

Rethinking progress towards reducing inequalities in developing countries, while integrating climate change

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PITCH

Efforts of countries to reduce inequalities (SDG10) can be measured after incorporating their economic resources, but also after examining the effects of climate change – temperature and rainfall – on this global effort. On average, countries have exerted only 50 percent of their effort in reducing income inequality, but this effort differs from region to region. Sub Saharan Africa recorded the least average effort of 39 percent, reminding that the potential and scope for improvement to reduce income inequality differs across SSA countries. The findings show that introducing temperature and precipitation in the frontier model reduced the effort of countries in several regions. In the SSA sample, the negative effect of temperature on effort was significant whilst that of rainfall was negligible.

ISSUES

Discussions on quantifying progress towards reducing income inequalities across countries has become essential following the adoption in 2015 of Sustainable Development Goal 10 (SDG10), which seeks to reduce

inequality within and among countries. Although there are measures (largely indices) that seek to quantify progress towards reducing income inequality, they tend to measure trends in inequality over time and compare countries without considering the differences in their economic resources and endowments.

It is argued that these indices may not paint the complete picture about how countries are performing, especially when compared to one another which may in turn affect the policies and investments that may be needed to support them. Therefore, there have been proposals for alternative measures that account for different levels of economic resources and endowments in countries to complement the existing measures. This approach would provide the scope and the potential for improvements of a country in reducing income inequality, which tends to be an essential guide to decisions making.

Given the severe effects of climate on income inequality, understanding the impact of climate on a country's

potential for improvements in reducing income inequality is also essential for policy and investments.

METHODS

Using an unbalanced panel of 160 countries from 1990 to 2020, and Stochastic Frontier Analysis (SFA) for this exercise, this research incorporates the economic resources and endowments of countries to measure how countries are combining their resources (therein effort) to reduce income inequality. It also examines the effects of climate – temperature and rainfall – on effort by countries to reduce income inequality. This approach evaluates a country's performance in reducing income inequality given the economic, demographic, political and governance conditions. Hence, considering a country's effort and characteristics, appropriate investments can be put in place to support improvements in reducing inequality which can make development partners more realistic in their expectations for a country's improvement.

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Find out more about this project: <https://www.afd.fr/en/resources/reducing-inequalities-despite-climate-change-rethinking-progress-towards-reducing-income>

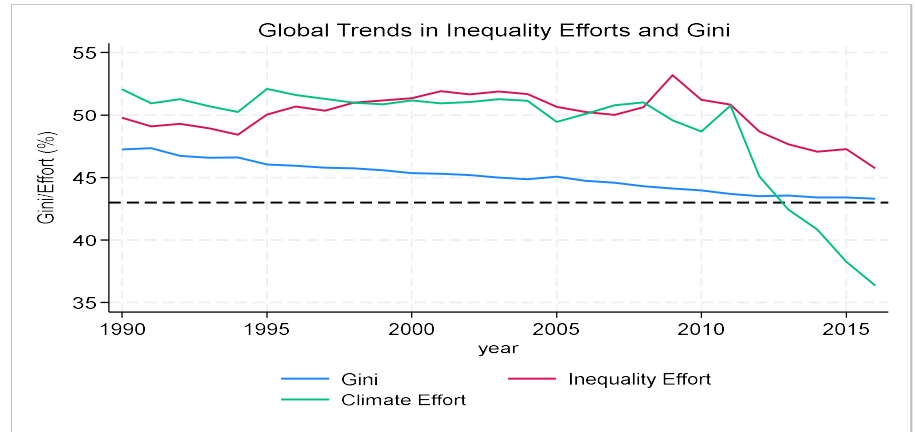
RESULTS

On average, countries have exerted only half of their effort in reducing income inequality, but this effort differs from region to region.

Two regions, however, stand out. South Asia has seen a consistent decline in effort over the last thirty years whilst the effort for SSA has largely been flat with no significant changes over the same period.

The overall effort for these two regions is less than half. There is however some variation among countries in these low-effort regions. Temperature and precipitation reduced the effort of countries in several regions.

As shown in the figure, this process intensified after 2011 when climate dragged inequality effort down below the actual efforts of countries. This implies the negative effects of climate as countries combine their economic resources to reduce income inequality.



The global effort to reduce income inequality reduces when we account for climatic factors.

The direct effect of climate on countries' efforts to reduce inequality shows that both temperature and rainfall decrease the effort for developing countries.

In the SSA sample, the negative effect of temperature on effort was significant whilst that of rainfall was negligible.

The low efforts, particularly for SSA and South Asian countries, indicate

the high potential and scope for policies and investments given their economic resources and endowment to reduce income inequality. In effect, there is room for these countries to do more to reduce income inequality.

The question is, how can countries identify the pathways and policies that would improve their use of economic resources and endowments to reduce income inequality?

RECOMMENDATIONS

- ▶ There is the need for some technical assistance from development partners in building the capacity of countries with poor effort to be able to identify the right combination of redistributive policies and social spending given their circumstance to reduce their income inequality. For these countries, technical support to conduct in-depth country specific research and develop in-country diagnostic tools on how best to use available resources to reduce income inequality are crucial.
- ▶ The negative effects of climate on economic activities, particularly agriculture and labour productivity in developing countries, in turn reduce their output and economic growth. This hampers a country's ability to implement redistributive policies and increase social spending which are vital in boosting incomes of poorer households. This calls for increased support and investment from development partners on climate resilient projects in key sectors of these countries.
- ▶ Following the new climate finance goal of \$300 billion per year from developed countries, and the full operationalization of the loss and damage fund agreed at COP29, it is important for development partners to develop climate finance mechanisms to target and support vulnerable countries with low effort and high level of income inequality.