

CONFLICT PREVENTION IN RESOURCE-RICH ECONOMIES
THE ROLE OF ECONOMIC POLICY

SELF-STUDY LEARNING MODULE



with funding and support from the European Union



The United Nations
Interagency Framework Team for Preventive Action

CONTENTS

ABOUT THIS SELF-STUDY MODULE	2
SELF-ASSESSMENT	3
GLOSSARY	5
ACRONYMS	6
INTRODUCTION	7
CHAPTER 1: How does resource dependence impede human development?	9
Macroeconomic impacts	10
Lack of diversification	12
Weak revenue management	12
CHAPTER 2: How does deterioration in human development lead to conflict?	15
Group-level motivations	16
Individual-level motivations	16
Breakdown in the 'social contract'	17
Extraction as the 'default sector'	17
CHAPTER 3: Which economic policies prevent conflict?	18
Adopting macroeconomic policies that promote structural change	19
Promoting diversification	20
Efficient revenue management	21
ONLINE RESOURCES	27

ABOUT THIS SELF-STUDY MODULE

This self-study learning module is based on the paper “Conflict Prevention in Resource-Rich Economies”, commissioned by the UN Interagency Framework Team for Preventive Action, with funding and support from the European Union. The paper is written by Degol Hailu, Sara Rendtorff-Smith, Uyanga Gankhuyag of the Poverty Group of Bureau for Development Policy (BDP), UNDP and Cosmas Ochieng. Degol Hailu and Ulla-Maija Rantapuska of the Poverty Group of Bureau for Development Policy (BDP) prepared this learning module.

The module exclusively focuses on the *economic* drivers of conflict. The objective is to show the links between resource abundance and the deterioration in economic and social outcomes, which easily become proximate causes of conflict. As a number of countries have overcome the challenges associated with resource extraction and exploited the opportunities, this module examines the economic policies that can lessen the risk of conflict.

Audience

This module has been designed for an audience who has limited knowledge of conflict prevention in resource-rich countries or its economic implications. No previous knowledge of economic terminology is needed, but this module is also highly relevant for an audience with a solid knowledge of economics.

Learning objectives

This self-study learning module is a crash course on ‘conflict-prevention in resource-rich economies’. At the end of the leaning session, you should be able to understand:

- How resource dependence impedes human development
- How deterioration in human development leads to conflict
- Which economic policies prevent conflict

Learning approach

The learning material facilitates self-study. This module is provided for professional and personal development. There is no final test, exam or academic accreditation of any kind.

- This self-study journey will begin with a self-assessment, which allows you to test your general knowledge of conflict prevention issues in resource-rich economies as well as orientate you about the topic.
- Specific learning objectives are set for each chapter.
- The learning material combines both theory and practice. Key terminology and theory are highlighted in the text with definitions. In addition, key terminology is listed in the glossary.
- Theory is followed by case studies, which are presented as examples of lessons learned or instruments to be used and/or adapted for models in order to find solutions. This learning material by no means pretends to be exhaustive in this regard.

Duration

The learning module is designed to take approximately two hours to complete. This includes the time for reading, reflecting and answering the self-assessment questions.

SELF-ASSESSMENT

This test consists of 20 true/false questions. The questions proposed in this self-assessment exercise are related to the contents of the learning material.

Learners are invited to fill in the questionnaire before starting the learning process to:

- Stimulate their own thoughts about conflict-prevention in resource-rich economies.
- Give an overview of the main concepts and contents that will be tackled in the learning material.
- Allow them to determine quickly how much they already know about the ideas presented here. The test will help them determine which parts of the course they can move through more quickly and those on which they may need to spend more time.

At the end of the learning process, learners should fill in the questionnaire again to define to what extent they have learned and acquired new knowledge and skills.

Introduction

- Q1. Resource-rich economies are less prone to conflicts thanks to the wealth provided by natural resources. *True / False*
- Q2. According to several cross-sectional analyses, resource wealth is likely to decrease the intensity and duration of conflict. *True / False*
- Q3. Resource curse is a concept that is used to describe the lack of development progress in countries that are dependent on mineral resource exports. *True / False*
- Q4. Resource-rich countries face a higher risk of experiencing violent conflict because of increases in unemployment, inequalities and inadequate provision of social services, particularly education. *True / False*
- Q5. Economic policies that can counter the potential adverse impacts of extraction include macroeconomic and industrial policies. *True / False*

Chapter 1

- Q6. A major negative macroeconomic impact of extractive industries is exchange rate appreciation. *True / False*
- Q7. One of the structural problems of extractive industries is over-diversification of economies. *True / False*
- Q8. Backward and forward linkages refer to the isolation of a domestic economy from the world economy. *True / False*
- Q9. Capital-intensive production can result in slow entry of women into the workplace. *True / False*
- Q10. Weak revenue management can result in regressive distribution of revenues between social classes and among geographical regions (horizontal and vertical inequalities). *True / False*

Chapter 2

- Q11. Worsening human development conditions aggravate collective and private grievances and lead to a breakdown in state-society relations. *True / False*
- Q12. Horizontal inequalities can be based on geographical or group identity. *True / False*
- Q13. Vertical inequalities refer to economic, social or other inequalities between individuals and households rather than groups. *True / False*
- Q14. The principal-agent theory explains why governments do not capture adequate revenues from the immense wealth generated by the extractive sector. *True / False*
- Q15. Prolonged violent conflict further increases dependence on resource extraction, in which case the resource sector often becomes the ‘default sector’. *True / False*

Chapter 3

- Q16. Examining how some countries avoided the resource curse might be helpful to other developing countries – country-specific circumstances notwithstanding. *True / False*
- Q17. Economic diversification can be promoted through tax incentives, investment in agricultural development, support to the manufacturing sector, and the encouragement of forward and backward linkages. *True / False*
- Q18. Serious challenges can arise in enforcing and administering a sophisticated royalty-based fiscal legislation when taxing the extractive sector. *True / False*
- Q19. The cycle of resource dependence, low human development and conflict can be broken by using revenues from extractive industry for public investments in physical assets and human capital. *True / False*
- Q20. The least-developed economies would benefit more from saving schemes than investment. *True / False*

Right answers >

Q1. False / Q2. False / Q3. True / Q4. True / Q5. True / Q6. True / Q7. False / Q8. False / Q9. True / Q10. True / Q11. True / Q12. True / Q13. True / Q14. True / Q15. True / Q16. True / Q17. True / Q18. True / Q19. True / Q20. False

Test your learning progress: How many right answers?

- Before the learning process: _____ / 20
- After the learning process: _____ / 20

GLOSSARY

Backward linkages	Distribution chain connecting a producer with its suppliers. Backward linkages occur when an industry uses the end-products of another industry as a means of production.
Capital intensity	Capital intensity is a term that indicates the proportion of capital needed in relation to other factors of production, especially labour. A capital-intensive process requires a relatively high level of capital investment compared to the labour cost, such as salaries and wages. Capital-intensive processes are likely to be highly automated.
Decentralization	Delegation of decision-making authority and responsibilities from central government to regional and local authorities.
Diversification	An increase in the variety of goods and services produced by an economy.
Dutch disease	Phenomenon that links an increase in the exploitation of natural resources and a decline in the manufacturing sector. The term was coined in 1977 by <i>The Economist</i> to describe the decline of the manufacturing sector in the Netherlands after the discovery of a large natural gas field in 1959.
Fiscal policy	Fiscal policy is the use of government expenditure and taxation to influence the economy. Changes in the level and composition of taxation and government spending can impact the following variables in the economy: 1) aggregate demand and the level of economic activity; 2) the pattern of resource allocation; and 3) the distribution of income. Fiscal policy differs from the other main type of macroeconomic policy, i.e., monetary policy.
Fixed exchange rate system	A fixed exchange rate system (or pegged exchange rate system) is a currency system in which governments try to keep the value of their currencies fixed against another currency(ies).
Flexible exchange rate system	A flexible exchange rate system (or fluctuating exchange rate system) is a currency system wherein a currency's value is allowed to fluctuate according to the foreign exchange market.
Forward linkages	Distribution chain connecting a producer with its customers. Forward linkage occurs when the products of one industry is used as input of another industry.
Horizontal inequalities	Horizontal inequalities are economic, social or other inequalities between groups of people. Horizontal inequalities can be based on geography (interregional distribution of costs and benefits) or group identity (ethnic or religious).
Human development	A process of enlarging people's choices, the most critical of which are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living, as well as to achieve political freedom, guaranteed human rights and personal self-respect.

Labour intensity	Labour intensity indicates the proportion of labour needed in relation to other factors of production, especially capital. A labour-intensive process requires a relatively large amount of labour input compared to capital input.
Local content	Local content refers to local skills, material, labour and products used in a production process.
Monetary policy	The regulation of money supply and interest rates by a central bank in order to control inflation and stabilize currency. By impacting the effective cost of money, a central bank can affect the amount of money that is spent by consumers and businesses. Monetary policy differs from the other main type of macroeconomic policy, i.e., fiscal policy.
Principal-agent theory	A principal-agent relationship exists when one person or entity (called ‘the agent’) acts on behalf of another (called ‘the principal’). In the extraction industry, for example, four groups have stakes in the industry: 1) the people of the resource-rich country; 2) the host government; 3) international companies; and 4) domestic companies. In an ideal world, the principal is the people of the resource-rich country, who collectively own natural resources, and the agent is the government, whose primary objective is to serve the principal (the people). The relationship doesn't work well when the interests of the principal and agent differ substantially.
Resource curse	Resource curse describes the lack of development progress in countries dependent on hydrocarbon and mineral resource exports. Researchers have long argued that some countries with large endowments of natural resources do not experience stable and sustained growth. These countries also tend to have high rates of poverty, inequality and conflict.
Resource dependence	In its narrow definition, the share of primary exports in GDP. Resource dependence is shown to be negatively correlated with economic growth. A broader definition highlights the negative social, economic and environmental impacts of extraction.
Vertical inequalities	Vertical inequalities are economic, social or other inequalities between individuals and households rather than groups. Vertical inequality is most often measured using the Gini coefficient.

ACRONYMS

BCPR	Bureau for Crisis Prevention and Recovery
BDP	Bureau for Development Policy
OECD	Organisation for Economic Co-operation and Development
UNDP	United Nations Development Programme

INTRODUCTION

LEARNING OBJECTIVES >

At the end of this chapter, you should be able to understand:

- The concept of resource curse
- The link between resource abundance and increased risk of conflict
- Why some countries have overcome the challenges associated with resource extraction

Natural resource exports such as oil, diamonds and copper provide opportunities to drive growth and human development. However, extraction of these commodities can also result in slow growth, poverty and conflict.

DEFINITION >

Resource curse describes the lack of development progress in countries dependent on hydrocarbon and mineral resource exports. Researchers have long argued that some countries with large endowments of natural resources do not experience stable and sustained growth. These countries also tend to have high rates of poverty, inequality and conflict.

This learning material focuses on the *economic* drivers of conflict. The nexus between an economy's dependence on extractive industry exports and violent conflict can be explained by:

- clientelist and rent-seeking behaviour
- negative environmental impacts
- declines in labour-intensive activities, mainly agriculture and manufacturing
- insufficient allocation of resources to human and physical capital accumulation

Grievances emanating from the deterioration in well-being, in turn, become proximate causes of conflict. Attempts to address grievances often lead to contestation over the control of rents and efforts to capture the state and the resources under its authority. Depending on the relative strength of the state compared to main opposition groups, contestation may manifest itself in state repression, coup d'états, rebellions, secessionist movements, militarism, inter-communal or interregional conflicts.

Caution! Natural resource dependence does not inevitably lead to economic instability or violent conflicts. Some countries have avoided the risks associated with resource extraction and exploited the opportunities. Examining how some countries avoided the resource curse might be helpful to other developing countries – country-specific circumstances notwithstanding.

Drawing on such global experiences, we build a case for economic policies that can counter the potentially adverse impacts of hydrocarbon and mineral extraction while simultaneously maximizing the potential benefits. These policy measures are:

- Macroeconomic policies
- Industrial policies
- Revenue management

This learning material is structured, and illustrated below, as follows:

- **Chapter 1** highlights the transmission mechanisms from resource abundance to deteriorations in human development.
- **Chapter 2** discusses how undesired social and economic outcomes intensify the risk of violent conflict.
- **Chapter 3** outlines the policy recommendations to support countries to exploit the opportunities of resource abundance and in the prevention of resource-related conflicts.

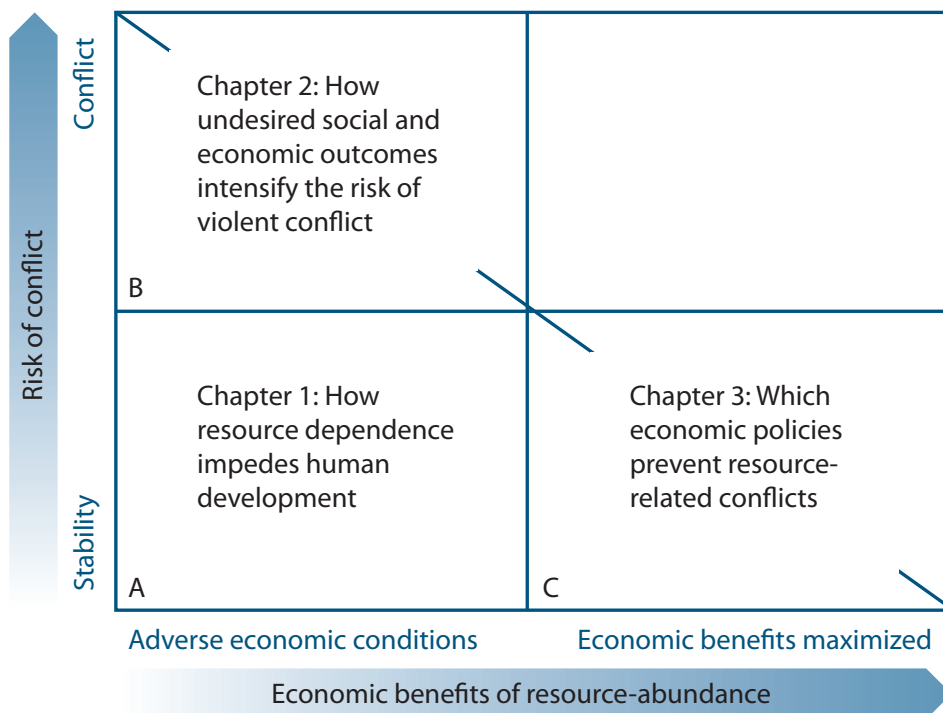


Figure 1. The relationship between the risk of conflict and economic conditions in a resource-rich country. Resource abundance may impede human development (A), which increases the risk of conflict (B). Economic policies can help prevent resource-related conflicts by maximizing the economic benefits of resource abundance (C).

1

HOW DOES RESOURCE DEPENDENCE IMPEDE HUMAN DEVELOPMENT?

LEARNING OBJECTIVES >

At the end of this chapter, you should be able to understand:

- Why resource abundance may lead to impediments in human development
- Which macroeconomic impacts lower the competitiveness of resource-rich economies
- Why economic diversification is important for an economy
- Which factors weaken revenue management

Extractive industries can be associated with the following negative economic and social outcomes:

- Under- and unemployment
- Poverty
- Inequality
- Low growth rate
- Low productivity
- Low profits and wages
- Low levels of tax revenues and foreign exchange earnings
- Lack of human capital accumulation
- Inadequate provision of social services, particularly education.

The following three factors tend to aggravate these negative outcomes:

1. **Macroeconomic impacts**, mainly those associated with exchange rate appreciation
2. **Absence of diversification** as well as missing forward and backward linkages, partly due to capital-intensive extraction processes
3. **Weak revenue management** resulting in regressive distribution of revenues between social classes and among geographical regions

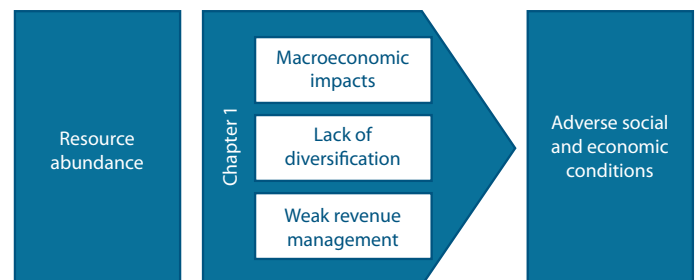


Figure 2. The relationship between resource abundance and adverse social and economic conditions in a resource-rich country.

Macroeconomic impacts

Three main macroeconomic effects contribute to locking resource-dependent economies into low-productivity sectors.

Imagine a simple model of an economy with three sectors:

- Resource sector (oil, minerals)
- Tradable sector (agriculture, manufacturing)
- Non-tradable sector (services, construction)

Q&A > What will be the impact of an oil boom on the economy?

- **Internal effects:** Increased revenues from oil exports increase demand for both non-tradable services and tradable goods.
 - *Non-tradable services:* Increased demand raises the prices of services that cannot be imported, which, in turn, increases the production of services, e.g., by a construction boom.
 - *Tradable goods:* The prices of tradable goods, which, in the open economy, are determined externally, remain the same. The increased demand is satisfied by imports.
- **External effects:** The revenue from oil exports is in foreign exchange, resulting in exchange rate appreciation. *In the fixed exchange rate regime*, the conversion of foreign exchange into local currency will increase the money supply, causing inflationary pressures, which, in turn, leads to real exchange rate appreciation. *In the flexible exchange rate regime*, inflows of foreign currency directly appreciate nominal foreign exchange through the demand effect.
 - The prices of tradable imports and the domestic price of exports decline.
 - The price level of non-tradable services won't be affected by exchange rate appreciation.
- **Structural implications:** International competitiveness of non-resource export sectors will weaken, and labour and capital resources will be drawn towards non-tradable sector. The economy will become dependent on its resource sector.
 - The associated shift in the sectoral composition of labour can worsen inequality, as returns from manufacturing and agriculture are more equitably shared than returns from resource extraction.
 - A service-oriented economy will witness lower growth rates. Profits and wages will decline, which will result in losses of tax revenues. Also, foreign exchange earnings will decrease.
 - The lack of labour-intensive manufacturing is likely to lead to under- and unemployment, losses in positive externalities – mainly learning by doing that enhance productivity – and a reduction in human capital accumulation.
 - A decrease of agricultural activities will have serious implications for food security.

DEFINITION >

Resource dependence in its *narrow definition* is the share of primary exports in GDP. Resource dependence is shown to be negatively correlated with economic growth. A *broader definition* highlights the negative social, economic and environmental impacts.

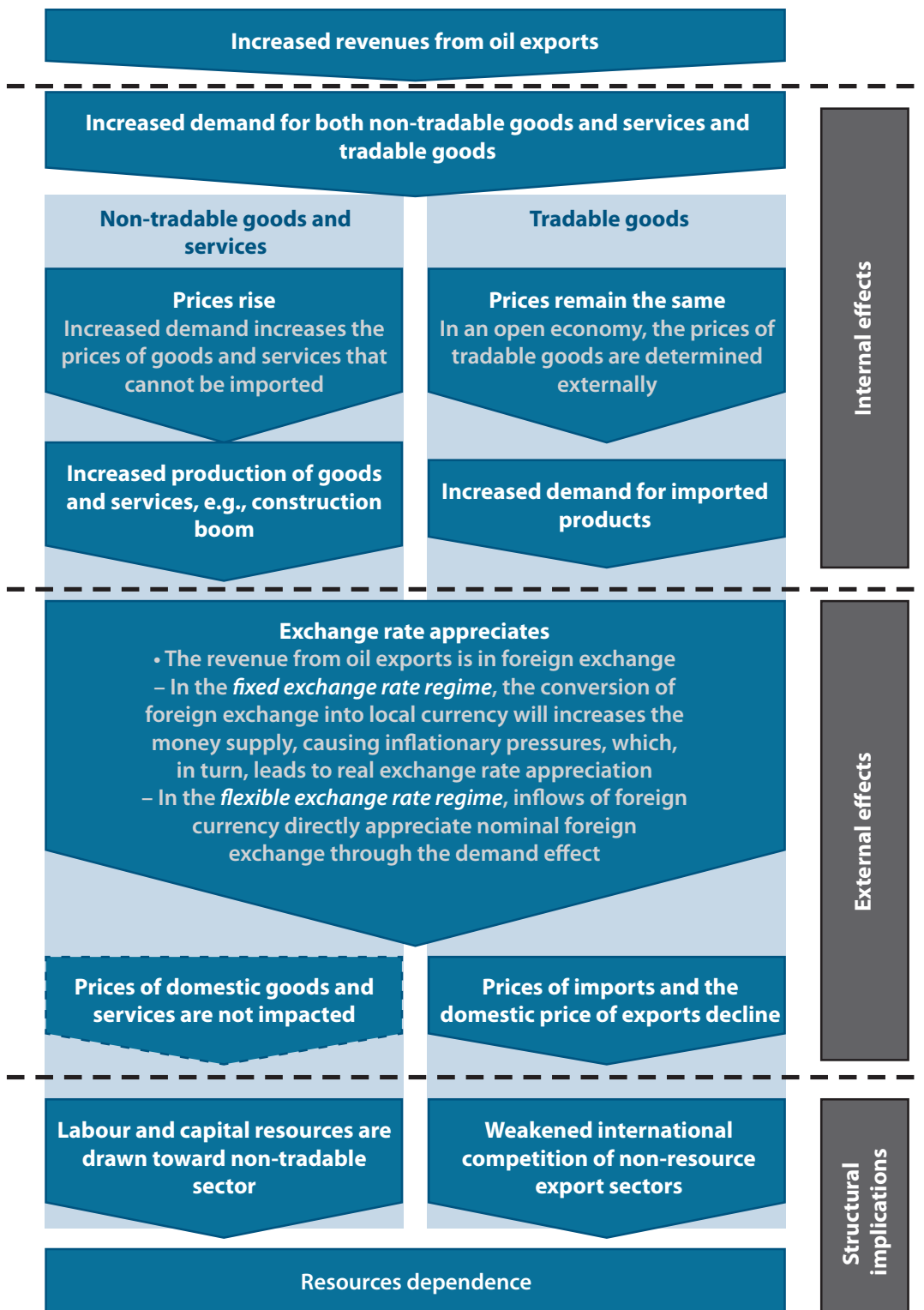


Figure 3. The internal and external effects and structural implications of an oil boom on the resource-rich economy.

Lack of diversification

Extractive industries are associated with lack of diversification, which results from 1) capital intensity and 2) weak forward and backward production linkages to other sectors of the domestic economy.

DEFINITION >

Capital intensity indicates the proportion of capital needed in relation to other factors of production, especially labour. A capital-intensive process requires a relatively high level of capital investment compared to the labour cost, such as salaries and wages. Respectively, labour-intensive process requires a relatively large amount of labour inputs to capital inputs. Capital-intensive processes are likely to be highly automated.

- Capital-intensive production will result in
 - reduced demand due to under- and unemployment
 - concentration of ownership, exacerbating inequalities, worsening wealth distribution
 - slow entry of women into the workplace

DEFINITION >

Backward and forward linkages are the distribution chains that connect a producer with its suppliers (backward linkage) and customers (forward linkage). Backward industry occurs when an industry uses the end-products of another industry as a means of production. Forward linkage occurs when the products of one industry is used as inputs of another industry.

- Backward linkages to the local economy are lacking in extractive industries mainly because the main inputs required for resource extraction, such as heavy machinery, drills, platforms and pipelines, are most often imported due to their technical complexity.
- As a result of the lacking forward linkages with the local economy, value addition of extractive processes predominantly takes place outside of the country. The benefits, in terms of jobs, technology and profits, therefore accrue to developed economies and regions, where technologically advanced firms are located.
- Due to the lack of backward and forward linkages, extractive industry becomes highly specialized, which is associated with little job creation in the domestic economy.

Weak revenue management

The weak revenue collection by host governments in resource-rich economies is associated with 1) sub-optimal revenue generation, 2) revenue and expenditure volatility, and 3) resource depletion.

Sub-optimal revenue generation

Tax regimes in resource-rich economies are often designed so that governments do not capture adequate revenues from the immense wealth generated by the extractive sector. Instead, governments are prone to offer international investors many attractive tax breaks and exemptions. Multinational companies, on the other hand, seek and are often able to lock in low levels of taxation, secure property rights and profit repatriation rights through contracts with governments. This can be explained by the principal-agent theory.

DEFINITION >

Principal-agent relationship exists when one person or entity (called 'the agent') acts on behalf of another (called 'the principal'). In the extractive industry, for example, four groups have stakes in the industry: 1) the people of the resource-rich country; 2) the host government; 3) international companies; and 4) domestic companies. In an ideal world, the principal is the people of the resource-rich country, who collectively own natural resources, and the agent is the government, whose primary objective is to serve the principal (the people). The relationship doesn't work well when the interests of the principal and agent differ substantially.

In the ideal world, we would expect the government to maximize the revenue captured from the extractive sector. We would also expect it to allocate these revenues equitably and efficiently. But, in the real world, this is not always the outcome because of the following asymmetries:

- **Asymmetric agency:** The agent (i.e., the government) negotiates contracts with international companies on behalf of the people (the principal). However, government's accountability may become oriented toward the international company rather than toward the people, because rewards can be obtained from the former. As a result, government may not have sufficient incentive to promote economic diversification in order to generate revenues from other (non-resource) sectors. International companies also do not have it as their foremost interest to maximize revenues for the people of the resource-rich country. Their principal is the company shareholders. A common outcome is, therefore, that the gains accrue to an external principal at the expense of the domestic principal.
- **Asymmetric information:** Extraction of hydrocarbons and minerals requires specific geological, engineering and marketing skills. The governments and peoples of resource-rich economies may not have the required technical expertise to independently explore and trade their oil or minerals. International oil companies, by virtue of their many years of experience in the business, have amassed specialized skills. Consequently, host governments are disadvantaged in negotiations on licensing, leases and royalties.
- **Asymmetric bargaining:** Further aggravating the bargaining imbalance is governments' inferior knowledge and expertise. International oil companies are larger (in terms of budget) and politically more powerful than many resource-rich developing countries. International companies command capital, technology and a highly skilled labour force.

CASE >

In **Peru**, companies that make even relatively modest investments have been able to establish stability agreements with the government, which effectively make them immune to any tax rises for 10 years. For example, until 2000, companies could establish stability agreements if they: 1) invested US\$2 million in their first three years of operation; 2) invested US\$500,000 and created 20 jobs; or 3) generated US\$2 million worth of exports.

Revenue and expenditure volatility

Revenues earned from extraction tend to vary in the short term. Commodity price volatility is but one source of revenue instability. During boom years, governments tend to increase public expenditure. This makes a fiscal crisis likely in subsequent downturns.

In some cases, the windfall revenues flowing to governments during boom years entice excessive borrowing to support high public expenditure levels. Natural resources are easy mortgage, as they improve the country's sovereign credit rating. However, countries face difficulties repaying their loans during commodity price busts. This has serious implications for debt accumulation. Moreover, countries can lose the flexibility to use exchange rate policy instruments when public and private debts are predominantly in foreign currency.

CASE >

Peru is one of the world's major producers of silver, zinc, lead, molybdenum, copper and gold. Its exposure to volatile international markets has meant that the country accumulated very high levels of debt and has suffered several major debt crises. Between 1990 and 1995, 25 percent of public expenditures went to debt servicing, compared with 18 percent on capital expenditures, 21 percent on social transfers, and 36 percent on public administration and provision of public services. By 2004, Peru had accumulated public debt equivalent to 85 percent of GDP.

Resource depletion

The long-term flow of resource revenues is affected by the fact that hydrocarbons and minerals are non-renewable. This means that extraction implies resource depletion over time.

CASE >

In the case of **Botswana**, the African Development Bank (AfDB) projects that diamond production will decline sharply after 2020 and possibly cease completely around 2030. The IMF has similarly estimated that cost-effective diamond mining could no longer be a viable source of revenue for the Government of Botswana as early as by 2029.

2

HOW DOES DETERIORATION IN HUMAN DEVELOPMENT LEAD TO CONFLICT?

LEARNING OBJECTIVES >

At the end of this chapter, you should be able to understand:

- The different motivations behind violent conflicts in resource-rich economies

As discussed in the previous chapter, extractive industries can be associated with several negative economic and social outcomes. Worsening human development conditions aggravate collective and private grievances and lead to a breakdown in state-society relations. These, in turn, fuel conflict.

Attempts to address grievances often lead to contestation over the control of rents and efforts to capture the state and the resources under its authority. Depending on the relative strength of the state compared to main opposition groups, contestation may manifest itself in state repression, coup d'états, rebellions, secessionist movements, militarism, inter-communal or interregional conflicts.

Violent conflict can arise from:

- Group-level motivations
- Individual-level motivations
- Breakdown in the 'social contract'
- Resource dependence: extraction as the 'default sector'

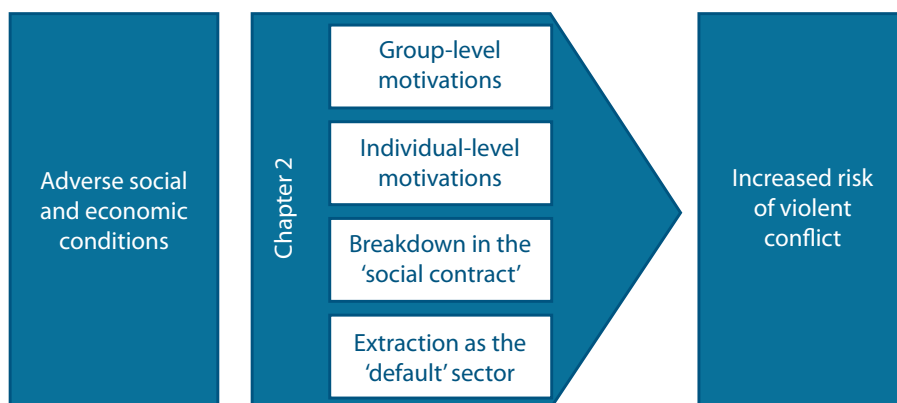


Figure 4. The relationship between adverse social and economic conditions and increased risk of conflict in a resource-rich country.

Group-level motivations

Group motivations for conflict emanate predominantly from grievances over *horizontal inequalities*.

DEFINITION >

Horizontal inequalities are economic, social or other inequalities between groups of people. Horizontal inequalities can be based on geography (interregional distribution of costs and benefits) or group identity (ethnic or religious).

- **Central vs. local:** Central governments often reap the largest benefits from extraction, while social and environmental costs tend to be borne by local communities residing in areas of extraction.
- **Expectations:** Large-scale extraction operations tend to spur expectations of substantial income increases, which bypass the local population.
- **Concentration of wealth:** Capital-intensive resource extraction also tends to trigger separatist rebellion, specifically, by concentrating wealth in the hands of a few external capital owners while offering few benefits to local enterprises and unskilled workers. In comparison, labour-intensive processes are less likely to cause conflict, as the benefits are more widely shared.
- **Weak property rights:** The incentive for rent capture is fuelled by weak property rights over natural resources. Without a strong legal framework for the protection of property rights, there are no natural or legal owners of resources before they undergo production. Since mineral deposits are ‘found’, any organized group can easily claim control over them, without due political processes or citizens’ participation.

CASE >

In **Sudan**, the petroleum industry accounted for over 90 percent of export proceeds. The main root causes of the civil wars were related to inequitable sharing of resources. The civil wars were fuelled by feelings of economic and political marginalization, deprivation and disfranchisement by the Southern Sudanese population. Compared with Northern Sudan, Southern Sudan has lower levels of infrastructure investment, more underdeveloped agriculture and weaker trade linkages, despite having a greater resource base. In addition, the central government also decided to locate an oil refinery in the North, and not in the South, where oil is produced.

Individual-level motivations

Individual-level motivations that will increase the likelihood of violent conflicts in resource-rich economics arise from *vertical inequalities*, which can result, for example, from unemployment, low level of education and the presence of migrant workers.

DEFINITION >

Vertical inequalities are economic, social or other inequalities between individuals and households rather than groups. Vertical inequality is most often measured using the Gini coefficient.

- **Unemployment:** Unemployment and poverty have been shown to increase the likelihood of violent conflict and particularly of insurgency-based civil wars. An abundance of unemployed unskilled labour provides fertile grounds for rebel-group mobilization. Sectoral shifts – for instance, a decline in agricultural and manufacturing sectors – may deepen existing inequalities, injuring already marginalized groups. The capital intensity of extractive industries offers few employment opportunities, particularly for the unskilled, women and the elderly.
- **Low level of education:** Countries with large resource sectors and low tax revenues also tend to have lower education rates. The decline in manufacturing activities implies that spending on education may fall, as the demand for skilled labour declines. Low education levels, in turn, heighten the risk of conflict. According to the demographic and the youth bulge theories of conflict, uneducated, unemployed (as well as skilled and disenfranchised) youth are the likely recruits for any group that rewards them to engage in ‘rebellion’.
- **Presence of migrant workers:** The exploitation of ‘diffuse’ mineral deposits, as opposed to ‘point’ deposits, increases the likelihood of wars and conflicts. When resources are ‘diffuse’, their extraction requires minimal technology. In such cases, artisanal miners, usually migrant workers, flourish. These workers compete with local communities for assets and opportunities, particularly for land and jobs. Conflict is, therefore, likely to arise over property rights. Governments often respond by repressing artisanal mining activities, on the grounds that they are unlicensed, create environmental pollution, use child labour, engender violence, etc.

Breakdown in the ‘social contract’

The principal-agent theory, discussed above, explains why governments may have little incentive to trade political power for the right to impose taxes. In such cases, the ‘social contract’ fails. One manifestation of this is that the state does not provide adequate social services. The people, in turn, reject state authority and its legitimacy and refuse to significantly contribute to tax revenues.

The ‘social contract’ also breaks down when revenues and expenditures are volatile. A negative income shock of five percentage points increases the likelihood of conflict by 50 percent in the following year. Commodity booms and associated positive income shocks increase the value of controlling the state. This can lead to the ‘state capture’ or ‘the state as honey pot’ situation.

Extraction as the ‘default sector’

Prolonged violent conflict also further increases dependence on resource extraction, as economic activities in other sectors are disrupted. The resource sector often becomes the ‘default sector’, mainly as a result of its relative immobility or capital intensity. The overall outcome can be a negative cycle of resource dependence, low human development and conflict.

CASE >

Until the onset of civil war in **Angola**, in 1975, the country’s economy was relatively diversified and enjoyed high growth levels. From 1960 to 1974, annual GDP growth averaged 8 percent. However, with the advent of the war, the country’s economic structure underwent a drastic reconfiguration. Between 1973 and 1985, industrial output dropped by almost half, turning Angola into one of the most resource-dependent countries in the world.

3

WHICH ECONOMIC POLICIES PREVENT CONFLICT?

LEARNING OBJECTIVES >

At the end of this chapter, you should be able to understand:

- The economic policies that can counter the potential adverse impacts of resource abundance and maximize the potential benefits

This paper has analysed the economic distortions likely to result from an economy's dependence on the extractive sector. It has linked these distortions to deteriorations in economic and social conditions, which, in turn, increase the risk of conflict.

However, some of the resource-dependent countries have avoided violent conflicts. Drawing on such global experiences, this chapter builds a case for economic policies that can counter the potential adverse impacts of hydrocarbon and mineral extraction while simultaneously maximizing its potential benefits.

The economic policy measures designed and implemented with a conflict-sensitive approach are:

- **Macroeconomic policies**
 - Promotion of public investments using fiscal measures
 - Employment generation by stimulating the private sector through monetary policies
 - Increase of competitiveness of non-resource exports through exchange rate management
- **Promotion of economic diversification**
 - Use of taxation to provide incentives for economic diversification
 - Investment of revenues in agricultural development
 - Support for the manufacturing sector, particularly labour-intensive activities
 - Promotion of forward and backward linkages

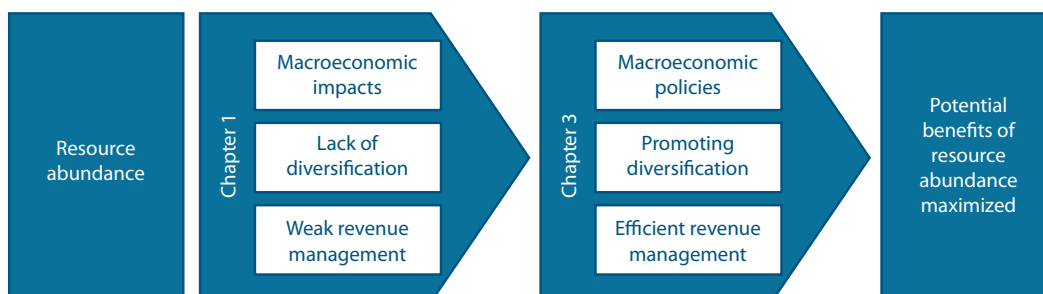


Figure 5. The relationship between resource abundance and economic policies that can maximize its potential benefits.

- ***Efficient revenue management***
 - Building national and local consensus on natural resource management
 - Tackling asymmetries during contract negotiations
 - Improvement of revenue collection
 - Investment of revenues
 - Adoption of revenue-smoothing mechanisms

Adopting macroeconomic policies that promote structural change

Resource-rich economies have one advantage: they are not constrained by the supply of foreign exchange. The macroeconomic policy options that are likely to foster growth and human development in such countries are:

In the short-term:

- **Fiscal policy** can focus on maximizing resource revenue and preventing excessive increases in aggregate demand.
- **Monetary policy** would focus on expanding credit. Central banks can employ instruments that alter the balance sheets of commercial banks through regulation of reserves.
- **Exchange rate policy** needs to prevent appreciation. With sufficient reserves of foreign exchange, maintaining a stable exchange rate is a relatively easy task.

In the medium-term:

- **Fiscal policy** would focus on public investments to foster diversification of the economy through investments in the non-resource tradable sector, such as manufacturing or agriculture. Infrastructure projects would focus on directly facilitating tradable production. On the revenue side, broadening the tax base is a priority, along with the introduction of direct taxes.
- **Monetary policy** would also support economic diversification by stimulating private investment into non-resource tradables.
- **Exchange rate policy:** Because a floating exchange regime cannot protect the non-resource tradable sectors, policy need to focus on maintaining a competitive real exchange rate.

CASE >

Botswana has been relatively successful at avoiding exchange rate appreciation. Pula was devalued ten times between 1977 and 2005. The alliance among policy makers and cattle exporters allowed the government to adopt the necessary fiscal and monetary policies to curtail real exchange rate appreciation. However, exchange rate management favoured the cattle sector alone and has not led to broader economic diversification. Botswana continues to grapple with problems associated with high export concentration and high levels of unemployment. The dominant mining sector only employs 3 percent of the workforce.

Promoting diversification

Use of taxation to provide incentives for economic diversification

- Governments can design incentive structures for extractive companies to reinvest profits in non-extractive sectors in favour of economic diversification by: i) strengthening forward and backward linkages with the domestic economy and ii) ensuring the survival of small-scale mining operations, which contribute to local employment generation.

Investment of revenues in agricultural development

- A thriving agricultural sector ensures self-sufficiency in food production.
- The current high international food prices are an indication that global demand for agricultural products presents an opportunity for agricultural development.
- Public investments to improve rural infrastructure, irrigation, provision of seeds, fertilizers and other inputs are critical for increasing productivity.

CASE >

Uzbekistan experienced shocks due to a decline in the price of its major exports, mainly cotton and oil. Policy makers, however, took actions to diversify the country's export base. Between 1995-1999 and 2003-2006, non-oil, -cotton, and -gold exports as a share of total exports increased by 12 percent. Investments in the domestic agricultural sector led to a decrease in the share of food imports in total imports from 22 percent to 9 percent.

Support to the manufacturing sector, particularly labour-intensive activities

- Besides learning by doing, which, in turn, enhances productivity and stimulates human capital accumulation, labour-intensive manufacturing activities are likely to be associated with a more equitable sharing of returns. Women tend to benefit more from employment generated in manufacturing.
- Policy interventions that protect manufacturing activities, especially where a country holds a comparative advantage, include offering subsidies, maintaining low interest rates, and ensuring credit allocation to the private sector.
- Growing profits and wages in these sectors contribute simultaneously to tax revenues and foreign exchange earnings.

Promotion of forward and backward linkages

- The extractive sector should tap into local capital and labour inputs to increase *local content* and strengthen local linkages along the extraction value chain. In cases where mineral deposits are alluvial, local small-scale mining operations can be integrated with those of large companies.

DEFINITION >

Local content refers to the local skills, material, labour and products used in a production process.

CASE >

The share of oil and gas in **Indonesia's** public revenue fell from 49 percent in 1982 to 23 percent in 2005. This was a direct result of a successful diversification strategy, which had two vital characteristics: i) sector policies that supported the agricultural and manufacturing sectors (mainly textiles and footwear) and ii) policy flexibility, as demonstrated through the country's careful transition from import substitution to export-led growth. The policy of attracting foreign investment has been largely successful at targeting the labour-intensive manufacturing sector. The policy took advantage of the relatively lower labour costs and access to the US market following the preferential trade concessions provided under the Generalized System of Preferences (GSP) scheme. At an average annual growth rate of about 12 percent, manufacturing grew at the highest rate between 1965 and 1997. The success of Indonesia's industrialization strategy is based on building vital sectoral linkages, investing in human and physical capital, and providing targeted subsidies and tax breaks. Revenues from the natural resource sector were invested in agriculture, mainly in irrigation and land reclamation. It also provided subsidies for inputs, such as fertilizer, pesticide, seeds as well as irrigation. After achieving self-sufficiency in rice (import substitution), the strategy moved toward export crops (outward orientation and export-led growth). Indonesia has recently become the largest producer and second-largest exporter of palm oil and ranks as the fourth-largest coffee producer and exporter in the world.

CASE >

Botswana's recent attempt to establish a diamond cutting and polishing industry is a good example of forward linkages. **Brazil** recently announced that its oil sector, run by the state-owned Petrobras, would adhere to the local content rules. Nearly 95 percent of the oil supply chain will be using local content.

Efficient revenue management

Building national and local consensus on natural resource management

- Emerging mineral producers will benefit from the formalization of principles for the transparent management of natural resource revenues introduced in national legislation. Measures of consultation, transparency and good governance in the natural resource sector are urgently needed.
- From an early stage, the formulation of resource legislation should be the subject of extensive public consultation.

CASE >

When **Niger** adopted a new constitution in 2010, it included extraordinary transparency measures for the natural resource sector. Among other assurances, Article 150 requires the publication of natural resource contracts as well as natural resource revenues on a disaggregated, company-by-company basis. As a supplement to these constitutional provisions, Niger has taken further steps by adopting a “Charter of Good Governance”. The Charter was designed through broad stakeholder involvement and defines fundamental principles of good governance of mineral resources.

Tackling asymmetries during contract negotiations

- The information and bargaining asymmetries commonly associated with contract negotiations between large multinational companies and host governments can be tackled by adopting a set of common standards and guidelines for contract negotiations. Coordination could be at the regional or subregional level. This approach will reduce the competition among resource-producing countries that commonly arises when they grant concessions unfavourable to their own interests in an effort to attract foreign companies.

CASE >

The **Southern African** Development Community (SADC) has recently developed a framework for the harmonization of mining policies, standards and regulatory regimes in the subregion. The SADC provisions have since fed into the African Union’s formulation of the African Mining Vision.

- Information and bargaining asymmetries can also be further diminished through transparent negotiation of extraction contracts. Open and transparent discussions provide a potential for naming and shaming, which may result in more equitable contractual settlements and potential increases in revenue flows to host governments. It would also create an incentive for international companies to adhere to ethical standards similar to those of their home countries or some international standard.
- Contracts can be awarded through an open auction system. Auction systems transparently and efficiently assign rights to international extractive companies in a manner that could increase revenue capture by host governments. By reducing rent-seeking and encouraging competition through a fair and open process, auctions could benefit bidders and host countries. Independent third parties can be invited in conducting auctions, followed up by an independent review and certification of the auction process by an auditor or trustee.
- Another way of mitigating companies’ fears of expropriation or adverse renegotiation of the extraction contract is through ‘share-bidding’. In this case, oil companies offer the host country equity shares in the extraction project. The company offering the highest government share wins the contract. This approach partly shifts risks from oil companies onto the country, while simultaneously aligning the interests of the company and the host country.

CASE >

The partnership between De Beers and the Government of **Botswana** is one example of a government's shareholding in private mining projects. The establishment of Debswana, a joint venture between De Beers and the Government of Botswana (GoB), has played a critical role. At the time of the first kimberlite diamond discoveries in 1968, the GoB held 15 percent of Debswana's shares. With the official commissioning of additional and much larger mines, the government renegotiated a favourable 50-50 percent shareholding agreement. When the market for diamonds recovered in 1986, Debswana negotiated the sale of its stockpile to De Beers in exchange for a substantial cash payment plus a 5-percent ownership share in De Beers itself. With the transformation of De Beers from a public to a private company in 2001, the GoB's stake in the company increased to 15 percent. This has given the Government an even greater say in mining operations and has provided it with access to significant dividends from De Beers's profits – even from mining operations outside Botswana.

Improving revenue collection

- The challenge for governments in resource-rich economies is to maximize revenues while offering investors sufficient incentives to explore, develop and extract the country's resources. Governments may address this trade-off through at least two types of fiscal regime.
- On the one hand, governments may decide to implement a *tax-based fiscal regime* that levies corporate and other subsidiary taxes equally on all sectors. One critical advantage of such a system is that it is easy to administer. This is important in developing countries, where the capacity of tax authorities is often limited.
- The alternative is a system in which the government imposes a *royalty-based fiscal regime* on extractive industries. A royalty is intended to compensate for the depletion of a country's natural capital base. It essentially represents an ownership transfer tax. Although it may be relatively simple to draft and to enact sophisticated royalty legislation, serious challenges can arise in its enforcement and administration.
- Investors generally prefer to operate under a profit-based royalty regime. This system responds to downturns in market prices and thus allows companies to maintain mining projects, which temporarily generate zero or negative income, at no extra cost. The government, though, collects no revenue in the first few years of the project cycle, when no profit is generated – or, for that matter, in any year where costs exceed revenue.

Q&A > When to levy royalty in the royalty-based fiscal regime?

- (i) A profit or income-based royalty is based on measures of profitability.
- (ii) A unit-based royalty is based on the quantity of the material produced (measured in units of weight or volume).
- (iii) A value-based system is based on the production value (usually the market or sales value). Investors generally prefer to operate under a profit-based royalty regime. This system responds to downturns in market prices and thus allows companies to maintain mining projects, which temporarily generate zero or negative income, at no extra cost. The government, though, collects no revenue in the first few years of the project cycle, when no profit is generated – or, for that matter, in any year where costs exceed revenue.

CASE >

In **Jamaica**, where the extractive sector (mainly alumina and bauxite) contributes 60 percent of foreign revenues, mining companies are subject to a profit-based royalty system. However, when profits dip below a certain threshold, companies pay a minimum tax, based on the value of production. In the state of British Columbia in **Canada**, a value-based and a profit-based royalty are calculated for each mining company. The government collects either the higher of the two or both.

- The institutional capacity of administrative agencies responsible for levying and collecting taxes should be strengthened. Adequate institutional capacity is critical for enhancing tax collection efficiency, including curtailing tax avoidance. Moreover, the sophisticated accounting practices of multinational companies make it difficult to identify instances of internal trading and mispricing. Institutional capacity is particularly critical for realizing maximum government take. These include i) the capacity to negotiate effectively with extractive companies and ii) the capacity to administer and enforce the taxation regime.

Investment of revenues

- Governments in resource-rich economies should ensure adequate investments in social and economic assets. If revenues are used for public investments in physical assets and human capital, the cycle of resource dependence, low human development and conflict is likely to be broken.

CASE >

Mongolia has experimented with different mechanisms for channelling mineral revenues to social expenditure. While in place, 100 percent of the proceeds of a temporary windfall tax were deposited into Mongolia's Development Fund (MDF). One third of the fund holdings went to filling the budget financing gap, another third was reserved for capital investments, and the remaining onethird was earmarked for spending on social protection. In 2009, the MDF was replaced by the Human Development Fund (HDF). Like its predecessor, the HDF is funded entirely by mining-related revenues (royalties, taxes and dividends). By law, the fund's assets can be transferred to citizens only, in four different forms: (i) payments for pension and health insurance premiums; (ii) housing purchases; (iii) cash benefits; or (iv) payments for health and education services. However, between 2003 and 2008, expenditures on social protection (the majority of which were in the form of cash transfers) expanded dramatically, reaching 12 percent of government expenditures, or 4.4 percent of GDP. These figures are significantly higher than for most countries at a similar level of development.

- Policy measures to offset *vertical inequalities* associated with structural shifts in the economy due to dependence on the extractive sector include: (i) promoting productivity and export growth in the agricultural and/or manufacturing sectors to offset the structural shifts in the economy caused by exchange rate appreciation; (ii) providing new government jobs to displaced workers from the productive sectors; and (iii) directly targeting disadvantaged groups through pro-poor measures such as quotas for the allocation of jobs, distribution of assets or educational access.

CASE >

Leading up to the oil price boom of the 1970s, **Indonesia** adopted various measures that successfully prevented a rise in vertical inequalities. Currency devaluation and a pro-export regulatory stance supported sustained growth in the manufacturing sector. This macroeconomic regime was coupled with investment in universal primary education as well as the introduction of price controls on foods and kerosene, which make up the bulk of a typical poor household's consumption basket.

- A common policy approach to mitigating *horizontal inequalities* is to adopt regional expenditure policies that decentralize resource rents. The two main approaches are: (i) to endow subnational governments with the authority to levy taxes directly on the mineral industry; and (ii) to arrange resource transfers to the subnational level via different kinds of direct and indirect resource revenue-sharing mechanisms. Targeted conflict-sensitive policies to reduce horizontal inequalities help in mitigating the translation of grievances into violent resistance and secessionist sentiments.

CASE >

Leading up to the oil price boom of the 1970s, **Indonesia** has successfully mitigated conflicts through revenue allocation. Not only did Indonesia use its natural resource revenues to promote agriculture and industry, but it also built primary schools – one in every sub district. The poverty headcount fell from 70 percent to 13 percent between 1965 and 1997. However, in spite of these successes, feelings of relative deprivation and marginalization, particularly within indigenous communities, were unravelled. While vertical inequalities have remained relatively low and stable over time, horizontal inequality remains a major problem. The associated grievances can be linked to a series of violent outbreaks. Separatism and centre-regional conflict have been seen in the resource-rich regions of Aceh and Papua and, to a lesser extent, in Riau and East Kalimantan. Living conditions in these resource-rich regions were below the national average. Policy makers have acted to reduce horizontal inequality. Natural resource revenues were distributed across regions in the form of spending on agriculture and basic social services, such as basic education and community health. The specific measures include fiscal decentralization laws for Riau and East Kalimantan and the special autonomy laws for Aceh and Papua.

- Depending on a country's specific circumstances, saving a portion of revenues might make sense. But unduly diverting resources from critical investments is not a viable strategy. The least-developed economies, specifically, should not over-save. Countries at different stages of the development trajectory face different challenges and will accordingly benefit from different saving-investment formulas: i) Low-income countries are better served by investing on infrastructure as a foundation for economic diversification. ii) Middle-income countries, on the other hand, benefit more from targeted spending toward social protection, education, as well as technological and scientific development. Finally, iii) high-income countries, many of which face ageing populations, would benefit from prioritizing welfare spending, mainly the financing of old-age pensions.

Adoption of revenue-smoothing mechanisms

- Resource-rich countries should ensure temporary revenue gains to be spread into long-term benefits, especially in the event of a fall in the international prices for oil or minerals.

CASE >

Protecting public finances from shocks by adopting income-smoothing mechanisms is a sensible strategy. For instance, the government of **Timor-Leste** followed the Norwegian model and set up a petroleum fund in 2005. The proceeds are invested in US government bonds. The government withdraws roughly 3 percent to 6 percent of fund holdings annually. To smooth revenue between boom and bust years, **Angola** established a 'reference value'. Revenues arising from an oil price higher than the reference level cannot be spent. Instead, this 'excess' revenue is deposited into an oil reserve as savings for future spending. In the 1990s, the Government of **Botswana** introduced a policy tool known as the Sustainable Budget Index (SBI). The index specifies a ratio of non-investment spending to recurrent revenues. An SBI value greater than 1.0 means that consumption is in part financed by resource revenues, which is considered to be fiscally unsustainable. SBI values of 1.0 or less indicate fiscal sustainability because it implies that government consumption is financed entirely by non-resource domestic revenues.

ONLINE RESOURCES

Initiatives or resources for further information:

Consultation on IMF Natural Resources Work

<http://www.imf.org/external/np/exr/consult/2012/NR/index.htm>

Extractive Industries Transparency Initiative EITI <http://eiti.org/>

Open Government Partnership <http://www.opengovpartnership.org/>

Publish What You Pay campaign <http://www.publishwhatyoupay.org/>

The Natural Resource Charter <http://www.naturalresourcecharter.org/>

The Revenue Watch Institute <http://www.revenuwatch.org/>

World Bank Group - Extractive Industries Review <http://www.ifc.org/eir>

World Bank Oil, Gas, and Mining Unit

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/0,,contentMDK:20188239~pagePK:210058~piPK:210062~theSitePK:336930,00.html>

Country examples:

The Nigeria Extractive Industries Transparency Initiative (NEITI) <http://www.neiti.org.ng/>

Africa Mining Vision <http://www.africaminingvision.org/>

SADC Mining Protocol <http://www.sadc.int/index/browse/page/155>

Debswana <http://www.debswana.com/Pages/Welcome.aspx>

The Petroleum Fund of Timor-Leste <http://www.bancocentral.tl/PF/main.asp>

Norwegian Government Pension Fund Global <http://www.nbim.no/en/>



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> South Sudanese Show Support for National Oil Shutdown.



United Nations Department of Economic and Social Affairs (UNDESA)



United Nations Department of Political Affairs (DPA)



United Nations Development Programme (UNDP)



United Nations Environment Programme (UNEP)



United Nations Human Settlements Programme (UNHABITAT)



United Nations Peacebuilding Support Office (PBSO)



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