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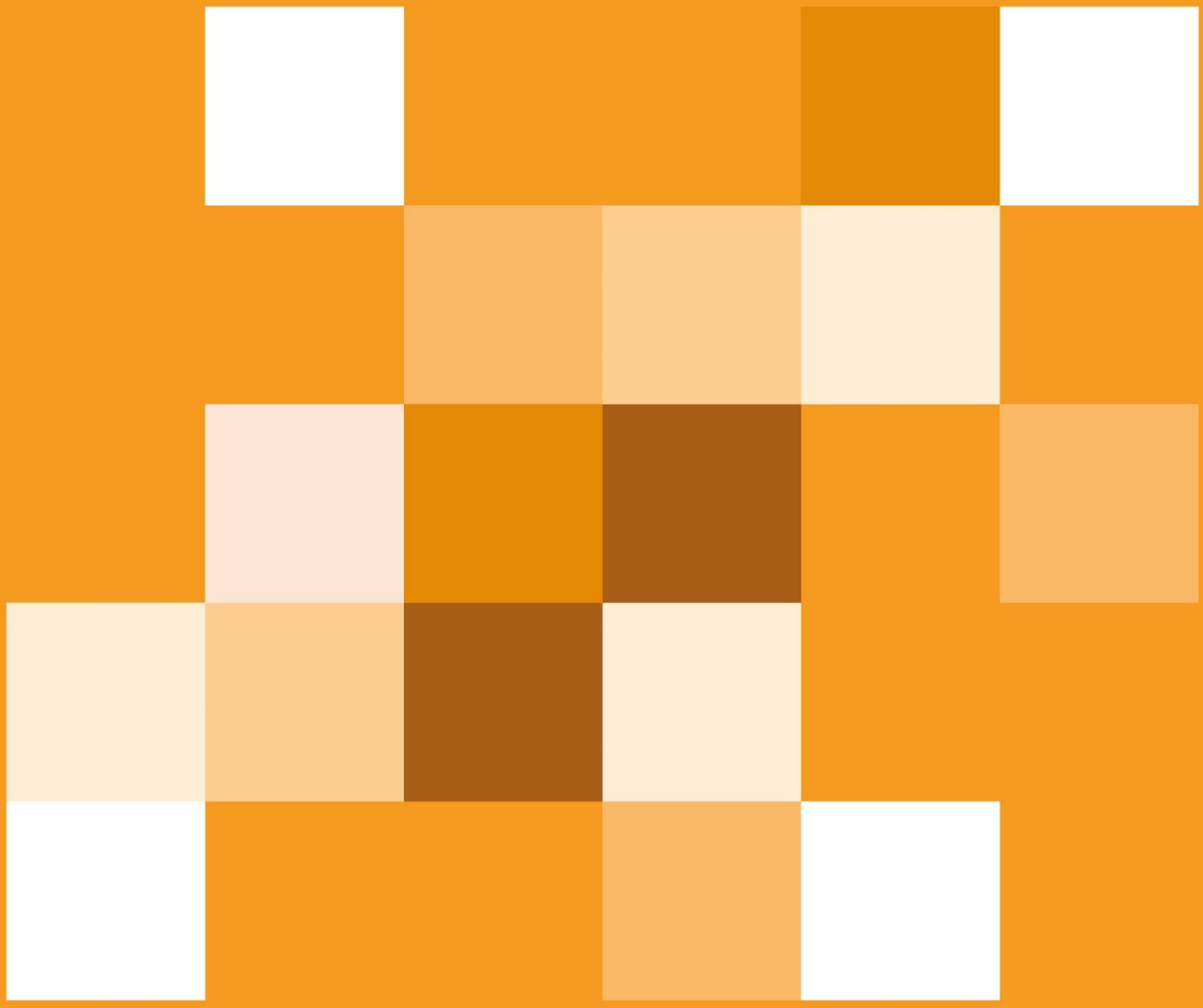

February 2022

Inequality, measuring it and why it matters for poverty reduction

briefing

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Introduction

By exploring the relationship between poverty and inequality, this briefing identifies how reducing inequality should be central to international development efforts that seek to sustainably tackle poverty, discrimination, and exclusion.

It also presents some of the measures of inequality that provide different insights into the distribution of opportunities and outcomes and how they interact. Underpinning these measures, data on people and their lives needs to be timely and comprehensive and enable disaggregation by variables likely to provide insights on horizontal inequalities.

This briefing supports our factsheet on inequality.

Inequality and why it matters for poverty reduction

Inequality is all about the distribution of power and resources, of opportunities and rights. Some amount of inequality is inevitable, but it is particularly problematic when it is driven by discrimination and exclusion and when it is of a kind and degree that undermines the agency of rights holders and efforts to reduce poverty.

The imperative to tackle high and rising inequality is explicit in Sustainable Development Goal (SDG) 10, which seeks to "Reduce inequality within and among countries".[1] However, it is also implicit across other SDGs, which require reducing the gaps in outcomes between different groups. Moreover, the central transformative commitment of Agenda 2030 to Leave No One Behind, requires discrimination and inequality to be understood and tackled in order to address all the SDGs.

Development Initiatives recognises addressing inequality, in both economic and non-monetary terms, as consistent and complementary to our mission to reduce poverty. The relationship between inequality and poverty is complex, but includes the following dimensions:

1. **Poverty is relative. The context in which a person lives and the outcomes of others in their community has an important impact on their experience and what is necessary for people to participate fully in their society.**

   Poverty in its most basic sense can be measured as an absolute level of deprivation, for example, where the threshold for extreme economic poverty is set at a daily income level of PPP$1.90 per day.[2]

   However, living on an income of $1.90/day has very different social and political implications depending on where someone lives, based on the incomes of others living in that place. The $1.90/day poverty line was established based on the cost of basic needs in the world's poorest countries. A more appropriate threshold for poverty in middle-income countries would be $3.20 or $5.50, to enable sufficient participation in society. In practice each country sets its own poverty line that takes into account what everyone else in the country has. In most high-income countries, this is explicitly a relative measure, which considers the income of the rest of the population. In the EU for example, poverty is measured as income below 60% of the median.[3]

2. **Environmental resources are finite, so where wealth exists alongside deprivation, it is necessary to think about how available resources are distributed.**

   Given the environmental ceiling and planetary boundaries[4] that we must live within, we must reduce our environmental footprint to avoid catastrophic climate change. It is therefore necessary to more equitably distribute the environmental resources we have and create the space for us to reduce our environmental and extractive footprint while protecting people's basic rights and needs.[5]

   Over time, the stock of resources, particularly financial wealth, can grow, but it is necessary for this growth to disproportionately benefit the people with the least in order to tackle poverty and reduce inequality. In practice, this is often not the case. Existing high levels of wealth and income tend to beget further wealth and income. Even where income growth is progressive, disproportionately benefiting people with lower incomes, higher costs of living due to certain characteristics, such as a disability, as well as higher rates of inflation, particularly on basic goods and services, can erode any income gains. Moreover, inequalities are so large and poverty so deep for many, it will take more than many people's lifetimes to eradicate poverty through growth alone.

3. **Recognising and understanding horizontal inequalities, where people face exclusion and discrimination based on their identity, is critical to tackling the root cause of poverty and to Leave No One Behind.[6]**

   Horizontal inequalities describe how people with different individual or group-based characteristics experience different opportunities and outcomes. These inequalities can be based on gender, age, race, ethnicity, religion, class, geography, disability, or any other factor relevant in a local context. They can help to identify potential drivers of poverty, where this is based on the systematic disadvantage, discrimination, exclusion or marginalisation of particular groups.

   The intersectionality of the multiple characteristics that people hold is also important to recognise. These can lead to long term poverty traps, where the defining personal and group-based characteristics of people also determine their outcomes. Understanding horizontal inequalities and their cause is critical to tackling the root cause of poverty and injustice and enabling social and economic mobility.[7]

4. **Economic inequality is closely linked to political inequalities, which create a self-perpetuating cycle, reinforcing division in society as the poorest people have less influence over political decision-making than the wealthiest people.**

   People at the lower ends of the economic distribution can find it difficult to engage with society and for their voices and interests to be heard. This can be due to deliberate exclusion, or lack of representation, access to, participation in and influence over decision-making. At the same time, the wealthiest people have power and access to determine and influence policies in support of their own interests. In some cases, the political and economic concentration of power can also be

reinforced through corrupt means of state capture, unchecked budget leakages and rent extraction. Inequality of power can result in policies that protect the status quo at the expense of tackling poverty in all its forms and achieving equitable and sustainable outcomes for all of humanity.[8]

Measuring inequality

There is no single measure that can capture all aspects of inequality. Different measures provide different perspectives and insights, with varying strengths and limitations and should be understood and interpreted based on this. Quantitative measures can only be used so far to understand the underlying structural drivers of inequality. Qualitative insights, including a political economy analysis and understanding the lived experiences and perspectives of people across the distribution are a necessary complement to the statistical representation of inequalities, to understand how inequality manifests itself in any particular place or population.

Economic inequality measures that calculate the distribution of consumption, income or wealth tend to be the dominant measure of inequality (see Table 1), not least because they tend to correlate with other poverty and inequality outcomes, such as educational levels, poor health and lower life expectancy.

A variety of economic inequality measures can be calculated to provide different interpretations of the distribution and how different groups within it are faring. The distribution of consumption, income and wealth respectively, can provide different insights into relative living standards and may move in different directions over time. For example, a low-income household that has experienced a fall in income, may maintain their essential consumption levels through drawing down on their savings. As such, an analysis of consumption patterns would not show the same decline that income or wealth data would find, which has concerning implications for all poverty measures in the longer term. Meanwhile, at the top of the distribution, the value of assets of a high-net-worth individual may increase significantly over time, while the individual reports a relatively low or declining income. Absolute measures of inequality, which measure the monetary difference in people's economic outcomes can also show different trends from that of a relative inequality measure, which measures the proportional difference.

Non-economic inequalities can also be measured in their own right, with the variance in life expectancy a powerful demonstration of the human impact of inequality.

Table 1: Selected economic inequality measures

Measure	Description	Strengths	Weaknesses
Gini coefficient	Based on mapping outcomes for the entire distribution as a cumulative function, the Gini is a measure of difference from perfect equality, where 0 is everyone having an equal share, and 1 is the most extreme form of inequality where 1 individual has everything.	• Single summary measure for the whole of the distribution. • Well-established. • Can be used to compare inequality over time and between countries.	• Difficult to interpret meaningfully for different groups or different parts of the distribution. • Puts higher weight on differences in the middle (rather than the tails) of the distribution.
Palma ratio	The ratio of the income/wealth of the richest 10% of people compared with the poorest 40% of people.	• Compares either end of the distribution, with a meaningful ratio to give a sense of the absolute differences between the two groups. • Excludes data on the middle of the distribution, which tends not to change much.	• A simplistic measure, with the groups at both ends of the distribution including people with very diverse outcomes.
SDG target 10.1	The growth of income of the poorest 40% of the population to be higher than the average	• Dynamic indicator for growth that on average disproportionately benefits the poorest, that if achieved would see the relative gap between the poorest and the average decrease over time.	• Does not look at the top of the distribution and does not address current levels of inequality.
P20 analysis	Measuring the characteristics and outcome by income quintile, looking specifically at the poorest 20% (P20) of the population compared with the rest of the distribution.	• Straightforward entry point to identify the poorest 20% of people and compare them with the outcomes and characteristics of the richest 80%.	• Quintiles may not be the most meaningful way to cut the data, with a lot of variation in both the bottom 20% and the top 80% that is missed.
Absolute inequality	A suite of measures which calculate the actual difference in real (as opposed to relative) economic terms.	• Provides meaningful comparisons of the amount of income/wealth of different parts of the population.	• Power and comparisons often matter more in relative terms than in absolute terms.

Inequality data

An essential input to the measurement of inequality is comprehensive and timely data, and an understanding of the following aspects of any dataset.

- **Opportunities and outcomes.** The data should include indicators for the opportunities or outcomes of concern. For the main economic inequality measures, there is a need for detailed data on people's consumption, income and wealth. The more granular the data, the more we can unpick as to the underlying drivers of inequality. For example, how much of people's income is derived from capital or labour income, how much is taxed or from transfers. It is also important to recognise where, particularly at the top of the distribution, there is an incentive and tendency for these economic outcomes measures to be systematically underestimated or underreported.

- **Population coverage.** Inequality measures are based on comparisons being made between different individuals and groups within a population; an understanding of people's outcomes and opportunities relative to others. Individuals and groups that experience marginalisation and exclusion (such as those living in non-traditional households, or those who are homeless or incarcerated) may not be captured in household surveys. Improving the coverage of data throughout populations is vital to ensure an accurate understanding of inequality.

- **Variables for disaggregation.** To understand how economic inequalities intersect with horizontal inequalities, data should also contain information about individuals and groups that allow for a disaggregated analysis. Common variables for disaggregation include gender, age, ethnicity, religion, geography and disability status. Other context-specific variables may be more important to understand the particular inequalities and discrimination in a place, but may also by their very nature be sensitive questions to ask. The more granular and detailed the data collected is, the more important it is to strengthen data governance, data security and data rights.

- **Timeliness.** Measuring changes over time requires underlying data to be collected on a regular basis using a consistent methodology. The timeliness of data is particularly important when seeking to understand how inequalities change as a result of a particular policy or programme that has been introduced, or to understand the distributional impact of a sudden shock, such as how the Covid-19 pandemic affected different people. For example, estimates for the proportion of people living in extreme poverty initially increased as Covid-19 swept the world in 2020. Current estimates suggest that those rates have begun to fall again, however, this is based on projections in overall growth levels within countries. They therefore don't necessarily pick up on the nuances of how economic growth has been experienced differently by different people in the population over recent time periods.

No single dataset provides entirely comprehensive and timely data to underpin all possible inequality measures, economic or otherwise. But there are some datasets that are particularly useful, due to their coverage and comparability.

Household survey data

Data on people's income is commonly collected through nationally representative household surveys, which ask people to self-report their income or consumption. Some of the household surveys in the World Banks's PovcalNet rely on estimates of average income, but others rely on consumption. Despite being used interchangeably and for comparative purposes in the PovcalNet database, as measures they are very different, as it is possible to survive through a period of zero income, but it is not possible to survive on zero consumption.

It is also well recognised that household surveys underestimate the incomes of the richest people, who are either not included in the surveys or who underreport their incomes. They also often miss people at the very bottom of the distribution − people that are homeless, transient or incarcerated for example and therefore not included in the survey sample. As expensive and time-consuming processes, national household surveys are conducted every 2−5 years, and less frequently in many fragile contexts. Therefore, much of the data we have to measure inequality is several years out of date (see the Appendix).

Data on people's wealth provides an important understanding of economic inequality. Wealth includes the ownership of assets like houses, livestock, land and debt. Increasingly, in higher income countries, financial assets such as savings, pensions and stocks play an important role. Wealth (and the absence of debt) provides individuals with the resources needed to invest in the future as well as to insure against future risks such as a health shock or a poor harvest, which could otherwise prove catastrophic. Data is improving on wealth, with the Credit Suisse world wealth databook collating available data on the wealth distribution. This is often taken from household surveys and estimates wealth distributions for countries where this is not available using proxy indicators.[9] Wealth distributions have now been estimated for over 200 countries, but the quality of this data is still very poor in low-income countries.

An important limitation of much income and wealth data collected through household surveys, is that it is not possible to identify the income or wealth level for any given individual within that household. This means that it is not possible to disaggregate the data by individual level characteristics, such as age or gender, in order to identify horizontal inequalities.

Administrative data

Administrative data (data which is used when interacting with public services) could be used to improve insights on inequality, including observing mobility within a population. Tax data, a form of administrative data, has been identified as an important data source to fill in data gaps on the highest earners and can be used to supplement household

survey estimates. However, this still misses individuals who may engage in tax avoidance practices and those who work in informal sectors, who represent 61% of global employment and do not pay tax.

Unofficial and community-generated data

Within countries, more and better data on the bottom of the distribution is important to accurately represent the lives of the poorest, in a way that centres on the voices and experiences of the marginalised.[10] There is also a need for improved data to be collected and shared in fragile and conflict-affected countries, some of which have not conducted nationally representative surveys for more than two decades. Data may have been obtained for persons in fragile countries by national and international actors. However, where the data remains unpublished, this can lead to repeated surveys and duplication, while still failing to inform many policies being developed by other actors.

Our accompanying factsheet Inequality: Global trends draws on a number of different datasets and uses a variety of measures to understand the levels and trends of inequality.

Appendix

Table A1: Last available year and data type for household survey data in PovcalNet

Country name	Data year	Data type
Albania	2017	Consumption
Algeria	2011	Consumption
Angola	2018	Consumption
Argentina	2019	Income
Armenia	2019	Consumption
Australia	2014	Income
Austria	2018	Income
Azerbaijan	2005	Consumption
Bangladesh	2016	Consumption
Belarus	2019	Consumption
Belgium	2018	Income
Belize	1999	Income
Benin	2015	Consumption
Bhutan	2017	Consumption
Bolivia	2019	Income
Bosnia and Herzegovina	2011	Consumption
Botswana	2015	Consumption
Brazil	2019	Income
Bulgaria	2018	Income
Burkina Faso	2014	Consumption

Burundi	2013	Consumption
Cabo Verde	2015	Consumption
Cameroon	2014	Consumption
Canada	2017	Income
Central African Republic	2008	Consumption
Chad	2011	Consumption
Chile	2017	Income
China	2016	Consumption
Colombia	2019	Income
Comoros	2014	Consumption
Congo, Democratic Republic of	2012	Consumption
Congo, Republic of	2011	Consumption
Costa Rica	2019	Income
Cote d'Ivoire	2015	Consumption
Croatia	2018	Income
Cyprus	2018	Income
Czech Republic	2018	Income
Denmark	2018	Income
Djibouti	2017	Consumption
Dominican Republic	2019	Income
Ecuador	2019	Income
Egypt, Arab Republic of	2017	Consumption
El Salvador	2019	Income
Estonia	2018	Income
Eswatini	2016	Consumption
Ethiopia	2015	Consumption

Fiji	2013	Consumption
Finland	2018	Income
France	2018	Income
Gabon	2017	Consumption
Gambia, The	2015	Consumption
Georgia	2019	Consumption
Germany	2016	Income
Ghana	2016	Consumption
Greece	2018	Income
Guatemala	2014	Income
Guinea	2012	Consumption
Guinea-Bissau	2010	Consumption
Guyana	1998	Income
Haiti	2012	Consumption
Honduras	2019	Income
Hungary	2018	Income
Iceland	2017	Income
India	2011	Consumption
Indonesia	2019	Consumption
Iran, Islamic Republic of	2018	Consumption
Iraq	2012	Consumption
Ireland	2017	Income
Israel	2016	Income
Italy	2017	Income
Jamaica	2004	Consumption
Japan	2013	Income

Jordan	2010	Consumption
Kazakhstan	2018	Consumption
Kenya	2015	Consumption
Kiribati	2006	Consumption
Korea, Republic of	2016	Income
Kosovo	2017	Consumption
Kyrgyz Republic	2019	Consumption
Lao People's Democratic Republic	2018	Consumption
Latvia	2018	Income
Lebanon	2011	Consumption
Lesotho	2017	Consumption
Liberia	2016	Consumption
Lithuania	2018	Income
Luxembourg	2018	Income
Madagascar	2012	Consumption
Malawi	2016	Consumption
Malaysia	2015	Income
Maldives	2016	Consumption
Mali	2009	Consumption
Malta	2018	Income
Mauritania	2014	Consumption
Mauritius	2017	Consumption
Mexico	2018	Income
Micronesia, Federated States of	2013	Consumption
Moldova	2018	Consumption

Mongolia	2018	Consumption
Montenegro	2016	Income
Morocco	2013	Consumption
Mozambique	2014	Consumption
Myanmar	2017	Consumption
Namibia	2015	Consumption
Nepal	2010	Consumption
Netherlands	2018	Income
Nicaragua	2014	Income
Niger	2014	Consumption
Nigeria	2018	Consumption
North Macedonia	2018	Income
Norway	2018	Income
Pakistan	2018	Consumption
Panama	2019	Income
Papua New Guinea	2009	Consumption
Paraguay	2019	Income
Peru	2019	Income
Philippines	2018	Consumption
Poland	2019	Consumption
Portugal	2018	Income
Romania	2018	Income
Russian Federation	2018	Consumption
Rwanda	2016	Consumption
Samoa	2013	Consumption
Sao Tome and Principe	2017	Consumption

Senegal	2011	Consumption
Serbia	2018	Consumption
Seychelles	2018	Income
Sierra Leone	2018	Consumption
Slovak Republic	2018	Income
Slovenia	2018	Income
Solomon Islands	2012	Consumption
South Africa	2014	Consumption
South Sudan	2016	Consumption
Spain	2018	Income
Sri Lanka	2016	Consumption
St. Lucia	2016	Income
Sudan	2014	Consumption
Sweden	2018	Income
Switzerland	2018	Income
Syrian Arab Republic	2003	Consumption
Tajikistan	2015	Consumption
Tanzania	2017	Consumption
Thailand	2019	Consumption
Timor-Leste	2014	Consumption
Togo	2015	Consumption
Tonga	2015	Consumption
Trinidad and Tobago	1992	Income
Tunisia	2015	Consumption
Turkey	2019	Consumption
Turkmenistan	1998	Consumption

Tuvalu	2010	Consumption
Uganda	2016	Consumption
Ukraine	2019	Consumption
United Kingdom	2017	Income
United States	2018	Income
Uruguay	2019	Income
Uzbekistan	2003	Consumption
Vanuatu	2010	Consumption
Venezuela	2006	Income
Vietnam	2018	Consumption
West Bank and Gaza	2016	Consumption
Yemen, Republic of	2014	Consumption
Zambia	2015	Consumption
Zimbabwe	2019	Consumption

Notes

[1] For more information about Sustainable Development Goal 10, see: www.un.org/sustainabledevelopment/inequality/

[2] PPP stands for Purchasing Power Parity. Purchasing Power Parity helps to measure how incomes in a particular country are measured against goods and services, compared to other countries. This can be measured through how much a basket of goods might cost in one country, compared to another. Calculating figures of PPP is done by the International Comparison Programme, with the last available PPP figures being from 2017.

3 For a discussion from the World Bank on different poverty lines for different countries, see here: https://blogs.worldbank.org/developmenttalk/richer-array-international-poverty-lines.

[4] The Stockholm Resilience Centre have quantified nine planetary boundaries within which humanity can continue to develop and thrive for generations to come. Crossing these boundaries, including climate change, increases the risk of generating large-scale abrupt or irreversible environmental changes. See: www.stockholmresilience.org/research/planetary-boundaries.html

[5] For a discussion on the need to redistribute and lower inequality to both tackle poverty, and stay within our planetary boundaries see here: https://ourworld.unu.edu/en/want-to-get-into-the-doughnut-tackle-inequality.

[6] Leave No One Behind is the key pledge of Agenda 2030, which aims to reach the poorest people and address discrimination and rising inequalities within and amongst countries, and their root causes. https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind

7 For a discussion on the importance of horizontal inequalities, see https://gsdrc.org/document-library/horizontal-inequalities-explaining-persistence-and-change/.

8 For a discussion on the relationship between economic and political inequality, see: https://policy-practice.oxfam.org/resources/working-for-the-few-political-capture-and-economic-inequality-311312/.

[9] Credit Suisse. Global Wealth Databook. Available at: www.credit-suisse.com/about-us/en/reports-research/global-wealth-report.html

[10] To read more about how data inclusivity can give a voice to marginalised people visit: www.data4sdgs.org/news/five-tips-promote-data-inclusivity

Development Initiatives (DI) applies the power of data and evidence to build sustainable solutions.

Our mission is to work closely with partners to ensure data-driven evidence and analysis are used effectively in policy and practice to end poverty, reduce inequality and increase resilience.

While data alone cannot bring about a better world, it is a vital part of achieving it. Data has the power to unlock insight, shine a light on progress and empower people to increase accountability.

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