Poverty Reduction or Poverty Exacerbation?

World Bank Group Support for Extractive Industries in Africa

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Cover Photos (clockwise from top left): SOMISY gold mine at Syama in Mali (Oxfam America); Women near the oil fields in southern Chad (Environmental Defense); Gas flaring in the Niger Delta (Institute for Policy Studies)

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Executive Summary

This report examines the World Bank Group’s support for extractive industries (oil, gas, and mining) in Africa over the last 20 years in light of the World Bank’s self-proclaimed mission of poverty reduction. It describes the obstacles to using extractive industries as a vehicle for poverty alleviation and sustainable development, and poses a series of research questions related to the role of the World Bank Group in extractive industries.

The exploitation of petroleum and mineral reserves has long been the predominant source of revenue for a number of resource-rich countries in sub-Saharan Africa. Sub-Saharan states such as Angola, Botswana, Sierra Leone, and Zambia are among the most mineral or oil dependent in the world, and the region as a whole is second only to the Middle East in its dependence on extractive industries for foreign exchange earnings.

The countries of sub-Saharan Africa are also highly dependent on the assistance of international financial institutions, such as the World Bank Group. In resource-rich states, the World Bank uses this leverage to promote extractive industries development through support for trade and investment liberalization, privatization of state-owned companies, and institution and capacity building to improve the investment climate for transnational corporations. The World Bank Group also finances private-sector extractive industry projects directly, through equity investments, loans and guarantees.

While natural resource wealth may seem to hold potential for contributing positively to Africa’s economic development, in practice it has been difficult to convert resource wealth into broad-based improvements in economic growth and human development. In fact, countries highly dependent on oil and mineral exports tend to grow more slowly, face lower living standards, and suffer higher levels of corruption and violence than resource-poor countries. In addition, oil, gas and mining projects can have significant negative economic, social, and environmental impacts on directly affected communities and ecosystems.

Considering the negative impacts and development failures associated with extractive industries dependence, the question arises as to whether support for extractive sectors in Africa is consistent with the World Bank’s poverty reduction mandate. The World Bank justifies its support for extractive industries by claiming that the development of these sectors promotes economic growth and generates revenues for the government; facilitates job creation and technology transfer; and contributes to infrastructure improvements and the creation of downstream industries. However, empirical studies, real-world examples, and evaluations of the World Bank’s performance indicate that such optimism may be misplaced. Indeed, the World Bank itself has produced little evidence to show that its extractive operations have contributed to poverty alleviation in sub-Saharan Africa. This report proposes a research agenda to clarify the costs and benefits of World Bank-supported extractive industries operations and to determine if support for oil, mining, and gas development is a poverty-reduction investment worthy of the World Bank’s public funds.

BGL gold mine in the Tarkwa region of Ghana
he scramble for Africa's natural resources has played a key role in shaping the continent's history and development. Africa's abundant petroleum and mineral reserves have long been prized by African leaders, coveted by colonialists, and exploited by corporations and governments alike. Today, many African economies remain heavily dependent on oil, gas, and mineral extraction. During the 1990s, extractive industries accounted for more than 50 percent of Africa's exports and 65 percent of the foreign direct investment in the continent.

As an international development institution and a self-proclaimed catalyst for investment in the "frontier markets" of sub-Saharan Africa, the World Bank Group (the Bank) has been instrumental in shaping African countries' experiences with extractive industries. The Bank has pushed countries to increase natural resource extraction to fuel export-led economic growth and generate government revenues. Toward this end, it has used its "structural adjustment" programs, sectoral reform lending, and technical assistance projects to encourage African countries to deregulate, liberalize and privatize their extractive sectors in order to attract foreign direct investment (FDI) and repay their debts. The Bank has also directly supported transnational corporations' investments in extractive industries by financing and guaranteeing specific extractives projects. Since 1990, the Bank has provided more than $2.75 billion in loans and guarantees for such projects in Africa.

The emphasis on natural resource extraction to promote economic growth and reduce poverty has generated controversy amongst development scholars, donors and borrowers, and civil society. These observers have noted that resource extraction has questionable economic and poverty reduction benefits, and can exact severe environmental and social costs. Indeed, despite the intensive exploitation of Africa's natural resource wealth, poverty in most African countries is on the rise. Over the past generation, most sub-Saharan African countries have suffered from conspicuously low rates of economic growth and produced disappointing results in terms of reducing poverty and addressing the basic needs of their citizens. Between 1987 and 1998, poverty in the region increased by 30 percent. As a result, Africa is now the region with the largest share of people living on less than $1 per day.

This report considers the World Bank's operations in the extractive industries in Africa over the last 20 years, and assesses the compatibility of these activities with the Bank's poverty reduction mandate. The report does not offer ultimate conclusions about the World Bank's extractives operations in Africa, or propose recommendations for how (or whether) the Bank should continue its support for these sectors. Rather, it describes the impediments to using extractive industries as a vehicle for poverty alleviation and sustainable development, and poses a series of research questions that should be addressed before conclusions about the World Bank's future role in extractive industries are reached.

The first section briefly discusses the role of extractive industries in the political economies of post-independence African countries. The World Bank's involvement in extractive industries in Africa since 1980 and the strategies it has used to promote resource extraction are then summarized in the second section. The third section describes the negative economic, social, and environmental impacts that have been associated with resource-led development, drawing on specific examples from the sub-Saharan region. Finally, the fourth section critically examines the World Bank's own justifications for its support of extractive industries in the context of its stated mission of poverty alleviation. Throughout the report, specific questions to guide future research are posed in relevant parts of the text.
1. The Importance of Extractive Industries in Africa

Sub-Saharan Africa is richly endowed with diverse natural resource wealth. The region possesses some of the world’s largest reserves of bauxite, cobalt, copper, diamonds, gold, nickel, and oil, and has plentiful supplies of numerous other minerals. This natural resource patrimony has proven to be both a blessing and a curse over the course of the last few centuries, and a key driver of Africa’s history and development. The colonization of Africa by the European powers was motivated to a large degree by the desire to acquire and maintain access to Africa’s mineral and primary commodity wealth. Once in power, colonial rulers limited their colonies to commodity production and raw material extraction. As a result, many African economies became heavily dependent on the export of a limited number of unprocessed goods. After political independence, a number of African countries - especially those that depended on oil or mineral exports for nearly all of their foreign exchange earnings - sought to reclaim sovereign control over and maximize the economic benefits of these resources by nationalizing their extractive industries.

Dependence on extractive industries, measured as the ratio of a country’s mineral or oil and gas exports to its Gross Domestic Product (GDP), persists in many of these African countries. In fact, sub-Saharan Africa is more dependent on extractive industries than any other region except the Middle East. Mining products account for 57 percent of sub-Saharan Africa’s total merchandise exports; by comparison, these products comprise only 13.2 percent of the world’s trade in merchandise. And several sub-Saharan African countries, including Angola, Botswana, Sierra Leone, and Zambia, rank among the most mineral or oil dependent countries in the world. For example, in 2001 oil and diamonds accounted for 97 percent of Angola’s exports and approximately 65 percent of its GDP, while oil alone comprised 86 percent of Equatorial Guinea’s GDP. Petroleum generates 85 percent of Nigeria’s foreign exchange earnings, and Zambia depends upon the export of copper and other metals for more than 75 percent of its foreign exchange earnings.

### Table 1: Sub-Saharan Africa’s Most Mineral Dependent States

<table>
<thead>
<tr>
<th>Country</th>
<th>Mining product exports as percentage of GDP (1990-99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea</td>
<td>84.7</td>
</tr>
<tr>
<td>Dem. Republic of Congo</td>
<td>80</td>
</tr>
<tr>
<td>Zambia</td>
<td>74.8</td>
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<tr>
<td>Niger</td>
<td>70.6</td>
</tr>
<tr>
<td>Botswana</td>
<td>70</td>
</tr>
<tr>
<td>Namibia</td>
<td>55.4</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>50</td>
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</tbody>
</table>


### Table 2: Sub-Saharan Africa’s Most Oil Dependent States

<table>
<thead>
<tr>
<th>Country</th>
<th>Oil exports as percentage of GDP (2002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equatorial Guinea</td>
<td>86</td>
</tr>
<tr>
<td>Gabon</td>
<td>73</td>
</tr>
<tr>
<td>Congo (Brazzaville)</td>
<td>67</td>
</tr>
<tr>
<td>Angola</td>
<td>45</td>
</tr>
<tr>
<td>Nigeria</td>
<td>40</td>
</tr>
<tr>
<td>Cameroon</td>
<td>4.9</td>
</tr>
</tbody>
</table>

The Importance of the World Bank in Africa

For more than 20 years, the World Bank has exerted significant influence over the economic development of African countries. A confluence of economic and political circumstances in the 1970s left many African countries destitute, highly indebted and dependent on the World Bank and other international lenders for assistance. For example, the oil price shocks of 1973 and 1979 not only increased costs for oil-importing countries in the region, but also induced global recessions that depressed demand for their commodity exports. At the same time, international interest rates skyrocketed, dramatically increasing the costs of financing the severe revenue shortfalls brought on by the diverging prices of imports and exports.

Yet donor assistance from the World Bank and other agencies did little to improve the desperate financial situation of African countries. Many of the loans and grants that donors provided to address the revenue shortfalls were squandered through corruption, mismanagement, and poorly conceived projects that raised borrowers’ debt burdens without increasing their country’s productive capacity. Furthermore, the policy prescriptions provided by donor governments and international financial institutions like the World Bank failed to produce effective solutions. These factors contributed to a descent into such devastating and protracted indebtedness that 34 sub-Saharan African countries are still considered to be "Heavily-Indebted Poor Countries" (HIPC), the World Bank’s designation for the poorest and most indebted countries on Earth.

As a result, many African countries continue to depend on assistance from bilateral and multilateral agencies, including the World Bank. For the last two decades, World Bank assistance has often come in the form of "structural adjustment" programs - macroeconomic programs that promote free-market, export-oriented reforms believed by the Bank to be essential for economic growth. Structural adjustment programs typically include covenants that require borrowing gov-

The World Bank, Extractive Industries and Africa

The World Bank Group is comprised of four financing institutions: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

IBRD and IDA provide their member country governments with loans and grants to assist with financial and technical support for the extractive sectors. While IBRD loans are provided at near-market rates, IDA offers "soft" loans to poorer countries on concessional lending terms. From 1994-2001, nearly 30 percent of IBRD/IDA investment approvals for extractives projects went to Africa, the second largest recipient after the former Soviet Union and Eastern Europe.

The IFC provides financing for private-sector projects. IFC's support for extractive industries in Africa has grown increasingly important for attracting foreign direct investment. From 1999-2001, 40 percent of IFC's extractive industries investment approvals went to Africa, the highest percentage for any region.

MIGA provides political risk insurance or guarantees for private investment. According to the World Bank, "the first MIGA-insured investment in fiscal year 1990 was for a mining project. Since then, the Agency has covered a number of mining projects, totaling more than $700 million in issued coverage, facilitating $5 billion in foreign investments in the mining sector." Twenty-four percent of MIGA's extractive industries' coverage went to Africa from 1994-2001.

Since 1980, the World Bank Group has lent approximately $800 million annually for extractive industries-related activities globally.
ernments to: liberalize trade and increase exports, privatize state-owned companies, reduce government spending, remove subsidies, eliminate controls on exchange rates and prices, and revise investment codes to increase incentives and assurances for foreign investors.23

By 1990, $1.36 billion, or 34.4 percent, of World Bank lending to sub-Saharan Africa was in support of some form of adjustment lending.24 Many African countries received multiple adjustment loans during the 1980s and 1990s - including 26 for Cote d’Ivoire and Ghana, 21 for Senegal, 20 for Uganda, and 18 for Zambia.25 Nonetheless, the results of these loans and their accompanying policy prescriptions have not been encouraging. Of the 12 most intensively adjusted countries in the region, only Uganda and Ghana have achieved significant growth.26 Both, however, are still HIPC countries with unsustainable debt burdens and among the lowest per capita income levels in the world.

Rather than provide support for economic diversification in the resource-rich countries of Africa, structural adjustment programs tended to encourage increased production of primary commodities and excessive reliance on the extractive sectors for export revenue.27 The revenues generated by the oil, gas and mining sectors, it was hoped, could be used to close balance of payments gaps and pay off debts to the World Bank and to other creditors. As will be discussed below, the failure of adjustment policies to foster long-term economic growth in Africa can be attributed in part to this promotion of commodity dependence.

The World Bank and Extractive Industries in Africa

“Overall, the main objective of donor intervention in African mining - whether through technical assistance or investment financing - should be to facilitate private investment and help reduce the country and project-related risk for the private investor.”

-World Bank, Strategy for African Mining, 1992

The World Bank promotes private investment in resource extraction in two different ways. First, it seeks to influence the investment environment using its adjustment and technical assistance loans to promote trade and investment liberalization, privatization, deregulation, legislative reforms, government institutional support and capacity building. Second, it directly supports investment in extractive industries by financing or guaranteeing specific projects. This section considers each of these mechanisms in turn.

**Trade and investment liberalization**

The primary objective of the Bank’s efforts to promote trade and investment liberalization in the extractive sectors is to create "an attractive enabling environment" to facilitate investment by transnational resource-extraction corporations.28 These efforts include (1) reducing taxes, royalties, and other fees; (2) eliminating domestic ownership requirements and restrictions on repatriation of profits; (3) deregulating commodity markets; and (4) strengthening investor protections and property rights. For example, a World Bank-sponsored mining sector technical assistance project in Burkina Faso produced a new mining tax code that reduced mining income taxes by 20 percent and dividend withholding taxes by 50 percent. The new law also limited government participation in mining ventures to 10 percent.29

**Privatization**

Privatizing state-owned oil and mining companies is another key component of the World Bank’s strategy. Like tax reform, privatization is usually carried out within a structural or sectoral adjustment program and can be a key condition for receiving such assistance. The World Bank provides financial and technical support to assist countries to privatize their parastatals and "shift the focus of state activities away from ownership and operation of [extractives] projects and towards regulation and administration of the [extractive] sector."30 The privatization of the parastatal Zambia Consolidated Copper Mines (ZCCM) is illustrative of the World Bank’s approach. Through a series of sectoral reform loans in the late 1990s, the World Bank engineered Zambia’s sale of ZCCM, the country’s largest asset.31

**Institution and capacity building**

Capacity building for sector management, tax administration, contract negotiation and environmental management are often components of World Bank
technical assistance loans in extractive sectors. The World Bank views the presence of competent regulators and administrators who will fairly enforce regulations as important to the creation of an attractive investment climate, since private investors want adequate legal protection for their investments. The World Bank’s capacity building efforts also include assistance in re-organizing government agencies responsible for supervision of the sector and training of public and private sector officials.32

**Facilitating foreign direct investment through project finance**

The World Bank also supports foreign investment in extractive industries by supporting individual extractives projects. IFC supports direct investment in African resource extraction primarily by lending to private companies, syndicating loans or taking equity stakes in extractives projects. MIGA provides political risk insurance to private companies investing in these sectors. Both institutions see their roles as increasing the "comfort level" of private companies who might otherwise be reluctant to invest in the high-risk "frontier markets" of sub-Saharan Africa. IFC and MIGA frequently support companies’ investments in countries that have undergone Bank-sponsored sectoral adjustment programs.

IFC’s $18 million investment in the Texas-based VAALCO Corporation for the development of an oil field off the coast of Gabon is a typical example of this type of private sector support. IFC’s stated objectives for the project are to (1) increase investment by smaller producers in the hydrocarbons sectors; (2) enable VAALCO to tap into international capital markets for the first time; and (3) provide capacity-building opportunities for VAALCO. Development objectives are essentially limited to increasing revenues to the Gabonese government.33

### Table 3: Top African Recipient Countries of World Bank Support for Extractive Industries, 1990-2000

<table>
<thead>
<tr>
<th>Country</th>
<th>IDA/IRBD</th>
<th>IFC</th>
<th>MIGA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameroon</td>
<td>59</td>
<td>475</td>
<td></td>
<td>534</td>
</tr>
<tr>
<td>Chad</td>
<td>91</td>
<td>400</td>
<td></td>
<td>491</td>
</tr>
<tr>
<td>Tanzania</td>
<td>226</td>
<td>4</td>
<td>172</td>
<td>402</td>
</tr>
<tr>
<td>Nigeria</td>
<td>108</td>
<td>183</td>
<td></td>
<td>391</td>
</tr>
<tr>
<td>Zambia</td>
<td>361</td>
<td>30</td>
<td></td>
<td>391</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>199</td>
<td></td>
<td>199</td>
<td></td>
</tr>
<tr>
<td>Mali</td>
<td>6</td>
<td>102</td>
<td></td>
<td>108</td>
</tr>
</tbody>
</table>

Source: World Bank submissions to the Extractive Industries Review.

The largest single private-sector investment in sub-Saharan Africa with an estimated cost of about US$3.7 billion, the Chad-Cameroon Petroleum Development and Pipeline Project was approved by the World Bank's Board of Executive Directors on June 6, 2000. The private sector consortium is comprised of ExxonMobil (the operator, with a 40 percent share of the private equity), Petronas of Malaysia (35 percent) and ChevronTexaco (25 percent). The project is designed to develop three oil fields in the Doba region of southern Chad and transport the oil via a 1,070 kilometer (670 mile) pipeline to offshore oil-loading facilities on Cameroon’s Atlantic coast. It is expected to yield about US$2 billion in revenues for Chad and US$850 million for Cameroon over its 25 to 30 year lifespan.

The World Bank is also financing three technical assistance projects. These projects are designed to help both countries build institutions and develop the technical capacity to address the complex environmental and social implications of the project and, in Chad’s case, to manage the budgetary issues associated with a large influx of petroleum revenues.

Prior to the project’s approval, the private sector actors involved in the Chad-Cameroon Pipeline project stated that their investment would not proceed without World Bank Group involvement. The oil consortium saw the Bank Group’s participation as essential to: (1) provide political risk insurance in a volatile part of sub-Saharan Africa; and (2) catalyze other export credit agency and private sector bank financing. The oil consortium, the financial press and the World Bank’s own Project Appraisal Document all emphasized that private sector participation would not proceed without World Bank involvement in the project.34
At first glance, one might assume that a generous endowment of petroleum or mineral reserves would be an unambiguous blessing for a developing country. The sale of such reserves would seem to offer attractive opportunities for a poor country to generate national income, raise living standards, and improve the plight of its poorest residents. In practice, however, it has proven to be extremely difficult to convert natural resource wealth into broad-based improvements in economic performance and human development. In fact, heavy dependence on the export of natural resources has been shown to negatively affect a country's economic, social and political development. Economically, resource-dependent countries tend to grow more slowly than their resource-poor counterparts. Socially, oil and/or mineral dependent states tend to lag behind other countries on a variety of critical social welfare indicators, including overall living standards, poverty rates, child mortality and life expectancy, and educational attainment. Politically, oil and mineral dependent states tend to suffer from higher levels of corruption, authoritarianism, civil war, and government ineffectiveness. Collectively, these negative impacts of heavy dependence on oil, gas and mining on the economic, political and social performance of a country are often referred to as the "resource curse." 

Individual oil, gas and mining projects can also have significant negative economic, social, and environmental impacts for directly affected communities and ecosystems. Fossil fuel and mining projects often degrade the air, water, natural resource base, and stable climate that people depend upon. In addition, these projects frequently displace other productive economic activities without providing alternative economic opportunities for those whose livelihoods are lost. Extractives projects can also induce large migrations into project areas, placing strains on community infrastructure and threatening public health.

A more detailed examination of these country-wide and project-specific elements of the broadly defined "resource curse" is presented below. Questions are posed in each section to indicate some of the areas where further research is needed.

3. The "Resource Curse" and its Impacts in Africa

Poor Economic Performance

Negative impacts on growth

Economists have noted a paradox in the economic performance of developing countries - contrary to expectations, resource-rich countries have tended to grow more slowly than resource-poor countries. This negative effect has been observed across time and in countries with widely varying incomes, population sizes, types of government, and religious and ethnic compositions. In fact, this phenomenon has proven so persistent that it has been characterized as a "constant motif of economic history." Numerous empirical studies have confirmed that resource wealth tends to have a strong negative effect on economic growth. For example, the World Bank Mining Department's own recent study of the effects of mining on economic growth found that on average, as mineral dependence increases, economic performance decreases. According to the World Bank's study, while GDP per capita grew by 1.7 percent per year on average in all of the developing and transition economies throughout the 1990s, it contracted by 2.3 percent per year in those countries in which mining comprised over 50 percent of exports. In the 48 mining countries considered by the study - where mining products contribute six percent or more of all exports - GDP contracted by 1.15 percent per year, a decline over the course of the decade of about 11 percent. As one academic (and former visiting World Bank researcher) noted, "[b]y any measure, this is a catastrophic record."

A similar negative effect has been observed in oil-producing countries. Between 1965 and 1998, member countries of the Organization of Petroleum Exporting Countries (OPEC) experienced a decrease in their per capita GNP (Gross National Product/Income) of 1.3 percent per year on average, while lower- and middle-income countries as a whole grew by an average rate of 2.2 percent per year. Sub-Saharan African countries have not escaped the negative effects of resource dependence on growth rates. According to the World Bank's study, while the economies of sub-Saharan African countries contracted by 0.8 percent throughout the 1990s, min-
ing countries in the region did even worse, contracting by 1 percent per year, or 25 percent more than the region as a whole.46 Perhaps nowhere in the world has resource-led development more spectacularly failed to catalyze economic growth than in Nigeria, where per capita income remains at less than $1 a day, despite the fact that $300 billion in oil rents have been generated over the past 25 years.47

**Research Questions**

- How do the growth rates of resource-dependent countries that have participated in World Bank structural or sectoral adjustment or technical assistance programs compare to those of other resource-dependent states, and what lessons does this comparison offer for future World Bank policy advice?
- What steps does the World Bank take to help countries ensure that other sectors are not adversely affected during resource booms?
- Have World Bank-assisted countries had greater success in avoiding the impacts of “Dutch Disease” than countries that have not received World Bank assistance? If so, how has the World Bank helped? If not, how should the World Bank reassess its policy advice?
- What, if anything, has the World Bank done to help countries insulate those sectors that will form the basis of their economies after oil and mineral resources have been depleted from atrophying under the effects of “Dutch Disease”?

**Causes of negative impacts on growth**

"Dutch Disease"

Researchers have put forward several explanations for how natural resource wealth may depress long-term growth rates, noting two effects that work in tandem to suppress domestic growth rates. Resource booms tend to cause: (1) real exchange rates to rise due to the large inflows of foreign exchange generated by the increased resource exports; and (2) labor and capital to migrate to the booming resource sector from other productive sectors.48 Together, these two effects result in higher costs and reduced competitiveness for domestically produced goods and services, thereby reducing agricultural and manufacturing exports.49 Thus, natural resource booms can “crowd out” other important export sectors of the economy and render them uncompetitive.50 This phenomenon has come to be known as "Dutch Disease" after the negative effects of the North Sea oil boom on industrial production in the Netherlands.

“Dutch Disease” has manifested itself in several African countries that have experienced booms in their extractives sectors. For example, the oil boom in Congo-Brazzaville saw a marked decline in the production of coffee, cocoa, and sugar as rural dwellers left the plantations for the cities. Cameroon also experienced “Dutch Disease” during its oil boom of the early 1980s, as oil grew to account for two-thirds of export earnings.51 And in Gabon, a country that has never produced enough food to feed its population, oil dependence has exacerbated the deficiencies of the agricultural sector to the point where only about one percent of total land area is under cultivation.52 As a result, Gabon now depends entirely on imported food.53
### Table 4: Economic Performance of Sub-Saharan African Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per capita (PPP US$)</th>
<th>GDP per capita annual growth rate (%)</th>
<th>GDP per capita Highest value during 1975-2000 (PPP US$)</th>
<th>Year of highest value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>2,187</td>
<td>-1.9</td>
<td>3,016</td>
<td>1980</td>
</tr>
<tr>
<td>Benin</td>
<td>990</td>
<td>0.5</td>
<td>990</td>
<td>2000</td>
</tr>
<tr>
<td>Botswana</td>
<td>7,184</td>
<td>5.1</td>
<td>7,184</td>
<td>2000</td>
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<td>Burkina Faso</td>
<td>976</td>
<td>1.4</td>
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<td>1999</td>
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<td>Burundi</td>
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<td>1991</td>
</tr>
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<td>Cameroon</td>
<td>1,703</td>
<td>-0.6</td>
<td>2,574</td>
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<td>Central African Republic</td>
<td>1,172</td>
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<td>1,646</td>
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<td>Chad</td>
<td>871</td>
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<td>1,025</td>
<td>1977</td>
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<tr>
<td>Congo (Brazzaville)</td>
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<td>1,326</td>
<td>1984</td>
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<tr>
<td>Cote d’Ivoire</td>
<td>1,630</td>
<td>-2.1</td>
<td>2,717</td>
<td>1978</td>
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<td>Dem. Republic of Congo</td>
<td>765</td>
<td>-4.7</td>
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<td>--</td>
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<td>Equatorial Guinea</td>
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Source: UNDP 2002.
Commodity price decline and volatility

Other researchers have explained the dismal economic performance of petroleum and mineral exporting countries as a function of two characteristics of international commodities markets: long-term price deflation and price volatility. Non-oil commodity prices, including minerals, have declined in real terms for most of the twentieth century, and have trended almost continually downward since the 1970s. Since 1984, real non-oil commodity prices have fallen by about 45 percent. In 1992, the price of non-oil commodities relative to that of manufactures reached its lowest level in over 90 years.

As a result of the precipitous fall in the price of minerals and other commodities, many developing countries that export primary commodities - particularly those that also import oil - have suffered from significant declines in their terms of trade. For example, in the mid-1970s, the price of copper plummeted by 65 percent in real terms and has never recovered. Zambia, which relies heavily on copper exports and imports oil, has been particularly hard hit; in the two decades from 1980 to 2000, per capita income fell by over 50 percent, from US$630 to US$300. Similar declines in the price of gold have at times taken heavy tolls on countries dependent upon the mining sector, like South Africa and Ghana. The crisis in 1997 saw the price of gold fall by 35 percent from its peak in the mid-1990s, and led to massive layoffs of miners in South Africa.

The World Bank has even contributed to the decline in commodity prices by promoting increased production of the same commodity in various countries at the same time, resulting in excess supply on the world market. For instance, the Bank simultaneously encouraged Zambia, Chile, Peru, and the former Zaire to expand their copper production.

In addition to trending downward over the long term, commodity prices are notoriously volatile and subject to dramatic price fluctuations. Dependence on a single commodity or limited group of commodities can therefore subject the domestic economy and government revenues to similar volatility and unpredictability. These "boom-and-bust" cycles are difficult to manage and stabilize, even for countries that receive windfall revenues when prices increase. The ready access to resource wealth experienced during the boom phases seems to reduce the ability of governments to implement prudent economic and fiscal policies. As one scholar explains "[t]he pernicious access to easy money weakens traditional work ethics, lowering financial discipline within bureaucracies and leading to reckless budgetary practices."

Commodity price volatility has had dramatic impacts on a number of resource-dependent African countries. According to one observer,

[In] Nigeria, Cote d’Ivoire and Zambia, among other countries, windfalls from commodity price increases (oil, cocoa, coffee, copper) led governments to embark on ambitious investment projects, expand government employment and service provisions, and undertake extensive infrastructure programs... With declining revenues, governments were unable to shoulder the recurrent costs associated with those ambitious endeavors, which led to rising fiscal deficits, failed investments and cutbacks in public sector employment. The insurmountable debt overhead of more than a few African countries can be tied to the boom-and-bust cycles of commodity prices.

Research Questions

- What has the World Bank done specifically to encourage economic diversification in resource-dependent countries?
- Have World Bank liberalization programs mitigated or exacerbated this dependence on resource extraction?
- Have such programs helped or hindered countries from developing their own domestic processing capacities to reduce dependence on raw commodity exports?
- Has World Bank assistance helped resource-dependent countries manage the impacts of commodity price fluctuations more successfully than other resource-dependent countries?
Weak linkages to the broader economy

The poor growth record of resource-dependent countries has also been attributed to the nature of extractive industries and their ties to the broader economies in which they operate. In part because resource industries are capital intensive and usually do not generate substantial employment opportunities, they tend to be economic "enclaves" without strong linkages to other parts of the economy. They frequently rely upon small numbers of highly skilled, often expatriate, workers who may live and work in isolated facilities that have minimal contacts with the local economy. In the extreme case of offshore oil facilities, foreign workers may never even enter the country that owns the resource. The disconnect between extractive operations and the local economy may be further exacerbated where the facility is owned by foreign transnational corporations that are permitted to fully repatriate their profits rather than invest them locally.

For example, although ChevronTexaco’s massive Escravos terminal in the Niger Delta produces 350,000 barrels of crude oil per day, little of that wealth has reached the neighboring communities. While the expatriate employees of Escravos live in relative splendor within the barbed wire perimeter of the facility, neighbors live in shacks that lack indoor plumbing and telephone service. Ironically, they cannot even purchase gasoline locally. One of the few economic linkages that has developed between Escravos and the local economy is the sex trade that flourishes in the bars and nightclubs frequented by the facility’s employees. Prostitution has become one of the few decent-paying employment opportunities for women in the area.

Similarly, local residents have not shared equitably in the economic benefits of the construction of the Chad-Cameroon oil pipeline project. In the pipeline region in Chad, the consortium imports much of its food and catering and transport services. According to the World Bank's own assessment, "local businesses...face a number of institutional and technical challenges which prevent them from fully participating in the pipeline project sub-contracting process." Yet the World Bank does not seem to be doing much to facilitate a broader distribution of benefits. The World Bank's Inspection Panel found no evidence that the "necessary capacity-building and support mechanisms are in place - or are being put in place - to enable entrepreneurs to take full advantage of important income-earning opportunities in the region that are likely to exist only during the initial construction phase."

Research Questions
- What, if anything, has the World Bank done to increase the likelihood that the benefits of extractive industry projects that it finances will be broadly shared within the project-affected communities?
- How has the performance of Bank-supported countries and projects in this respect compared to others, and what lessons can be drawn for the future role of the Bank in ensuring a more equitable distribution of benefits from extractive industries?

Poor Political Performance

Negative impacts on democratic development and good governance

Inhibiting democratic development and supporting authoritarian rule

Natural resource wealth has also been shown to depress democratic development. A recent study conducted by a visiting World Bank scholar found that oil and mineral exports have substantial adverse impacts on democratization. No similar anti-democratic effects were observed for the production of other primary commodities. The study also found that the anti-democratic effects of oil and mineral wealth were more pronounced in poor countries than in rich countries, and that they were present in sub-Saharan Africa.

Natural resource wealth undermines democratic development by propping up authoritarian regimes and insulating them from domestic pressure to democratize. Authoritarian governments can use resource wealth to buy off interest groups who might otherwise press for increased political accountability. They can also use these rents to finance the apparatus of repression, and to hinder the development of social groups that have economic interests independent of the state.

Research Questions
- How does the Bank assess the governance of a country in which it is considering an extractives-related operation, and the risk that its activities will have an anti-democratic effect?
- What, if anything, does the Bank do to address the anti-democratic effects of petroleum and mineral dependence?
Fostering corruption

Research conducted by the International Monetary Fund (IMF) concluded that extractive industries are a "major determinant of corruption," and are much more likely to induce corruption than other sectors of the economy, such as agriculture. Similarly, the World Bank has acknowledged that "[m]ining involves the creation of economic resources and power; both can result in significant corruption, both at the national and the local level." The increased corruption associated with resource dependence is also an important reason for why resource-rich countries tend to grow more slowly. As Lawrence Summers, the former Chief Economist of the World Bank and United States Secretary of the Treasury observed:

Again and again, natural resource windfalls have financed presidential planes and palaces and entrenched official corruption, while producing very little in the way of lasting economic benefits. Countries with the windfall external finance provided by abundant natural resources, such as Nigeria, Venezuela, Burma, and Zambia have failed to progress economically, indeed, in several cases have fallen back. The negative economic impacts of corruption also have a social equity dimension; government corruption tends to be particularly harmful to the poor, who are least able to pay bribes to obtain government services.

Resource-rich African countries such as Angola, Nigeria, Tanzania, Zambia, and Zimbabwe are generally perceived to be among the world’s most corrupt regimes. Transparency International called Zambia’s privatization program a "looting exercise," and the country’s own privatization agency identified worrying "anomalies" in the sale of the mines. In Angola, the IMF has estimated that US$4 billion in oil receipts have disappeared from the government’s accounts over the last five years. Similarly, in Equatorial Guinea, the entire government income from oil - about US$135 million or 90 percent of the country’s foreign exchange export earnings - reportedly remains unaccounted for in the state budget and may have been sent offshore. In neighboring Nigeria, former dictator Sani Abacha personally looted his nation’s treasury of $4 billion dollars during his five years in power.

Fueling civil war

The presence of valuable non-renewable natural resources correlates strongly with an increased risk of civil war. Recent studies conducted at the World Bank have found that the "extent of primary commodity exports is the largest single influence on the risk of conflict," and that "countries which have a substantial share of their income (GDP) coming from the export of primary commodities are radically more at risk of conflict." The availability of natural resources can provide both an incentive for rebels to take up arms and a means to finance insurrection.

Natural resource wealth has caused, intensified, or prolonged conflicts in Angola (oil and diamonds), Congo-Brazzaville (oil), the Democratic Republic of Congo (various minerals) and Sierra Leone (diamonds). During the protracted civil war in Angola, the UNITA rebels financed their military campaigns with the sale of diamonds while the government funded its military expenditures with oil revenues. The United Nations Security Council has reported that the predation of natural resources has fueled the devastating civil war in the Democratic Republic of the Congo and has made the conflict "a very lucrative business" for the rebels and their Rwandan and Ugandan patrons.

Research Questions

- What steps, if any, does the World Bank take to ensure that its operations in the extractive sectors do not increase the risks of civil war?
- Does the Bank systematically assess the internal stability and risk of conflict in a country before financing extractive industries projects? If so, how are these determinations made?
- Does the Bank require any threshold level of stability before it considers financing extractive activities?
- Have resource-dependent countries that receive World Bank assistance been more successful at avoiding civil conflicts than other resource-dependent countries? If so, what explains their success? If not, how should the Bank reassess its role?
Poor Social and Environmental Performance

Negative impacts on human development

Oil and/or mineral dependence is associated with exceptionally low living standards, and conspicuously poor performance on a range of important social welfare indicators. Oil and mineral dependence have been linked with unusually high poverty rates, poor health care, high rates of child mortality, and reduced expenditures on education. In addition, oil dependence has been associated with poor educational performance, including low enrollment rates in primary schools and low rates of adult literacy. Mineral dependence has been strongly correlated with income inequality.

In Nigeria, for example, the disparity between the country’s oil wealth and its people’s poverty is alarming. Studies note that spending on health and education remains low due to mismanagement of government monies and budgetary policies that prioritize repaying external debt over providing social services. In some parts of Nigeria, the government spends as little as $2 per person per year on health care, far short of the $34 per year the World Health Organization recommends in low-income countries.

Project-level environmental and social impacts

In addition to the various components of the resource curse described above, resource extraction often produces negative environmental and social impacts at the project level. Large-scale resource extraction projects can have disastrous local and regional impacts, including toxic contamination of ground and surface water, air pollution, soil degradation, and loss of critical natural ecosystems and biodiversity.

Oil exploration and production has devastated the environment of the Niger Delta. About 75 percent of total gas production in Nigeria is flared - one of the highest percentages anywhere in the world. Gas flaring - the controlled burning of natural gas released as a byproduct during petroleum extraction - causes air and noise pollution, generates sulfur and particulate emissions, contributes to acid rain, and releases carbon dioxide which exacerbates climate change. Oil spills have also caused severe environmental damage. Nigeria’s Department of Petroleum Resources reported 4,835 incidents between 1976 and 1996 that resulted in the cumulative spillage of at least 2,446,322 barrels of oil. Water samples taken in the Niger Delta have contained hydrocarbon levels as high as 680 times the level allowed in drinking water in the European Union.

In Zambia, copper production has severely degraded the human environment. Zambia’s copper smelters emit 300,000 to 700,000 tons per year of sulfur dioxide into the atmosphere. In addition to the impacts on air quality, these emissions also contaminate soil and kill vegetation downwind from the smelter stacks. Moreover, the World Bank estimates that tens of thousands of residents (including 9,000 children) may be affected by high levels of lead in the soil, some of which can be attributed to the impact of smelting and mining operations. Runoff and leakage from tailings dams and existing waste-rock dams pollute streams flowing out of the mining area, causing widespread damage downstream.

Large-scale resource extraction projects often produce new social problems or exacerbate existing social challenges within the project area. These projects can induce substantial migration of job seekers to the project area, with negative social consequences. The rapid influx of people to the area and higher relative incomes of project workers can inflate the local prices of key goods and services, significantly raising the cost of living, even for those who do not share in the project benefits. Such population incursions can also lead to social tensions and new forms of poverty. As the World Bank explains:

One of the significant impacts of large-scale mining on the local community is a rapid change in the economic and social fabric of society. As disparities in incomes emerge, the lure of new opportunities creates in-migration. New types of poverty are created, with a mixture of "original residents" who have been unable to share in employment opportunities, and "newcomers" who have migrated in with the hope of finding employment, but have been unsuccessful in doing so. Social ills such as alcohol abuse, prostitution and child labor often increase.

Large-scale resource extraction projects can also adversely affect public health. Migration of workers and job seekers to project areas frequently leads to an increase in the incidence of communicable diseases,
such as sexually transmitted infections, HIV/AIDS, and tuberculosis, as well as cholera and other hygiene-related illnesses. In addition, the shift away from subsistence agriculture and the expropriation of arable land for resource extraction activities contributes to the vulnerability of those segments of the population hardest hit by HIV/AIDS - women and children - by jeopardizing food security. In sub-Saharan Africa, where the rates of HIV/AIDS are among the highest in the world, these public health risks are particularly acute.

In southern Africa, for example, migrant mineworkers have been one of the key drivers of the HIV/AIDS crisis. The large influx of single men into the Chad-Cameroon pipeline region has raised similar public health concerns. Independent observers in Cameroon have noted that this influx has resulted in a proliferation of temporary encampments, and a growth of prostitution among young women around these encampments and in local cities. These factors have accelerated the spread of STDs in general, and of HIV/AIDS in particular.

Global climate change

There is now overwhelming scientific evidence that greenhouse gas emissions - produced largely by burning fossil fuels such as oil, gas, and coal - cause global warming. A recent report co-sponsored by the World Bank recognizes that climate change must be seen as a development issue, because "climate change and climate variability are serious threats to poverty eradication." According to the report:

Higher dependence on economic sectors sensitive to changes in climate, such as agriculture, forestry and fisheries, makes poorer countries’ economies particularly vulnerable to the adverse effects of climate change. Moreover, poor peoples' livelihood sources are usually narrower and more climate-sensitive than those of the non-poor. Many of

The danger of climate change in the developing world is exacerbated by the fact that poor countries do not have the financial, material, technical or political resources of the developed world to respond to the potentially overwhelming challenges of global warming. Despite this threat, since 1992 the World Bank has financed nearly $25 billion in fossil fuel projects, releasing an estimated 46.7 billion tons of carbon dioxide emissions.

Global warming is likely to have devastating impacts on many of Africa's poorest citizens. Potential impacts include (1) negative impacts on crop yields and livestock production; (2) increased droughts, floods, and other extreme events that will stress water resources, food security, human health and infrastructure; (3) increased desertification in the Western Sahel and Southern Africa; (4) flooding, erosion, and displacement in coastal and delta settlements in Mozambique, Senegal and Gambia; and (5) significant increases in potential malaria breeding grounds in Southern Africa and the horn of Africa, and even in cities such as Nairobi and Harare that are not currently at risk due to their high altitudes.

Research Questions

- Does the Bank calculate the health and income effects of environmental pollution and integrate these calculations into project design and implementation?
- How does the Bank ensure that the economic rate of return calculated for its projects accurately reflects the costs of negative environmental and social externalities?

- Does the World Bank account for the impacts of global climate change in its fossil fuel lending?
- When determining the economic rate of return for a proposed project, does the Bank consider the climate change impacts? If not, why not?
- Do World Bank adjustment or technical assistance programs help countries move away from carbon-intensive consumption or production patterns?
- How does the World Bank justify its assistance for fossil fuel producing borrowers to expand their production at the expense of climate vulnerable peoples whose development aspirations may be compromised by the increased effects of climate change?
The World Bank's Record: OED Findings Regarding Performance, Poverty Reduction, and Environmental Sustainability

The World Bank's Operations Evaluation Department (OED) assesses how the results of Bank operations "stack up against their own stated objectives." Recent OED reports document the Bank's persistent weaknesses in areas related to Bank-supported extractive industry projects in Africa. For example, the energy and mining sector received one of the lowest performance ratings of all the Bank's lending sectors in the 2001 and 2002 OED Annual Review of Development Effectiveness. Furthermore, projects in Africa - regardless of sector - receive the lowest ratings for all three categories used by the Bank to assess project performance: outcomes, sustainability and institutional development impact.

Given the risks of the "resource curse," government capacity to manage extractive industries development for poverty reduction is critical. The Bank emphasizes the importance of its capacity building, technical assistance, and institutional development work, yet these areas consistently receive low performance ratings. In 1997, reports of an internal Bank review group found that less than 20 percent of the Bank's technical assistance projects were performing satisfactorily, noting that "the Bank's inability to handle institutional and capacity development persists." In the 2002 Annual Review of Development Effectiveness, OED determined that less than 50 percent all of the Bank's projects evaluated between fiscal year 1997 and 2002 had a substantial institutional development impact.

In addition to the Bank's low ratings for energy and mining projects, projects in Africa in general, and institutional development impact overall, OED reviews have also criticized the Bank's poverty reduction and environmental performance. The following excerpts from OED reviews raise doubts about the Bank's ability to promote development benefits through and mitigate risks in extractive industry projects.

Poverty Reduction

"Over 90 percent of [World Bank Country Assistance Strategies] recommend a strategy of macro-stability, liberalization, and trade and tariff reform to support broad-based growth. The linkages or transmission mechanisms between this policy agenda and expected changes in the conditions of the poor are left largely unclear, however" (World Bank OED 2000, p. 11).

"Of equal concern is the lack of a clear link between lending and poverty outcomes, even for projects intended to provide direct benefits to the poor" (World Bank OED 2000, p. 46).

"Overall, lack of systematic monitoring and evaluation (M&E) has contributed to a major knowledge gap about the contribution of Bank lending to poverty and social outcomes" (World Bank OED 2000, p. xviii).

Environment

"The treatment of environmental issues in private sector development activities has been particularly weak" (World Bank OED 2002b, p. 14).

"There is no regular program for monitoring the implementation and sustainability of environmental measures during the subsequent life of the project" (World Bank OED 2002b, p. 20).

"The Bank's performance on environmental safeguard policies remains contentious. Implementation has been mixed" (World Bank OED 2002b, p. 19).

"The environment has too often been viewed as a luxury that can wait rather than as a central part of the Bank's development objectives" (World Bank OED 2002b, p. 20).
4. The World Bank’s Rationale for Support of Extractive Industries in Africa

Given the economic, social and environmental problems related to dependence on natural resource exploitation, the World Bank’s continued support for extractive industries in Africa demands increased scrutiny. The following section describes the Bank’s own definition of poverty and then analyzes the institution’s arguments for support of extractive industries as a means to reduce poverty.

The World Bank’s Stated Mission: Poverty Reduction

The World Bank’s core mandate is poverty alleviation; its mission statement opens with the words, "Our dream is a world free of poverty." In line with the prevailing view among development experts, the World Bank considers poverty to be a multi-dimensional phenomenon. According to the Bank, "poverty is about more than inadequate income or even low human development. It is also about lack of voice, lack of representation. It is about vulnerability to abuse and corruption. It is about lack of fundamental freedom of action, choice and opportunity."

More specifically, the Bank’s most recent in-depth statement on poverty, the 2000/2001 World Development Report entitled Attacking Poverty, identifies four broad categories that comprise poverty: (1) material deprivation; (2) low levels of education and health; (3) vulnerability and exposure to risk; and (4) voicelessness and powerlessness. The World Bank’s support for extractive industries in Africa must be judged against both the centrality of the Bank’s poverty reduction mandate and the multifaceted nature of its conceptualization of poverty.

Extractive Industries and Poverty Alleviation?

The World Bank justifies its activities in the extractive industries by arguing that resource extraction can contribute to poverty alleviation in six important ways. The Bank contends that resource extraction can (1) enhance economic growth; (2) increase government revenues that can be used to finance poverty alleviation initiatives and the provision of essential public services; (3) create jobs; (4) facilitate the transfer of technology; (5) lead to the improvement or construction of essential infrastructure; and (6) catalyze the growth of lateral or downstream industries. These theoretical arguments, however, are often at odds with empirical evidence of the negative impacts of natural resource abundance on poverty alleviation. Moreover, the Bank’s actual interventions in these sectors are often inconsistent with its stated poverty alleviation rationale. Each of the Bank’s six justifications is addressed below.

Economic growth

The World Bank maintains that resource extraction can contribute to poverty reduction by generating economic growth. According to the World Bank’s Mining Department, "Growth in national income has been shown to benefit all groups, including the poorest, and is strongly associated with other measures of well-being such as health, nutrition, and education. Thus, growth in GDP/capita… can also be expected to reduce poverty profiles overall."

However, as discussed above, numerous empirical studies have found that resource dependence tends to affect economic growth negatively. Moreover, it is not clear that resource-dependent countries that have received World Bank assistance achieved better growth rates than other resource-dependent countries. Consider Zambia, for example, where the Bank admitted that Bank assistance has not helped Zambia establish a trend of positive GDP growth, much less positive per capita income growth. Bank assistance has not solved Zambia’s fundamental problems of worsening poverty and deteriorating social indicators.

Revenue generation

The Bank also maintains that resource extraction can make an indirect contribution to poverty reduction by generating large revenues for govern-
**Resource Dependence and the World Bank's Characterization of Poverty**

**Material deprivation**

In terms of material deprivation, the Bank sees economic growth as necessary, but not sufficient for poverty reduction. The type of growth, the pattern of income distribution, and the kinds of opportunities that are created for the poor also substantively affect poverty reduction. Resource-rich countries tend to have lower levels of economic growth than resource-poor countries, and extractive industries do not compare favorably with other forms of economic activity in terms of either equity of income distribution or creation of employment and income-earning opportunities for the poor.

**Human capacities: education and health**

The World Bank highlights the importance of improving educational opportunities and health care to reduce poverty effectively. Dependence on oil and/or mineral resources, however, correlates with comparatively low levels of government spending on education, and oil dependence is associated with low government spending on health care. Large-scale resource extraction projects also create a number of local and regional public health risks, including the increased spread of sexually transmitted diseases such as HIV/AIDS by migrant workers, and water, air and other forms of pollution that adversely affect the health of local residents.

**Risks and vulnerabilities**

Poverty reduction, the Bank emphasizes, also entails helping poor people to manage risks and vulnerabilities. Unfortunately, resource extraction contributes to a number of vulnerabilities and risks for poor people. Countries that are heavily dependent on resource exports are especially vulnerable to economic shocks due to their lack of economic diversification and the cyclical nature of commodity prices. Countries with a high level of resource dependency also face greater risks of civil war. Additionally, the environmental impacts of resource extraction can increase the vulnerability of the poor to health problems resulting from air and water pollution, and exacerbate the adverse effects of global climate change more generally.

**Voicelessness and powerlessness**

Finally, the Bank argues that giving poor people a stronger voice is vital to making state institutions more responsive to the needs of the poor. Oil and mineral-dependent states, however, tend to be less democratic and more corrupt than states that are less endowed with natural resources. Although democratic political systems and good governance are not sufficient conditions for poverty reduction, they increase the likelihood that resource revenues will be used to promote poverty reduction.

However, the public sector benefits of extractive industries may be exaggerated. The policies that the Bank advocates to induce foreign direct investment often undermine the government's ability to generate revenues from oil and mining sector activities through taxes and fees. In order to attract and maintain foreign investment in the extractive sectors, the government is encouraged to provide extensive tax breaks, repatriation allowances, and to accept reduced royalties. Many codes and contracts drafted with the World Bank's assistance are excessively favorable to investors. For example, in Ghana:

While in gross terms, mining is the leading foreign exchange earner, its net foreign exchange contribution to the national economy has been minimal. Generous incentives and tax breaks given to investors and the fact that mining companies retain on the average about 75 percent of their export earnings in off-shore accounts for various purposes helps explain the sector's minimal contribution to net foreign exchange receipts...Most of the [transnational mining] companies within the country... do not pay corporate income taxes due to the virtual tax holiday enjoyed by these companies as a result of the generous capital allowances that they enjoy.
Similarly, in Burkina Faso the Bank helped draft legislation that sought to induce mining investment by limiting the government’s ability to tax the sector. The new mining codes reduced corporate taxes on mining companies, and exempted mining equipment and materials from import duties for the duration of the development phase and through the third year of commercial production. And in Mali, a Bank sectoral adjustment program produced a revised tax code that exempts foreign mining companies from taxes on profits for five to eight years, depending on the size of their investment. The World Bank presents these regulatory changes as exemplary reform processes and uses them as models for other countries.

A recent World Bank survey recommended that, in order to increase the competitiveness of its mining sector, Burkina Faso should: (1) extend the tax exemption period for mineral investments; (2) exempt projects from sales tax and custom duties through construction; and (3) reduce other levies on mining companies to bring their current rate of 2.7 percent of exploration costs closer to the “more competitive” rates of 0.8 and 0.4 percent found in Ghana and Mauritania.

Additionally, the ability of countries to generate revenues from the extractive industries is often compromised by their inability to strike advantageous deals with foreign producers. This has proven to be true even where World Bank has provided advice. A World Bank technical assistance project in Equatorial Guinea, for example, failed to address the fact that the hydrocarbon law favored private investors at the expense of the government. Although the Bank helped to amend the hydrocarbon law and the model Production Sharing Contract, the new contractual framework remained overly generous to operators, and afforded unusually low levels of revenue to the government, relative to Equatorial Guinea’s oil producing neighbors. Similarly, with respect to the Chad-Cameroon pipeline project, the World Bank Inspection Panel found that the World Bank did not even analyze the distribution of revenue between Chad, Cameroon, and the project sponsors, and expressed its concern about the “adequacy of the allocation of revenues to Chad.”

Even where extractive industries could produce substantial revenues for African governments, the revenues too often do not make it into the nation’s coffers, but rather line the pockets of corrupt officials. There is also no guarantee that the government will use the monies that it does receive for poverty reduction purposes.

The inclusion of a revenue management program in the Chad-Cameroon oil pipeline project is a positive development. However, the fact that this provision is the first of its kind highlights the absence of similar requirements to ensure that natural resource revenues are put to pro-poor uses in other Bank-financed extractive industry projects. There are also serious problems already apparent with the Bank’s revenue management system in Chad. The World Bank’s Inspection Panel found the Bank’s assessment of sustainability and risks inadequate, criticized it for not including an explicit set of arrangements designed to address the management of large surpluses and fluctuating revenues, and pointed out that even if the revenue management system becomes operational, there is still a risk that Chad could suffer “Dutch Disease” effects.

Furthermore, the failure of this law to safeguard against revenue misappropriation - the Chadian government used the first $5 million received as a bonus from the project to purchase arms - underscores the importance of proving a government’s commitment to poverty reduction and building government capacity prior to engaging in oil and mineral extraction.

Many African governments lack the capacity to effectively manage their booming resource sectors, or to channel the revenues they receive into viable and productive poverty alleviation programs. Ensuring that these capacities are in place before projects come on line and revenues begin to flow has been a recurring problem. In the Chad-Cameroon pipeline project, independent monitors have consistently noted the "two-speed" progress of the project’s construction and capacity-building components. While the construction activities relating to oil extraction proceed on time or ahead of schedule, the capacity building efforts designed to ameliorate the potentially harmful effects of the resource curse have encountered repeated delays.

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**Research Questions**

- How does the World Bank advise countries to revise mining, petroleum, and/or investment codes in certain countries in Africa? How do these codes compare with those of countries that have not had World Bank assistance? What does the Bank do to ensure that these revision processes are transparent and inclusive?
Job creation

The Bank also justifies its support of extractive industries as a vehicle for creating jobs. According to the World Bank, small-scale mining provides employment for about 13 million workers worldwide, while large-scale mining provides direct employment for about two to three million workers. The Bank estimates that each large-scale mining job indirectly creates somewhere between 2 and 25 jobs with suppliers, vendors, contractors and others.149

Despite these estimates of induced employment impacts, extractive industries do not create jobs as effectively as other sectors of the economy. For example, in the Democratic Republic of Congo, mining has historically accounted for 25 percent of GDP, 25 percent of budgetary revenues, and 75 percent of export revenues, but only 7 percent of employment.150 Similarly, in Ghana, the mining sector contributes almost 60 percent of annual foreign exchange earnings, but the sector employs only 5 percent of the country’s labor force.151 The jobs that extractive industries do create tend to be primarily for small cadres of highly skilled, often expatriate workers.152

Modern extractive industries are increasingly capital intensive, creating relatively few jobs per unit of capital invested - much lower than for the typical textile mill, tourist complex or electronic assembly plant.153 For example, the Sadiola Gold Mine, an IFC-financed project in Mali, created approximately one mining job for every $700,000 invested, based on total project cost.154 The development of the IFC-supported Randgold mine in Mali directly created 127 jobs, or one job for every $1.23 million invested.155 According to the International Labor Organization, “[global] mineral production is increasing as mining employment steadily declines.” In South Africa, mining employment decreased by 48 percent between 1985 and 2000. Further reductions in the mining workforce are expected over the next five to ten years.156

In assessing the employment opportunities generated by extractive industries, the jobs that are lost due to the development of a project must also be considered. According to the World Bank, the risks of oil, mining, and gas projects include the "loss of livelihood when local populations are forced out of traditional productive activities."157 The conversion of land traditionally used for agriculture or other income-generating activities for oil or mining projects can lead to a net reduction in local employment. This was the case in Bank-supported mining areas in Ghana:

In direct and indirect ways, mining accounts for the high rate of unemployment in the [Tarkwa mining] area. Large-scale surface mining has taken up large tracts of land from farmers at the same time as mining activities do not provide enough jobs to match the total number of people laid off from agriculture because of the impact of mining.158

Moreover, many of the policies that the Bank pursues in its sectoral adjustment and technical assistance lending actually undermine the objectives of job creation. The increased efficiency and competitiveness that the Bank hopes will be realized through investment liberalization and privatization of parastatals often comes at the expense of employment opportunities; foreign investment tends to increase the capital intensity of extractives operations. While government owned or managed operations may prioritize job creation as a project benefit, similar consideration is unlikely from private sector owners. Thus, the Bank's promotion of
privatization of state-owned mining companies and sector restructuring has resulted in massive lay-offs of mine workers. For instance, in Zambia, ZCCM’s workforce was reduced by 70,000 during the parastatal’s privatization.159

Research Questions
- To what extent do World Bank-financed extractive industries projects actually create jobs in the local, regional, and host country economies? Are these jobs created at a reasonable cost?
- What is the opportunity cost of these investments in terms of jobs that could have been created through investments in more labor-intensive sectors or jobs that were lost due to displaced industries?
- When lay-offs are required during Bank-promoted sector restructuring, are international labor standards upheld?

Technology transfer

The Bank argues that resource extraction can indirectly lead to poverty reduction through technology transfers. As the Bank’s Mining Group explains, "Mining ..., with its emphasis on technology and capital-intensive production, can create and support the emergence of 'national innovative capacity' or the ability of countries to produce and commercialize knowledge over the long term."160

Observers of African mining operations have found, however, that the opportunities for diffusion of technology are limited:

Mining operations are predominantly surface operations, requiring heavy earth moving equipment, and minimum innovative technology.... Processing is minor, and where, as in Zimbabwe or Ghana, some intermediate technology potentially useful for small and medium scale miners have been developed for secondary processing purposes, their distribution and assimilation within the mining community is limited...161

Even if extractive industries bring some innovation and technological advancement to a developing country, the more important question for the Bank is one of opportunity costs. That is, whether support of the mining industry is the best way to facilitate technology transfer. Considering the alternatives, such as direct investments in education and training or investment in more technology intensive sectors such as information technology or telecommunications, investments in mining projects are likely to be a relatively unproductive means of technology transfer.162

Research Questions
- Are there successful examples of technology transfer through World Bank-supported extractive industry projects in Africa?
- How has this technology transfer contributed to poverty reduction?
- If there are successful examples of technology transfers contributing to poverty reduction, does the Bank plan to require such commitments from mining and petroleum companies in the future or will it advise governments to include such requirements in their revised mining or petroleum codes?
- Are there alternatives to resource extraction that the Bank could pursue that would be more effective at facilitating transfers of technology and innovative capacity?
- Does technology transferred from the mining sector tend to stay in the mining sector, or is it diffused throughout the economy?

Infrastructure improvements

In many sub-Saharan African countries, infrastructure upgrading is necessary to enable resource extraction to take place. As a result, the Bank argues that resource extraction investments catalyze improvements in physical infrastructure which can contribute to economic growth and poverty alleviation. For example, infrastructure work on the Chad-Cameroon pipeline project resulted in the upgrading of a number of the road and border links between the two countries. While this work was initially done for the pipeline project, it may facilitate the development of a variety of increased trade and economic links between the two countries.

The quality of these resource extraction infrastructure improvements, however, often leaves much to be desired. For example, Shell in Nigeria trumpets its road building projects in the Niger Delta as a contribution to community development. However, "most of these roads lead to oil installations, by-passing the local villages."163 More than 40 years after oil was discovered in the Niger Delta, the vast majority of people there
still do not have access to basic infrastructure like electricity or pipe-borne potable water.

**Research Questions**
- Who finances infrastructure development in regions of extractive industry projects? Do private sponsors of Bank supported projects pay their fair share of infrastructure costs, or is the necessary infrastructure developed by the government as a subsidy to the project?
- Is infrastructure developed to benefit local communities living in or near project areas or does it exclusively serve the operations of the extractives project?

**Creation of downstream industries**

Finally, the Bank argues that resource extraction can indirectly contribute to poverty reduction by catalyzing lateral or downstream businesses. The hope is that "[T]he profits from the extractive sector would help build local infrastructure; eventually, these profits would be re-invested in industries that would process and add value to the oil or minerals before they were exported. Soon resource-rich states would be exporting aluminum cookware instead of aluminum ores, and plastic resins instead of crude oil."164 The growth in these secondary or downstream businesses would then contribute to poverty reduction through some of the same channels mentioned above.

For a variety of reasons, downstream processing industries have typically not emerged after the development of extractive industries. For one thing, with dramatic reductions in global transportation costs and the reduction in tariffs on raw commodities, it is no longer critical for processing facilities to be built in close proximity to resource reserves.165 In addition, the removal of restrictions on repatriation of profits by foreign investors has meant that the revenues generated by extractive industries are not necessarily available to be invested domestically in processing facilities. Moreover, processing plants in the developing world are placed at a competitive disadvantage in world markets by the high tariffs that industrialized nations place on manufactured products to protect their own industries:

In fact, the OECD states place no tariffs at all on the import of many unprocessed oil and minerals, including crude oil, copper, tin, zinc, aluminum, lead, and nickel. Yet if oil and mineral-rich countries wish to add value to these raw materials and export them in refined or processed form — such as plastic resins, copper wire, or aluminum kitchenware — they quickly run into both tariff and non-tariff barriers.166

**Research Questions**
- To what extent does the World Bank finance domestic production in mineral economies, use adjustment loans to encourage countries to restructure their economies to facilitate domestic processing, or focus its mining operations in countries that already have domestic processing capabilities?
- How do the Bank’s efforts to promote trade liberalization impact countries’ ability to develop nascent domestic processing industries?
- How successful have capacity-building efforts been in World Bank-supported projects to enable local businesses to benefit? Does the Bank regularly evaluate its projects in this regard?
Numerous environmental concerns raised by those who requested the Inspection Panel investigation in Chad referenced the environmental devastation wrought by Shell Oil in the Ogoni region of Nigeria. Noting that unlike the situation in the Niger Delta, no large-scale gas flaring was planned in southern Chad and that more advanced technologies like buried pipelines and modern oil spill detectors were being employed there, the Inspection Panel rejected the Ogoniland comparison. Although "The Panel can fully understand the concerns of the Requesters… [it] concludes that the two situations are profoundly distinct."167

In one sense, the Inspection Panel is probably correct: Shell Oil’s record of wanton environmental devastation in Ogoni is so atrocious that it would probably be difficult for the Chad project to match. According to statistics from Nigeria’s Department of Petroleum Resources, between 1976–1996, a total of 4,835 incidents resulted in the spillage of at least 2,446,322 barrels of oil.168 Yet, even the most sophisticated oil spill detection equipment technology allows leakage of 0.002 percent of the oil passing through: "With an estimated daily volume of 9,450,000 gallons of crude oil a day (i.e., the equivalent of 225,000 barrels/day), this means that under the best of circumstances 2,000 gallons could leak each day without being detected."169

The situation in southern Chad also resembles that in Ogoniland with respect to the question of revenue allocation to the oil-producing region. The people of southern Chad appear just as marginalized in this regard as do people in the Niger Delta. Nigeria used to allocate 50 percent of the revenues from any resource to the region of derivation. Over time, this was gradually reduced to 3 percent - where it stood at the height of the Ogoni protests in the 1990s. Today, Nigeria ostensibly allocates 13 percent of the oil revenues to the oil-producing regions. In the case of Chad, only 5 percent of the revenues are to be allocated to the oil-producing region. The Inspection Panel notes that this distribution arrangement was apparently inspired by the troubled experiences of other countries, including Nigeria. Yet, the Bank’s project appraisal documents "neither suggest that any targeted studies of how to determine the appropriate share were carried out, nor do they cite any review material that underpinned the choice of 5 percent."170 Moreover, Article 7 of Chad’s Law on Revenue Management explicitly provides that this amount may be changed by decree at five-year inter-

vals. Thus, it is doubtful that the oil region of southern Chad will receive an equitable share of the revenues generated in the area.

Arguably, though, it is in the areas of security and human rights violations where the analogies between southern Chad and Ogoni are the strongest. According to Human Rights Watch, security force abuses in the Niger Delta are typically committed in response to community protests, often "right next to company property, or in the immediate aftermath of meetings between company officials and individual claimants or community representatives."171 In southern Chad, an internal Bank memorandum dated December 29, 1999, admits "earlier consultations took place in the presence of gendarmes due to security concerns and political context at the time (1995–1997)."172

Perhaps more ominously in light of the repeated arrests, harassment and ultimate hanging of Ken Saro-Wiwa, Ngarlejy Yorongar, the only opposition member of Chad’s parliament in 1998 was jailed after speaking out against the Chad-Cameroon pipeline project. In April 2001, Yorongar filed the request with the World Bank’s Inspection Panel that ultimately led to its 2002 mission to Chad. About one month later, shortly after the May 2001 presidential elections in Chad, Yorongar was again arrested, this time with six other opposition leaders. He was tortured and ultimately had to seek medical attention in Paris. Amnesty International’s 2001 annual report on human rights notes that "The efforts to silence Yorongar are not an isolated incident…. Chadian security forces have reportedly killed more than 200 unarmed civilians in the Doba oil region, but no investigations into the massacres have taken place."173 No wonder the people of southern Chad fear becoming "the next Ogoniland."
Conclusion

This preliminary reflection on the World Bank Group's support for extractive industries in Africa confirms a growing skepticism of oil, mining, and gas development as a tool for poverty reduction or equitable growth. It finds ready examples of cases in which extractive industries seem at odds with socially and environmentally sustainable or pro-poor development. Substantial empirical evidence indicates that dependence on petroleum and mineral exports can negatively affect a country's economic, social and political development, and that extractive industry projects often impose significant costs on local communities. As a result, there is reason to believe that "oil and mineral exports do not simply fail to alleviate poverty; they appear to make it worse."174

Despite the difficulties of translating extractive industries development into broad-based improvements in economic performance and human development, the World Bank continues to aggressively promote increased investment in these sectors in Africa. The Bank uses adjustment and technical assistance loans to encourage African nations to liberalize their trade and investment regulations, reduce taxes and royalties on extractive industries, and privatize their parasitall extractive operations. At the same time, IFC and MIGA directly finance and guarantee private sector investments under these newly revised oil and mining codes.

Considering the poverty alleviation mandate of the World Bank, the burden of proof is on the Bank to demonstrate how the institution's support for extractive industries actually benefits Africa's poor. Yet the Bank has produced little concrete evidence to demonstrate that its support for extractive sectors has actually reduced poverty and achieved positive development outcomes in these countries. Experience to date casts doubt on the ability of World Bank-supported extractive industries investments to: (1) strengthen the sustainable growth paths of African countries and ensure that this growth is distributed equitably; (2) provide employment; (3) induce horizontal and vertical economic diversification; (4) support infrastructure improvements; and (5) raise the standards of living of those in affected communities and countries. Furthermore, the general performance of the Bank with regards to environmental sustainability, poverty reduction, and institutional development in Africa is not encouraging.

This report calls for a closer examination of the impact of World Bank-supported extractive industries activities to date and of how the Bank's involvement in these sectors must change to ensure greater consistency with its poverty alleviation mandate - or whether support for extractive industries is even consistent with that mandate. The answers to questions posed throughout the report will help resolve a larger query: Are the public finances of the World Bank well spent on the promotion of extractive industries, or do these investments have a negative effect on the struggle against poverty? The results of these inquiries will have important implications for the future of African economies and the success of their poverty eradication efforts.

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Source: World Bank submissions to the Extractive Industries Review.
Endnotes

1 The author would like to acknowledge the substantial contributions that Ian Gary, Steve Herz, Shannon Lawrence, Nikki Reisch, Graham Saul, and Keith Slack made to this report. He would also like to thank Marcus Allen, Bill Blomquist, George Frynas, Thorvaldur Gylfason, Una Okonkwo Osili and Michael Ross who were all kind enough to offer comments on an earlier version of this report.

2 IFC 1999, p. 48.

3 In the context of this report, the “World Bank” is used to refer to any of the lending or insurance arms of the World Bank Group, including the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA).

4 World Bank 2001c; World Bank 2002b; World Bank and MIGA 2001; World Bank and IFC 2001a.


7 Reed 2001, p. 20.

8 Ross 2001b, p. 8.


10 Ross 2001b, p. 7.


12 World Bank OED 2002c, p. 2.

13 Ganesan 2002, p. 3.

14 World Bank 2001f.

15 Spero and Hart 1997, chapter six.


18 World Bank 2001d, p. 23.

19 World Bank 2001d, p. 25.


23 See for example, Lancaster 1997; Easterly 2002; Britwum et al. 2001.


26 Ibid.


28 World Bank and IFC "Key Topics in Mining."


30 Onorato, Fox and Strongman 1997.

31 World Bank and IFC 2001d.

32 World Bank and IFC "Key Topics in Mining."

33 IFC 2001.


36 Ross 2001b.

Commentators have used the "resource curse" terminology to explain different aspects of the negative impacts of resource dependence. Economists frequently use the term to refer to the economic costs of resource dependence. Because this study considers similar impacts on social and political performance, we use the phrase more broadly to refer to these impacts as well.


Ross 2002, p. 3.

Ibid.

Gylfason 2001, p. 848.


Ibid.

Ibid.

World Bank 2001a, Section 1.2, p. 1.

Pourtier 1989, p. 274.


Spero and Hart 1997, chapter nine.

UNCTAD and CFC 2001, p. 5; Ross 1999, p. 303.

Borensztein et al. 1994.

Chandrasekhar and Ghosh 2000.

UNCTAD and CFC 2001, p. 6.


Loxley 1990, p. 17.

Ross 1999, p. 301.


Karl 1999, p. 35.

Reed 2001, p. 36.

Ross 2001b, pp. 9-10.


Onishi 2002.

The Inspection Panel 2002, p. 87.


The Inspection Panel 2002, p. 87.

Ross 2001a.

Ross 2001a, p. 344.

Ross 2001a, pp. 343-344.

Ross 2001a, p. 344-345.

Ross 2001a.

Leite and Weidmann 1999, p. 29.


Summers 1999.

Gylfason 2001, p. 850.


Transparency International 2002.


BBC Online 2002.


Ibid.


Collier 2000, p. 6.

Collier 2000, p. 2.
Iamgold 1997. According to the project sponsor, “At full production, the mine will employ about 300 employees of which 54 will be expatriates. The mining contractor will employ another 120 of which 12 are expatriates.” Given the total project cost of Sadiola, at $246.2 million, the average cost per job created is approximately $700,000.
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