Natural Resource Dependence in Rural Mexico

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Introduction
• The relationship between poverty and natural resources is complex and the empirical evidence to date is inconclusive.
• The main purpose of this work is to empirically identify the effects of income (and its distribution) on natural resource extraction and dependence in rural Mexico.

Data
• To measure dependence we follow the most common measure used in the recent literature: the share of natural resource income in a household’s total income.
• We use data from the Mexico National Rural Household Survey (ENHRUM). The survey includes more than 1,600 households from 80 communities in 14 Mexican states along 5 regions.

Estimation at the national level
• As a first approach to analyze the households’ decision to participate in resource extraction we run a simple probit model. The relationship between income and probability of participation in resource extraction is the following:

Probability of participation reaches 64% at around 2,200 pesos (close to the average income of households in the lowest quintile).

• To construct the expected dependency ratio for the households that participate in extraction we estimate a simple tobit model with income as dependent variable.

Estimations at the regional level
• To underscore the regional differences we estimate probit and tobit models for each region (including a set of control variables).

Conclusions
• In rural Mexico, natural resource extraction is predominantly an activity of poor households.
• There are important differences across Mexico. The south has high participation rates and relatively high dependence. The north has low participation (increasing with income) and very low dependence.
• More research is necessary on differences in resource extraction behavior between rich and poor households to inform public policies aimed at achieving both sustainability and poverty alleviation in rural areas.