Do resource rich economies have better or worse development outcomes?

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UNU-WIDER’s Extractives for Development (E4D) project

Extractives for Development (E4D) – risks and opportunities

This project aims to help policymakers deal with the risks and opportunities in oil & gas and mining for development, poverty reduction, and the environment.

The extractive industries provide substantial government revenues in many low-income and middle-income countries, but efforts to diversify economies have been disappointing. Moreover, there are major revenue shortfalls due to ineffective regulation, under-reporting by producers, poor transparency, and badly designed tax systems. Incentives are still badly tilted towards extraction, and away from protecting renewable resources such as biodiversity, forests and water as well as ending greenhouse gas emissions. The COVID-19 pandemic has also caused an unprecedented shock that has exposed the vulnerability of economies dependent on extractive revenues, and the project examines how to manage the revenue risks.
1. Background

• Plenty of research on resource abundance and growth, but what are the effects on ‘other’ development outcomes?

• The challenge of exploiting natural resources is to use subsoil wealth in a way that turns it into above-ground assets, generating income and enhancing the achievement of the broadest possible range of development outcomes.

• It is also policy relevant to the Sustainable Development Goals (SDGs) agenda because a large number of resource-rich economies are in Africa (e.g., Nigeria, DR Congo), where a significant number of the world poor live.
Background (ctd.)

- Underexplored areas in the political economy of natural resources include the effects on income inequality and poverty, education, health, and living standards.

- We argue that the presence of a natural resource sector per se does not necessarily translate into worse development outcomes. Some countries do well, and some do not. The challenge is to explain the different natural resource experiences.
2. Resource abundance and development: a look at the data

Figures 1–3 show a series of scatter plots, where the Y-axis variable is the recent value of a key development indicator, taken as the 2014–18 average.

- Income poverty and inequality: Gini index; the income share of the poorest 20 per cent; proportion of people living below 50 per cent of median income (per cent);
- Education: school enrolment, secondary (per cent net); education index, a component of the Human Development Index; and
- Health: mortality rate, under 5 years of age (per 1,000 live births); life expectancy at birth, total (years).

The X-axis variable is a long-run average of natural resource abundance. We use the total natural resources rents (per cent of GDP), which is the sum of oil rents, natural gas rents, coal rents, mineral rents, and forest rents.
Some stylised facts

1. *Having greater income from natural resources seems to have no clear relationship with development.* The scatter plots in the figures show that there is a weak negative correlation for education and health outcomes and no correlation for poverty and inequality measures.

2. *Natural resource experiences vary to a significant extent.* Countries with similar levels of resource rents can end up with significantly different achievements in terms of poverty, inequality, health, and education.
Note: the Y-axis variables are the ‘School enrolment, secondary (per cent net)’ and the ‘Education index’, a component of the Human Development Index, both as 2014-2018 average. The X-axis variable is ‘Total natural resources rents (per cent of GDP)’, as 1980-2014 average. Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Variables are from the World Development Indicators (World Bank 2020), except for the Education index, which is from the United Nations Development Programme (UNDP n.d.). Source: Authors’ elaboration.
Health outcomes and resource rents

Note: the Y-axis variables are the ‘Mortality rate, under 5 years of age (per 1,000 live births)’ and the ‘Life expectancy at birth, total (years)’, both as 2014-2018 average. The X-axis variable is 'Total natural resources rents (per cent of GDP)', as 1980-2014 average. Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Variables are from the World Development Indicators (World Bank 2020), except for the life expectancy index, which is from the United Nations Development Programme (UNDP n.d.). Source: Authors’ elaboration.
Income distribution, poverty and resource rents

Note: the Y-axis variables are the ‘Gini index’; the ‘Income share of the poorest 20 per cent’; the ‘Proportion of people living below 50 per cent of median income (per cent)’, each as 2014-2018 average. The X-axis variable is 'Total natural resources rents (per cent of GDP)', as 1980-2014 average. Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents. Variables are from the World Development Indicators (World Bank 2020). Source: Authors’ elaboration.