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Poverty, Inequality, and Social Change: A Cross-National Analysis of Welfare Distribution Using World Bank PIP Data

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Abstract

This study examines the interrelationship between poverty, inequality, and welfare distribution through a comprehensive cross-national analysis using data from the World Bank's Poverty and Inequality Platform (PIP). Covering 177 countries over the period 1967–2021, the study employs a longitudinal quantitative design to explore global trends, distributional patterns, and structural disparities in income. Descriptive and trend analyses reveal a significant decline in global poverty alongside persistent levels of inequality, highlighting a divergence between improvements in basic living standards and equitable income distribution. Distributional findings indicate a pronounced concentration of income among higher deciles, with the top 10% capturing a disproportionately large share relative to the bottom 50%. Further, urban–rural comparisons demonstrate significantly higher inequality in urban contexts, suggesting the role of structural and spatial factors. Regression results confirm that different dimensions of poverty exert varying effects on inequality, with extreme and upper-middle-income poverty positively associated with income disparities. These findings underscore the limitations of growth-centered approaches and emphasize the need for integrated policies that simultaneously address poverty and inequality. The study contributes to social science discourse by providing robust empirical evidence on the dynamics of welfare distribution and offers policy-relevant insights for advancing inclusive and equitable development.

Keywords: Poverty, Inequality, Welfare Distribution, Inclusive Growth, Social Change

1. Introduction

The world development pattern in the recent decades has been characterized by substantial declines in abject poverty, which has been mainly brought about by economic growth, globalization, and specific policy interventions. The inequality in the distribution of income and wealth has existed nonetheless in the wake of these improvements-and in most conditions has even increased generating a paradoxical situation at the core of modern social science research. Such a combination of decreasing poverty and increasing inequality has been of great scholarly interest because it provokes significant questions about fairness, access to opportunities, and social stability in the long term (Ravallion, 2008; Lakner et al., 2022). Although the decrease in poverty indicates the increase in the minimum standard of living, inequality highlights the difference in the distribution of resources and opportunities at the individual and societal levels, thus defining life opportunities and social mobility (De Vita, 2007; Wan and Wang, 2019).

The consequences of inequality go well beyond economic performance, profoundly affecting the form of governance, institutional confidence and the developmental process in general. The high levels of inequality tend to correlate with the lack of social cohesion, polarization, and lack of trust towards the institutions of the government, which may weaken the process of sustainable development (Nafar, 2019; Ticualu, 2025). In terms of human development, inequality inhibits the availability of basic services like education, healthcare, and jobs, thus creating a limitation on whether people can fully engage in social and economic life (Russell, 2018). Consequently, inequality is not merely a distributional issue but a multidimensional problem that cuts across the justice, rights, and institutional effectiveness issues (Bukowski and

Kreissl, 2022). The recent scholarly literature has thus highlighted the importance of outgrowing the confined thinking of income metrics and adopting more comprehensive solutions that view both the aspects of poverty and inequality as interdependent aspects of social well-being (Biggeri & Cuesta, 2021).

Although the interdependence between poverty and inequality is increasingly being understood, in the empirical literature, the two have largely been considered separately. Much of the existing literature has been devoted to either the measurement and alleviation of poverty or the study of income distribution, but very little has been done regarding interaction of these phenomena over time and in various socio-economic settings (Ravallion, 2008; Wan and Wang, 2019). This division has limited a holistic view of the effect of inequality changes on the dynamics of poverty, especially in the long-term development patterns. In addition, cross-national comparative research involving both dimensions combined with a set of consistent and harmonized data is relatively rare. Historically, the disparity in data access, methodology, and measurement standards has restricted the possibility of performing a strong longitudinal study that cuts across nations, resulting in significant gaps in the literature (Lakner et al., 2022).

These constraints are especially important taking into consideration current changes in global welfare systems and policy frameworks. With the need to adjust to economic globalization, technological change, and changing demographic trends, the welfare state systems and redistribution mechanisms keep changing, and the effects of these changes on inequality and poverty differ (Ebbinghaus, 2025). Simultaneously, intra-national inequalities such as urban-rural differences have not been studied enough even though they are key drivers of distributional outcomes. To fill these gaps, a more in-depth analytical paradigm that reflects the dynamic and interdependent relationship between poverty, inequality, and social change is needed.

This paper reacts to these issues by offering a cross-national analysis of welfare distribution in an integrated form with the use of the World Bank Poverty and Inequality Platform (PIP) dataset. The study aims to contribute to knowledge on the dynamics of distribution patterns both across contexts and over time by integrating both measures of poverty and inequality in a single empirical framework. The extensive harmonization of the dataset allows a strong comparative analysis, which addresses most of the limitations of previous studies. This way, the research will impact the wider debate on inclusive development by providing valuable information on the dynamics of inequality in its structure and its consequences towards social change. The results are likely to shape policy discussions on equitable development, social security and governance, and support the need to focus on inequality in addition to poverty reduction in an endeavor to achieve sustainable and just societies.

Research Objectives

1. To assess global trends in poverty and income inequality across countries from 1967–2021
2. To evaluate welfare distribution using decile income shares and inequality indicators (Gini, Palma ratio)
3. To examine regional and urban–rural disparities in poverty and inequality outcomes

2. Methodology

2.1 Research Design

This study adopts a quantitative, longitudinal research design to examine the dynamics of poverty and inequality across countries. A cross-national panel framework is used to capture both temporal and spatial variations in welfare distribution. The design enables the identification of long-term trends and structural differences between regions. It is particularly suited for analyzing macro-level social and economic transformations over time.

2.2 Data Source and Sample

The data used in the analysis is secondary data that was acquired at the World Bank in its Poverty and Inequality Platform (PIP). The dataset has 177 country-years of observations, covering the year 1967 to 2021. It offers harmonized pointers of income and consumption which are not aggregated at national, urban, and rural levels. The wide temporal and geographical coverage increases the strength and the generalizability of the results.

2.3 Variables and Measures

The outcomes of the study employ the poverty headcount ratios and inequality indexes like the Gini coefficient and the Palma ratio. Decile income shares and percentile ratios (e.g. P90/P10) are also used to further examine welfare distribution. Time, region and reporting level are control variables to capture structural variations. Such measures enable a thorough evaluation of aggregate inequality, as well as distributional patterns.

2.4 Data Processing and Analysis

Preprocessing of data includes cleaning and management of missing values and the consistency of welfare definitions and PPP adjustments. Global and regional trends are investigated using descriptive statistics and trend analysis. Distributional analysis is done to determine how concentrated income is among groups of people. Structural factors, poverty and inequality are then analyzed using panel data regression models to determine relationships.

2.5 Robustness and Validity

Cross-validation of results is performed by using several inequality measures to make sure that results are reliable. Sub-sample tests are performed in terms of welfare type and reporting level to establish consistency. To deal with unobserved heterogeneity, model diagnostics such as fixed and random effects comparisons are conducted. Such measures enhance internal validity and strength of the empirical results.

3. Results

3.1 Descriptive Statistics

Table 1 shows the summary statistics of the key variables to be utilized in the analysis, such as poverty indicators and inequality measures. The findings indicate a huge deviation among countries and time. The average number of people living below the international poverty line is 10.18% with a very broad distribution of 0% to 96.87% which shows a high level of heterogeneity in poverty. On the same note, the measures of inequality are quite diverse, with the Gini coefficient being 0.376 on average and 0.178 to 0.658.

The Palma ratio, which has a mean of 1.89, indicates that, on average, the income share of the top 10% is almost two times that of the bottom 40%, with significant income concentration. The presence of inequality is also further supported by the S80/S 20 ratio and the P 90/P 10 ratio, although the latter has extremely high outliers, which means that there is high polarization in some countries.

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	Std. Dev.	Min	Max
Poverty (Intl. Line)	10.18	17.84	0.00	96.87
Poverty (Lower-Mid)	20.11	26.59	0.00	99.99
Poverty (Upper-Mid)	34.60	33.45	0.00	99.99
Gini Coefficient	0.376	0.089	0.178	0.658
Palma Ratio	1.887	1.139	0.596	8.344
S80/S20 Ratio	8.220	6.019	2.430	72.682
P90/P10 Ratio	6.949	44.026	2.191	2892.000

3.2 Global Trends in Poverty and Inequality

Temporal analysis of the world trends shows that poverty and inequality have different tendencies. The trend of the poverty headcount ratio, which is smoothed, indicates that there is an overall downward trend over the years, but the initial years are volatile, as the ratio is not covered by a large number of countries. Conversely, the Gini coefficient is relatively constant, with just significant variation, indicating that even as the extreme poverty has been reduced as indicated in figure 1, there is still inequality.

These results show that there is a major paradox: the world has become poorer, but inequality has not become equally poor. This disconnect highlights the structural aspect of inequality and how it is resistant to change solely due to economic growth.

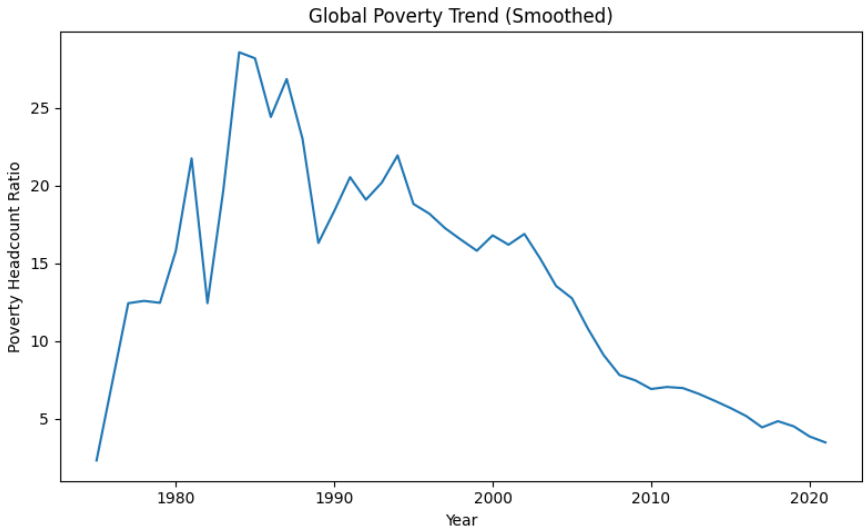


Figure 1. Smoothed global trend in poverty headcount ratio (international poverty line), showing a long-term decline despite short-term fluctuations.

3.3 Welfare Distribution Across Deciles

Time series analysis of the international patterns shows that poverty and inequality have different patterns. The trend of smoothed headcount ratio of poverty has generally been decreasing with time, but the initial years are volatile as there is limited country coverage. Conversely, the Gini coefficient is relatively stable with average changes only indicating that there is still inequality despite the changes in extreme poverty as depicted in figure 2.

These results present a dire paradox: although the world has become poorer, inequality has not been reduced in the same manner. This split highlights the structural quality of inequality and its inertia to change by economic growth alone.

Table 2: Average Income Share by Decile

Decile	Income Share (%)
Decile 1	2.63
Decile 2	4.10
Decile 3	5.13
Decile 4	6.12
Decile 5	7.17
Decile 6	8.36
Decile 7	9.84
Decile 8	11.89
Decile 9	15.32
Decile 10	29.43

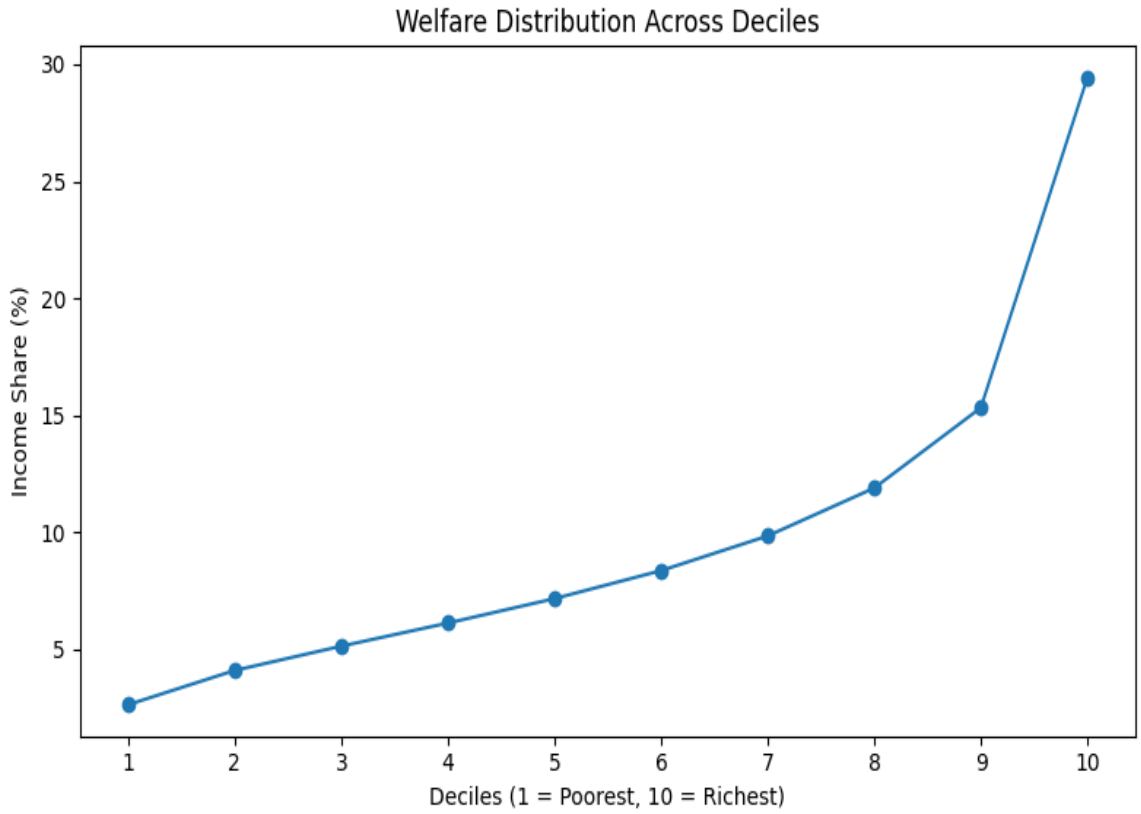


Figure 2. Distribution of income across deciles, highlighting strong concentration of income in the top decile relative to lower income groups.

3.4 Urban–Rural Inequality

There are major differences in levels of reporting. Table 3 reveals that the highest level of inequality occurs in urban regions: the Gini coefficient mean is 0.409 with a Palma ratio of 2.17. However, in contrast, rural locations have significantly lower inequality (Gini = 0.311; Palma = 1.21) whereas national averages are between those two extremes.

This disparity can also be seen in the P90/P10 ratio with the urban regions having significantly higher polarization (20.73) than the rural regions (3.76) as seen in figure 3. These observations indicate that urban economies are more

concentrated in incomes and more unequal, and probably because of structural factors (labor market segregation and unequal access to opportunities).

Table 3: Inequality by Reporting Level

Reporting Level	Gini	Palma Ratio	P90/P10 Ratio
National	0.376	1.891	6.242
Rural	0.311	1.214	3.762
Urban	0.409	2.174	20.725

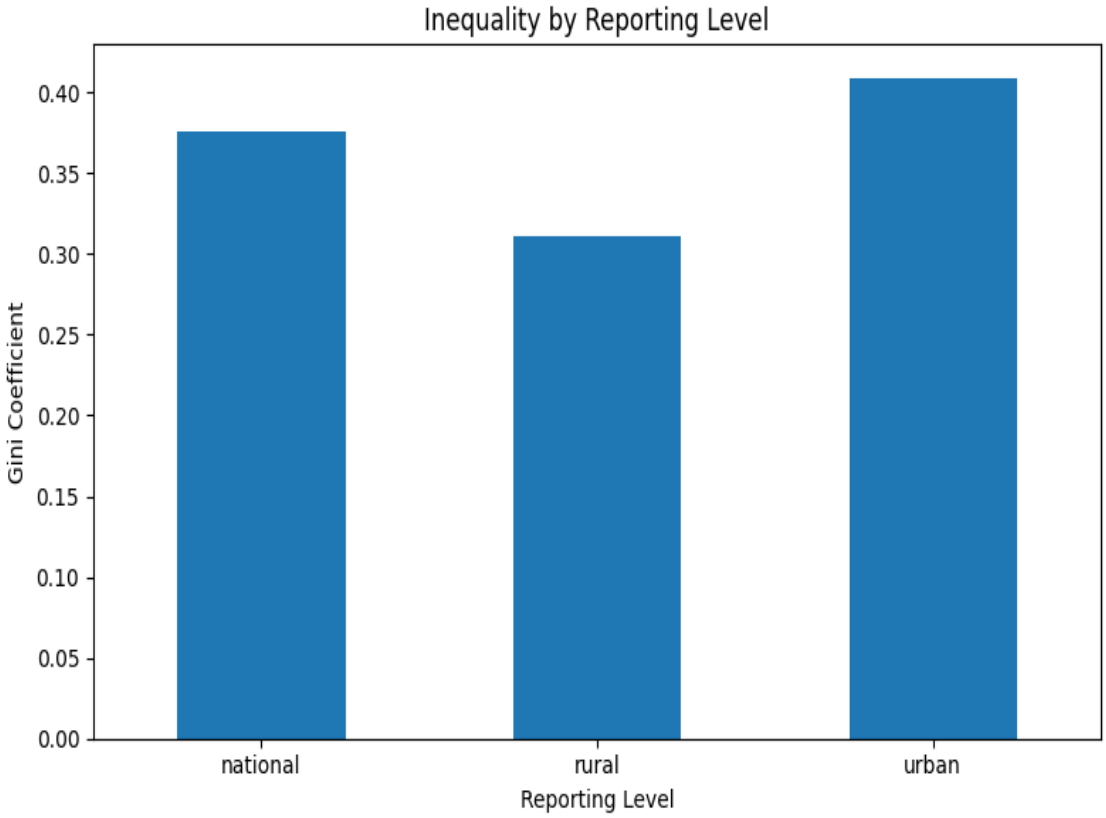


Figure 3. Comparison of inequality across reporting levels, showing higher inequality in urban areas relative to rural and national averages.

3.5 Regression Analysis

A simple least squares (OLS) regression model was estimated to test the hypothesis of the relationship between poverty and inequality, where the Gini coefficient was the dependent variable. Table 4 shows that the model has a statistically significant result ($F = 316.3$, $p < 0.001$) with an R 2 of 0.178.

The results show a significant positive impact of extreme poverty (international poverty line) on inequality (β= +0.0049, = -0.001), indicating that an increase in extreme deprivation levels leads to increased income inequalities. On the same note, there is also a positive correlation between upper-middle-income poverty and inequality (β= 0.0034, $p < 0.001$), which implies that poverty in the upper-middle-income segment leads to the polarization of the distribution.

Conversely, inequality has a negative correlation with lower-middle-income poverty (β= -0.0061, p =0.001), suggesting a narrower income distribution in the poorer economies. This negative correlation indicates that the overall incomes might be low, but inequalities are not so high.

Table 4: OLS Regression Results

Variable	Coefficient	Std. Error	t-value
Constant	0.3323	0.002	171.08
Poverty (Intl.)	0.0049	0.000	17.57
Poverty (Lower-Mid)	-0.0061	0.000	-18.99
Poverty (Upper-Mid)	0.0034	0.000	23.24

3.6 Summary of Findings

The findings confirm that the poverty levels in the world have decreased, but inequality is still a persistent phenomenon and is organized. The distributional analysis proves that there is a high level of income concentration at the top and the urban rural comparison shows that there are disparities in inequality by space. The regression outcomes also indicate that the various types of poverty do not affect inequality in the same way and their effects are statistically significant which indicates the complexity of the poverty reduction and income distribution relationship.

4. Discussion

The results of this work give significant information about the complicated correlation between poverty, inequality and social change under a global perspective. Although both the descriptive and trend analyses show that there has been an overall reduction in poverty over time, inequality still persists and, in some places, it is extreme. This deviation supports the thesis statement that poverty reduction is not necessarily accompanied by more equitable income distribution. This conclusion is further supported by the regression results as they show a positive relationship between extreme and upper-middle-income poverty and inequality, and a negative one between lower-middle-income poverty and inequality. This implies that the degree of deprivation is not the only determinant of inequality but also the income distribution pattern within economies. Specifically, the high level of income concentration within the top decile and the increased inequality in cities, suggest that structural factors including, but not limited to, labor market segmentation, capital accumulation, and unequal access to opportunities have contributed to inequality, and not necessarily policy-induced results.

In theory, these findings can be used to advance some of the current discussions in the social change and development literature. Both classical and modern theories of social change highlight that economic change can be frequently followed by changes in institutionalization and distributional consequences (Friedman and Ladinsky, 2021). The continuation of inequality witnessed in the current research corresponds with the arguments, according to which modernization and economic development cannot necessarily result in equal outcomes, especially when the institutional frameworks are not inclusive (Dias et al., 2021). Moreover, the findings are echoed in the literature on growth and distribution, which emphasizes that economic growth can alleviate or reinforce inequality, based on the manner in which the gains are shared among the population (Ranis, 2019). The varying impacts of alternative poverty thresholds on inequality also confirm the dynamic quality of income mobility and distribution, which argues that poverty persistence and pro-poor mobility should be studied together to understand social outcomes in the long term (Creedy and Gemmell, 2018).

The research also adds to the discussion of redistribution/growth trade-offs. The fact that some types of poverty are positively associated with inequality implies that growth may not be enough to alleviate inequalities, thus requiring specific mechanisms of redistribution. Empirical evidence suggests that properly designed fiscal and welfare policies could strike an efficiency/equity balance; however, trade-offs are likely to occur in reality (Muinelo-Gallo and Miranda Lescano, 2022). Simultaneously, the results affirm the thesis that redistribution and growth do not have to be mutually exclusive and may be complementary in case the policies are aimed at improving human capital and broadening the opportunities (Ranis, 2019). Here, governance is a key factor that can determine the efficacy of redistribution policies and provide economic advantages as social goods (Rietveld et al., 2020).

These findings have important policy implications. The continuing inequality, particularly in cities, highlights the necessity of structural disparities to be tackled by providing specific social protection measures. Inequality can be minimized through the provision of greater access to education, health care and employment opportunities, which increases personal abilities and enhances upward social mobility. Examples of developing countries show the success of social protection initiatives in reducing poverty and vulnerability especially when well-focused and institutionally enabled (Banerjee et al., 2024). In addition, to deal with inequality sustainably, inclusive growth strategies that encompass economic, social, and technological aspects are necessary (Heshmati et al., 2019). The increasing impact of digital and financial inclusion also implies that capitalizing on the technological innovations can help to achieve more equal developmental outcomes (Xun et al., 2020). On a larger scale, the attainment of sustainable development goals involves concerted actions to decreases poverty and inequality at the same time since they are highly intertwined (Roy et al., 2018).

The results of this study, when contrasted with the existing literature, generally agree with previous studies but also have their novelties. In line with previous research, the findings confirm that improving poverty does not necessarily result in lower inequality (Roy et al., 2018; Ranis, 2019). Nevertheless, the work complements the existing literature as it contains a cross-national study that incorporates various aspects of welfare distribution on a long-term basis. The finding of the difference in effects at varying poverty levels provides some sensitivity to the existing body of knowledge on the relationship between poverty and inequality, indicating that the relationship between the two variables is more intricate than expected before. Also, it is evident through urban-rural inequalities, which contributes to a developing strand of research that focuses on spatial aspects of inequality.

The study has a number of limitations, even though it has contributed. Firstly, despite the comprehensive nature of the dataset, there are data gaps in the coverage of data across countries and periods especially in the earlier years. Such gaps can have an impact on the consistency of trend estimates and reduce the comparability of findings. Second, the calculation of income and consumption measures creates the possibility of inconsistencies since the measures represent different facets of welfare. Although there was an attempt to align the data, there can still be differences in measurements that can affect the results. Third, pooled OLS regression fails to capture unobserved heterogeneity among countries, which can distort the results of estimating relationships.

This study can be extended in future studies in a number of ways. Micro-level studies based on household survey data may involve more information on how inequality and poverty processes work. Also, it would be useful to include some political and institutional variables, like the quality of governance, policy regimes, and social protection systems, to gain a better insight into the structural determinants of inequality. More effective causal inference can be achieved with longitudinal studies that apply high-level econometric models, like fixed-effects or dynamic panel. Lastly, the study of how economic inequality interacts with the new aspects of digitalization and climate change would give useful guidelines as to how future research should be carried out in the face of the changing global challenges.

5. Conclusion

The paper is a cross-national study of poverty, inequality, and distribution of welfare based on harmonized data of the World Bank on Poverty and Inequality Platform. The results show that there is a consistent mismatch between decreasing poverty in the world and the lasting income inequality, indicating the structural character of the distribution of inequalities. Although poverty has been decreasing in most settings, the accumulation of income in the hands of the higher deciles and the high level of inequality in cities, indicate that there is unequal distribution of economic benefits. The regression findings also reveal that the various dimensions of poverty have varied impacts on inequality, which therefore indicates how complicated the relationship between the two is. These results support the idea that it is necessary to go beyond the growth-centric strategies and implement the approaches that can help not only to combat poverty but also to reduce inequality. Policy-wise, the findings underscore the need to consider inclusive development, specific social protection, and proper governance frameworks in order to achieve fair development. Although the study has some limitations connected with the gaps in the data and irregularities in measurements, it adds to the general discussion of social change as it presents the empirical data concerning the dynamics of inequality in different contexts. On the whole, it points out that green and fair development means not just alleviating poverty, but also responding to the institutional frameworks underpinning inequality.

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