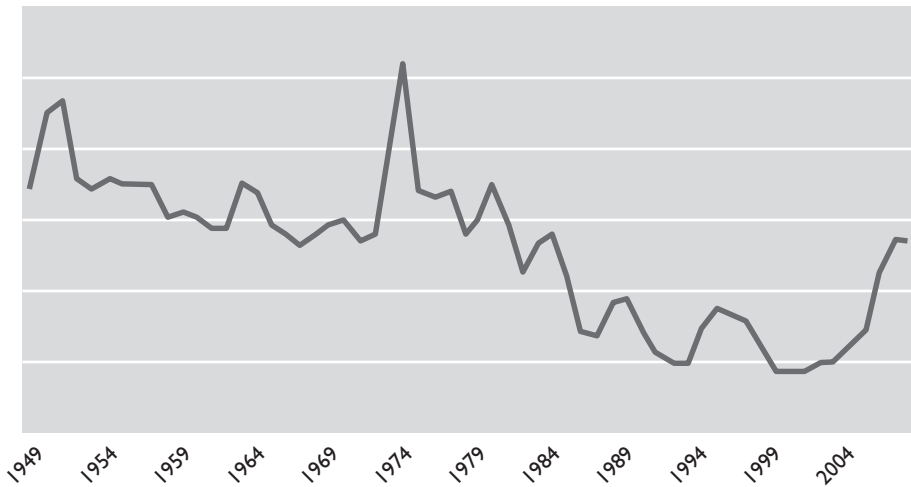
A related problem of resource-based development concerns the relative prices of natural-resource commodities. This argument holds that commodity-based development is a losing proposition in a global economy, where the terms of trade for commodities are consistently declining vis-à-vis manufacturing due to the low income elasticity of demand for commodities, as well as higher productivity increases for manufactured goods. A 2013 report from UNCTAD echoes the famous but also controversial Singer-Prebisch hypothesis of the 1950s, arguing that the problems related to commodity-based development are 'perennial' and that drastic restructurings of global commodity trade regimes are needed in order for commodity-dependent developing countries to benefit. UNCTAD further argues that the arrival of China as a major importer of natural-resource commodities and a highly efficient exporter of manufactured products may further 'entrench commodity dependent developing countries in the low end of the international division of labour' (UNCTAD 2013a: xv).

The Singer-Prebisch hypothesis remains contested. Empirical testing is difficult because short-term volatility tends to obscure long-term trends. However, recent research by Cashin and McDermott (2001) for the IMF shows that from 1862 to 1999, a period of about 140 years, real commodity prices declined by around one per cent per year, although prices can change by up to fifty per cent in a single year. Trends in commodity prices are therefore completely overwhelmed by such unpredictable volatility, which can have serious consequences for the terms of trade, real incomes and macro-economic stabilisation in commodity-dependent countries. So rather than longer term trends, it is unpredictable volatility that is the problem. Furthermore volatility in both the magnitude and frequency of price changes over time has increased, especially since 1970, with price booms tending to last shorter periods of time than price slumps.

Morris et al. (2011a) do not dispute this IMF assessment, but argue that a number of factors closely related to China's growth and emergence as the manufacturing workshop of the world⁶ are forcing a rethink on future commodity price trends. China's growth is driven by exceptionally high investments in manufacturing, infrastructure and urbanisation, which all contribute to increasing demand for commodities. However, global commodity suppliers have been unable to keep pace with China's demand in the 2000s because low-cost sources of supply have largely been exhausted while supply expansion typically involves a long gestation period, espe-

⁶ Other, predominantly Asian economies have also developed large manufacturing sectors; India, Brazil and other rapidly growing low per capita-income countries are likewise increasing their demand for commodities.

Figure 2.1 The commodities-manufactures terms of trade, 1949-2007



Source: Morris et al. (2011a, Figure 8).

cially in the extractive industries. This puts upward pressure on commodity prices over the longer term.⁷

China, like other emerging countries, has also had a significant influence on manufacturing prices. Between 2000 and 2010 China's share of global manufacturing value added grew from 7 to 15 per cent. A key driver of this has been China's low costs of production. So, while China's demand has helped to push up the prices of commodities, its growing competitiveness in manufacturing has put downward pressure on many manufacturing prices. According to Morris et al. (2011a: 21-22), the 'upshot of these trends is that the terms of trade – for so long, as we have seen, turning against commodities – have now begun to turn in their favour [see Figure 2.1]. There is a strong possibility that these terms of trade reversal will be sustained at least for another decade, if not longer.' Thus, the arrival of China as the major consumer of resources has fundamentally changed the commodity/manufacturing terms of trade by lowering prices for manufacturing products and increasing the demand for resources.

⁷ China, India and Brazil buy a quarter of Africa's exports, but their economies have slowed down recently, which has helped to reduce commodity prices. They are significantly lower now than they were a year ago and well below the peak levels of primo 2013. This is, however, unlikely to slow down growth in extractive industries, as argued by *The Economist*, 21 September 2013, 'China and Africa: little to fear but fear itself.'

Such arguments have had a considerable impact on developmental thinking in some international organizations. They inform the recent recommendations for resource-driven development by both UNECA (2013) and AEO (2013) that are quoted in the introduction, although they remain controversial because of arguments that China's impact on commodity and manufacturing prices has been exaggerated (e.g. UNCTAD 2013a: 51). In any case, expectations about natural resource-driven development in many African countries have risen and plans and investments for extractive industries have exploded – including in our case-study countries – as shown in the following sections.

2.5 Expectations of Foreign Direct Investments in extractive industries

Investments in mining, quarrying, petroleum and gas are the dominant form of FDI in resource-rich sub-Saharan Africa countries, although investments in utilities, transport and telecommunications are also growing (UNCTAD 2012: 64). During the 2000s three-quarters of all FDI went to the resource-rich countries in Africa (African Development Bank, 2013: 47),⁸ up from two-thirds in the 1990s (Arbache, 2008: 73). Moreover, a very large share of all FDI being invested in Africa, 60%, is in natural resource extraction (AEO 2013).

Recent investments in extractive industries in eastern Africa illustrate the importance of extractives FDI: mega-projects are shooting up. Thus, oil reserves off the Atlantic coast of Africa have drawn significant FDI to that region. Now natural gas reserves, especially the offshore fields of Mozambique and Tanzania, are pulling FDI to East Africa. Table 2.2 shows that in 2011 six out of the ten largest greenfield investments in Least Developed Countries are in extractive industries in eastern Africa.⁹ The table also illustrates the general recent trend in south–south investments becoming as important as north–south investments on the African continent (UNCTAD 2007: 6).

⁸ In Sub-Saharan Africa these resource-rich countries are Angola, Botswana, Cameroon, Chad, Congo Republic, Côte d'Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Liberia, Mauritania, Namibia, Nigeria, Sierra Leone, South Africa, South Sudan and Zambia, as well as, in north Africa Algeria, Egypt and Libya (ADB 2013, 61, footnote 4). The classification by the World Bank is almost the same, although it also includes Ghana and Mali. The Bank defines a country as resource-rich 'if over 1980-2010 on average more than 5 per cent of its GDP has been derived from oil and non-oil minerals' (World Bank. *African Pulse*, 2012, volume 6, p. 13). Note that Mozambique, Tanzania and Uganda are not on the list, as extractive industries started only recently there. The oil-exporting countries in sub-Saharan Africa are Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, Mauritania, Nigeria and Sudan (Radelet 2010, Table 2.1).

⁹ We are aware that there can be a big difference between approved investments and implemented investments.

Table 2.2 The ten largest greenfield projects in Least Developed Countries, 2011

Host economy	Industry	Investing company	Home economy	Estimated investment (\$ million)	Estimated jobs created
Mozambique	Fossil fuel electric power	Jindal Steel & Power	India	3000	368
Uganda	Oil and gas extraction	Tullow Oil	United Kingdom	2000	783
Mozambique	Natural, liquefied and compressed gas	Eni SpA	Italy	1819	161
Mozambique	Natural, liquefied and compressed gas	Sasol Petroleum International	South Africa	1819	161
Equatorial Guinea	Oil and gas extraction	Noble Energi	United States	1600	626
Democratic Republic of the Congo	Copper, nickel, lead and zinc mining	Freeport McMoRan	United States	850	1459
United Republic of Tanzania	Fossil fuel electric power	Castletown Enterprises	United Kingdom	799	118
Zambia	Copper, nickel, lead and zinc mining	Non-Ferrous China Africa (NFCA)	China	700	1201
Democratic Republic of the Congo	Iron ore mining	Sundance Resources	Australia	620	1063
Lao People's Democratic Republic	Biomass power	Thai Biogas Energy	Thailand	558	700

Source: UNCTAD (2012, Table II.4)

Multinational companies dominate mining in sub-Saharan Africa, where foreign companies account for 100 per cent of production in several mineral-rich countries according to UNCTAD (2007, Figure 4).¹⁰ However, this ignores artisanal and small-scale mining, which, as mentioned above, is creating millions of jobs in Africa. It also ignores the fact that, while natural resource extraction in Africa is no doubt dominated by MNCs (AEO 2013), there *are* examples from Africa of national – typically state-owned – firms that are capable of organizing natural resource extraction activities. Foreign dominance is less pronounced in oil, where state companies often operate together with MNCs.

Moreover, FDI for extractive industries is probably not much deterred by poor governance and weak institutions.¹¹ Some oil and mining investors may actually consid-

¹⁰ Gabon, Ghana, Guinea, Mali, Tanzania, Zambia, and Botswana. Foreign firms also dominate mining in South Africa and the Democratic Republic of Congo. 'Foreign' is here defined as firms with foreign ownership of at least ten per cent.

¹¹ This is illustrated by a rare insight into dealings over the last decade between Shell, ENI and ministers in the Nigerian government about a huge offshore oil field (see 'Oil companies in emerging markets,' *The Economist*, 15 June 2013).

Box 2. High expectations of extractive-based development in East Africa

Across Africa, discoveries of abundant natural resource deposits have raised expectations that extractive FDIs can become engines of development. Apart from the expected rents from these investments, host countries are hoping to reap the spoils of linkage formation in the form of job-creation, technology transfer and industrial upgrading. These high expectations of the developmental spoils of natural resource FDI are clearly evident in Tanzania, Uganda and Mozambique.

In Tanzania, it has been the perception that the country saw too few benefits from the first round of extractive FDI that took place in the wake of the Structural Adjustment Programme liberalizations in the 1980s and 1990s. Many observers also felt that tax breaks and ambiguous and unfocused local content policies left too few lasting development benefits from extractive FDI. The Tanzanian government is determined that the coming round of extractive FDI, spurred by new discoveries of uranium, gas, nickel, coal, etc., will be better aligned with Tanzania's development objectives. Hence, the government is currently revising legislation for minerals, FDI and oil and gas in order to ensure much more local content and technology transfer, e.g. through local content requirements and supplier development programmes.

In Mozambique, 'management of expectations' has become a new key phrase after severe criticism of the first generation of mega-investments that took place from the late 1990s, as well as severe unrest and urban riots in 2008 and 2010 incited in part by the rising costs of living. For the mega-investments led to limited job creation and linkage formation while generous tax breaks expatriated economic benefits. The second generation of FDI-driven mega-investments in extractives, spurred in part by the development of coal, heavy sand and vast hydro-carbonates reserves, has seen much public talk and 'workshopping' taking place on how to link the national economy to mega-investments and reap the benefits of the new economic opportunities for domestic entrepreneurs. New legislation for gas and coal is being developed just as tax regimes, including capital gains tax, have been approved, but so far no local content or technology transfer clauses have been proposed, just as the approved legislation on, for example, capital gains is not being enforced (CIP 2013).

In Uganda, several interview respondents were concerned that expectations, both among Ugandan citizens and the government, were too high. Expectations concerned both future revenues that might not be as high as expected, since pumping the oil is expensive and requires a lot of investment, but also with regard to job creation, which might be lower than expected. Therefore, the government has focused on local content provisions. Even though the Petroleum Exploration, Development and Production Bill (2012) has no provisions for mandatory linkages, a number of requirements are listed. For example, applicants for a license under the bill need to come up with plans for local employment and training, as well as proposals with respect to the procurement of goods and services in Uganda (RoU, 2012: 20). Article 52 says that the licensee shall give priority to Ugandans in the provision of goods and services and also prioritise the purchase of local products (ibid.: 49-50). The Bill also stipulates that the licensee shall produce an annual report on its achievement with regard to using local products and services. There are similar articles on the training and employment of Ugandans which require licensees to have training and recruitment programs for Ugandans. However, there have been no experiences with actual implementation as yet.

¹² Available at the Ministry of Energy's petroleum department's website: <http://www.petroleum.go.ug/>

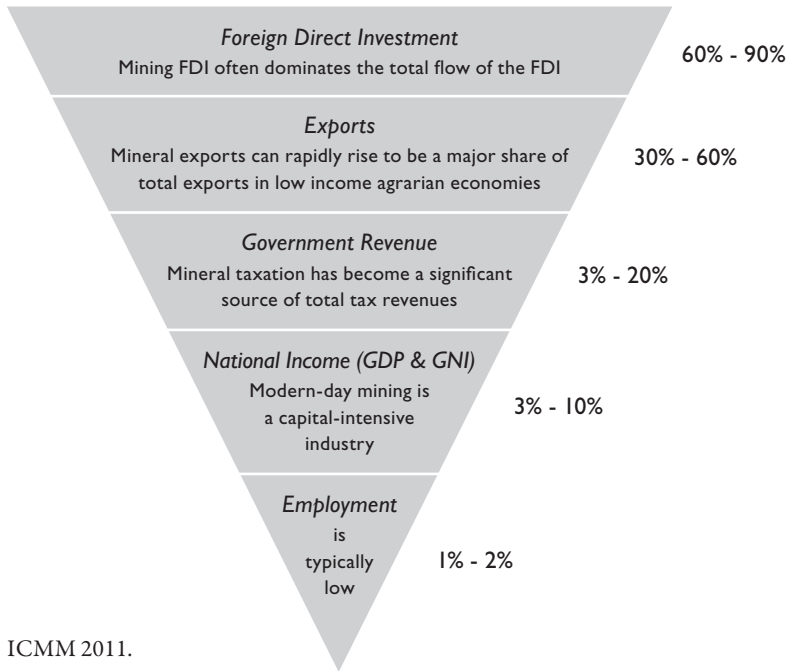
er that it is beneficial to deal with corrupt governments (Morrissey 2012: 28). These characteristics are important for linkage effects as discussed later, and for spill-over effects more generally.

FDI typically plays a vital role in the development of the natural resource sector due to the technological complexity of most extractive activities, as well as the need for integration into global value chains in order to market extractive commodities. Furthermore, due to the capital intensity of most extractive operations, developing countries will typically need foreign investors to exploit their natural resource endowments. This creates high expectations that can be difficult to live up to (see Box 2 underneath).

Extractive FDI potentially has huge impacts on host countries. Some of these effects will be related to capital formation and exports, others to government revenues, some to technology and skills transfer, and finally some will be related to direct and indirect employment. The impacts can be depicted as an inverted pyramid (see Figure 2.2 below). In terms of contribution to FDI inflows, natural resources typically attract most of it (in excess of 60% in Africa). As African economies typically have low levels of diversification, the contribution of minerals to exports will tend to be very high (typically in excess of 30%). Minerals' contribution to government revenues is typically smaller (3-20%), although still very substantial. The GDP contribution is relatively low compared to the role played by FDI and exports, mainly due to the lack of spill-over and linkage effects from natural resource extraction. Also the impact on employment is typically low. Hence, greenfield FDI into mining created a mere 400,000 jobs between 2003 and 2012 on the continent as a whole, although it is estimated that an additional 200,000 to 1.2 million indirect jobs were created at linked companies (AEO 2013), and even more jobs if all income effects are included (McMahon and Tracy 2012).

The shape of the inverted pyramid reinforces the widespread perception that FDI in natural resources in Africa has failed to produce the expected benefits (UNCTAD 2013b), and there are intense debates going on regarding how to ensure that natural resource FDI leaves lasting development benefits for the future. These debates centre around two issues: (1) ensuring that rents (tax income, fees, levies etc.) are extracted from natural resource operations and distributed fairly; and (2) ensuring that foreign investors in natural resources produce job, skills and technology benefits for the host economy through linkages and spill-overs. The former issue has received most attention in the literature (see Chapter 2.6 below and Lundstøl et

Figure 2.2 Mining’s Typical Macroeconomic Contribution



Source: ICMM 2011.

al. 2013 for reviews). However, in recent years the issues of linkages and spill-overs have begun to move to the fore of debates over natural resources in Africa. In the following we will briefly introduce these two issues related to FDI in extractives.

2.6 Managing rents from extractive FDI

As noted in Chapter 1, resource-generated government revenues are a key element in any extractive natural resource-driven strategy to pursue transformative industrial policies. They help to provide the financial strength to implement broad industrial policies by subsidising companies’ learning rents to establish linkages to extractive industries, building institutional capacity, funding education and infrastructure, reducing aid dependency to gain more room for manoeuvre, etc., as well as social policies.¹³

¹³ Cash transfers to citizens are, for example, mentioned as an instrument to spread the benefits of resource wealth. Moss (2011), and Sala-i-Martin and Subramanian (2003), for example, argue that in poor governance countries this could benefit citizens more than the equivalent spending by the government.

However, as also noted, the resource curse literature raises an important economic issue concerning the rapid growth in the size of revenues from extractive resources that leads to the so-called Dutch disease.¹⁴ As Figure 2.3 shows, such government incomes in Africa on average tripled as a share of national income between the late 1990s and the onset of the financial crisis ten years later. These incomes have grown especially rapidly in oil-exporting countries, but also in countries with substantial mining activities.¹⁵ Overall, such revenues have made many countries less dependent on aid than they once were. Also the increased access of many African countries to the international capital market, often based on present or projected incomes from natural resource exploitation, is becoming an important source of income.¹⁶ Another concern relates to the ability of some countries to spend them wisely (see further discussion in Chapter 4).

Moreover, substantial additional government incomes could be obtained if illicit financial outflows to tax havens from MNCs in extractive industries and from private individuals in resource-rich countries could be reduced (in resource-poor countries, such outflows are largely caused by mispricing in trade by companies of all sizes) (African Development Bank and Global Financial Integrity (2013: 4)). Although the estimated volumes of illicit flows out of African countries are huge and may be somewhat exaggerated, there is no doubt that the potential gains for African countries would be significant if such flows could be reduced (Reuter 2012).¹⁷

Donors have shown a growing interest in taxation in developing countries in recent years. This reflects a concern for domestic revenue mobilization to finance public

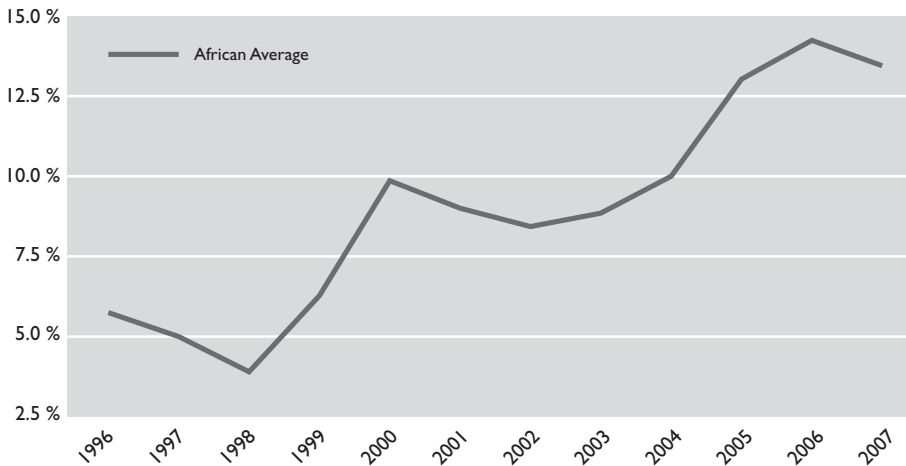
¹⁴ This includes revenues from upstream exploration to downstream processing activities in oil, gas and mining, mostly royalties and corporate incomes taxes.

¹⁵ Revenue/GDP ratios have also risen in non-resource rich countries mainly due to a broadening of the tax base and better tax administration (AEO 2013: 95). In contrast, the tax mix of resource-rich countries has barely changed over the past decade. Their increased tax collection came mainly from natural resources (AEO 2013: 58).

¹⁶ Tanzania is seeking to lift its debt ceiling at the IMF significantly so that it can launch a maiden \$1 billion sovereign bond. Investors are attracted to Tanzania because of the discovery of large offshore natural gas reserves. If the bond issue goes ahead, it would match the size of the largest debt debut in sub-Saharan Africa by oil producer Gabon in 2007. Nigeria, Senegal and Zambia opted for \$500-750m bonds for their first loans. See 'Tanzania seeks higher debt limit to allow maiden \$1bn bond issue,' *Financial Times*, 29 August 2013. See also Stiglitz and Rashid, 'Why are an increasing number of developing countries resorting to expensive sovereign-bond issues?', *The Guardian*, 26 June 2013.

¹⁷ 'Illicit financial flows' is an ill-defined term: 'illicit' (a moral concept) is not the same as 'illegal' (which dodges the issue of the legitimacy of law-makers). Data problems add to the difficulties of estimation (see critical assessments in Reuter (2012) and on the website of Niels Johannesen: <http://www.econ.ku.dk/nielsjohannesen/>). The newest estimates for Africa are provided by African Development Bank and Global Financial Integrity (2013). A brief overview of some earlier estimates can be found in Vestergård and Højland (2009). One of the few academic assessments of such estimates is in Boyce and Ndikumana (2011).

Figure 2.3 Resource-related tax revenues in Africa, 1996-2007
(percentage of GDP)



Source: (AEO 2013: Figure 15)

goods and services, as well as a recognition of the centrality of taxation for growth, redistribution and the legitimization of state–society relations (see Fjeldstad 2013). While some donors may have provided specific assistance to tax authorities with respect to extractive industry taxation, the major thrust of their attention right now seems to be to reduce illicit financial flows by limiting the influence of tax havens, ensuring more transparency, etc. (Reuter 2012).

Moreover, the IMF in particular has been concerned with the macro-economic implications of rapidly rising revenues from extractive industries, and of their volatility. IMF's Multi-donor Tropical Trust Fund on Managing Natural Resource Wealth provides technical assistance to resource-rich developing countries on how to avoid the adverse macro-economic impacts of natural resource rents, that is, Dutch disease. The growing use by donors of budgetary support in countries such as Ghana, Uganda and Tanzania has furthermore prompted donors to take a more direct interest in the collection and allocation of rents from natural resource extraction (Morrison 2010). Actually, one of the key areas of donor involvement in extractives relates to the taxation and distribution of rents. Hence, the World Bank, for example, has made its project loans for the development of natural resource industries and infrastructures in several African countries dependent on the establishment of transparent mechanisms for the collection and distribution of revenues (Morrison 2010; Lundstøl et al. 2013).

In this report we do not deal explicitly with the rents dimension of extractive natural resource-driven development, although we do deal with some of the political economy implications of the potentially rapidly increasing revenues for the incentives to pursue industrial policies (see Chapter 4). We also stress the potential for aligning the incentives used to attract FDI to linkage development such as tax breaks and holidays (see Chapter 3).

2.7 Promoting broader development effects through linkages and spill-overs

Compared to historical trends in Africa, average GDP growth rates in the continent in the 2000s were twice as large as in the 1990s. A continued favourable outlook is predicted for the coming years. However, the share of the working-age population in active employment 'has remained virtually unchanged over the last 20 years. It reached 60% in 2011, compared with 59% in 1991' (AEO 2013, 177). Add to this a rapid population growth and very limited economic transformation, and the problem becomes obvious (Whitfield et al., forthcoming).

Unfortunately, as predicted in the resource curse literature, social indicators tend to be worse in mineral-dependent countries in sub-Saharan Africa than in non-mineral countries at the same income level. The former have higher poverty rates, greater income inequalities, less spending on health care, a higher prevalence of child malnutrition and lower literacy rates (Arbache et al. 2008: 73). Thus, although the large recent energy and mineral discoveries and the heavy investments in extracting them might lead to faster growth in the future, the poverty-reduction impact is likely to be even less than from the resource-driven growth of the past. The reason is that present levels of inequality in African countries are already high and that future extractive natural resource-driven growth will result in limited job creation. Consequently, this type of resource-driven development may itself increase inequality, which in turn reduces the poverty impact of growth, as the World Bank has recently shown (2013: 18-20).

Hence, there is always an inherent danger of extractive FDI evolving into enclaves in host countries, creating jobless growth, causing little or no upgrading of local industrial capacity and even amplifying already existing inequalities. If an expected surge in extractive FDI is to become a true engine of development in Africa, it is essential that the foreign investments involved create jobs, upgrade skills, generate incomes in local communities and facilitate development of the local private sector

in host countries. In this paper we argue that a key condition for more inclusive FDI is that foreign investors foster broad and deep linkages with the host economy through local sourcing of functions and activities, the training and guidance of local firms, CSR programmes that focus on involving local communities and engagement in local capacity-building (see UNCTAD 2005, 2010; AEO 2013 for similar arguments). By fostering such linkages, extractive MNCs may not only spur job creation and upgrading upstream and downstream in their own value chains, they may also enhance broader spill-overs on the host economy, for example, in the form of demonstration and competition effects (Morrissey 2012). Ultimately, linkages in extractives may assist industrial development and economic transformation by developing skills and capabilities in local manufacturing and service sectors (UNECA 2013). In the following chapter, we will examine the potentials and limitations of linkage-based development in African extractives in much more detail.

2.8 The changing political incentives for the governance of extractive industries

Before we move on to examine linkage development, we need to understand why linkage-based development is seemingly coming to the fore in contemporary debates over development. As shown in Section 2.2, a lively debate is going on about the causes and consequences of the resource curse. The key issue in that debate is governance, and more particularly the extent to which the institutions that deal with natural resource exploitation and rents have, or can be strengthened to have, the capacities to use these endowments to promote economic transformation, economic diversification, poverty alleviation and more accountable government. Here we argue that the political incentives for the governance of extractive industries have changed significantly during the past twenty years or so for at least four reasons.

First, many countries in sub-Saharan Africa now conduct regular competitive elections (Radelet 2010). These have significant impacts on the incentives of political elites, and can therefore influence the design and implementation of industrial policies (Kjær and Therkildsen 2012). Thus, various groups (opposition parties, NGOs, local communities) are becoming increasingly dissatisfied with the limited benefits from the large FDI investments in extractive industries.¹⁸ This may translate into political demands for changes in policies aimed at promoting linkages and in the

¹⁸ See, for example, 'Vast deposits, paltry earnings', *The East African*, March 28–April 3, 2011.

distribution of rents. There are already several examples of unrest and riots related to extractives in Mozambique and Tanzania. All in all there is some indication that this actually does influence policy-making, although not necessarily what is implemented on the ground.

Second, and related to the first point, economic nationalism is on the rise in many developing countries. The last twenty years' 'obsession' in attracting FDI is changing (Narula 2012: 1). Although investment liberalization and promotion have remained high on the policy agenda in most countries there have also been adjustments to FDI entry policies, accompanied by growing state influence in extractive industries. The latter has involved a number of measures: nationalization, expropriation or disinvestment requirements, local content and linkage requirements, as well as increases – to different degrees – in taxes and royalties (UNCTAD 2013b: 76-79).

Third, donors have changed their approaches to the development of the energy and mining sectors over time. With specific reference to mining, Campbell argues that, in the wake of the Structural Adjustment Programmes, the World Bank and the IMF focused strongly on policy changes 'needed to attract foreign investment.' This was 'very much premised on a sectoral approach rather than one which would permit, where appropriate, the possibility of articulating the contribution of the mining sector [to] inter-sectoral linkages' so as to contribute to broader developmental objectives. Consequently, there were 'no provisions or discussion of building eventual backward and forward linkages such as the possibility of value added processing of minerals, which in a resource extraction economy would normally be considered important development objectives' (Campbell 2003: 7-8). However, this reluctance of donors – here especially the World Bank – to engage more actively in industrial policies related to extractives appears to have eased in recent years, and there now seems to be greater openness toward using more active interventions in extractive FDI as a way to enhance its development effects, including interventions in linkage formation.

Finally, the policies and strategies of MNCs are changing, opening up new opportunities for linkage development. MNCs are increasingly outsourcing non-core functions, providing new spaces for linkage development in host economies. Moreover, corporate social responsibility (CSR) codes have been adopted by many MNCs, and the Extractive Industries Transparency Initiative (EITI) has been strongly promoted by many donors and northern NGOs. Both aim at improving governance in

extractive industries, although their actual effectiveness and impact on the ground is hotly disputed in the literature, as we will see in Chapters 3 and 4.

2.9 Conclusion

There is an increasing international and domestic consensus that the extractive natural resources endowment in many African countries constitutes an important basis for accelerating economic growth and transformation, as well as for reducing poverty. Dependency on donors will also be reduced, giving African governments more autonomy in policy-making and implementation. Expectations are therefore high. In addition, the conventional wisdom in the resource curse literature is being replaced by a more optimistic view among organisations such as the UN's Economic Commission for Africa: development based on commodities, including extractive natural resources, are not 'an undesirable form of economic specialization undermining the viability of industrial activity.' Moreover, the past argument that the long-term declining trend in the commodities–manufactures terms of trade no longer holds, due to rising demands from China and other emerging economies and to a new global economic dynamics in which global economic gravity is shifting towards lower-income Southern economies. Extractive natural resource industry-based industrialization can, 'with the right industrial policies, serve as a launching pad for long-term diversification and competitiveness in new and non-commodity sectors in Africa's commodity-rich countries (UNECA 2013: 9). 'There is no Africa curse' either in terms of the poverty-alleviating potential of African economies. According to the AEO (2013: 120), the observed reductions over time are not significantly lower than elsewhere when the stage of Africa's development is taken into account.

The more sceptical view is that the outcomes of a natural resource-based development strategy are far from certain. The volatility of extractive natural resource prices is high and rising, which makes revenues unpredictable and macroeconomic stability difficult to achieve. Moreover, while good institutions are needed to steer countries away from the economic and political effects of the resource curse, governance in many countries in Africa is poor. In addition, illicit financial flows, extractive industry sectors dominated by MNCs and limited success with linkage development have so far reduced the spread of the benefits of Africa's resource endowments. Morris et al. (2011c: 9), in a major study of linkages, observed, for example, 'a pervasive and serious misalignment between institutions, visions, policies, strategies, both within and between the private and public domains in African countries exploiting commodity advantage.'

The rest of this report focuses on the potentials and limitations of linkage development based on extractive industries. Based on a review of the linkage literature in Chapter 3, we argue that linkage development related to extractive industries will depend on the specific features of the international and local firms in the economy (in particular ownership, size and technological capabilities) and on the type of linkage policies that a government pursues. In Chapter 4 we argue that political incentives influence the design and implementation of such policies and depend on relations between extractive industry firms and the ruling political elites. In doing all this we seek to sort out the evidence for a balanced assessment of the possibilities for creating linkage-based development based on extractive industries and to develop some suggestions for improvements based on our findings, which will be presented in Chapter 5.

Chapter 3. Review of literature on linkages in African extractives

3.1 Introduction

In Chapter 2 we argued that extractive FDI can potentially play a key role in the economic transformation processes of resource-rich developing countries in Africa, especially if MNCs succeed in linking up to local firms through linkage development and formation. As argued by UNCTAD, ‘TNC-SME business linkages are potentially one of the fastest and most effective ways of upgrading domestic enterprises, facilitating the transfer of technology, knowledge and skills, improving business and management practices, and facilitating access to finance and markets. Strong linkages can also promote production efficiency, productivity growth, technological and managerial capabilities and market diversification in local firms’ (UNCTAD 2006: 1). However, linkages are inherently difficult to foster in the extractives sector. In fact, the FDI literature has traditionally seen extractive FDI in Africa as *the* enclave economy par excellence. Nevertheless, a growing literature is challenging the enclave argument, making the case that changing strategies of MNCs and local firms and the improved institutional and governance capabilities of governments have dramatically increased opportunities for linkage development and formation in African extractives. To assess the empirical validity of these positions, this chapter reviews the ‘enclave’ and ‘revisionist’ positions respectively, besides providing a review of the literature on linkages in African extractives more generally. The focus in this chapter is on the economic and organizational aspects of linkage formation; the political dimensions of linkage formation are dealt with in Chapter 4.

3.2 The debates on linkages in extractives

Linkages are long-term contractual relations between legally independent firms (see Box 3 below). As part of their entry strategies in developing countries, MNCs will sometimes foster linkages with local firms in order to reduce costs, increase efficiency, reduce risks and acquire local knowledge and skills. In recent years, the literature on FDI’s role in development has devoted growing attention to the role played by such linkages in spurring economic development, and it is argued that linkages offer huge potentials for job creation, technology transfer, export promotion and the migration of skills and technologies (Altenburg 2001; UNCTAD 2001; UNCTAD 2010a; Morrisey 2012). In a larger picture, it is argued that linkages are potentially engines of economic transformation in host countries (UNIDO 2012).

Box 3. What are linkages?

In this study, we define linkages as ‘inter-firm transactions that go beyond arm’s length, one-off transactions and involve longer term collaborations between the parties’ (Hansen et al. 2009: 122).

Linkages can be backward, forward or horizontal. Hence linkages may focus on longer term exchanges of goods and services as either inputs (backward linkages) or outputs (forward linkages). Backward linkages include subcontracting, supplier contracts, input service collaborations, etc. Forward linkages include distributor and franchise agreements or contracts with agents and after-sales service providers. Horizontal linkages are collaborations between firms in the same industry based on licensing, technology alliances, joint buying arrangements and even joint ownership (joint ventures).

Linkages have a ‘quantitative’ as well as a ‘qualitative’ dimension (Hansen et al. 2009; Giroud 2007; Scott-Kennel and Enderwick 2004) or what Morris et al. (2011a, 2011b) call the ‘breadth’ and ‘depth’ of linkages. The breadth of linkages concerns the number and scope of linkages, the depth of linkages the extent of local value added.

Linkages are organizational arrangements between two independent firms, and as such they say little about the dimensions of economic development. But it is generally held that linkages greatly enhance the possibilities of positive development effects on host economies (Markusen and Venables 1999; Blomström et al. 2000; Javorcik 2004; Günther 2005; Hansen et al. 2006; 2009; Amandolagine 2013), although it also is conceivable that linkages create no learning or upgrading effects (Morrissey 2012) and even that they have negative effects (Dicken 2007).

In discussing the development effects of FDI, it is useful to make a distinction between ‘direct’ effects (effects related to the isolated activities of the MNC affiliate), ‘indirect’ effects (effects on related firms such as suppliers and service providers) and spill-over effects (effects on un-related firms) (Rugraff and Hansen 2011; IFC 2013). In the literature, the term ‘spill-over’ is often used as more or less synonymous with all the effects of FDI, though technically a spill-over is an unintended effect of a transaction, an externality (Rugraff and Hansen 2011).

Traditionally, linkages within the natural resource extraction sector have been seen as miniscule. Indeed, numerous authors have referred to FDI in natural resources as ‘enclaves’ (Prebisch 1950; Singer 1950; Morrissey 2012). The enclave argument essentially holds that natural resource-seeking FDI, contrary to what is the case with market- and efficiency-seeking FDI, will tend to create isolated enclaves in the host economy, with few linkages to local product and labour markets and only small contributions to economic growth (Nunnenkamp and Spatz 2003). The apparent enclave nature of extractive FDI derives from several factors, for example, that extractive operations are typically located in remote areas where there is weak infrastructure and weak

industrial capacity, that the comparative advantages sought by extractive investors are typically unrelated to the industrial capabilities of the host country, and that the technology gap from local industry is too large to bridge due to the technological, organizational and capabilities superiority of extractive MNCs.

Setting aside the fact that the enclave hypothesis was probably never entirely correct (Wilkins 1998), recent revisionist literature argues that the dynamics of extractive FDI have changed fundamentally in recent years, rendering the concern with enclaves, if not obsolete, then certainly less relevant. First, Western extractive MNCs are altering their strategies toward greater outsourcing of non-core activities, offering opportunities for local firms to link up with MNCs (Morris et al. 2011a). Second, MNCs are increasingly adopting CSR and community-oriented strategies to reduce risks and obtain a 'social license to operate'. A key component of such strategies is to foster linkages with local industries and firms (ICMM 2011). Third, the 'old' extractives players, namely the western MNCs, are increasingly being challenged, not only by state-promoted newcomer extractive MNCs from Asia (Kaplinsky and Morris 2009), but also by increasingly competent local African extractive 'champions'. This, in combination with the increased demand for natural resources, has meant that the bargaining relationship between MNCs and host governments has been altered in favour of the latter and that governments are now in a much better position to push MNCs to foster local linkages. Fourth, improved competencies and skills in African manufacturing and service sectors (McKinsey 2011; Hansen et al. 2013) have incited MNCs to increasingly utilize local skills and capabilities through linkages. Finally, many donors and international financial institutions have revised their thinking about extractives and industrial development and are now contemplating how to use linkages and spill-overs more actively in industrial development strategies (see e.g. AEO 2013; UNCTAD 2013a; UNIDO 2012).

In short, intense debate is going on about linkage formation in African extractives in the literature. In order to arrive at a deeper understanding of the validity of the various positions in this debate, the rest of this chapter will provide a review of the existing literature on linkages in African extractives. First, we review the literature's account of the breadth and depth of linkages before examining what the literature says about the factors that shape linkages.

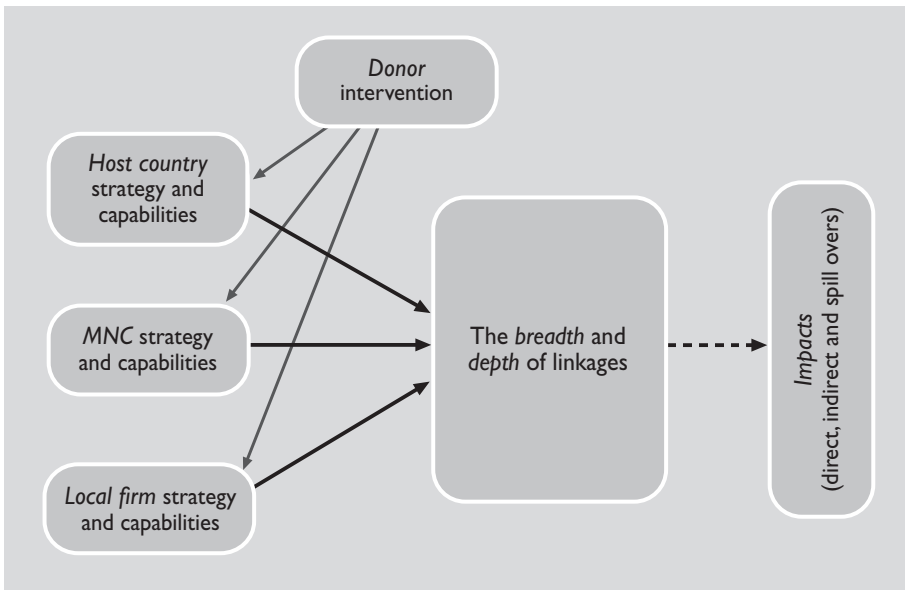
3.3 The breadth and depth of linkages in African extractives

As a point of departure, it should be noted that the literature on linkages in African extractives is relatively embryonic, and scattered theoretically and methodological-

ly (UNIDO 2012). However, in recent years a number of studies have emerged that try to understand linkages in African extractives from the macro-, meso- and micro-perspectives. Some of these studies are economic studies that use econometric methodology to analyse linkages and spill-overs at the aggregated level. Other economic studies use input-output models to measure impacts such as multiplier effects at the meso-level. Also at the meso-level, Global Value Chain theory-inspired studies map extractive value chains and the factors shaping firm relations within those chains. Finally, we have business economics-inspired firm-level studies which typically conduct case studies of the linkages and CSR strategies of MNCs. To organize the review of the literature, we propose a simple analytical framework (see Figure 3.1 below).

The framework makes a distinction between the breadth of linkages (how many linkages are formed, what is the volume, how many jobs are created) and the depth of linkages (how advanced are the activities subject to linkage collaboration and how much local value is added through the collaboration). The breadth and depth of linkages are seen as shaped by four sets of factors and their interaction, namely governments, MNCs, local firms and donors (see e.g. Altenburg 2001 for a similar model). In the following, we will first assess what the literature tells us about the

Figure 3.1 Analytical framework



state of linkages and then move on to understand what the literature tells us about the factors shaping these linkages (see Hansen 2013a for the full review).

Overall, linkages are few and shallow!

Several recent reports and studies have assessed the state of linkages and spill-overs based on econometric methodology. Generally, this literature reaches rather pessimistic conclusions regarding linkages and spill-overs from extractive FDI in Africa. Based on a cross-sectional review of the linkage and spill-over literature on Africa, Morrissey (2012) concludes that the contribution of FDI to African economic growth has been limited. This is because the dominant FDI in Africa is extractive FDI, which tends to foster few linkages. Moreover, where linkages are formed, they will tend to produce few spill-overs into the wider local economy. Hence, African FDI 'is often of the wrong type because investors are more interested in extraction than production' (Morrissey 2012: 28). As a consequence of the lack of linkages, FDI leaves few benefits on host countries other than direct employment, (a share of) export earnings and some revenues. Other econometric studies confirm that linkages in African extractives are few and shallow and that spill-overs into the broader economy are miniscule (Bwalya 2006; Akinlo 2004). From a value-chain perspective, a number of studies similarly point to limited linkage formation in African extractives. UNCTAD (2013) concludes that a lack of linkages and limited absorptive capacity in local industries have combined to render FDI in natural resources of limited use to host countries' development. Similarly, in a case study of Zambia copper mining, Fessehaie (2011) found that, while mining companies in Zambia directed a significant share of their expenditures to local procurement, the depth of local linkages and therefore of added value was low. As skills availability was poor due to low public investment and the low propensity of firms to invest in in-house training, there were only a few examples of suppliers succeeding in expanding their markets and upgrading into highly-skilled activities. Mjimba (2011), in a case study of Tanzanian gold-mining, found that local goods and service linkages remain limited and restricted to low complexity and low criticality goods and services (mainly food and beverages and security). Critical supplies (critical to the buyer, that is) were largely imported, with virtually no local value added. According to Mjimba, two factors in particular limited the linkage formation, namely the skills deficit in Tanzanian industry and the incoherent policy measures adopted by the Tanzanian government. In a case study of Ghanaian gold-mining, Larsen et al. (2009) found that liberalization of FDI in this industry led to the insourcing of previously outsourced activities, causing a reduction in local linkages. In areas where outsourcing was maintained, it mainly took place to foreign suppliers represented

in Ghana. Moreover, all advanced inputs such as machinery and equipment were imported.

But there is evidence of linkage potential

In spite of the overall pessimistic view of linkages, recent research has produced evidence of linkage potential in extractives. In the major Open University/University of Cape Town research project, 'Making most of the commodities', the breadth and depth of extractive linkages in eight African countries were analysed from a Global Value Chain perspective (see Morris et al. 2011b for an overview of findings). The project concluded that, of the eight African countries studied, natural resource linkages in two of them were of increasing breadth and depth (Ghana and Nigeria), in two of them of increasing depth only (Angola and Botswana), in three of them 'shallowing' (decreasing depth) (Gabon, South Africa and Zambia), and in one (Tanzania) were 'static'. Overall, the project produced mixed evidence of linkages in African natural resources. Hence, it was concluded that linkage formation in African extractives remains limited and that where linkages existed their depth was shallower than their breadth. Nevertheless, the study displayed a number of success stories and concluded that there is a large untapped potential for spurring development through linkage formation in African extractives.

Linkages are often discussed under the heading of local content or local procurement. AEO (2013) reports that in the Zambian mining industry between 60% and 86% of goods and services are procured locally in Zambia, although in most instances the local firms were import firms creating little local value added. More encouraging evidence comes from the Nigerian oil industry, where it is reported that local content has gradually increased over time, from a level of around 5% before 2000, over 14% in 2003 and 20% in 2004 to 35% in 2010 (UNCTAD/CALAG 2006; Ovidia 2013) and that the majority of local firms involved are controlled by local interests (Oyejide and Adewuyi 2011). However, even though Nigeria – in an African context – has made huge strides forward in terms of local content, local content in Nigeria is still significantly below local content in countries like Brazil, Malaysia and Venezuela (Morris et al. 2011b).

In general, time seems to be of the essence in the development of local content. Hence, several authors (Amendolaigine et al. 2013; Merlevede et al. 2011) argue that, as Africa is relatively new to extractive FDI-based development, it is likely that the lack of linkages detected could be related to the recent nature of the development of this industry rather than inherent structural deficiencies.

Box 4. Linkage development takes time

Linkage formation related to mega-investments in extractives ‘takes time’, although the opportunities are vast.

Nigeria, for example, is the country with the most comprehensive experience with oil development in Africa, where linkage formation, even with active government involvement, has suffered many pitfalls and taken a long time to materialise. Thus, the political commitment to local content in the oil sector has been particularly prominent during the last ten years. In 2001, after years of de facto neglect and misuse, the government established the National Committee on Local Content Development (NCLCD) under the leadership of National Petroleum Investment Management Services (NAPIMS). The committee condemned the fact that only 5% of annual expenditures on goods and services in the upstream sector of the oil and gas industry went to local companies, the other 95% being imported (NCLCD 2002: 5). To deal with this problem, the committee therefore drew up a new definition of local content, with strategies for its measurement. It argued that ‘Local content in the upstream sector of the Nigerian oil and gas industry is the quantum of composite value added to or created in the Nigerian economy through utilization of Nigerian human and material resources and services in the exploration, development, exploitation, transportation and sale of Nigerian crude oil and gas resources’. Among other things, the report recommended that targets were set for local content in all components of the oil and gas industry of 40% by 2005 and 60% by 2010. The committee also drafted legislation for a Nigerian Content Development Bill, which, among other things, transferred all responsibility for the monitoring and enforcement of local content stipulations to the Department of Petroleum Resources (Ovadia 2013: 142).

In 2003, the federal government developed the Nigerian Content Policy (NCP) in order to ensure that oil-sector FDI would have a positive effect on the national economy. The NCP focused on the employment of local human and material resources and services, and the overall objective of the policy has been the promotion of local value addition, the development of local capacity and enhanced linkages between the oil sector and the other sectors of the economy. In 2005, the Nigerian Content Bill was introduced by the NNPC. This bill introduced minimum Nigerian content levels for all projects in the oil and gas industry (between 70% and 100%, depending on the type of project), which was, unsurprisingly, opposed by international oil companies. The bill was ratified in the Nigerian Senate, but later terminated after a change in government in 2007. In 2008, the bill was revived in a modified version, which recommended the creation of the Nigerian Content Development and Monitoring Board (NCDMB), which would be in charge of implementation and monitoring instead of DPR. Yet, this new local content bill, which eliminated NAPIMS and DPR, was only passed into law in 2010 (Ovadia 2013: 144). By 2007, the Nigerian Content Division of the NNPC was demanding that all international oil companies establish ‘Nigerian content’ divisions. Yet, oil companies were not really committed to the project, and legislation was slow to pass in the National Assembly. Passage of the Nigerian Content Development Bill is considered by many to be essential for the future ability of the NNPC to enforce local content regulation (Ibrahim 2008; Brown 2010).

¹⁹ www.trp-ng.com, accessed on 27/5/2013.

The targets for local content were changed to a very ambitious 45% by 2005 and 70% by 2010. These targets have, unsurprisingly, not been met. Local content in the oil and gas sector was around 35% in 2010, which is nevertheless quite an achievement. The NCDMB is quite strict about the enforcement of the legislation and committed indigenous companies winning contracts. Companies with higher local content rates are now favoured in the granting of jobs and contracts, and all contracts which are awarded today have collaborations with several Nigerian companies. Furthermore, the NCDMB has now been provided with an independent source of financing by the Nigerian Content Act, so that one per cent of the value of all contracts in the oil and gas industry goes to the NCDMB. This is crucial in ensuring the capacity of the NCDMB, not least with regard to the functions of monitoring and control, as hitherto it has depended largely on financing from international oil companies (Ovadia 2013: 172-173, 184).

There are a handful of studies reporting that skills obtained by local firms through linkage collaboration with MNCs have been used to move into new industries. For instance, Lorentzen (2008) provides an example of a South African firm which transferred skills regarding X-ray technology in the diamond industry to develop a new business in the medical industry. AEO (2013) reports that, as many of the skills acquired by African engineering firms engaged in linkage collaborations with MNCs are 'generic', they have been used to generate new businesses in other industries. Perkins and Robbins (2011) report that providers of infrastructure services may develop skills that can be used in other infrastructure projects. This is particular the case for 'high-volume mineral resources' (e.g. coal or iron), whereas the potential is less for low-volume extraction (e.g. gold and diamonds), which tends to promote enclave-type effects

A number of studies have assessed the so-called multiplier effects of FDI based on input-output models (for a review of methodologies to measure multiplier effects, see Tordo et al. 2013). Among these multiplier effects are job creation at local linkage partners. AEO (2013) estimates that job creation at local linkage partners in extractives oscillates between one and three jobs. Lundstøl et al. (2013) estimates employment effects in mining to range from a factor of one to a factor of six. A study of mining in Zambia suggests that each direct job in mining firms generated 0.7 additional jobs at first-tier mining suppliers. In addition, five times as many jobs were created outside the mining sector through 'induced' effects (McMahon and Tracy 2012). A study of the Ghana gold sector (Kapstein and Kim 2011) found that 2.8 jobs were created at suppliers for each job created at the mining operation proper. Moreover, Kapstein and Kim (2011) suggest that, for each direct mining job created, 28 indirect and induced jobs, formal as well as informal, were created in gold mining.

Overall, these studies suggest that linkages in extractives may be in the process of becoming more widespread and that they may lead to significant indirect job creation, as well as skills upgrading and other spill-overs into the local economy. However, it is also clear that these deviations from the enclave situation only occur under certain conditions. Below (Section 3.4) we will examine these conditions in more detail.

Linkages are often with local representatives of foreign suppliers

As argued above, there is evidence that MNCs are increasingly sourcing activities and functions to suppliers and service providers in the African host countries. However, numerous studies suggest that these 'local' partners are typically foreign-controlled firms (Morrisey 2012; UNCTAD 2013). In other words, it appears that MNCs in extractives are to a large extent transferring their global value chains to developing host countries. For instance, a study of gold-mining in Ghana concluded that foreign investors in this industry fostered few local linkages and that those linkages were mainly with local representatives of foreign supplier firms (Larsen et al. 2009). Similarly, Mjimba (2011) argued that the 'local' procurement made by gold mines in Tanzania overwhelmingly involved foreign suppliers and that only low value-added, low critical tasks were performed by locally controlled companies. Even the latter often had significant foreign interests involved. More generally, Morris et al. (2011c) report that many linkages between MNCs and local firms in African extractives seem to be simple 'window-dressing' activities, replacing the efficient imports of supplies by the MNC with less efficient imports from local entrepreneurs.

Inter-industry spill-overs are larger than intra-industry spill-overs

Generally, econometric studies of aggregated FDI data conclude that the potential for learning and spill-overs is higher between industries than within industries (Nunnenkamp 2002; Rugraff and Hansen 2011), which is also the impression from specific African studies. Hence, in a cross-sectoral econometric study based on panel data from the World Bank Regional Program on Enterprise Development, Bwalya (2006) found that there were no significant intra-industry spill-overs, while there were significant inter-industry technology spill-overs from foreign firms to local firms. Focusing specifically on the African extractive industry from a value chain perspective, Morris et al. (2011a) argue that backward linkages have a greater development potential than horizontal linkages (see Box 5 for attempts to create such linkages in Mozambique).

In their study of extractive industries in eight African countries, Morris et al. found that in four of these no horizontal linkages were identified, in two they were 'probable' (but not identified) and in one (South Africa) there were substantial horizontal link-

Box 5. The MOZAL case

In Mozambique, the key driver of linkage and local content promotion in extractives has been intimately related to the experience of the MOZAL aluminum smelter outside Maputo, with the South African Billiton mining corporation as a major investor and IFC as one of its financiers. Spearheaded by the World Bank Group, in particular the IFC, an integrated approach to linkage formation has been developed.²⁰ Subsequently, MOZAL has been used as an 'ideal model' by the World Bank Group, showing potential investors that investments in risk destinations like post-conflict Mozambique are economically and politically feasible. The experience of MOZAL has also been used as a 'best practice' example for the promotion of linkages between FDI mega-investments, SMEs and local content development in Mozambique.²¹

The MOZAL investment and linkage formation programme had two phases: MOZAL I was initiated in 1998 and the construction of the then most advanced aluminum smelter in the world took 2 ½ year; the MOZAL II expansion was initiated in 2001 and took only 1½ year to be completed as the foundation for the enlargement had been laid during the first phase. Four phases can be identified where linkages and local content provision have been promoted related to construction and operational phases:

Identification. From 1997 the Centre for the Promotion of Investments (CPI), with strong support from the IFC and World Bank, carried out a study as part of preparing for the participation of domestic SMEs in the construction of MOZAL and subsequent production. A CPI study screening 370 enterprises (1997) found that '99% had serious problems with product quality, generally lacked experience, did not have the necessary portfolio of projects, operated with outdated and depleted equipment and technology, had serious management shortages, and so forth (Castel-Branco and Golding 2003: 24). With very low levels of intra- and inter-firm linkages and technological capabilities and a very thin and dispersed formal domestic enterprise base, there was very little MOZAL could tap into or link up with. What particularly became clear for CPI and MOZAL was that the 'standard contract format' that MOZAL brought with it from South Africa was too large and technologically advantaged for Mozambican companies to cope with (Robbins et al. 2008: 28). One consequence was that Mozambican participation in the construction of MOZAL I was limited and well below what had been envisioned (Castel-Branco and Golding 2003).

SME Empowerment Linkages program (SMEELP). From 2001 a joined MOZAL, CPI and IFC programme was established which tried to develop Mozambican firms so they could become eligible for participation in the enlargement of the MOZAL plant (MOZAL II) through matching grants. This was based on the creation of a database for Mozambican firms and the vetting of enterprises to engage with MOZAL, the redesign and unbundling of MOZAL standard contracts and reformulation of procurement standards so they better fitted Mozambi-

²⁰ MOZAL has until recently been the single biggest FDI investment in Mozambique and the first mega-investment in the country (that is, exceeding USD 500 Million).

²¹ Where the first assumption is difficult to assess, the veracity of the second assumption has been thoroughly assessed in multiple studies (see Castel-Branco and Goldin 2003; Robbins et al. 2009; IFC 2007; Sonne-Schmidt et al. 2009; da Costa 2012; Ernest and Young 2010; Krause and Kaufman 2011).

can business realities, the facilitation, information exchange and training of the Mozambican SMEs that were considered the most capable candidates for MOZAL bidding, and the mentoring of SMEs that did obtain contracts. In total 16 SMEs were trained and, over time, 28 contracts worth just over US\$ 5 million were awarded (Ernest and Young 2010).

Mozlink I. From 2003 SMEELP's support moved on from construction to the operational phase of the smelter, with a particular focus on providing loans to SMEs by banks and financial institutions, as well as the provision of technical capacity-training. The linkage programme culminated in 2005 with the opening of the Beluluane Industrial Park next to MOZAL, which enjoys 'Industrial Free Zone' status and aims at creating clustering effects (Robbins et al. 2009: 22). CPI and IFC were the key drivers. The program trained 45 SMEs, and Mozlink enterprises won contracts worth US\$ 13 million out of a total expenditure on local content by US\$ 180 million, of which electricity and water combined amounted to US\$ 96 million (Krause and Kaufman 2011: 51).

Mozlink II. In 2006 Mozlink I expanded from being tied to MOZAL to include other FDI-driven investments in primarily the gas (SASOL in 2004) and beverage sectors (Coca-Cola and South African Breweries). It was a three-year supply-chain program aimed at strengthening the business and technical capabilities of SMEs so they could compete for industry contracts with the gas and beverage sectors (Ernest and Young 2010). The key driver was the IFC's Private Enterprise for Africa (IFC PEP Africa). The IFC claims that Mozlink II has trained 75 SMEs, secured US\$ 20 Million in revenues for SMEs, with a 40% growth in contract development by Mozlink corporate partners, and created employment for 3000 people (IFC 2008; Ernest and Young 2010).

The type of linkage formation created by the MOZAL mega-investment had little spill-over impact on the Mozambican economy in the form of technological capabilities and learning. Besides infrastructure development and the creation of 1100 jobs, MOZAL nonetheless influenced the Mozambican economy dramatically as GDP increased and external trade gains amount to about US\$ 400 million a year (Castel-Branco and Goldin 2003: 6; 11). And while the skill and technological base of SMEs subcontractors linked to MOZAL increased with adoption to ISO-9000 and similar standards, it was maybe less the different phases of the linkage programmes that contributed to this than the market-driven joined ventures between specialized foreign suppliers and Mozambican partners (Warren-Rodriguez 2008: 16-18; Krause and Kaufman 2011: 51).

ages (Morris et al. 2011b). In contrast, there was much broader evidence of backward linkages. Unfortunately, given the mediocre results of horizontal linkage promotion, African governments have focused almost exclusively on fostering horizontal linkages at the expense of a focus on the much more promising backward linkages (Morris et al. 2011c). The reason why spill-overs are more likely between industries than within industries is that MNCs are more willing to share technology and know-how with linkage partners upstream and downstream in their value chains than they are with firms in their own industry which are potentially their competitors.

A number of studies examine intra-industry linkages and spill-overs into other local mining firms, such as artisanal and small-scale mines. This relationship is, for instance, analysed by several economic and political economy studies of mining (see, e.g., Lange 2006; Curtis and Lissu 2008; Kweka 2009; Bourgooin 2011; Therkildsen and Bourgooin 2012; Pedro 2006). Usually the relationship is described as hostile and adversarial: artisanal miners are frequently crowded out by the technologically and financially superior and politically well-connected MNCs (Curtis and Lissu 2008), while MNCs are often forced to shut down operations due to illegal actions by artisanal miners (BSR 2011). Kweka (2009) reports that there is very little evidence of actual linkage collaboration between MNCs and artisanal miners in Tanzania, and although there in theory may exist spill-overs in the form of demonstration and competition effects on local miners from MNC investments, the evidence is scarce. Likewise, a study of gold-mining in Ghana found that there were no linkages between large-scale foreign mining operations and the local small-scale mining industry, maintaining the status of large-scale gold mines as enclaves (Larsen et al. 2009).

Backward linkages may have greater potential than forward linkages

The literature hypothesizes that backward linkages to suppliers and service providers are more common and have a higher development potential than forward linkages to processors and distributors within the extractive industries. Hence Korinek (2013) and AEO (2013) argue that, as extractive processing industries (forward linkages) are capital-intensive and offer relatively low returns, their linkage potential is limited, whereas there are greater opportunities (and more multiplier effects) involved in developing backward linkages. Indeed, most of the evidence of linkage broadening and deepening from African extractives comes from backward linkages, although there are also examples of successful forward linkage formation, the prime example being Botswana's diamond-polishing industry (Mbayi 2011). However, the evidence on this matter seems too limited and scattered to arrive at firm conclusions regarding the strengths of backward and forward linkages respectively.

3.4 The factors promoting and constraining linkage formation

Overall, the literature finds few and relatively shallow linkages in African extractives. However, there are exceptions where successful linkages have been fostered, especially backwards in the MNC value chain. What do we make of this mixed evidence? First, it could be ascribed to the different methodological and theoretical lenses adopted by the various studies. Hence, there seems to be a tendency

for econometric studies to look at aggregated data, finding little evidence of spill-overs, whereas firm-level studies and studies of multiplier effects tend to produce more evidence of spill-overs and linkages (see Morrisey 2012; Rugraff and Hansen 2011). Second, the mixed evidence is most likely related to the fact that linkage formation is studied in different contexts, that is, in different countries, in different sectors and involving different firms. Hence, certain contexts are more conducive of linkage formation than others. In the following we will examine how the literature explains variations in linkage formation. As mentioned in connection with the presentation of our analytical framework (see Figure 3.1), we argue that linkages are shaped by the strategies and capabilities of four actors, namely governments, MNCs, local firms and donors.

Government strategies and capabilities

Throughout this study, we hold that the actions (or lack of actions) of governments are essential to understanding the breadth and depth of linkages in African extractives. A host of instruments and strategies are employed by African governments to promote linkages in extractives, such as ownership requirements, local content requirements, local processing standards, hiring requirements, mandatory CSR programmes and supplier development programmes etc. (UNCTAD, 2010a). According to UNCTAD (2010a), linkage promotion by governments can be clustered into essentially four types of intervention that are more or less interrelated: specific linkage policies, strategic FDI attraction, improving the general investment climate and building absorptive capacity in local industry. In the following we will focus on specific linkage measures, while keeping in mind that such measures may be rendered ineffective if governments do not simultaneously look at the other types of linkage promotion. The two most common types of specific linkage measures are ownership and local content requirements.

Historically, African governments have overwhelmingly relied on ownership requirements to promote linkages and spill-overs from extractive FDI. Hence, over the years African governments have promoted the development of national extractive firms by setting requirements for extractive MNCs to have local ownership in their operations. The philosophy behind this was that, as extractive operations are enclaves, learning and upgrading opportunities will more effectively be promoted through a joint venture between the MNC and a local, typically state-owned enterprise (Morris et al. 2011a). The limited research on such extractive joint ventures tends to conclude that spill-overs and learning effects have been limited. The state-owned enterprises typically become 'sleeping partners', and minimal technology

transfer and skills upgrading takes place. For instance, from Tanzania Kweka (2009) reports that little learning has taken place in Tanzanian extractive joint ventures and that none of the Tanzanian joint venture partners reached skills and technology levels where they could undertake mining operations alone.

More recently, local content requirements to foster backward linkages to suppliers and input providers have become widespread. Indeed, resource-rich developing countries have seen a tide of local content requirements and rules adopted in recent years, and a large literature has emerged that focuses on the conditions and effects of local content (for overviews of this literature, see Kazzazi and Nouri 2012; Ado 2013). In several African countries, local content rules appear to have been a key driver of linkage formation. From Angola, Teka (2011) reports that manufacturing linkages in the Angolan oil and gas sector have expanded since the early 2000s and that local content policy pressure has been the main driver of the localisation of intangible intermediate inputs, as well as basic general products. Similar evidence of successful local content policies has been presented from Nigeria (UNCTAD/CALAG 2006; Ovadia 2013). From other countries, such as Tanzania, it is reported that attempts to promote backward linkages have been less successful due to ambiguous and non-enforced local content rules and weak capacity in local industry (Mjimba 2011; Kweka, 2009) (see box 6 for examples of linkage policies in East Africa).

The developmental state literature (see e.g. Wade 1990; Amsden 1989; Evans 1995) tends to argue that local content can assist the development of weak local industries, facilitate technology transfers and increase domestic production and job-creation. The justification for such measures is that infant industries need to be protected and that the market power of MNCs needs to be curbed or 'directed' towards developing linkages. However, other bodies of literature adopt a more critical assessment of local content rules. Especially researchers of a more neoliberal persuasion fear that local content rules may become subject to capture by bureaucrats and entrenched local business interests, lead to the promotion of the wrong industries, cause inflated prices and/or reduce the overall level of FDI in the country (Ado 2013).

A middle position (see, e.g., Tordo et al. 2013) holds that local content requirements are acceptable under certain conditions. First, local content requirements must be made subject to rigorous cost-benefit analysis where the benefits are weighted against the costs related to potential foregone investments and inflated prices (Tordo et al. 2013; Warner 2010). Second, local content must be seen in the context

Box 6. Measures and policies to promote linkages in East Africa

Across East Africa, in recent years governments have, in a more or less dedicated manner, engaged in the promotion of linkages between foreign extractive investors and local firms.

Following in the slipstream of mega-investments since the mid-1990s and the attempt at creating linkages related to the MOZAL smelter (see Box 5), Mozambique has developed an organisational and institutional setup for SME development. The most important of these, at least by name, are the 'Industrial Policy and Strategy' from 2007 and the related 'Strategy for the Development of Small and Medium Size Enterprises in Mozambique' from the same year (Krause and Kaufman 2011: 29). If the hallmarks of good industrial policies are targeting, prioritizing and enforcement of conditions for productivity, then the policy and strategies were rather vague. The Industrial Policy suggests that 'the Government does not want to "miss anything"' (Krause and Kaufman 2011: 28), as it does not provide guidance for how to link up to mega-investments. The African Peer Review Mechanism (APRM 2009: 165) specifically lambasted the lost opportunity for providing clear strategic guidance on how such investment could be used to boost economic development in the future.

The Mozambican SME strategy, in contrast, was elaborated by external consultants with donor assistance and some consultation with the Confederation of Economic Associations and the Ministry for Trade and Industry (MIC). While defining priorities and objectives for SME development and proposing a certain sequencing of actions, for example the establishment of an Institute for the Promotion of Small and Medium-sized Enterprises (IPEMA), the strategy does not seem to have had much impact so far. While IPEMA was established in 2008 to drive the implementation of the SME strategy, it largely relies on external funding for implementation. But 'no significant impact has been visible', as Krause and Kaufman argue (2011: 30). Interestingly, donor organisations, while supportive of IPEMA, have largely focused on running, establishing or renewing their own organisations and institutional linkage programs like the World Bank 'Project for Entrepreneurial Development' (PODE), which operates its own matching grant scheme for co-financing training sessions, consultancies, export promotion and so forth and is keen on linking Mozambican enterprises to present mega-investments. In 2009 the Bank added the 'New Mozambique Competitiveness and Private Sector Development Project', whose US\$ 25 million budget is far bigger than the budget of MIC, not to mention IPEMA. To this should be added the fact that most national donor agencies run their own support mechanisms for the private sector, SME and linkage development. In sum, the institutional and organisational picture for SME linkages and local content adoption to mega-investments seems rather muddy, with no clear strategic guidance on how to use the newly found extractive industry opportunities to capitalize on and exploit the desired impacts on development.

Generally, the Tanzanian FDI and mining legislation has adopted a liberal approach to foreign investors, with few restrictions related to ownership and local content. Nevertheless, there are examples of provisions that seek to promote linkages. First, there are linkage promotion rules related to ownership. According to the 1998 Mining Act, certain parts of the exploration cycle are reserved for local Tanzanian companies defined as companies that are solely owned by Tanzanian citizens. Second, there are provisions to promote backward and forward linkages: for instance, the 1998 Mining Act says that efforts should be made

to develop the country's ability to provide inputs to the sector. The Mining Act makes possible the promotion of forward linkages, as well as incentives for the development of local value-adding activities, and there are provisions for succession programmes, that is, specific programmes for gradually replacing foreign expatriates with local employees. Moreover, there are provisions to facilitate the establishment of training institutions to develop industry-supporting skills, as well as to encourage foreign investors to contribute to the development of skills and capabilities. However, it is noticeable that there are no mandatory provisions for the creation of backward and forward linkages in the Tanzanian legislation. The existing provisions are vague and non-binding, and the process of forming linkages is largely left to market forces (UNECA 2013). As Mjimba argues (2011), the Tanzanian mining regulation lacks specific targets, monitoring mechanisms and incentives and sanctions related to reaching the overall development objectives. Moreover, other parts of the Tanzanian investment legislation directly counter attempts to promote local content in mining, and Tanzania has largely failed to establish effective provisions for developing local capacity in the mining field.

In Uganda, it is still too early to assess policies for local linkage formation because of the relatively small extractives industry. There is some mining, and oil has been explored since 2006. The government expects to start pumping the oil in around 2015-17. However, the policy framework for local linkage formation can be considered to be in place, with the National Development Plan emphasizing industrialization, targeted interventions to promote local industries and a framework for foreign investments. The National Oil and Gas policy of 2008 sets the broad framework. In line with the overall Vision 2040, the goal is to use Uganda's oil resources to bring down poverty and promote the country's socioeconomic transformation. Some of the sub-objectives of this overall goal were to ensure national participation in oil and gas activities and to enhance national skills. To enact the policy, there are different bills, laws and acts. The most relevant bill for local content is the Petroleum Exploration, Development and Production Bill (2012), in which there are no provisions for mandatory linkages or indications of certain percentages of local content. However, a number of requirements are listed. For example, applicants for a license under the bill need to come up with plans for local employment and training, as well as proposals with respect to the procurement of goods and services in Uganda (RoU, 2012: 20). Article 52 says that the licensee shall give priority to Ugandans in the provision of goods and services and to the purchasing of local products (ibid.: 49-50). It also stipulates that the licensee shall give an annual report on its achievement with regard to using local products and services. There are similar articles on the training and employment of Ugandans, and licensees are required to have training and recruitment programs for Ugandans. The worry on the part of the oil companies is that they may not be free to choose the best sub-contractors because, according to the Bill, the Minister can decide to withdraw or refuse to issue a license for the sub-contractor (interview, Total, June, 2013). These concerns aside, the legal framework for local content is more or less in place. The challenges will be on the implementation side (Shepherd, 2010), especially with regard to the big gap between what the TNCs demand and local supply. Hence, so far there has been no effective industrial policy, and the manufacture and agro-business base in Uganda remains weak.

of local industrial capacity; only if the technology gap is surmountable and local absorptive capacity is present will it be possible for MNCs to honour local content requirements (UNECA 2013). Third, local content rules must be aligned with the strategies of MNCs. Hence Morris et al. (2011c) argue that, if governments pressure MNCs to introduce local content in conflict with their inherent strategies, host countries may in fact experience a 'shallowing' of local linkages, where less advanced activities will be made subject to linkages and/or local linkage activities will be implemented more slowly. Finally, local content must consider local institutional capacity in implementing local content programmes (Altenburg 2001; 2011). The more ambitious the local content measures are, the greater the demands on the capacity of governments to set targets, devise supportive measures and establish monitoring and evaluation systems. Several studies suggest that institutional capacity to manage linkages in natural resources is seriously lacking in African countries (see, e.g., Mjimba 2011; BSR 2011; Wyse and Shtylla 2007), something that may lead to unrealized linkages or alternatively the capture of linkage-policies by political and social interests (see Chapter 4 for examples thereof).

Another issue is whether local content measures are feasible under WTO rules. Hence, WTO agreements, in particular the agreement on Trade Related Investment Measures (TRIMS), restrict performance measures (e.g. specific requirements to import or export performance) such as local content requirements because such measures are seen as violating the non-discrimination principle of national treatment. How much local content is restricted by international trade law is, however, disputed. Warner (2011) argues that local content requirements are explicitly prohibited 'if these oblige the purchase or use by an enterprise of products of domestic origin or from a domestic source'. Others argue that considerable scope remains for developing countries to introduce local content measures, partly with reference to the exemptions to the non-discrimination and national treatment clauses of the WTO framework and partly by introducing such measures in a non-binding manner (BSR 2011; Tordo et al. 2013; Ado 2013).

MNC strategies and capabilities

Our second driver and shaper of linkage practices for extractive natural resources are the MNCs' strategies and capabilities. Generally, the literature looks at macro- and meso-level determinants of linkages, and little has been written about firm-level determinants (Mjimba 2011; Rugraff and Hansen 2011). In the following we will argue that recent developments in MNCs' strategies and capabilities have led to new opportunities for linkage formation in African extractives. These developments

are growing competition from new players in the industry, growing pressures for outsourcing, growing commercial and strategic benefits from linkage programmes, and growing engagement in development and CSR-related activities.

Natural resource extraction is typically a highly capital-intensive activity that demands economies of scale to be viable. Hence there is a strong pressure toward concentration. Indeed, in recent years we have seen a strong consolidation of this sector through mergers and acquisitions (UNCTAD 2013). This consolidation process has made some observers fear that the market and bargaining power of lead extractive MNCs will increase and that powerful MNCs will be able to dictate terms to supplier firms and governments (Hoekman and Martin 2012). Paradoxically, however, in light of the consolidation process, other observers point towards growing competition and rivalry within the natural resource extraction sectors. Hence, the inherent oligopolistic pressures within this sector are countered by the arrival of new players from emerging markets such as China, South Africa, India and Brazil, as well as increasingly competent national champions from Africa. The growing competition for extractive concessions created by these new players will, *ceteris paribus*, strengthen the bargaining power of host governments vis-à-vis MNCs and allow governments to put more pressure on prospective investors to produce local linkages and spill-overs (BSR 2011).

Outsourcing within extractives is another firm driver providing more linkage opportunities in the African sector. Traditionally, lead extractive MNCs were depicted as large, integrated firms characterized by strong centralized coordination from headquarters in western capitals. The hierarchical MNC offered few opportunities for host-country suppliers and service providers to break into the value chain and obtain contracts. However, as is the case in manufacturing and services, in recent decades natural resource extraction has also witnessed a profound international disintegration of value chains (Morris et al. 2011b). This disintegration, which some refer to as ‘outsourcing’, takes place to reduce costs, spread risks, obtain the benefits of specialization and tap into the resources and capabilities of other firms (BSR 2011). Hence we have seen a significant restructuring of extractive MNCs in Africa, where non-core activities are being outsourced and where the boundaries for outsourcing are constantly being moved forward (UNCTAD 2005; Urzua 2007; Mjimba 2011). This reconfiguration of the value chain provides new opportunities for local firms to break into the value chains of large extractive MNCs and is the basis for much of the growing optimism with regard to the creation of developmental linkages. However, the tendency of MNCs to outsource parts of their activities should not be exaggerated, as Box 7 illustrates.

Box 7. Limitations in outcomes of the MOZAL experience

Starting from a 'ground zero' situation after the General Peace Accord in 1992, with a depleted and broken down industrial sector, the evolution of SMEs and the building up of technological capabilities have progressed in Mozambique. However, compared to the US\$ 4 billion of investments by MOZAL and the later SASOL gas pipeline, the linkage outcomes detailed in Box 10 may seem meagre (Nhancale 2010). And while no one has disputed the importance of the linkage programmes supported by the World Bank Group, its limitations are significant.

First, as Krause and Kaufman (2011: 50) argue, 'the effects have been quite limited in number and scope, as well as structure. The results are limited to the creation of a small market niche for local firms that depend almost completely on MOZAL and have not contributed to the development of an industrial cluster of innovative SMEs'. To this should be added the fact that in most cases the companies receiving grants were often the same for each round, providing an increased number of services and supply functions (IFC 2006) and giving the distinct sense of the various programs helping a small, favoured number of enterprises, instead of enlarging the general SME pool (Krause and Kaufman 2011: 51).

Second, recent assessments suggest that, although enterprises that benefitted from the MOZAL linkages programmes became specialized so they could honour ISO and similar international standard requirements, they also struggled to find new companies they could link up with (until the recent wave of coal, gas and energy mega-investments that took off after 2008). Actually, due to upgrading they lost access to 'traditional markets' or lost 'some space and ability to work with the traditional market' (Castel-Branco and Goldin 2003: 29). In contrast to the intentions of the linkage programme and the expectations of the general literature on linkage specialization, the enterprises that became capacitated began a slow process of de-specialisation in order to gain enough domestic contracts so they could survive, as the MOZAL contracts could not provide enough work for expansion and further develop the companies. The problem was that as they upgraded staff and management capabilities and invested in new equipment in order to meet international standard requirements, they also became too expensive and specialized for the Mozambican economy, as there were few mega-investments they could link up with. One of the consequences has been that they relaxed company practices in order to lower the price-setting and win enough contracts. Relaxed company practices then spread to the specialised domain of the company, undermining productivity and technological capability gains.

Third, the experience of the first generation of mega-investments is that they have not created forward linkages because of the limited technical capacity of Mozambican companies. Expectations that MOZAL would create a manufacturing cluster based on aluminum ingots or that the later SASOL pipeline project would create forward linkages where gas would be used as inputs for local industry have until recently proved difficult (for MOZAL, see Castel-Branco and Goldin 2003: 3; Warren-Rodriguez 2008; for SASOL, see Nhancale 2010).²²

²² Gas from the Pande and Tamano fields was transmitted to South Africa, from where it returned as value-added gas for household consumption until a new, smaller plant was set up in Mozambique in 2012. This followed repeated problems with gas distribution from South Africa that caused uproar in Mozambique. A gas turbine was also set up on the Mozambican side of the border in 2012 using gas from Pande/Tamano to produce electricity for the South African market.

Fourth, while over time MOZAL has helped to create more than 200 suppliers of inputs to its operations in metallurgical services, transportation, auto-mechanical and electrical products and services, construction, security, cleaning, catering and laundry, the majority of the enterprises were linked in one way or another to South African companies that were already linked to the South African aluminum establishment in Richards Bay (South Africa) and elsewhere (Castel-Branco and Goldin 2003: 6). They moved with MOZAL and established Mozambican subsidiaries, in many cases with Mozambican partners. One major reason for this is that MOZAL came with an established business structure and model that Billington, the owner, had developed in South Africa for creating linkages locally and regionally. This had clear advantages, as a whole group of South African companies that could be subcontracted existed and could establish links with Mozambican partners, but it also created rather limited and narrow linkage effects in Mozambique.

In short, all the first-generation mega-investments were first-mover investments (aluminum, gas and heavy sand) and had received special government attention, often with the establishment of special institutional arrangements aimed to further industrialisation (Castel-Branco and Goldin 2003: 23). The hope was that these mega-investments would transform the general business landscape. However, the experiences of both the first- and second-generation of investments during the past fifteen years suggests that this is not the case, as explained in Box 10 on Linkage Patronage in Chapter 4.

Countering factors are that outsourcing makes MNCs assume transactional risks such as uncertainty regarding deliveries, quality and prices, or the risk of the leakage of core competencies to linkage partners (Williamson 1975; Hennart 1982). In African contexts where there are often weak capabilities in local industry and weak institutions to support contract-based linkages, the transactional risks will tend to be particularly high. These transactional risks will often make extractive MNCs in Africa prefer to keep the activity in-house, or alternatively link up with known international partners and first-tier suppliers as part of what has been dubbed MNCs' 'global-sourcing-follower-supply policy' (Barnes et al. 2004).

It should be noted that outsourcing strategies vary, depending on where the MNC comes from. Generally it is argued that Chinese MNCs only marginally involve themselves in developing local linkages (Haglund 2008; Fessehaie 2011; Morris et al. 2011a; Morrissey 2010, 2012; UNIDO 2012), whereas western and South African MNCs appear to have more developed linkage programmes.

A third MNC driver of linkage formation is related to the strategic and commercial benefits of having strong and visible linkage programmes. Many extractive MNCs

today view linkage development as a key part of their business strategy, and linkage development programmes are becoming an institutionalized corporate practice, especially in the oil and gas industries (Tordo et al. 2013). Such linkage development programmes provide MNCs with substantial commercial and strategic benefits. First, developing local suppliers may eventually be transformed into cheaper, more reliable and higher quality inputs. Second, a dedicated local supplier development programme may become a 'license to operate' in countries that are increasingly concerned with the (lack of) development effects of MNCs; indeed, a proven track record on linkages may be an increasingly important differentiator in bids for concessions in African extractives (Wyse and Shtylla, 2007). Third, strong linkage formation may be seen as a key ingredient of risk management, as it may reduce the risk of stakeholder-provoked cessations of operations and other forms of politicisation (BSR 2011).

Where some MNCs adopt local linkage programmes as a strategic tool to differentiate themselves from their competitors, others adopt linkage activities as part of their CSR initiatives. Due to extractive industries' often huge social, environmental and cultural impacts, MNCs in these industries are increasingly forced to consider how they can mitigate their negative impacts and increase local goodwill through various forms of outreach and support for local communities. Consequently, most large extractive MNCs have adopted – at least formally – CSR programmes and activities, although the motives and impacts of these initiatives are widely disputed in the literature (Hilson 2012). Linkage formation as part of CSR programmes can take the form of local procurement policies, training and education activities related to local service providers and suppliers, or programmes to involve locals in building infrastructure etc. (ICMM 2011; BSR 2011).

Local industry strategies and capabilities

A third key driver and shaper of linkage practices relates to the organization, capabilities and strategies of local firms. Local firms do not automatically and passively respond to regulatory initiatives and/or the strategies of MNCs. They have different capabilities and interests in linkage formation and use different strategies to pursue these interests. In general however, there are strong incentives for most local firms to link up with foreign investors, partly due to the business opportunities that linkages create and partly due to the learning and upgrading opportunities.

As discussed above, several recent developments enhance the opportunities for local firms to engage in linkages with extractive MNCs, including MNCs' growing en-

Box 8. The problem of the technology gap in linkage formation

If the technology gap between foreign investors and local firms is too great and the absorptive capacity of local industry too low, linkages will be difficult to establish, and learning and spill-over effects will be few. In Tanzania, Mozambique and Uganda, a high technology gap and low absorptive capacity may seriously hamper efforts to create linkages.

In Tanzania we have witnessed a virtual deindustrialization in the wake of the 1990's liberalization and privatization programmes. Today, the manufacturing sector accounts for a mediocre 9%-10 of GDP, the same level as ten years ago. Besides being small, the existing manufacturing sector lacks competitiveness, it is only to a very limited degree integrated into global value chains, and its technological capacity is low. The industry structure is characterized by a 'missing middle,' that is, very few SME enterprises. Instead Tanzania is dominated by informal micro enterprises and a handful of relatively large conglomerates that are politically well connected and well protected behind tariff and non-tariff entry barriers. The further development of the manufacturing sector in Tanzania is marred by weak infrastructure, unstable energy suppliers, red tape and widespread rent-seeking activity among bureaucrats and politicians, and Tanzania has been unable to improve its business environment. All these factors related to the Tanzanian industry and business environment seriously constrain the possibilities of linkage formation in extractives, partly because there are few capable local supplier and service firms for MNCs to link up with and partly because long-term contractual arrangements between MNCs and local firms are difficult to establish and maintain due to the weak institutional environment.

At independence in 1975 Mozambique was the eighth most industrialised country in Africa (Torp 1978). The Marxist-socialist policies pursued after independence, combined with sixteen years of devastating civil war and subsequent neo-liberal structural reforms after the General Peace Accord in 1992, has resulted in a virtual deindustrialization, much like in Tanzania. The enterprise structure is highly skewed, consisting of a few big enterprises, in part owned by foreign capital and in part by the state or members of the Frelimo elite, a few formally registered SMEs owned by both foreign and domestic capital, but with little clustering effect, and a large stratum of informal micro-enterprises (sometimes referred to as SSMEs) owned by domestic entrepreneurs, which make up 98.6 % of the whole enterprise (Rand 2013; Sutton 2013; Krause and Kaufman 2011: 13-14). One key characteristic of this structure is that SMEs don't emerge from micro-businesses but are generally created for a particular purpose or – when engaged in export – are 'born global' (Rand et al. 2013). The vast micro-enterprise stratum is dominated by trade-related commerce and retail (60%) and accommodation and restaurant services (20%). Manufacturing accounts for around 10% of all SSME business units, most of which are concentrated in the Maputo and Beira corridors. The skewed nature of the enterprise structure characterised by the 'missing middle' of SMEs has severe consequences for linking up to the present wave of mega-investments in natural resources. These offer few prospects for growth for micro-businesses and very limited intra- and inter-firm and sector linkages with strategic clustering and networking (Rand 2013). The SMEs that have emerged as part of mega-investment linkage programmes have more often than not been new enterprises established for that purpose, and most import the inputs to the mega-projects, except for a few agro-processors who source raw materials from

the local economy (Krause and Kaufman 2011: 14). As there is 'strong competition from informal business and foreign imports' (Krause and Kaufman 2011: 49), the space for the few competitive formal SMEs who can qualify as the business partners of mega-investments is extremely limited (da Costa 2012).

In Uganda manufacturing has grown, but from a very low level, in 2010 accounting for 8.5 % of GDP, not much higher than the level achieved in 1960. Manufacturing is overwhelmingly characterized by informal small enterprises with very few employees and low levels of technology. Interviews with representatives of government, multinationals and local companies clearly showed that there was a lack of local capacity in Uganda and that it would be very difficult to implement specific requirements of local content, for example a rule that there should be fifty percent of local equity, which had been debated in Parliament but not enacted. A recent report commissioned by Uganda's Petroleum Department estimates the share of total foreign investment in the petroleum sector retained in Uganda to be around 14 percent (RoU, 2011b). Indeed, so far there have been few successful initiatives to promote local capacity or transform the economy (Kjær and Katusiimeh, 2012; Whitfield et.al, forthcoming). Infrastructure remains highly inadequate, and previous government initiatives to promote industrialization, such as the strategic export initiative or government support for the textile industry, have either been inadequately implemented or have failed and/or involved corruption.

agement in local linkage development and government-promoted local procurement programmes. Moreover, the financial, strategic and technological capabilities of African industries have improved significantly in recent years (McKinsey 2011), thus making linkages more attractive to foreign investors. However, there remain huge problems with the abilities of African firms and industries to link up with foreign investors and benefit from such linkages. A key problem is related to the 'technology gap' between MNCs and local firms (see Box 8 above).

Several studies find that a main cause of the lack of linkages in African extractives is the technology gap from local industry (Diyamett 2012; Robbins et al. 2009; Morrisey 2012). A technology gap is not only related to technology but also related to the scale and productivity differences between foreign firms and local industry (Robbins et al. 2009). Based on an expert survey, the African Development Bank finds that technological complexity and a lack of skills in local industry are among the main obstacles to linkage development in African extractives (AEO 2013). The technology gap is even widening in certain areas, as extractive supply and service industries increasingly specialize and as lead MNCs, pressured by governments and NGOs, raise environmental, health and safety standards (Sigam and Garcia 2012; Jourdan 2008; UNCTAD 2013). Hence, while, as argued earlier, CSR initiatives

by MNCs may create new opportunities for the inclusion of local suppliers in the lead MNC value chain, the CSR initiatives may also raise the entry barriers for local suppliers, in particular SMEs. Not only does the introduction of such initiatives raise the bar in terms of standards, auditing and reporting requirements, they are also difficult to work with because different MNCs impose different and sometimes conflicting standards and requirements. As SMEs are rarely compensated for meeting the higher CSR requirements imposed by MNCs, they will bear the costs of compliance (UNCTAD 2013).

An aspect related to the technology gap concerns the ability of local firms to learn and develop new competencies based on linkage collaboration, what is sometimes referred to as 'absorptive capacity'. The absorptive capacity in extractive industries in Africa is generally considered very low (Osabutey and Debrah 2012; Portelli and Narula 2003; Morris et al. 2011c) and is considered a key factor for why host countries often do not benefit from linkages (UNCTAD 2013). Nevertheless, there are exceptions where it has been possible to build local industries with some level of absorptive capacity, gold-mining in Ghana or diamond-mining in Botswana being the usual star examples (Morris et al. 2011b).

Finally, just as MNCs face transactional risks in engaging with local firms, local firms face transactional risks in engaging with MNCs. Local firms may be reluctant to engage in linkages where, as is frequently the case in African extractives, the legal framework is transient and contract enforcement lacking due to a weak institutional environment. Moreover, as asset specificity (i.e. the extent to which assets committed to one transaction can be put to use in another transaction; see Hennart 1982) in collaborations with extractive firms will often be very high due to the unique and one-off nature of such collaborations, local supplier and service provider firms may be reluctant to engage in such collaborations. This is because they risk becoming too dependent on one buyer, namely the extractive MNC (Hanlin 2011).

Donor strategies and capabilities

The final force driving and shaping linkages is donors. Donors play a key role in large parts of Africa and provide very substantial shares of development finance. As Morrissey argues (2012: 31), donors 'can be very influential in a hierarchical policy-learning context by placing certain issues on the policy agenda, especially where they also provide advice and assistance on implementing the policies'. As part of their development assistance, donors are involved in facilitating natural resource extraction, for example, providing advice and technical assistance, assisting in de-

veloping institutional capacity and infrastructures, and providing direct support for investments.

Historically, the role of donors in natural resources in Africa has been related to the liberalization and structural adjustment agendas of the 1980s and 1990s. Hence, one outcome of structural adjustment programmes was the widespread privatizations of state-owned natural resource extraction operations and the liberalization of FDI regimes to allow for greater foreign involvement in natural resource extraction. These reforms were to a large extent conceived and promoted by the World Bank and IMF (Bourgouin 2011). The involvement of the World Bank in promoting and designing the liberalization of African extractive sectors has drawn heavy criticism, as this policy, in the view of many observers, made African governments surrender their natural resource endowments to foreign firms, leaving very few development benefits to Africa (Campbell 2003; Morrissey 2012).

Whether it was due to the criticism or a result of a ‘natural’ evolution in thinking (World Bank 2010a), the World Bank changed its strategy during the 1990s and 2000s. Its self-understanding runs like this (see World Bank 2010a): in the heels of the structural adjustment programmes, the emphasis was on changing the mineral legislation to make it attractive to foreign investments. This was a success. Subsequently there followed a strengthening of the regulatory and revenue-generating framework for the industry and improvements in public-sector financial management to ensure the efficient allocation of fiscal revenues. Hence, in a report from 2003, the *Extractive Industries Review*, the World Bank formulated a new vision for extractive governance which focused on transparency in taxation, improved institutions to manage natural resources, a greater focus on environmental and social effects and greater inclusion of local stakeholders (World Bank 2003). Recently, as a last step, the Bank has begun to focus on enhancing the contributions of the mineral sector to sustainable socio-economic development: ‘Success in this final stage signifies that the mining sector is having an important impact directly and indirectly on poverty reduction and broad-based, sustainable socio-economic development’ (World Bank 2010a: 1). It is a characteristic of the Bank’s approach (which seems aligned with the IMF’s) that the linkage issue – even in the present, last stage of the Bank’s evolving approach – is not given much attention in its advice and recommendations, possibly due to its aversion to industrial policy.

Be that as it may, there is no doubt that the development effects of natural resources in recent years have received renewed attention not only from the World Bank,

but also from other UN organizations, as well as from bilateral donors. But it is also clear that the configurations shaping the engagement of donors in this field are fundamentally different from those existing just ten years ago. First, the landscape of African development assistance has changed fundamentally due to the introduction of a major source of development finance that competes with development assistance, namely natural resource rents (Jensen and Wantchekon 2004). Second, the arrival of new donor countries such as those from Asia and Latin America, which may not adhere to the Paris Declaration's letter or spirit of donor coordination, local ownership and untied aid (Alden and Davies 2006; Luo et al. 2010), has introduced a new level of rivalry between donors. As a consequence of these developments, international and western donors no longer have the leverage they had before.

In this new situation (which is both an opportunity and a challenge for donors), donors are struggling to formulate their positions and identify appropriate interventions. Across the African continent we see donors gearing up to engage in natural resource extraction. Among the activities adopted by donors are 1) providing technical assistance and dissemination of experiences with best practices across developing countries; 2) building infrastructural, institutional and absorptive capacity; 3) facilitating specific natural resource investment projects; 4) mediating between natural resource MNCs and local governments; and 5) paying for learning rents associated with linkage development and technology transfer.

Many donor activities have focused on building institutions to manage resource rents (see Box 9 on the Norwegian Oil for Development Programme), but donors have also slowly but steadily become more involved in facilitating linkage formation related to natural resource extraction. At the most generic level, donors have facilitated linkage formation through private-sector development programmes. These programmes are typically not specific to extractives but are general, seeking to develop the business environment (e.g. improving Doing Business Conditions, developing infrastructures etc.), supporting FDI attractiveness (e.g. by supporting development of the investment framework and investment institutions), or developing local absorptive capacity (e.g. cluster programmes, value chain programmes, supplier development programmes, industry advocacy programmes. etc.). However, while general, these activities can be the key to providing the conditions for linkage formation in extractives.

However, there are also examples of donor activities that more directly seek to facilitate linkages within extractives. Hence the World Bank and other donors are cur-

Box 9. Norway's Oil for Development programme

The Oil for Development (OfD) programme was launched by the Norwegian government in 2005 with a budget close to US\$ 15 million in 2006 that slowly but steadily increased to just under US\$ 50 million by 2011 covering activities in twenty countries, many of which experience very high levels of corruption. The OfD programme promotes itself as a demand-driven approach to delivering technical support and capacity-building based on Norway's own historical experience of developing an oil industry and oil economy. Those providing advice come from a range of Norwegian institutions with concrete experience and with the aim of promoting 'international best practice' (NORAD 2012: 6). The OfD offers knowledge transfers to developing countries, but only when they ask for advice on how to manage their petroleum resources. The success of the OfD programme is measured in the strengthening of resource management and development effects in countries faced with the risk of rent-seeking, corruption and Dutch disease.

The overall objective of the OfD programme is to promote the economically, environmentally and socially responsible management of petroleum resources so that it safeguards the needs of future generations. To achieve this, the OfD programme works towards supporting good management of petroleum resources through sound legal frameworks, implemented by the relevant institutions, with accountability. The broader OfD programme is concentrated around three pillars: resources, revenue and the environment. It focuses more specifically on: 1) developing sound policy and legal frameworks; 2) developing the relevant institutions able to implement and enforce the policy and legal framework; and 3) ensuring that the relevant institutions are held accountable by civil society such as non-governmental organizations and media. Besides the three pillars, the OfD programme has a series of cross-cutting thematic issues that include the application of principles of good governance, such as anticorruption, transparency and accountability, as well as gender equality.

In an attempt to avoid being accused of state support for its own oil industry, the OfD programme's mandate has been restricted to 'upstream' activities, which means that it does not work beyond the management of resource revenues. It is generally acknowledged that the OfD programme has been successful in supporting demand-driven capacity-building, with the programme's focus on technical capabilities being greatly appreciated by counter-party institutions (NORAD 2012: 1). Indeed capacity in the extractive natural resource sectors of the economy and state ministries in some of the African countries mentioned in this report are more or less fully linked to the OfD programme. Here the experience of Mozambique is indicative of the approach and of some of the suggested shortcomings of the Norwegian approach.

Mozambique is one of Norway's longest-running petroleum-related assistance programmes, with Norwegian support to the development of the sector dating back to the mid-1980s when the country was riven by a sixteen-year long war of destabilization that turned into a full-blown civil war. Earlier support targeted the mapping of natural resources and exchange programmes. After 2006, when support was provided through the OfD programme umbrella, the majority of funding was used to provide institutional support for the National Institute for Petroleum (Instituto Nacional de Petróleo or INP), with smaller components of institutional development and capacity-building for the

state-owned oil company (the Empresa Nacional de Hidrocarbonetos or ENH) and the Ministry of Environment (MICOA).²³ Both INP and ENH fall under the Ministry of Mineral Resources (MIREM).

Largely working below the radar of Mozambique's many aid providers, Norway's involvement in the energy sector has become very prominent, as Mozambique has been exporting natural gas through the operations of South Africa-based Sasol since 2004. While in comparison with other export sectors with mineral fuel exports the petroleum sector accounted for US\$ 512 million in 2010 or 15.1% of total exports (UNCTADstat, 2012 quoted in NORAD 2012: 13), this has changed dramatically with the very large discoveries of off-shore natural gas deposits by Anadarko Petroleum. Mozambique is expected to become one of the world's largest producers of liquefied natural gas (LNG). Based on estimates that the discoveries hold at least 100 trillion cubic feet (tcf) of natural gas, Anadarko, together with the Italian state company ENI, is currently in the process of designing facilities involving at least two on-shore LNG 'trains', with the capacity to expand to ten trains, each with a capacity to process five million metric tonnes per annum (mmtpa) (Anadarko, 2012 quoted in NORAD 2012: 13).²⁴

The institution with the mandate to develop the legal framework for off-shore natural gas exploitation is INP, the semi-autonomous industry regulator based in the Ministry of Mineral Resources (MIREM). INP is also responsible for the monitoring and enforcement of exploration and production contracts. The fact that more or less all people with knowledge of the oil and gas sector have been involved with the OfD programme also means that, in a situation where there are overlapping relationships between the Frelimo Party, the government and business, it is almost inevitable that accusations of corruption will arise. Indeed, as highlighted by the Center for the Promotion of Public Integrity (CIP 2010; 2012), the personal relationships between politicians and senior government officials and bureaucrats, as well as larger companies, take the form of close networks where it is close to impossible to avoid overlapping interests between business and political elites, leading to conflicts of interest.

Whereas the risk of personalized networks and relations have come to dominate the oil and gas sector, it has been suggested that this is partly mitigated by requirements set out by the regulator, INP, that bidders for contracts demonstrate prior experience. This condition is nonetheless exactly what privileges the OfD-capacitated members of INP and ENH. As illustrated by CIP (2010), all the top senior government officials and bureaucrats in the INP, ENH and MIREM have established companies that can service the oil and gas sector because they enjoy 'privileged access to information on the country's natural resources' (CIP 2010: 1). Where such close networks and relations between political and technocratic elites and international business are inevitable in a country with a very limited private sector and a recent history of state-led development, they may be the foundation for a greater ability in the future to manage the resources.

²³ The support for MICOA focused on enhancing the capacity to manage and carry out Strategic Environmental Assessments and Environmental Impact Assessments.

²⁴ Since 2005 four licensing rounds have been conducted, with exploration and production licenses held by companies including Anadarko, ENI, Statoil and Petronas.

rently undertaking scoping missions across African extractives, aimed at identifying local industry capabilities and gaps in them. These scoping missions are providing the basis for promoting specific linkages and for organizing vocational and tertiary training programmes related to extractive industries. Moreover, donors are playing a key role in developing the physical and institutional infrastructure related to linkage formation in extractives. There are also examples of activities directly aimed at fostering FDI–local industry linkages. To the latter category belong home-country measures to foster (the right kind of) linkages between foreign investors or value chain lead firms and local suppliers, such as the Danish Business Partnerships programme or the GIZ value chain programmes, although these programmes are not specifically tied to extractive linkages.

To sum up, donors have for long been directly and indirectly engaged in African extractives. The early engagement was aimed at liberalizing the sector, and the donors had a very strong bargaining position due to the macro-economic imbalances of many natural resource-rich African countries and their dependence on aid. During the 1990s the liberalization agenda was somewhat softened and a greater focus on institution-building, transparency and resource management was promoted. Most recently it appears that donors have started taking a greater interest in the broader socio-economic impacts and spill-overs from extractives, though now from a much weaker bargaining position. As part of these efforts, donors have devoted more attention to linkage formation between foreign extractive MNCs and local industries. However, it is also clear that this is an emerging field of intervention and that the modalities remain embryonic and tentative.

3.5 Conclusion

So do extractive FDI in Africa create enclave economies or linkage economies? In this chapter we have provided a brief literature review of what is known about linkages in African extractives. The overall impression is that, while there is indeed evidence of linkages and linkage-related spill-overs in African extractives, linkages are generally few and shallow, and only to a limited degree provide developmental spill-overs. The debate as to whether extractive FDI creates linkages or enclave economies is, however, rather futile, as extractive FDI obviously does both. To us, the appropriate question for research should rather be under which conditions linkages are formed. Here we found that variations in linkage formation in African extractives can be explained with reference to factors related to governments, MNCs, local firms and donors. Insights regarding these factors are important, not only from a research perspective, but also from a policy perspective. Hence, if donors and gov-

ernments are to devise effective policies and measures for linkage promotion in African extractives, they need to base them on a firm understanding of how the private sector works with linkages, as well as on the, after all, quite substantial body of experience regarding linkage promotion in extractives from other countries.

One of the reasons why linkages have generally failed to take root in African extractives is arguably related to donors' hesitation in tackling the linkage issue head on. This hesitation possibly stems from a broader reluctance – especially on part of the World Bank and the IMF – to promote industrial policy in Africa. As Morrissey argues: ‘The fact that organizations such as the World Bank (and donors more generally) did not advocate industrial policy diminished the importance of such policy issues on the domestic agenda. For sub-Saharan African countries, this is one of the reasons why they failed to develop the domestic capacity to benefit from FDI’ (Morrissey 2012: 30-31). In the following chapter, we will examine the question of industrial policy as it relates to linkages and explore why African governments and donors generally have failed to adopt dedicated linkage-promotion activities related to extractives.

Chapter 4. The political economy of linkage development

4.1 Introduction

Several poor countries in Africa have seen huge increases over the last decade in revenues from the export of oil, gas and minerals (Chapter 2). While this improves the potential for reducing poverty, inequality and economic transformation, spending has often been unproductive and without any clear signs of being directed towards economic transformation or sustainable poverty alleviation (Whitfield et al. forthcoming).

To create linkages and spill-overs related to extractive industries that could contribute significantly to transformation and poverty alleviation, industrial policies targeted at ‘industrial deepening’ are needed, as shown in Chapter 3. More broadly, such ‘deepening’ policies aim at creating a ‘more complete, more balanced and more inter-linked industrial structure’ (Lauridsen 2010: 9). In turn this means the pursuit of growth-enhancing (developmental) governance in which ‘both the institutional arrangements and the political processes are aimed at economic growth and transformation as a means of catching up with the advanced capitalist countries’ in terms of economic and social development (Lauridsen 2013: 338).

The purpose of this chapter is to contribute to a better understanding of the political economy of linkage development related to extractive industries in poor sub-Saharan African countries. This is done by a literature review – supplemented with some insights from case studies – aimed at identifying the *political incentives* that motivate elites to pursue industrial policies. These refer broadly to government initiatives that aim to stimulate specific economic activities in productive sectors. These must be industry-specific because technologies differ in their learning needs, and they must be adapted to industry-specific institutional and political constraints (Whitfield et al. forthcoming).

Consequently we argue that industrial policies for linkage development are more about ‘good fit’ than the ‘best practice’ thinking (Booth 2012). The latter has inspired many recent policy recommendations on linkages and generally dominates the donor-oriented literature on aid and development (e.g. Morris et al. 2011a: 35; Andrews 2013; UNECA 2013: 10-14). The central assumption in ‘best practice’-based policy recommendations is that these can and ought to be implemented

as blueprints for action across countries, regardless of political economic and social contexts.²⁵ However, without a ‘good fit’ with the local context even desirable policies are not likely to be implemented. Context, institutions and politics matter, and they impact on the political incentives that influence elites (political, bureaucratic or economic) to formulate and implement industrial policies.

Section 4.2 presents a brief review of some important governance issues highlighted by the resource curse debate that are important to the political economy of linkages. This ‘curse’ – a misleading label according to some researchers and aid agencies – forms an important part of the context for policy-making and implementation in extractive industries. Section 4.3 addresses the key question about the politics of industrial policies: why have political elites (governments) in African countries generally been only modestly successful (at best) in pursuing active industrial policies that target specific sectors of the economy?²⁶ Or, asked differently, under what conditions is it likely that such policies will be successfully pursued? Brief conclusions are presented in Section 4.4.

Unfortunately, very little empirical research of direct relevance to answering the above questions exists for African countries. There are even fewer analyses of the political economy aspects of direct donor involvement in such linkage efforts in Africa. Consequently, in Section 4.3 we rely on research findings by four major recent research programmes into the political economy of a broad range of government initiatives to provide general insights about the political economy of industrial policies in poor African countries.²⁷ Based on this we deduce some of the governance implications for extractive industries and thereby the prospects for local linkage formation.

4.2 Resource curse, good governance and industrial policies

Any discussion of industrial policy targeted at the extractive industries must begin with the resource curse debate (also referred to in Chapter 2) because it deals with

²⁵ For example, rankings of countries according to various criteria, such as those based on the World Bank’s Good Governance and Doing Business indicators, implicitly assume that comparisons between them say something of central policy relevance for each particular country on the list. However, ‘best practice’ notions have weak theoretical and empirical foundations (Høyland et al. 2009; Sanin 2009; Khan 2012; Page 2013), which the World Bank (2000) clearly acknowledged more than a decade ago. Unfortunately, notions of ‘best practice’ still dominate much of the thinking and advice offered by it and many other donors (Andrews 2013: 225).

²⁶ In Chapter Three we generally used governments whereas we in this Chapter more specifically will refer to political elites or ruling elites as those in charge of governments.

²⁷ See Booth and Therkildsen (2012) for details of these programmes. They also run a joint blog <http://differenttakeonafrika.wordpress.com/>. Among the important publications from these programmes are Booth (2012), Donge et al. (2012), Leftwich (2011), Hogg and Phillips (2013), Poulton (2011) and Whitfield, et al. (forthcoming).

issues that are central to the governance of natural resource endowments. The resource curse thesis is that the exploitation of commodities suppresses growth, undermines the development of industry, slows down economic transformation and leads to political deterioration. This is due to a combination of factors: (a) windfall rents from resource exploitation cause macroeconomic imbalances – in particular an overvalued currency (Dutch disease) – which reduce the competitiveness of industries; (b) volatile commodity prices make government incomes from the taxation of resources unpredictable, complicating budgeting significantly and threatening macro-economic stability; (c) the typical enclave nature of capital- and technology-intensive mineral and energy extraction has very few linkages to the economy and therefore contributes little to job creation but is often the cause of political and social conflict;²⁸ (d) there is a failure to address rent-seeking and corruption, particularly in countries with weak governance and institutions; (e) taxation is weakened because resource-rich states do not need to tax much to stay in power but can rely on windfall gains from resource rents, which in turn undermines the social contract between citizens and the state, thereby making ruling elites less accountable to individuals and groups in society; and (f) resource rents provide few incentives for the ruling elites to implement policies to strengthen economic diversification or the skills base of the economy.²⁹

Some observers are quite pessimistic about solutions to such problems. Stiglitz (2007: 40), for example, argues that in many resource-rich low-income countries with weak institutions the best option would seem to be ‘delaying extraction of resources below the ground until the country can reinvest the resources well above the ground’ (quoted from Morrisson 2010: 65). Morrisson argues along the same lines: ‘there certainly seems to be no justification in the literature for helping these countries to develop their natural resources.’³⁰

Other observers are much more optimistic and have recently challenged the resource curse arguments. Morris et al. (2011a: 15) argue, for example, that ‘what shows up

²⁸ Acemoglu and Robinson (2013: 179-181) provide an interesting analysis of the long-term political economy consequences of differences in the locational features of mineral deposits and the arrangements made for accessing such resources.

²⁹ The literature on this is vast and rapidly growing. Some of it is reviewed in UNCTAD (2013a, Section 5.1) and Morris, Kaplinsky and Kaplan (2011) from an economic perspective. For more political economy-focused recent literature see Di John (2007), Moore (2007), FIAS/The World Bank Group in collaboration with DFID (2009, Chapter 8), Torvik (2009), McKay (2012), Morrisson (2012), Acemoglu and Robinson (2013), Boschini et al. (2013) and Orihuela (2013).

³⁰ He adds, however, that ‘obviously, if the country’s policies improve, so could aid from the donor, and even if the donor does not provide aid, it might still stay involved with the country in various ways, such as trying to help build capacity in the government where it is possible’ (Morrisson 2012: 65).

and is interpreted as a manufacturing sector weakened by a commodities specialisation, is in fact often a commodities specialisation in an economy with no or little history of industrial development.’ Likewise, the African Development Bank and others (2013: 120) argue that there ‘is no Africa curse:’ poverty reduction has been as rapid on the continent as elsewhere when the low incomes are taken into account. In other words, governance is not the issue. Moreover, while Nigeria or Venezuela vividly illustrate the realities of the resource curse, other countries, like Botswana and Indonesia, prove that this curse is not inevitable (Torvik 2009: 241). More generally, the revisionist argument is that ‘the “curse” and the “disease” are outcomes of policy decisions, rather than manifestations of deep structural weaknesses.’ What is important, therefore, is ‘political will’ (Saad-Filho and Weeks 2013: 1, 19), for the ‘curse’ can be ‘neutralized or ameliorated ... through appropriate policies and strategies.’ Indeed, it can ‘become a “blessing” through deployment of the resource rents for enhancing productive capacities and economic diversification’ (UNCTAD 2013: 13). Redistributing political power ‘from ruling elites to the people, thus in many cases replacing an extended monopoly of often ill-gotten power by democracy and pluralism,’ is good for growth (Gylfason 2007: 8).³¹

Much of this literature – but interestingly not the major recent work by the Economic Commission for Africa on ‘making the most of Africa’s Commodities’ (UNECA 2013) – therefore argues that good governance is a prerequisite for successful resource-driven development.³² While such pleas for democracy and good governance are intuitively appealing, other researchers argue that there is little historical evidence that such conditions are central to economic growth, poverty alleviation and economic transformation. Indeed, according to Noman and Stiglitz, ‘[n]o country has ever implemented the current good governance agenda before embarking on development – not the now developed countries nor the rapidly “catching up” countries of Asia’ (2012: 32). This point is emphasised by several other contributions in that book.³³ Obviously such arguments do not imply that governance

³¹ Gylfason (2007: 16) expresses another typical worry about extractive industries well: ‘Good times demand strong discipline. Natural resources bring risks, including a false sense of security that may lead people to underrate or overlook the need for good policies and institutions.... Awash in easy cash, they may find that hard choices can perhaps be avoided, or at least deferred. Awareness of these risks is perhaps the best insurance policy against them.... Easy money is bad for you.’

³² See, for example, Loquai and Bedasso (2012) on EU members’ emphasis on Good Governance in the mining industries. The World Bank (2010a:38) explains its position on Good Governance in extractive industries. Good governance advocates can also be found in the academic literature, for example, Campbell (2009), Knutsen (2012), McKay (2012), and Acemoglu and Robinson (2013).

³³ Similar arguments are made by Chang (2002) and Khan (2002, 2012).

does not matter, but they do imply that good governance prescriptions may not have much impact on the ground for political economy reasons.

The Extractive Industries Transparency Initiative (EITI), for example, aims to improve governance in natural resource-based development. This is an international effort that was originally sponsored by the UK, but is now hosted and strongly promoted by Norway. It aims to improve governance through verification and full publication of payments made by companies and revenues received by governments from oil, gas and minerals. It also aims to improve natural resource management institutions, prevent the embezzlement of rents and increase transparency in the area. Twenty-one countries in Africa are currently in the process of implementing the EITI standards (African Development Bank and Global Financial Integrity 2013: 8). These standards are demanding, 'and some countries find it difficult to commit to them due to a lack of capacity', as African Development Bank and Global Financial Integrity (2013: 46) argues. Moreover, the EITI agreements are non-binding. They are unlikely to be effective unless a government, for whatever reasons, wants to use the resources well. It is noteworthy that not a single one of the many countries that have pledged to adopt the transparency measures of the EITI have fully complied with them (Ross 2008). Shaxson (2009) argues more specifically that, although commonly recognized as a success, EITI in Nigeria has not had much real impact on the ground for political reasons.³⁴

The Kimberley Process, which was adopted in 2002, has been more successful. This is an agreement by an unusual coalition of governments, NGOs and major diamond traders only to deal in certified stones of clean origin. Initiated by the UN Security Council in 1998 against so-called conflict diamonds (sold by African insurgents or their middlemen), it has helped to reduce conflicts and civil wars in Angola, Liberia and Sierra Leone (Ross 2008). A similar ban on conflict-prone but strategic commodities, such as oil, would be much more difficult to impose and enforce.

The bottom line is that domestic political competition for extractive resources and power can unleash social and economic conflict with obvious consequences for economic transformation, linkage formation and poverty alleviation. While research shows that 'formal political institutions and mechanisms matter for revenue management and can improve the governance of natural resources,' it also shows that 'a resource

³⁴ She also argues that almost all the generally positive assessments of the impacts of EITI are made by organizations that are themselves involved in such initiatives. There seems to be a lack of independent research on the actual impact of EITI.

Box 10. Linkage patronage

Linkages tend to become politicized in poor African countries where clientelism (see later) is widespread. Across a set of four African countries that are politically quite diverse, we see a tendency for linkage formation to be politicized and to evolve towards linkage patronage.

In Mozambique, key Frelimo elites have been known to win contracts as a way of making sure that economic opportunities are restricted and don't benefit or assist opposition forces (Weimer et al. 2012). This includes the capture of the local content market in services and linkages by certain Frelimo factions closely related to the governing coalition of President Guebuza. From the mid- to late 2000s, even more opportunities have become available through large-scale foreign direct investments in the country's rich natural resource endowments. Opposition access to the business opportunities generated by these investments does not seem to have been substantially broadened. Since the mid-2000s the Guebuza faction has been able to control rents because the party, state and economic power have now been concentrated in one Frelimo faction. So while the emerging extractive economy is on a scale far exceeding anything experienced so far, the Frelimo ruling elites, especially the faction aligned with President Guebeza, are positioning themselves to control and benefit from it, so far leaving little space for other Frelimo factions, not to mention independent or opposition groups to benefit.

The SMEs that were created during the first generation of linkage programmes in Mozambique in connection with MOZAL (see Box 6), as well as the various companies aligned to members of the ruling Frelimo coalition that emerged after liberalisation of the economy during the early 1990s, often in joined ventures with foreign companies, thus operate in cartel and monopsony manners. Even though new opportunities are available from the present wave of mega-investments (service delivery and local content provision), and various investment promoting agencies and linkage mechanisms with substantial funding behind them like matching grants from the World Bank have tried to open up space for newcomers, the successes have so far been limited.

In Nigeria the government introduced the 2005 bidding round for oil licenses, the Local Content Vehicles Program (LCV). This programme required the Nigerian government to provide a list of approved Nigerian companies as local content vehicles. Each bid had to include a minimum 10% share for local content vehicles that would be full-paying partners. The idea was to strengthen the capacity of Nigerian oil companies through a direct commitment from international oil companies. However, the LCV programme had a number of adverse effects. It produced numerous (empty) shell companies, and the programme has been perceived as another attempt by the political elite to engage in patronage by awarding clients with opportunities and access to resources. This perception was reinforced by the fact that only ten percent of the more than one hundred approved local content vehicles had prior experience in the sector. Furthermore, most of the local content vehicles were unable to pay their shares (the minimum 10% mentioned above), and many LCVs sold their share just after it was awarded to them. The LCV programme was only used in 2005 (Ovadia 2013: 136). Like most other initiatives, the Marginal Fields and Local Content Vehicles programmes reflect recent indigenization efforts, although, with some exceptions, they have largely failed. While such initiatives seek to encourage Nigerian participation in the oil industry, they are

also vehicles for elite accumulation, rent-seeking and clientelism. This is often cited as one of the reasons why most initiatives have failed, but severe resistance to local content policies of various kinds and/or circumvention of the rules related to these policies by international oil companies is another key explanation (Ovadia 2013).

In Tanzania too, it can be feared that contracts are awarded to clients of the political elite rather than to the most effective and qualified firms and that linkages are captured by political interests that use them to reward supporters, buy off opponents or generate funds for re-election. Indeed, Cooksey (2011) reports on widespread rent-seeking, capture and corruption in Tanzanian gold-mining management. However, he also reports that these seem to be a largely decentralized activity and that it is difficult to find evidence that political elites use gold-mining rents for political patronage or that the rent-seeking activity is organized at the central level.

In Uganda, where oil is not yet being pumped, there has been great controversy over the recent Petroleum Exploration, Development and Production Bill. During the process of drafting the Bill, the power to negotiate, grant and revoke licenses in the oil sector (to all main contracts and sub-contractors) was given to an independent authority. However, this was changed on the President's initiative and placed in the hands of the relevant minister, something which is widely interpreted as being an indicator that the ruling elite will be able to decide who gets licenses. There are also already examples of ruling elites benefitting from linkage activities in the oil sector. For example, the President's younger brothers' private security company has provided most of the guards in the oil area. A loyal ruling party member is director of a new training institute in the petroleum sector. Some opposition members go as far as to say that oil in Uganda is a 'Museveni family business.' As a concerned employee in one of the multinational oil companies said: 'What do I do if the supplier I have chosen because it is the best company is overruled by the Minister and he forces me to use a bad company?'

bonanza can change the underlying configuration of political interests around the distribution of these revenues. [...] Standard remedies for mitigating the resource curse can backfire if they take insufficient account of pre-existing political and institutional contexts' (Centre for the Future State 2010: 68). Box 10 provides vivid examples of the political economy of extractive industries with regard to linkages.

We therefore need an analytical framework that explicitly focuses on such contexts and their implications for industrial policy and implementation. Good governance, awareness of the dangers of the resource curse and the political will to deal with them are all desirable, of course. But policies and implementation measures must also be politically feasible if they are to have any impact on the ground. Decision-makers may wish to use growing resource rents to pursue industrial policies to diversify the economy, speed up economic transformation and reduce poverty, but they may have

no strong political incentives to do so, or they may actually face strong disincentives and opposition if they try. The ‘political will’ of decision-makers must be unpacked (Booth and Therkildsen: 2012). Even with high-level political support, such policies may not be easy to pursue. The ‘will’ – often appealed to – to embark on industrial policies that create linkages related to extractive industries does not just appear out of the blue.

These are the issues dealt with in the next section. Here we summarise findings by four major recent research programmes that are relevant to linkage formation in extractive industries. They focus on the political economy of government initiatives in the productive and social sectors, but some of the findings and insights are also applicable to extractive industry sectors.

4.3 Political incentives for industrial policies in African countries

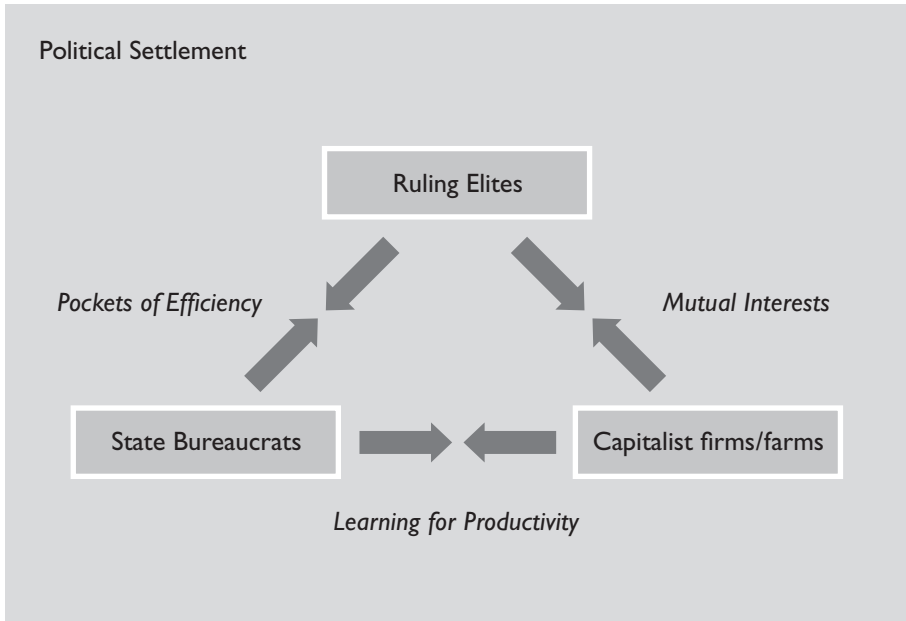
At the heart of industrial policy are issues of resource allocation, institutional changes, the effective implementation of new institutions and the enforcement of new rules. To succeed in this, ruling elites have to be willing and able to enforce the implementation of socially contested policy choices. However, this cannot be separated from the *ruling elite’s political strategies* to create legitimacy for their position in power, to consolidate their authority and to ensure their survival in power (Whitfield et al. forthcoming). Micro- and meso-level factors influence the political economy of such policies, as argued in the following. Important micro-level factors are identified first.

Elite-business-bureaucracy relations influence ‘good fit’ at micro-level

The successful pursuit of industrial policies depends on the simultaneous emergence of three interconnected relations (see Figure 4.1): mutual interests between ruling elites and relevant groups of capitalists; elite–bureaucracy relations that result in pockets of administrative efficiency; and facilitation of learning for productivity through interactions between bureaucrats and capitalists. Obviously, this is difficult to achieve in most African countries.

Mutual interests are central to ‘good fit.’ General mutual interests can, of course, exist hand in hand with various conflicts among and between ruling elites and domestic/foreign capitalists. Nevertheless, political support for industrial policies arises when ruling elites think that success in a sector can help them stay in power and when capitalist firms think they can benefit from close relations with the ruling elites. To

Figure 4.1 Politics of Industrial Policy



Source: Whitfield, Therkildsen, Buur, and Kjær (2013)

stay in power, elites must win competitive elections, which in turn requires access to political financing. They must also have access to rents to finance and distribute to the ruling coalition that supports their hold on power. This requires revenues and foreign exchange, too.

Most African developing countries have a large informal sector and few firms in the formal sector. Hence, they have a very narrow base from which to collect revenues and rents. Typically, formal sector firms are also among the main exporters and therefore important foreign exchange earners. On the other hand, such capitalist firms have several interests in supporting the ruling political elite. Investors need a good business climate, but not necessarily one that fits the 'good governance' prescriptions. Although such conditions are desirable, they are not immediately available in developing countries due to structural constraints, as explained below. What investors need is certainty that they can profit from their investments in the future, but this can be secured through close relations with the ruling elite and efficient administrative pockets. In addition, capitalists typically need state actions to secure their profits through public investments in infrastruc-

ture, access to credit, land, and a skilled and educated work force. In particular, they need state support if they want to enter into new economic activities. Such investments can be risky and costly in terms of learning to be competitive, as argued in Chapter 3.

However, particular challenges arise in the extractive industries. One challenge relates to the easy money that ruling elites acquire access to through extractive industries. This reduces their incentives to pursue industrial policies, including those aimed at linkage creation, because if elites can secure rents from extractives, they do not have to undertake difficult and sometimes costly measures to promote industrial sectors. The other challenge relates to MNCs: foreign-owned companies or joint ventures typically have special relations with ruling elites. Indeed, MNCs ‘may in fact benefit elite segments of the population over others’ (Herkenrath and Bornschier 2008: 311) through the opportunities for jobs and rents that they bring with them.³⁵ In the absence of strong domestic capitalist firms, ruling elites may welcome FDI as a quick way to generate resources for the state and, possibly, themselves. MNCs may also be perceived to be easier to control (as they are foreign and depend on the host) and less prone to become involved in local politics, and therefore to be less risky for the ruling elite. But as Jourdan (2008: 13) argues, ‘Ultimately, a resource sector dominated by foreign capital [...] is likely to be politically unsustainable or at least problematic.’ Moreover, the perception that MNCs tend to dictate the terms vis-à-vis weak and fragmented ruling elites is, perhaps, a simplification. Thus, several African states that are often regarded as weak or even ‘failed’ are now renegotiating their contracts with extractive industry investors, especially in oil.³⁶ Also, collaboration with major domestic firms owned by ethnic minorities poses particular political problems, as the economic histories of both Tanzania and Uganda show.

In other words, clear mutual interests – mutual dependence – between ruling political elites and capitalist firms facilitate the pursuit of industrial policies if the other conditions, that is, pockets of efficiency and learning for productivity depicted in Figure 4.1 also exist. Easy money and the dominance of foreign-owned firms in the extractive industries may weaken such interests depending on a country’s political settlement, as explained below.

³⁵ According to these authors, MNCs tend to increase inequality in poor countries. This holds even when controlling for the reverse causality that MNCs may prefer to invest in relatively unequal countries with wealthy elites.

³⁶ See ‘African states challenge Chinese terms in oil deals’, *The International Herald Tribune*, 18 September 2013.

Box II. Pockets of efficiency related to extractive industries

When the extractive industry boom began in the 1990s, the East African states' abilities to design and implement industrial policies were low. Generally, government agencies were not equipped with the skills and resources needed to develop the extractives sector, collect revenue from the sector, negotiate licenses, inspect sites etc. Building capacity may take a long time. In a generally weak institutional environment and in a context in which resources are often scarce, it is usually not possible to build efficient state bureaucracies across the board. However, pockets of efficiency may emerge if they are perceived to be crucial in order for the ruling elite to stay in power. This has been the case in our three case-study countries.

In Mozambique several pockets of efficiency exist, created as a response to the first generation of mega-investment starting with the Center for the Promotion of Investments (CPI) during the early part of the 1990s, as well as the Institute for the Promotion of Small and Medium-sized Enterprises (IPEMA) in 2008. For the oil and gas industries the Norwegian government has supported MINEG since the 1980s, as already mentioned (see Box 8). Over the last ten years, Norway has specifically concentrated its support on the National Petroleum Institute, as well as the Mozambican tax authorities (in the latter case, together with other donors). Nevertheless, major decisions have been taken by the Executive without much usage of the competent institutions: their advice has even been wholeheartedly ignored in the case of linkage creation policies. For gas and mining contracts, while capacity has indeed been created, competent agencies often end up playing 'catch up' using acquired knowledge and skills to justify or mitigate decisions taken by the executive instead of informing such decisions.

In Tanzania, it seems that it has been possible to create a relatively effective investment-promotion agency, the Tanzania Investment Center, which has been rated among the best of its kind in Africa. The role of TIC is to promote investment and create a one-stop service for the approval of investment projects. Likewise, Tanzania has created a semi-autonomous and well-functioning mineral audit agency that was established in the wake of major recent corruption scandals. Finally, since 2008 Tanzania has been part of the Extractive Industries Transparency Initiative (EITI), which promotes accountability and transparency in extractive industries.

In Uganda, since oil is now a key strategic sector for the ruling elite, developing an efficient oil agency has had a high priority politically. The Petroleum Exploration and Production Department (PEDP) within the Ministry of Energy and Minerals has received plenty of resources and advice over the last decade and has built up considerable technical capacity. As a recent evaluation of Norwegian support for the PEDP concludes, it is today a 'competent institution with a number of highly experienced and focused directors and staff'. This is also clearly the impression from our recent fieldwork in Uganda.

'Good fit' and pockets of efficiency. Companies receive better state support when the design and implementation of industrial policies are carried out by competent bureaucracies. These can be created in pockets even if other parts of the public sector are inefficient or corrupt. They arise when ruling elites decide to push particular

industrial policies that are deemed important for their hold on power. These elites must therefore be able to exert enough control over strategically important parts of the bureaucracy to prevent excessive rent-seeking stimulated by individual and factional demands within the ruling coalition. Efficient pockets must also be able to execute shifts in budgetary allocations and to overcome resistance so as to ensure that policies are implemented. Such pockets of efficiency at the national or local level must therefore have some degree of autonomy to be efficient. This requires that they are trusted by the ruling elites and that the latter are knowledgeable about the targeted industry.

In many African countries, state-owned companies were established to develop the extractive industries after independence and to push for industrialisation. Their efficiency was often poor. The structural adjustment reforms of the 1980s did away with many of them. This may have been sensible from a short-term efficiency perspective, as argued by the World Bank (2010a), but it also meant that, once the extractive industry boom began in the 1990s, the state's abilities to design and implement industrial policies was low (Campbell 2003). Bureaucratic capacity and efficiency in areas of relevance to extractive industries therefore have to be built up from very low levels. This takes time, even when consultancy services can be bought on the global market to provide some of the highly technical inputs, for example, to mining rights negotiations, taxation issues and linkage creation. Pockets of efficiency of relevance to extractive industries are therefore likely to emerge only slowly, but as the Box above illustrates, this can be done if the ruling elite perceives the sector to be sufficiently important.

The third 'good fit' requirement: learning for productivity. Effective industrial policies must meet specific industry needs and must compel firms to increase productivity through investments in learning. Thus, state bureaucrats must have practical knowledge about the challenges of firms, segments of the industry and industry sectors as a whole. This knowledge is more easily obtained if the relevant firms are organized so that they can express their needs. The existence of effective business organizations also enables bureaucrats to mediate between the political objectives of ruling elites and the economic objectives of firms. Moreover, industrial policies must be enforced. This is difficult if the relevant companies, or factions or individuals of the ruling coalition, have the political leverage to undermine policy enforcement: hence the need for (pockets of) efficient bureaucracies that have political support.

The extractive industries in most African countries are run by MNCs that typically have considerable technological capabilities and operate in global value chains, as

discussed in Chapter 3 (specifically Box 7). Learning to increase productivity takes time and is often risky. The incentives for low-capability local firms to link to such high-capability MNCs will therefore often depend on active state support that reduces such risks.

Political settlements: ruling coalition and domestic capitalist characteristics that influence 'good fit'

The simultaneous emergence of the relations depicted in Figure 4.1 depend on country-specific distributions of power and the set of institutions that shape the distribution of economic benefits in society – that is, the country's political settlement (see Khan 2010 for an extensive elaboration). 'Political settlement' is shorthand for the set of institutions and power relations that characterize social order in a particular country, which creates benefits for different classes and groups in society in line with their relative power. At any particular point in time, the political settlement reflects a kind of equilibrium, as the distribution of benefits reinforces the distribution of power in society (see Whitfield, Therkildsen, Buur and Kjær 2013 for a brief account of the political settlement theory). In particular, the political settlement depends on the structure of the ruling coalition supporting the elite in power and on the capabilities of domestic capitalists. A stable political settlement distributes rents and access to resources to actors in ways that do not threaten political stability and fuel violence because powerful factions are excluded.

Ruling coalitions in African countries are typically fragmented, however. Contestations about rents are intense because the formal economy alone cannot fund the ruling coalitions. This complicates the targeting of industrial policies based on mutual interests and makes it difficult to enforce their implementation. Moreover, most African countries are still in the early stages of capitalist development. Domestic capitalists are therefore relative few, have low capabilities and are often of limited importance for the survival of political elites. In addition, because of primitive accumulation there are typically considerable overlaps between ruling elites and emerging domestic capitalists, especially in countries where one party has held power for a long time. Consequently, the political conditions are not conducive for the pursuit of targeted, productivity-enhancing industrial policies in most African countries, except in sector-specific 'pockets' of mutual interests between ruling elites and capitalists, such as in the extractives sector. Each country has its particular political settlement. A central issue from an industrial policy point of view is how rents are managed. Prospects for good outcomes of industrial policies may not be strong (but better than if violence erupts) in political settlements where political

stability is achieved mainly through the distribution of rents to competing political factions and their leaders. Macroeconomic stability, a key condition for industrial policy outcomes, can also be threatened in these types of settlement. Competitive elections have tended to amplify this type of competitive clientelism. Prospects for the pursuit of industrial policies, macroeconomic stability and economic transformation are better in political settlements where political stability also comes from a coherence within the ruling coalition that allow rents to be more centrally and effectively managed and at least some rents to be assigned to meeting industrial policy objectives.

As discussed in Chapter 3, extractive industry development has a significant technical potential. On the one hand, revenues and rents from natural resource exploitation create the potential for putting financial muscle behind industrial policies (including investments in infrastructure, education, and research and development). On the other hand, such resources may be squandered in countries with very fragmented ruling coalitions and weak and unorganised capitalists.

Social unrest may follow if extractive wealth is perceived to be misused or it bypasses powerful factions of the ruling coalition or sections of the population feel excluded from the benefits of the exploitation of natural resources. This is what many political economy versions of the Resource Curse predict, as discussed above, examples of which exist to varying degrees in all the three case-study countries included in this paper. But whether such unrest will motivate ruling elites to pursue different industrial policies or distribute extractive wealth differently cannot be predicted. The bottom line is that no simple generalisations are possible about the likely outcomes of industrial policies across countries with different configurations of their political settlements.

Donor contributions to 'good fit' industrial policies

The fact that no simple generalisations based on meso-level analyses of political settlements are possible (ought to) have direct implications for donor support to developing countries that have begun to exploit abundant natural resource endowments and for donor support to industrial policies that promote linkage creation for extractive industries.

First, donor aid and support may influence the incentives for factions of domestic elites and ruling coalitions to cooperate with each other so as to strengthen the development of general mutual interests, as conceptualised above. In practice, aid

Box 12. The politics of oil governance in Chad

Perhaps the best analysed example of the problems with institution-building for natural resources is the 1070 kilometre-long Chad–Cameroon pipeline project, which started in 2000 and was by then the single biggest private investment in sub-Saharan Africa (Pegg 2009: 311). Overseen by the World Bank, it was and probably still is the most prominent example of the problems involved in shielding natural resource revenues from bad governance. The World Bank sponsored an elaborate capacity-building initiative aimed at correcting the most ‘damaging “resource curse” effects’ oil production’ may have on Chad (ibid.) by guaranteeing that the revenues would be used to reduce poverty instead of regime survival, security costs or personal accumulation (Morrison 2010).

In short, the World Bank group, together with the IMF and with the approval of the government of Chad, set up a London-based escrow account, which began accruing revenues from the members of the oil consortium (ExxonMobil, Petronal and Chevron) from 2003. As part of the agreement, the escrow account revenues could only begin to be repatriated by the Chadian government at specified rates from mid-2004. But as, from 2004, the government of Chad run by President Idriss De’by ran into a series of domestic and international crises that inter alia included a coup attempt due to a failure to pay the military, regional conflicts spilling on to Chadian territory and different demands by factions related to the ruling elite that could not be honoured due to fiscal constraints, De’by attempted to redefine the original bargain or social contract.

Putting pressure on both the investment consortium, which by then had incurred huge costs, as well as the prestige and legitimacy of the World Bank, which had promoted the investment, the bargaining position of De’by’s government increased to the point where it could force through changes to the agreement. This secured not only funds that could shelter the ruling elite but also changes to the poverty alleviation aspect of the agreement so that, for example, De’by could spend \$4.5 million of his country’s \$25 million ‘signing bonus’ on his military (see Morrison 2010). As the country’s revenue law was amended, the regime could spend more on the military, in direct violation of the Bank’s conditions and IMF policies. Over time Chad suspended all Bank agreements and by September 2008 the Bank had decided to cancel the capacity-building project altogether. As Morrison points out (2010: 62), ‘the most elaborate measures designed to date to change the way a government uses its natural resources were unsuccessful’.

It has been much debated why the elaborate, well-funded and prestigious World Bank capacity-building project collapsed. Pegg argues that the ‘project ran into trouble long before the oil started flowing in 2003 as construction activities rapidly outpaced the institutional capacity-building initiatives designed to ensure that Chad actually used its forthcoming oil revenues for poverty alleviation’ (Pegg 2009: 311). This had the consequence that windfalls from the oil were simply incorporated ‘into the pre-established institutions and patterns of decision making’ (Smith 2007: 122). One consequence was that ‘windfall revenues merely magnified existing patterns’ of patronage and corruption, illustrating the ‘consistent ability of African leaders to outmaneuver external pressures for reforms’ (Pegg 2009: 312 based on Smith 2007).

The remedy for such policy failures, Pegg suggests (2019), is to build institutions first so that there is a good chance that patronage, corruption and other forms of appropriation can be avoided. But as the World Bank itself acknowledges, 'no alternative program design or closer supervision would have allowed to achieve [sic] the program's development objectives in the absence of government commitment' (World Bank Independent Evaluation Group (2009: viii), quoted in Morrison 2010: 62).

may sometimes fuel competition for resources and contribute to incoherence and rigidities which prevent problem-solving. Alternatively donor support to good governance measures in extractive industries may run into considerable problems when such measures conflict with the interests of domestic ruling elites, as Box 12 vividly shows.

Second, donor money and accountability rules may undermine untidy but effective local efforts to build capacity both in the public sector itself and in domestic firms. Domestic elites are often pressured to accept 'best practice' political institutions from outside rather than negotiate their own locally devised and locally legitimate institutional arrangements. Many western donors are typically reluctant to support industrial policies which ruling elites deem strategically important for linkage development. There are two main reasons for this reluctance. Targeting is a hallmark of many effective industrial policies. By design they therefore prioritise and favour certain groups and firms in society (certain ethnic groups, political loyalists, members of the ruling coalition, etc.). However, this typically goes against the grain of how donor aid is formally distributed as unbiased, non-partisan, pro-poor etc. Moreover, many donors have been and still are opposed to supporting industrial policies in which the state takes an active role. They prefer market-based promotion of linkage formation and industrialisation and therefore focus on obstacles to the proper working of competitive markets.

Third, donors have been active in improving the governance of extractive industries. The recent G8 attempts at reducing illicit flows will, if implemented, help host countries of MNCs with more revenues than they have had in the past. This will enable hitherto aid-dependent governments to increase their autonomy in policy-making and will give them more financial clout to implement such policies. As a consequence, donor-recipient power relations will change in favour of the latter. Moreover, the EITI and the Kimberly processes discussed above are examples of good governance initiatives in which donors have been involved, and where the re-

sults have been mixed unless (often unusual) coalitions have a strong interests in enforcement (as is the case with the Kimberley Process).

Finally, plenty of reseach – not just the work refered to here – shows that legitimate institutions are born through local political and social processes, often shaped through domestic leadership driven by political survival imperatives. ‘What is important ... is not whether countries comply with governance ideals. It is how the political elites, sector actors and state officials of a country respond to the specific incentives that they face when they make choices about policies and their implementation. This concerns governance and the institutional context, but not Good Governance. And it is less about the formal structures of governments, parties and elections, and more about informal aspects of the way decisions are made and actions taken at all levels of the political system and society’ (Booth and Therkildsen 2012: 7).³⁷

4.4 Conclusions

Extractive industries have characteristics that differ from those of other industries, as the resource curse debate shows. However, the pessimistic views of the past, which dominated this debate about the developmental implications of the ‘curse’ (including for linkage policies and their implementation), have been challenged by more optimistic views. These hold that the negative effects of the resource curse (enclave development, political conflict about access to resources, macro-economic instability) can be overcome by introducing democracy and good governance. Such views are spreading among many international aid organisations in the West and are reflected in their aid policies.

We argue that the optimistic view about the resource curse does not sufficiently take into account the political incentives facing ruling political elites in resource-rich but otherwise poor African countries. The optimists are too influenced by the potentials of resource-based development and tend to ignore its political economy dimension. Context, institutions and politics matter and influence how political, bureaucratic or economic elites formulate and implement industrial policies (if they do). This means that industrial policies must fit the country-specific political, economic and social conditions on the ground in order to have the intended impact.

³⁷ See also Booth (2012) for elaborations of these arguments.

It also means that good governance and other ‘best practice’ prescriptions for harnessing the wealth of extractive industries and to develop linkages with the rest of the economy are facing formidable challenges. Competitive elections may actually sometimes increase clientelism and patronage rather than reducing them. Much research also shows that legitimate institutions are born through local political and social processes, which are often shaped through domestic leadership driven by conflicts and political survival imperatives. This is the central thinking behind ‘good fit’ approaches to development.

Donors may play an important role in such processes, but the common proposition that good institutions are a prerequisite for good developmental outcomes is not consistent with the general historical evidence showing how economic transformation and poverty alleviation emerged. The examples of donor efforts to improve governance in extractive industries presented here illustrates the major challenges involved.

These challenges are amplified by the shift in donor–recipient relations that is underway as a result of the finances that are available to some governments in Africa through increased resource-based revenues, new possibilities for taking out loans on international financial markets and – perhaps in the future – reductions in the illicit flows involving individuals and MNCs (in which the international community is becoming more active). The reduction of dependence on aid will make some resource-rich countries less donor-dependent. Indeed, signs of more autonomous decision-making vis-à-vis traditional donors are already evident.

In sum, natural resource-based development influences the context, institutions and politics in which industrial policies for linkage formation are designed and implemented. Such changes pose considerable challenges both for the individual countries themselves and for their donors.

Chapter 5. Key findings and implications

5.1 Introduction

Development based on the abundant natural resource endowments in many African countries have many ‘static’ development effects related to job and income creation, increasing export revenues, gaining access to foreign currency, and so forth. But extractive industries can also have more ‘dynamic’ effects, potentially spurring economic transformation by creating new economic activities and jobs with higher productivity and helping to move resources and people from traditional economic activities into newer ones, thereby raising overall productivity. In facilitating this process of transformation, governments and donors can play an essential role: ‘governments [and donors] must enable this transformation process by: (i) improving education, infrastructure, research and development and access to markets as well as the specific conditions (investment and ownership policies, etc.) for natural resource development; (ii) funding these activities by optimising the revenues from natural resources ; and (iii) enabling economic linkages between the resource sector and the economy as a whole – especially increasing agricultural productivity to spur inclusive growth’ (AEO et al. 2013: 111, 114, 143).

This chapter focuses on the third leg of this strategy, in agreement with the key points stated above: active government linkage policies are needed to spread the potential benefits of extractive industry-based development. This is further elaborated in Section 5.2. But we add an equally important point in Section 5.3: to benefit fully from active linkage policies, these need to reflect mutual interests between ruling elites and domestic firms, and require ‘pockets of bureaucratic efficiency’ to ensure that policies are actually implemented and complied with.

However, a few more general points about natural resource-driven development help to throw light on the prospects for this new agenda. These have been succinctly summarized by Ajakaiyea and Page. There are, they argue, three reasons to think that it is possible for African countries to industrialize and to transform their economies: the rising costs of production in China, the growing domestic demand in East Asia and the scope for industrialization based on natural resources that is location-specific to Africa (Ajakaiyea and Page 2011; see also Page 2011). This optimistic view is widely shared by many international organizations (e.g. AEO 2013, UNECA 2013) and, with some reservations, also by UNCTAD (2013a).

However, the conditions for pursuing this path have also changed considerably in other ways. Today the wealth-producing potential of manufacturing has severely declined as more and more countries develop the technological capabilities necessary for industrialization, often through foreign direct investments. These processes are driven by several factors. First, in order to maintain their wealth, rich countries have captured the profitable design and marketing ends of global value chains, while actual production processes take place across the globe where costs are low and profit margins narrow. Second, and as a consequence of this, some types of manufactured goods are now 'commodified': easy to produce and of low value. Third, at the same time, some activities linked to natural resources and agriculture have become 'de-commodified' and offer high value (Whitfield et al. forthcoming). These changes in the global economy have important implications for less developed countries trying to use extractive natural resources for poverty alleviation, economic transformation and development. It is no longer helpful to think solely in terms of pursuing manufacturing and industrialization writ large, but rather to consider how to position national economies, sectors and firms in regional and global markets in order to create wealth and employment. Here linkage development is potentially one important component of such a strategy as it forms part of creating immediate and more static development benefits, as well as accelerating dynamic and transformative development processes.

The realization of this potential of extractive natural resource endowment in many African countries has, nonetheless, been rather elusive so far. Two general reasons for a more cautious view have been proposed respectively from within the linkage literature and from a governance perspective. In a major study of natural resource linkages in Africa, Morris, Kaplinsky and Kaplan (2011c: 9) found that past and present attempts to create linkages related to extractive industries have not been particularly successful because there is 'a pervasive and serious misalignment between institutions, visions, policies, strategies, both within and between the private and public domains in African countries exploiting commodity advantage'. Our review and limited fieldwork supports this general assessment but also underlines the many structural obstacles for 'more alignment' between African government and extractive MNCs' policies, strategies and practices on which linkages depend.

The second reason for a more cautious view of the potential of extractive industries is related to governance. Inspired by political economy readings of the resource curse literature, Moore (2011: 1765), for example, argues that 'natural resources are not an inevitable curse but there is strong evidence that they become a curse when

they are exploited on a large scale in poor countries; this malign effect is closely associated, both as cause and as effect, with poor governance. Although there is hope in the long term, for the foreseeable future the curse may prove very “sticky”.

However, to understand the structural and practical dimensions of linkage formation related to extractive natural resource development (see Chapter 3) and the political dimensions of linkage development (see Chapter 4) it is important to be aware that firms, governments and donors involved in extractive natural resource activities are working in a rapidly changing landscape. Increases in population growth and urbanization pose huge challenges for job creation and poverty alleviation. That is why it is important that extractive natural resource exploitation contributes to these development goals. Moreover, the economic importance of Africa’s natural endowment may (eventually) make it possible for many African governments to finance their own development strategies due to increasing resource-generated revenues/rents and credit-worthiness on international capital markets. On the other hand, this increased reliance on natural resources makes governments more dependent on trends in volatile commodity markets. It may also lead to increasing indebtedness, as commercial international borrowing and government obligations to provide huge capital investments in already signed agreements on mega-projects with MNCs in extractive industries must be honored in the future.

Such risks notwithstanding, the increased access of many African governments to finances based on resource wealth is already reducing the influence of western donors. As our case studies indicate, and as others have observed too, governments in resource-rich countries no longer perceive aid to be so important for them as it was in the past. This change will force donors to adjust their relationships and interactions with many recipient African governments. Although some donors may continue to provide aid with a poverty focus, such priorities are also likely to be increasingly influenced (perhaps sometimes dominated) by donors’ growing commercial interests in extractive industries.

The bottom line is that the recipient governments are likely to use their increased independence from western donor aid to pursue their own priorities and policies more forcefully than they have often been able to do in the past. That is why aid in general, and aid to linkage development in particular, must be based on a much deeper understanding of the politics and governance of extractive industries development in recipient countries. Donors must move away from ‘best practice’ approaches towards ‘good fit’ approaches that aim to support initiatives that are

both desirable and politically feasible for the recipients of aid. Based on this insight, we present our key findings and recommendations in the following. These will be grouped into three clusters related to assertive linkage policies, governance and government policies, and implications for donors.

5.2 The need for more approaches to linkages development

What do we know about the state of linkages in African extractives? Based on a comprehensive review of the existing literature (Chapter 3) and limited field studies in Mozambique, Tanzania and Uganda, we found that, generally, linkages are few and shallow. This is the relatively consistent message from all studies of linkages with and spillovers into extractive natural resource developments in Africa. However, there is evidence of growing linkage potential, partly due to the changing strategies of MNCs (outsourcing, growing competition and CSR strategies), the improved capabilities of local industries, and improvements in governance and institutional environments. Backward linkages especially are potentially promising, while forward linkages in processing industries seem to hold less immediate potential because they are more capital- and technology-intensive and carry lower margins. We also find that many of the local linkages being fostered are with foreign supplier firms and that in some instances these in turn are fostering linkages to local industries. The impacts of linkages are not only on job creation and the technological upgrading of linkage partner. There may also be broader spillover effects on the host economy, for example, in the form of demonstration and competition effects, as local linkage partners use competencies gained through the linkage collaboration to develop new businesses in other industries. More generally, the literature suggests that the potential for inter-industry spillovers is greater than the potential for intra-industry spillovers. In fact, inter-industry spillovers may be among the most important effects of linkages in extractive industries, as they may contribute to economic transformation.

A key argument in this study is that active industrial policies for extractive industry-driven development are necessary and have a considerable potential for increasing the linkages to other sectors – as well as spillovers – and thereby to create a more diversified economy. The fact that active industrial policies are important for poor countries is based on historical experiences with industrialization and on the arguments that, if left to themselves, markets will not allocate resources to the most productive uses, that innovation will be stifled because the risks and costs of learning are high, and that African countries, being late-late industrialisers, must overcome

major structural constraints in order to catch up and to reduce poverty in a sustained manner (as argued in the previous chapters). It is also clear that this potential is being not realized for a variety of reasons related to the context in which linkage development and promotion take place, the interests of African governments and donors, and FDI investors' linkage policies for extractive natural resources.

A main reason why an active industrial policy is required to promote linkages is due to a serious structural constraint: the large technological and capability gaps between extractive industry MNCs and local firms. Several African governments are now more actively addressing this problem through a more activist approach toward extractive MNCs. Hence, they are revisiting extractive natural resource-in-dustry legislation and frameworks and developing model contracts that can direct and make possible the enforcement of policy objectives. It is also clear that many African governments are increasingly seeking to renegotiate the terms for extractive natural resource development so as to secure a bigger share of incomes from mega-investments and push for better linkages between these and the local economy. Thus linkage creation is formally becoming an important part of African governments' industrial policies in many countries.

Among the more common specific linkage policies are local ownership, local content requirements, local processing standards, local hiring of staff, compulsory corporate social responsibility (CSR) programs and supplier development programmes. One clear finding of the review is that the potential for linkage formation depends on the resource in question and that industrial policies therefore should reflect this insight. The challenges of linkage formation related to oil are different from those related to gold mining, for example.

However, there is widespread debate about which local content measures are effective and which are not. Should governments adopt mandatory measures or rather – through incentives and reporting requirements – seek to bring about change so benefits can be reaped. In Chapter 3, we argued that local content requirements will sometimes be effective. However, this requires absorptive capacity in local industry, as well as the institutional capacity to manage linkages. Consequently, such requirements should be introduced in a gradual manner with clear targets, and with effective monitoring and enforcement mechanisms in place. This, in turn, requires strong institutional capacity in relevant government organizations in order that linkage policies are not captured by entrenched industry interests or rent-seeking bureaucrats. This latter theme is dealt with in Section 5.3.

Changes in local content policy directions do nonetheless provide important windows of opportunity for reworking already established (and less efficient and stifled) linkage and local content programmes. While a more assertive approach to linkage development entails a risk for increased rent-seeking, it is in our view a necessary first step in building the foundation for future linkage creation with stronger added-value.

Another clear finding from the literature review, which is also confirmed by our case studies, is that especially the ‘depth’ of linkages (i.e. the extent of local value-added), but also the ‘breadth’ of linkages (often measured as the range of inputs purchased and outputs processed domestically), are generally limited and have even declined in some extractive industries in some countries. The reasons for this – in addition to the technology gap between local firms and MNCs – are related to the lack of mutual interest between ruling coalitions and domestic entrepreneurs, as argued in Section 5.3.

Turning to the MNCs, it is evident that they dominate extractive industries in poor African countries. Inflows of FDI to these industries have been substantial following the structural adjustment reforms since the 1980s. Many of these MNCs operate globally, and their turnover often exceeds the GNP of smaller African development economies like Mozambique, Uganda or Tanzania. Considerable power rests with the foreign investors. The vision and strategies of MNCs, as well as the institutional setup for actually implementing and monitoring the linkage provision related to such firms, are therefore of particular importance in securing linkage development. Consequently, African governments should use such linkage policies and strategies to vet possible MNC investors when they seek access to a country’s extractive resources, for example by give preferential treatment to those investors with the largest linkage potential and with a proven track record of being able to do so. Actually, some African governments have considerable clout power in such negotiations due to the scale of resource endowments that are especially attractive to investors seeking scale advantages (often they don’t use this power). Although there are examples of this clout being used, present practices still tend to be to negotiate linkage policies after the approval and realization of investments, when it is often too late.

A similar logic applies to implementing policies aimed at facilitating partnerships between domestic and foreign firms. This should also be done at the early stage of foreign investment and based on clear policies and management of expectations by both lead extractive MNCs and governments. We find that, although foreign investors may have an economic interest in creating and strengthening local linkages

in order to lower costs and create long-term legitimacy for the investment locally, MNC willingness to do so is intimately linked to the institutional arrangements and how it is implemented on the side of the lead extractive MNC, as well as existence and implementation of public policies for regulating linkage development. The issue is not only how much local procurement the lead MNC commits to making, but especially how policies can incentivize MNCs to work actively to build capacity in their supply chains.

Finally, the importance of the general business environment for linkage formation is debated. Evidence suggests that, if the general business environment hampers contract engagement and enforcement, as is often the case in African extractives, linkages, particularly for SMEs, are less likely to be established. This leads to the central issue of 'good fit' governance in linkage formation explained in the next section, which differs from the 'best practice' and 'good governance' approaches advocated in the more specialized linkage literature.

5.3 Governance matters: 'good fit' approaches to linkage development

Above (and based on a review of the linkage literature in Chapter 3) we argued that linkage development related to extractive industries will depend on the specific features of the international and local firms in the economy (in particular ownership, size and technological capabilities) and on the type of linkage policy that a government pursues.

In Chapter 4 we argued that incentives to design and implement such linkage policies are basically politically driven and depend on relations between firms engaged in the extraction of natural resources and the ruling political elites. The impacts of the so-called 'resource curse' influence such relations (although there are disagreements in the literature about the ease with which its negative effects can be reduced, as discussed below). We also argued that certain other governance characteristics influence the development of linkages. In particular, certain features of a country's political settlement are important, namely the actual distribution of formal and informal power in society and the set of institutions that shape the distribution of economic benefits in that society.

More specifically, we found in our field studies that, while recent formal government policies on linkage development in some countries are often both visionary

and based on the latest 'best practice' experiences, their implementation is typically patchy. A main reason for this is that what may be desirable for ruling political elites (or donors) is not necessarily politically feasible to implement. An obvious reason for this, as discussed above, is a government's limited administrative capacity to implement linkage-focused strategies. This makes it particularly difficult for local firms to benefit from the MNC-dominated development of extractive industry. However, the deeper reasons for implementation failure of linkage policies are political. The political economy literature on industrial policy suggests that this is caused by weak and conflicting 'mutual interests' between influential domestic capitalists and the ruling political elites, and hence weak political incentives to create 'pockets of efficiency' to deal with such capacity and governance problems. The political challenges to effective linkage formation are therefore substantial.

Consequently, if linkage policies are to succeed, they must reflect a 'good fit' with local contexts, institutions and politics, and not only the 'best practices' that donors typically advocate. Indeed, notions of 'good fit' often drive decisions by local policy-makers and implementers. Moreover, what counts as 'good fit' aid will be very different according to whether the country's political settlement is of the competitive clientelist type or tends towards centralised rent management. There will be opportunities and constraints in both cases, but they must be expected to be different, as explained below.

Consistent with this, across our set of three African countries (Mozambique, Tanzania and Uganda), which are politically quite diverse but all operating in a context of patron-client relations, we found a tendency for linkage formation to be politicized and to drive towards *linkage patronage*, with consequences for realizing the potential of linkages in extractives. Thus, important import and service functions for extractive industries are sometimes captured by ruling elite groups, often because the focus of linkage policies has narrowly been on local content provision and ownership instead of local added value. These groups then become the main beneficiaries when lead MNCs involved in extractive industries link up with or move import functions to domestic entrepreneurs, for example. When such easy rents from 'low-hanging' linkage promotion have been captured by key ruling elite coalitions, it is very difficult to change the distribution of economic opportunities and benefits from linkage policies. The dangers of capture are very real.

We also found that, although local firms are typically eager to forge linkages related to extractive industries, such firms are seldom key constituencies of the ruling polit-

ical elites. Nor do they often have sufficient financial and organizational power to make effective policy demands. Extractive industry MNCs, on the other hand, may be motivated to engage in linkage creation when it makes economic sense for them to do so (as argued above), but also for more political reasons. We found indications that MNCs regard linkage creation as increasingly important for ‘getting licenses to operate’ in African countries and to secure the long-term political viability of their investments. In many cases, linkage programs have become part of the corporate social responsibility measures that many MNCs pursue. MNC investments in extractive industries sometimes cause controversies and public debates, as both ruling elite factions and many citizens are concerned that foreigners are ‘stealing’ the wealth that rightly belongs to the nation. Interestingly, political leaders in our case-study countries have not done much to counter this economic nationalism or to explain to the general public why FDI-driven extractive natural resource developments can serve the national economy if they are properly regulated.

Nevertheless, such pressures have induced some governments to introduce linkage policies and (re)negotiate contracts to secure larger shares of the future benefits of extractive industries for domestic use, as well as to obtain public and private (domestic) equity shares for the ruling elites. These are obviously very relevant concerns, but the intense focus on future revenues and ownership structures has also diverted interest away from the importance of linkage development. This reduces the prospects for using extractive industry development to help transform economies over time and to create jobs, add local value and increase productivity. Some African governments still regard the extractive industries as a source of revenues and rents and less as potential drivers of economic transformation. We found in all three case-study countries that pockets of efficiency had been created to manage extractives in terms of revenue, licenses etc., but not to develop linkage formation more broadly.

The increased revenues from extractive industries raise one additional issue: revenues are less likely to be spent on economic transformation or the delivery of public goods if the ruling elite has to legitimate itself by supporting patron–client relations. In such a clientelistic context, with ‘weak institutions’, oil, gas and other revenues may serve to strengthen the elite’s hold on power, rather than be used for purposes of development. But the corruption problems in extractive industries are not just a result of more general ‘good governance’ problems, they are also caused by the type of open-door FDI policies and FDI-favourable mining legislation that western donors, led by the World Bank (and the IMF), pushed for during the economic crises

of the 1980s. Although these structural adjustment reforms have helped to attract significant FDI to extractive industries, the reductions in government regulatory functions and the privatization of state-owned entities have weakened the capacity of host countries to regulate MNCs and to pursue the kind of assertive industrial policies argued for above. In part, these reforms also account for the often generous tax breaks that extractive MNCs have typically enjoyed from the 1980s onwards.

Such tax breaks and increasing concerns about illicit financial outflows have added to the skepticism about the benefits of MNC involvement in natural resource exploitation. This often hostile political environment has helped to induce many MNCs in the extractive industries to sign up to various international governance initiatives to enhance their legitimacy. The Kimberley Process, initiated by the United Nations, seeks to prevent diamond production from fueling rebel groups so as to curtail human rights abuses in producer countries. The EITI, promoted by western governments, is another measure aimed at improving governance in extractive industries by committing oil-producing governments and MNCs to publish what they pay and receive during extractive industry transactions. While the Kimberley process has had some positive effects, the EITI's track record is more problematic, as shown in Chapter 4. It should be added that some researchers also suggests that the poor 'good governance' standards of many resource-rich African countries do not reduce investments by MNCs. Indeed, some argue that the causality may run in the opposite direction. There seems to be little conclusive evidence that a country's good governance qualities actually help it to attract FDI in the extractive industries.

A final aspect of extractive industry governance concerns the resource curse more generally: the tendency of countries with high levels of natural resources to exhibit worse economic and political outcomes. The causal mechanisms that result in such outcomes all relate to how government revenues and rents are generated and controlled. However, the assessment of this curse has changed somewhat in recent years. In the hands of component governments, natural resource rents and revenues have no negative consequences and may actually have positive effects. In poor institutional environments, these resources have negative economic effects. Likewise, such resources tend to stabilize regimes – not just authoritarian ones, but also, perhaps, sometimes emerging democracies in poor governance contexts. Countries that avoided the resource curse were successful in managing their resources not because of a specific mechanism – sovereign fund, privatization, liberalization – but because they were doing many things right.

5.4 A new role for donor assistance in linkage development

To repeat what has already been stated, linkage development related to extractive industries does not happen by itself. Therefore, Western donors *can* play a potentially positive role, provided they can offer the industry-specific technical and organizational advice demanded by recipient governments, and provided that their support is coordinated. In countries that generate limited revenues because the development of their extractive industries is still in its early phases, donors may also help to pay for learning rents to locally based firms that seek to become competitive in extractive industry-related value chains. This involves support for training, technological and capacity transfers, etc. However, just as with aid in general, the emphasis should be on enabling the recipient country to pursue a linkage development agenda that it owns. In other words, donor support should seek to achieve ‘good fit’ that ensures ‘ownership’ and should not a push for ‘best practice’, as argued above. Aid providers should therefore adapt their advice on linkage creation for extractive natural resource development to a country’s existing political and institutional arrangements and changes in these arrangements that are domestically driven. This requires both detailed sector and country knowledge.

While donors may potentially play an important and constructive role in linkage development within extractives, it is also important to note that the academic literature that we reviewed and the country case studies that we conducted identified only a few examples of relatively successful donor involvement in linkage development. Nevertheless, the arguments for donor support are based on three arguments: (a) the potentials for linkage formation related to extractive industries are significant, as is the likely impact in terms of economic transformation and sustained poverty alleviation; (b) this sector is among the fastest growing in many African countries, which also makes it commercially interesting for some donors; and (c) the start-up and development of industries linked to extractive industries is slow, takes time and requires funds as well as the technical and institutional knowhow that some donors may be able to provide.

However, as already mentioned, the donor track record in linkage formation is not good. There are two main explanations for the limited donor involvement in linkage formation. First, it is an emerging field, which does not fit easily with the present nexus between poverty reduction and Millennium Development Goal-driven aid provisions. Except for a few countries, most donors have not (yet) been much involved in linkage development initiatives, although extractive industries are now among the most dynamic in many African countries. Second, donors have been re-

luctant to recommend policies that demand active industrial policy, as the reforms of the 1980s and 1990s were largely designed to correct the problems created by the hitherto highly dirigiste approaches to natural resource management.

Greater host-country involvement in linkage development will force donors to revisit their approaches to natural resource management specifically and private-sector development generally, and there is evidence that donors are beginning to do that, as shown in the earlier chapters. Indeed, there are numerous ways in which donors can play a facilitating role in linkage development. First, some donors have the necessary expertise to provide technical assistance to governments and firms on linkage formation in extractive industries. Donors already involved in private sector programmes can also help to make available information about gaps in local industry and institutions and to suggest measures to fill those gaps. It is, however, very important that such assistance is based on domestic initiatives that have political support, as argued in this report.

Second, the most critical factor in linkage formation in Africa today is probably local industrial capacity. Donors can play an important role by supporting early investment in developing and upgrading prospective suppliers and by promoting the education and training of key personnel. More broadly, donors can tie some of their numerous value chain development programmes specifically to promote value chains that link up to the extractives industries. In developing local industrial capacity, donors tend to focus on support to micro-, small- and medium-scale enterprises in productive sectors. However, the technology gap between such firms and the foreign extractive industry firms is typically a serious obstacle to linkage development, as already mentioned. It is generally the larger local firms that (potentially) have the best abilities to establish links with extractive industry firms, but such larger firms have tended not to be prioritized by donors. Recent research by Page and Söderbom in 2012 ('Is small beautiful?') indicates that larger domestic firms do contribute significantly to formal employment creation, contrary to much conventional thinking. Since the technology gap between such firms and MNCs in the extractive industries is typically also less deep than for smaller firms, larger domestic firms may therefore often be better at creating linkages and generating jobs related to extractive industries than multitudes of smaller enterprises.

Third, donors could assist in building appropriate institutions for linkage development by assisting in strengthening the specific institutions set up to promote and manage linkages. These institutions need to be effective and transparent, as the risks

of rent-seeking and capture in connection with linkage promotion are huge. Donors' relative success in promoting greater effectiveness and transparency in the area of extractive taxation may inspire similar efforts in the field of linkage formation.

Finally, as one of the main constraints on linkage formation in Africa is the lack of coordination between different administrative units, donors could play an active role in facilitating inter-ministerial coordination, as well as central-local coordination. More broadly, donors could focus their business-related activities on removing the particular institutional failures that are stifling linkage formation, such as the constraints on contract-based business collaborations or the outright disincentives for local firms to enter the formal economy.

However, better government policies and institutions on linkage development and more donor support to such activities will not ensure that extractive industries will contribute to job creation and poverty alleviation on their own. Governance matters, as already discussed. What should donors do in African countries with poor institutions where extractive natural resource development may contribute to the resource curse (that is, increasing inequality and more authoritarian rule)? The old mantra 'first get good institutions' (Booth 2012), then the rest will follow, is bad advice in such circumstances. Instead, the challenge for donors is to support the development of those parts of the extractive industries where mutual interests between ruling elites and domestic capitalists are the basis for linkage policies, provided that such support is consistent with the donor's own aid goals. For institutional innovations do not travel well; they must 'reflect' political realities on the ground. Some donor policy-makers may therefore now be prepared to fit good governance principles to local conditions more than was the case when recipients were more dependent on western donors.

Without due regard to such mutual interests, we are skeptical about donor efforts to assist with linkage development or other types of extractive natural resource engagements, like establishing sovereign funds to manage resource rents. This is based on the well-documented past experiences with such donor-driven 'project-management-unit' type arrangements in other sectors. It is not the formal insulation of 'special units' for linkage creation, investment promotion and sovereign funds from a bad governance environment that account for the successful cases that do exist, but the fact that political elites genuinely supported them. The same conditions for success apply to the developmental outcomes for various initiatives on CSR, EITI etc. The above discussion on donors focuses on linkages between local suppliers and

MNCs. But there is another aspect of local industry that also needs to be considered by donors. Hence, as argued earlier in the report, donors, like host governments, have tended to ignore artisanal miners. There are said to be some six million of them in Africa, but as our review suggested, only a very few are linked to or benefit from the presence of MNCs. Indeed, in some countries there are often violent conflicts between multinationals and local miners over rights to exploit extractive natural resources. Moreover, to the extent that indigenous and artisanal mining rights are protected by law, all the indications are that such laws are typically not enforced: artisanal mining issues are simply not high on the policy agenda in the three case-study countries. Poverty and equality considerations indicate that artisan miners should be an important part of any resource-driven development strategy, as well as being a very important area of interest for donors with a poverty-reduction agenda. Concentrating efforts on such politically marginal groups that have little immediate host government support means that donors that consider it important to work against the grain of government priorities should seek to strengthen artisanal miners' own organisations and take a long-term view of their support.

In conclusion, we argue that donor support to linkage development related to extractive industries has the potential to contribute significantly to job creation, poverty alleviation and economic transformation. But, as highlighted in this report, it also poses difficult challenges. To illustrate that, we end by posing a question that is worth considering, although the answers must remain speculative. On the one hand, rich western donors have a direct influence on important global challenges like illicit financial flows and tax havens that are important for realizing the potentials of extractive wealth in many African countries. On the other hand, the influence of western donors on linkage policies and implementation arrangements for extractive industries are declining as resource-rich African countries become less donor-dependent. Might the positive impacts of donor support on inclusive and sustainable growth therefore be greater if it was effectively focused on these global issues rather than on the issue of country-specific linkage? The easy answer is that donors should do both. The difficult issue is to decide on the most suitable ('best fit') pro-poor and sustainable development-oriented balance between the two.

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