Rural Migration and Income Inequality in South Asian countries: An Econometric Descriptive Analysis

Abstract

The United Nations projects that by 2050, over 64% of Asian regions would be urban. Moreover, during the last few decades, several nations and regions have seen a rise in economic disparity owing to migration. Others find a non-linear link between rural migration and income disparity and dependent on the level of growth. In this way, to find the extent of inequality in the developing countries, South Asian nations continue to be understudied. This article used a balanced panel dataset for eight South Asian nations from 1995 to 2022 to explore the correlation between rural migration and income inequality to determine the amount of inequality. The panel supports Kuznets' inverted-U hypothesis by showing a negative link between growth and income inequality. Additionally, econometric results display a negative relationship between income inequality and rural migration in all three models. Therefore, policy makers should focus on the public policy should prioritize to providing educational opportunities, health care, and other social amenities in rural communities.

JEL classification: O11, O15, O18, O53, P25

Keywords: Rural migration, Income inequality, Gini index, South Asia, Panel data, Kuznets' inverted-U hypothesis.

I. Introduction

The phenomenon of migration from rural to urban areas is intricately linked with the challenges posed by income inequality. Income inequality presents significant hurdles for development experts, international organizations, researchers, and policymakers working to address it (Khanday & Tarique, 2023; Sethi et al., 2021). Its exacerbation not only undermines individual and societal well-being but also hampers future economic prospects, which sustains a pattern of economic hardship(Kim & Rhee, 2022; Piketty & Yang, 2022). Furthermore, escalating

inequalities often underlie socio-political unrest, rent-seeking behaviors, corruption, and institutional distrust (Goni, 2008; Stiglitz, 2013). Notably, Ranciere & Kumhof (2010) argue that income inequality played pivotal roles in both the Great Depression of 1930 and the Recession of 2007. Addressing income disparity is crucial for fostering inclusive and sustainable economic growth(Berg et al., 2018), and reducing the proportion of the population vulnerable to poverty(Mallick et al., 2020). Consequently, researchers have been prompted to investigate the relationship between income inequality and its driving factors.

The migration from rural to urban areas is often driven by the expanding economies of countries. As nations progress, there is a marked increase in the urban population (Annez & Buckley, 2009; Quintana, 2018; Kuznets, 1955). Various factors contribute to rural-urban migration, including economic motives such as seeking better standards of living, employment opportunities, and business prospects that can enhance quality of life. Additionally, adverse conditions like famine or severe poverty may compel individuals to leave their rural homes. This migration phenomenon is intertwined with income inequality, reflecting disparities in economic opportunities between rural and urban areas, and exacerbating challenges associated with income distribution.

Additionally, the reasons could be social, such as the desire to provide a better education for their children, the improvement of health care facilities, and the availability of entertainment facilities as opposed to working seven days on the farms. Sometimes these reasons are linked together. Urban centers have historically been economic engines. Having a variety of wealth and resources within a city is also one of the reasons for the world's growing urbanization(Liddle, 2017). in this way, there are strong direct and indirect relationships between rural migration and growth. Increased rural-to-urban migration might have positive and ominous implications on people's well-being, including structural change, economic development, and human welfare (Liddle & Messinis, 2015). United Nations reports say that by 2050, almost 66 per cent of the world's population may be living in urban areas. Interestingly, less than 30% of the world's population lived in cities in 1950 (United Nations, 2014). Despite this, these connections are not thoroughly understood even today. By 2050, urban areas are expected to grow fastest in Asian developing countries, which are not well prepared for such steady flows of migrants or are not capable of absorbing them within reasonable timeframes.

Older cities in wealthy nations, such as London, Paris, and New York, urbanized progressively over a century. It took plenty of time to acclimatize. On the contrary, rapid urbanization developed within a few short decades in emerging Asia (Kundu & Kundu, 2010). Unlike Western cities that urbanized earlier, growing Asian cities lack the administrative, managerial, institutional, and financial resources to handle urbanization and the ensuing socioeconomic upheaval in such a short period of time. Rural migration and industrialization are inextricably fueled by urban expansion. It necessitates the expansion of land areas (Yeung, 2011; Sathaye et al., 1994). When urbanization rates are high and nations lack the institutional and administrative capacity or economic resources to handle such fast expansion, it imposes significant pressure on the forms and characteristics of the ensuing settlements.

Asia and Africa have the highest urbanization rates of all continents. The fact that cities in nations with lower wages sometimes produce a disproportionate portion of their GDP indicates that it might be associated with their relative economic strength(Liddle, 2013). It leads to the development of overpopulated slums and shanty communities without appropriate essential services and infrastructure. According to the United Nations Population Fund report (2007), no modern nation witnessed sustained economic development without the urbanization.In addition, Annez & Buckley (2009) emphasize that "no nation has ever acquired middle-class status without a major population shift towards cities" during the previous century. Likewise, Quintana & Larrú (2015) discovered that income inequality and rural-urban migration rates strongly correlate with national economic growth and development. Notably, most cities in developing nations struggle to resolve gaps in healthcare, education, transportation, and housing.

Urbanization and rural migration are two challenges growing Asian countries face. Even though urbanization is gaining momentum in developing Asian countries, it is difficult to appreciate its implications for Asia. Rapid technical advancements, such as improvements in communication and cheaper and more convenient transportation, have made it simpler for the present generation of migrants to maintain frequent contact with their home towns than their predecessors. The most significant contribution of migrants to sharing resources across geographic regions has been the regular flow of remittances to their home communities. As a consequence of this resource transfer, the quality and living style of people left behind have increased in the original communities. Urbanization and migration inevitably have substantial-good and adverse effects

on the political, economic, social environmental landscapes of both the new locations where migrants reside and their former homes. Over time, it becomes more difficult for small towns and cities to control their urbanization processes. Over time, these smaller urban agglomerations are expected to experience rising poverty and hardship. Housing, job creation, and access to essential services like clean water, health and education will become more challenging. This study adds to the discussion about the link between rural migration and income inequality in South Asian countries using balanced panel data for the period 1995 to 2022.The scarcity of substantive literature in context of South Asian countries inspired this study.In addition, this paper will do some addition to the existing available pool of knowledge.

Review of literature

This study examines the complex relationship between Rural Migration and Income Inequality. The term rural migration generally refers to the movement of individual from rural areas to urban areas (Adams & Klobodu, 2019), which ultimately leads to Urbanization. This movement is usually happens with a aim to get better opportunities and amenities (Fay & Opal, 2000; Bertinelli & Black, 2004; Wan & Zhou, 2005; Kuznets, 1955; Wu & Rao, 2017; Liddle & Messinis, 2015;). Furthermore, the reasons pushes the rapid migration from rural to urban are limited opportunities and limited access to basic necessities in rural areas (Annez & Buckley, 2009; Chen et al., 2016). Additionally, the promises to get better healthcare facilities, job opportunities, education and social services further stimulates migration to urban areas (Kanbur & Zhang, 1999; Henderson, 2003)

Theoretical concept of Kuznets (1955)uncovered an inverted U-shaped relationship between income disparity and economic development in his study. He continued that as countries shifted from agriculture to industry, industrialization and urbanization altered the pattern of wealth distribution in economies. Rural people would migrate from low-productivity agricultural sectors to high-productivity non-agricultural sectors in urban areas. Because urban inhabitants have better per capita productivity than rural dwellers, Kuznets hypothesized that economic inequality would increase as countries urbanize.Robinson (1976)suggested a model comprehending the association between urbanization and income disparity based on previous research (e.g., Adelman. He assumed the economy was divided into subsistence and capitalist structures, with high-wage non-agricultural sectors and low-wage agricultural. He said that a developing nation

should anticipate growing or steady income disparity throughout its middle stage of economic growth for a considerable amount of time in the absence of counterbalancing measures. Koechlin and Leon (2007) investigate the effect of overseas remittances on inequality, while Rodgers (1983) presents a historical perspective on rural-urban migration. Howell (2017) examines the influence of migration on ethnic income disparities in rural China, whereas Zhan et al. (2021) investigate its relationship with population aging. Butler et al. (2020) examine rural America's demographic transitions and inequality, enhancing on Ha et al.'s (2009) findings on internal migration in China. For developing nations, Liddle and Messinis (2015) discovered that economic growthpositively affects urbanization, but economic growth is negatively impacted by urbanization's others found positive (Siddique et al., 2014; Jones & Koné, 1996) or non-linear results(Wu & Rao, 2017; Robinson, 1976; Kuznets, 1955).For instance, the wage gap may expand if rural residents move to cities without the necessary education or training to do the jobs required by urban businesses. They may also be compelled to work in menial jobs that pay much less. Urbanization, on the other hand, may reduce income disparity if rural migrants are able to find work in the formal sector in metropolitan regions (Jones & Koné, 1996; Siddique et al., 2014). Finally, Lall and Selod (2006) provide a theoretical and empirical survey, emphasizing migration's complicated socioeconomic repercussions.

However, some empirical studies byKanbur & Zhuang (2013) viewed that urbanization narrowed income inequality in China and enlarged income disparity in Indonesia, the Philippines, and India. In addition, Kanbur & Zhuang (2013)forecast that urbanization would keep bringing down the income gap in China in the future, claiming that China had already passed the "turning point.".Siddique et al. (2014) accounted for urbanization in their analysis of the effect of fiscal decentralization on income inequality in Indonesia and found no effect of urbanization on income disparity. Other research, on the other hand, has identified evidence to support Kuznets' inverted U-shaped relationship between rural migration and income disparity (Wu & Rao, 2017; Liddle, 2017). Thus, the link between urbanization and income inequality is thus unlikely to be one-size-fits-all since various nations or regions are on different development tracks and have diverse economic frameworks.

Most of the investigations on income inequality in the development economics literature (Roine et al., 2009; Barro, 2000; Gustafsson & Johansson, 1999; Castells-Quintana & Larrú,

2015)concentrated on country-level income disparity. However, a small but rising body of work (Rodríguez□Pose & Tselios, 2009; Castells-Quintana et al., 2015; Royuela et al., 2014) stresses regional analysis. Furthermore, earlier research has looked at how city size and income disparity connect at the city level. (Sarkar et al., 2018; Snow & Pavan, 2013; Chen et al., 2017;).Only a few researchers investigated the economic link between city size and income disparity. (Castells□Quintana, 2018).Inspired by the literature(Nord, 1980; Duranton & Puga, 2004; MacKinnon & White, 1985), Castells□Quintana (2018)examined the relationship between city size and income inequality and observed a U-shaped pattern in which income inequality first declines, ranges to a minimum, and then rises as city size grows. In conclusion, research on the validity of the relationship between urbanization and income inequality is unclear. Based on some empirical studies, academicians believe that there is a non-linear link(Robinson, 1976; Kuznets, 1955; Wu & Rao, 2017), whereas others believe the link is linear (Siddique et al., 2014; Jones & Koné, 1996). Hence, we reached at a conclusion that there is mix of results. On the other hands there is abundance of empirical studies at country level which belongs to South Asia. But lack in region-wise like South Asian nations. The current study try to contribute to existing knowledge by demonstrating a link between rural migration and income disparity in South Asian countries.

II. Data and empirical strategy

The research used a balanced panel dataset for eight South Asian nations from 1995 to 2022. The Gini index (Gini, 1909) is the dependent variable which calculates income inequality. The Gini index is produced using World Development Indicators data from the World Bank (WDI). The requisite variable is rural-to-urban migration, quantified as a percentage of the total urban population. Other indicators found as predictors of income inequality in the study include foreign direct investment (FDI) as a percentage of GDP, GDP per capita (measured in constant 2015 US dollars), trade openness (as a percentage of GDP), inflation, and agricultural contribution to GDP. The WDI provided all of the data for these variables. We integrated GDP per capita and its squared term to account for Kuznets' inverted U-shaped link between income inequality and economic development (Chintrakarn et al., 2012; Adelman & Robinson, 1989; Herzer et al., 2014; Francois & Nelson, 2003; Pan-Long, 1995).

The modernization hypothesis says that as countries acquire FDI, income inequality must initially rise before reducing. The premise is that FDI enhances savings, marginal productivity, and spending propensities in emerging economies. As countries grow and industrialize, more foreign direct investment comes in, and persons shift from agriculture to non-agricultural sectors, income disparity will increase. It is because the percentage of the population employed in high-income non-agricultural sectors is typically low in the early stages of development(Pan-Long, 1995; Adelman & Robinson, 1989).Similarly, Çelik & Basdas (2010)have claimed that trade liberalization and FDI reduces income inequality.

Similarly, studies also find that inflation affects income inequality (Blinder & Esaki, 1978; Bulíř, 2001; Scully, 2002; Scully & Slottje, 1991). In the outstanding paper, Bulíř (2001) presented an "outsider" versus "insider" model, in which outsiders work for nominal wages while insiders work for inflation-indexed wages. Because the increase in inflation impacts outsider workers' actual earnings, rising inflation would divert them and lead them to focus more on time-consuming activities to offset inflationary income losses. Furthermore, inflation lowers the value of nominal possessions held by third parties. These factors may eventually expand the salary difference between the two groups. Blinder & Esaki (1978) have suggested that unexpected inflation reduces income inequality by redistributing money from the wealthy to the poor (Scully & Slottje, 1991; Scully, 2002). The empirical literature on the impact of international remittances on income inequality yields varied results(Acosta et al., 2008; Rapoport & Docquier, 2006; Adams & Mahmood, 1992; Anyanwu, 2011; Milanovic, 1987). While some studies have indicated that remittances have a favorable influence on income inequality(Lipton, 1980; Stahl, 1982; Acosta et al., 2008), others have found a negative effect (Taylor & Wyatt, 1996; Barham B.& Boucher, S. 1998). However, several studies have found no evidence that remittances significantly impact income disparity(Adams & Mahmood, 1992; Milanovic, 1987). Finally, we considered the agriculture sector's contribution to GDP because the economic structure has been linked to income inequality(Benjamin et al., 2017).

The empirical strategy of this research employs the following econometric technique. First, we created the following model of income inequality:

$$G_{it} = \beta_0 + \beta_1 R_{it} + Z_{it}\gamma + \varepsilon_{it} \ (i = 1,2,\dots,N, t = 1,2,\dots,T) \qquad (1)$$

Eq. 1 can be used to estimate with either FE or RE models. In FE models, I and t are used as regression parameters, but in RE models, they are used as part of the error term.

$$G_{it} = \beta_0 + \beta_1 R_{it} + Z_{it}\gamma + \delta_i + \tau_i + \varepsilon_{it} \ (i = 1,2,\dots,N, t = 1,2,\dots,T) \qquad (2)$$

G is the Gini index, R is the rate of urbanization, Z is a vector of various income inequality covariates as stated above, and i and t are the country and time indexes, respectively. *b0* represents the intercept, *b1* represents the rural migration slope parameter, *g*is a vector of coefficients for the other variables, *di*represents nation fixed effects, *t* represents random effects, and*it*is the error term. FE or RE models can be used to estimate using Eq. FE models consider *I* and *t* as regression parameters, whereas RE models consider them part of the error term (Stern & Common, 2001; Stern, 2008). If *i* and *t* are correlated, FE models produce consistent results, whereas RE models produce inconsistent results. To pick between FE and RE, we use the Hausman test (Hausman, 1978). If the null hypothesis (no association between individual effects and regressors) is rejected, the consistency of FE makes it the best method. Otherwise, RE is efficient and desirable (Stern & Common, 2001)

Discussion on results inequality.

Table 1 displays the statistical information for the study's variables. For the time under review, the Gini index varied between 27.6% in Afghanistan to 43.8% in Nepal. The overall average Gini index for the whole sample is 34%. The average population settled in the cities are 26.48%, ranging from a low of 10.88% in Nepal to a high of 42.31% in Bhutan. Migration is an important livelihood strategy in south Asian countries. Wage differential and the development gap are the core point across the country (Sharma et. al. 2015.).

Table 1 Summary Descriptive Statistics

	Mean	Maximum	Minimum	Observations	data sources
Gini Index	34	43.8	27.6	182	WDI
Rural Migration	26.48	40.66	10.88	182	WDI
Agriculture Share of GDP	20.4	47.38	4.6	182	WDI
Foreign Direct Investment	1.91	17.13	0.09	182	WDI
GDP per capita	2165.91	10197.09	213.22	182	WDI

Inflation	6.96	26.41	6.81	182	WDI
Manufacturing	12.38	22.77	1.91	182	WDI
Personal Remittances	5.6	27.62	0.07	182	WDI
Trade Openness	60.95	175.05	21.92	182	WDI
Compulsory Education	7.18	12	0	182	WDI

Per head, income is low in Afghanistan with a value of US$ 213.22, while found high in the Maldives with a value of US$ 10197.09. The average GDP per capita is 2165.91$. The Maldives has the lowest share of 4.6% of agricultural produce to total GDP, compared to Afghanistan, which is the highest share of agriculture produce to total GDP with 47.38 per cent; the overall average is 20.4%. FDI averaged 1.91, while trade openness is 60.55% of the total GDP. The manufacturing sector contributes 12.38%, and the mean personal remittances are 5.6% of the total GDP. Finally, the data reveal that compulsory education averages 7.18 years of schooling.

Table 2 results of Correlation Matrix

	Variable	1	2	3	4	5	6	7	8	9	10
1.	Gini Index	1									
2.	Rural Migration	-0.24	1								
3.	Agriculture Share of GDP	-0.46	-0.45	1							
4.	Foreign Direct Investment	0.06	0.47	-0.43	1						
5.	GDP per capita	0.47	0.39	-0.74	0.77	1					
6.	Inflation	-0.21	-0.17	0.37	-0.08	-0.32	1				
7.	Manufacturing	-0.30	-0.13	0.22	-0.40	-0.57	0.44	1			
8.	Personal Remittances	0.14	-0.39	0.15	-0.37	-0.29	0.05	-0.14	1		
9.	Trade Openness	0.51	0.22	-0.58	0.68	0.90	-0.25	-0.62	-0.31	1	
10	Compulsory Education	-0.25	0.45	-0.35	0.05	0.10	0.01	0.19	-0.21	-0.04	1

Table 2 reports the correlation matrix for the variables.Income inequality (Gini Index) correlates positively with GDP per capita (0.47) and trade openness (0.51), implying that economic expansion and globalization may exacerbate inequality. Rural migration (-0.24) and agriculture's percentage of GDP (-0.46) are negatively correlated with inequality, showing that urbanization and agricultural economies may assist reduce income inequalities. FDI shows positive correlation to rural migration (0.47) but negative with agriculture (-0.43). This imply that FDI benefits urban businesses. Inflation has a negative correlation with GDP per capita (-0.32). This imply that higher prices may inhibit economic progress. Education has a small adverse

influence on inequality (-0.25) had has a positive effect on rural migration (0.45). This imply that education promotes urbanization.

Table 3 Results of RE, FE, and pooled regression for the relation between rural migration and income

Variables	Random	Fixed	POLS
Rural Migration	-0.133*	-0.106*	-0.137*
	(-0.037)	(-0.038)	(-0.034)
Agriculture Share of GDP	-0.101*	-0.069**	0.101*
	(-0.043)	(-0.048)	(-0.045)
Foreign Direct Investment	-0.481*	-0.422*	-0.482*
	(-0.151)	(-0.161)	(-0.157)
GDP per capita	0.003*	0.004*	0.005*
	(0.00)	(0.00)	(0.00)
GDP per capita Sq.	-0.025*	-0.003*	-0.002*
	(-0.584)	(-0.618)	(-0.008)
Inflation	0.052	0.008	0.052
	(-0.005)	(-0.063)	(-0.052)
Manufacturing	-0.045	-0.096	-0.042
	(-0.069)	(-0.074)	(-0.072)
Personal Remittances	0.032	0.053	0.032
	(-0.044)	(-0.049)	(-0.046)
Trade Openness	0.013	-0.004**	0.013
	(-0.012)	(-0.013)	(-0.013)
Compulsory Education	-0.459*	-0.444*	-0.459*
	(-0.069)	(-0.071)	(-0.072)
Intercept	38.92*	38.189*	38.920*
	(-2.65)	(-2.72)	(-2.759)
R-squared	0.705	0.767	0.705

RE, FE, and pooled regression results for the relation between rural migration and income inequality.

Note: *denotes p-value <0.01, ** p-value <0.10, Standard errors in parentheses.

The table 3 shows the econometric results of the relationship between income inequality and rural migration using FE, RE, and Pooled OLS is reported in Models 1, 2 and 3, respectively. The results display a negative relationship between income inequality and rural migration in all three models. The relationship, however, is statistically significant at the 1% level.These findings have reasonable interpretations of why income disparity may increase when rural populations

migrate to cities. (a) The economic growth would shift economies from agricultural to non-agriculture, leading to urbanization. Although rising urbanization increases the income shares of the lowest income groups, this is compatible with a priori expectations. Given the growth process, a higher urbanization rate indicates more access to productive work options in the developing non-traditional sector and proportionally lowers population pressure in rural regions. Population in the rural area are characterized as disguised. Too many people engaged in too few jobs, which unfortunately do not affect aggregate output, consequently causing the low-income distribution. Both forces can benefit the lower-income groups (Ahluwalia, 1976). (b) Due to the possibility of earning a better income in the formal sector, rural migrants who relocate to metropolitan regions risk employment in the informal sector(Jones and Koné, 1996),(S. Kim, 2008). Since the formal sector pays more relative to the informal sector, it increases the income share of the migrants. In addition, the region's growing, competitive cities provide job prospects that surpass economic growth and development, consequently improving the region's income distribution. This proposition is consistent with the findings of the region's share of agriculture in GDP and verifies the notion of the population shift from agricultural to non-agriculture.

Secondly, as shown by previous research, FDI inevitably reduces income disparity in developing countries of destination (Chintrakarn et al., 2012; Francois & Nelson, 2003; Adelman & Robinson, 1989; Pan-Long, 1995; Herzer et al., 2014; Herzer et al., 2014). Inward FDI facilitates income distribution by raising wages in the corresponding sectors compared to traditional sectors (Pan-Long, 1995; Rubinson, 1976; Bornschier & Chase-Dunn, 1985; Girling, 1973). According to the modernization hypothesis, income inequality must first increase before it may decrease when nations attract FDI. The concept is that FDI infusion into a developing country enhances marginal productivity, savings, and spending tendencies. Since the percentage of the population employed in the low-income agriculture sector is often high in the early phases of development, as nations develop and move toward non-agricultural industries, foreign direct investment (FDI) increases, and individuals transfer from agriculture to non-agricultural sectors, income disparity will decline. Also, FDI helps reduce income inequality when it is used to take advantage of much low-wage, unskilled labour (Deardorff & Stern, 1994) or when capital, whether domestic or foreign, stimulates economic growth and its benefits spread to the whole economy in the long run (Pan-Long, 1995). Some scholars have also said that, like FDI, trade liberalisation reduces income inequality (Çelik & Basdas, 2010).

Third, the Remittances are insignificant yet show a positive relationship with income inequality. The results support the studies that have found that remittances help reduce income inequality(Stahl, 1982; Lipton, 1980; Acosta et al., 2008;). More recently, Adams et al. (2008) show that remittances have helped reduce poverty in Ghana and that international remittances have made a more considerable difference than those sent from within Ghana. The empirical study shows that international remittances have a mixed effect on income inequality(Rapoport & Docquier, 2006; Anyanwu, 2011). Beyene (2014) and Chiwuzulum Odozi et al. (2010)find the same results for Nigeria and Ethiopia.

In model 2, trade openness was linked to income inequality in a way that was negative and significant at 10%. According to the Heckscher-Ohlin theory, more trade makes income inequality worse in rich countries and better in developing countries, and this study supports this idea. From this theoretical point of view, we can say that opening up to international trade would benefit the LDCs' unskilled workers (Anderson, 2005; Jakobsson, 2006; Leamer, 1995). The results show that, besides other variables, there is no statistically significant link between the other control variables and income inequality.Education expansion is often seen as a critical policy tool for countering growing economic disparity in the medium term. Education expansion is necessary for promoting economic growth (Barro, 2000, 2013; Hanushek, 2013). After reaching a given level of education, it is easier to get specific employment, which might help break the intergenerational transmission of poverty and decrease the opportunity of inequality (Corak, 2013), hence lowering future income inequality.

These findings suggest that migration from rural to urban regions increases income by enhancing income equality within cities (Liddle, 2013; Snow & Pavan, 2013). Since cities tend to produce ample opportunities, and the relative importance of city areas is more vital than the rural areas, cities tend to attract rural migrants (Liddle, 2017). Thus, rising urbanization may lead to more money-earning options, thereby decreasing income disparity in cities and across the nation. The results show the non-linear relationship between GDP per capita and income inequality for the control variables, thereby confirming the Kuznets (1955) hypothesis.Precisely, the GDP per capita is positive with a minimal coefficient and the GDP per capita squared coefficient is negative, which depicts the position of South Asian economieshave reached the threshold level of the Kuznets inverted-U curve. These results show that as the per capita income increases,

inequality will decrease. GDP per capita and GDP per capita square are statistically significant at the 1% level across all three models.

III. Conclusion

This study analyzes data from eight South Asian countries over the period 1995 to 2022 to explore the relationship between rural migration and income inequality. The findings reveal a clear and statistically significant negative correlation between rural migration and economic inequality in these countries. This means that as rural migration increases, income inequality tends to decrease. These results are consistent across all the models used in the research. This study contrasts with previous research that identified a positive relationship between rural migration and income inequality (Chen et al., 2016; Kanbur & Zhuang, 2013; Kuznets, 1955). Instead, it aligns with studies demonstrating a negative (Jones & Koné, 1996; Kanbur & Zhuang, 2013) and those highlighting a non-linear association (Wu & Rao, 2017; Robinson, 1976; Liddle, 2017). These findings suggest that the relationship between rural migration and economic inequality is context-dependent, varying according to the economic development levels of different nations and regions. Consequently, this relationship cannot be regarded as universal or uniform across all contexts. As economies continue to modernize, it becomes crucial for South Asian governments to consider the social impacts of migration and urbanization. Developing public policies that effectively address the needs of citizens is essential (Chen et al., 2016). Remarkably, governments must prioritize and support industrialization efforts to create employment opportunities for low-skilled migrants transitioning to urban areas (Wu & Rao, 2017). Governments of the south Asian countries also consider increasing the welfare fund for rural migrants.

Furthermore, since the vast majority of rural migrants to urban regions work in the informal sector, public policy should prioritize providing educational opportunities, health care, and other social amenities in rural communities. Such interventions may reduce the incentive of rural populations to relocate to metropolitan areas (Harris & Todaro, 1970). However, these findings should be interpreted with caution because the research only discovered conditional correlations, not causation.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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