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Economic Growth and Social Equity: An Empirical Analysis of Inclusive Growth in Pakistan

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Abstract

In this thesis, we look at how IG works in Pakistan. Inclusive growth enhances social chances for all segments of society throughout economic development. The study main objective was the measurement of the inclusive growth in Pakistan from 1980 to 2019 in the light of the Asian Development Bank's methodology. Economic growth, job creation, improved transportation, easier access, and a healthier natural environment are all indicators of inclusive growth. Pakistan has accomplished sufficient inclusive growth, according to the statistics. Government health spending, GDP growth, and the share of agriculture and industry in GDP are all positively connected. These variables enhance inclusion, as demonstrated. Employment, income disparity, and poverty all act as roadblocks to inclusive growth. All members of society benefit from economic development, as the growth history found a strong correlation between inclusive growth and GDP growth rate per capita. Therefore, real GDP per capita growth may help achieve equitable development by improving living standards and opening new economic opportunities, especially for the poor. Economic growth can improve people's lives for the better if we put an emphasis on investing in people, social safety nets, and new business creation and entrepreneurship. Poverty reduction measures should be put in place to allow the poor increased access to education, training, and employment opportunities. Equal access to social safety nets and educational and professional development opportunities may help bring income inequality down. Promote initiative, capital expenditure, and the development of high-quality jobs. Prioritizing healthcare infrastructure, accessibility, and quality is essential for equitable growth.

Keywords: economic growth, social equity, inclusive growth

1. Introduction

Everyone in society benefits from inclusive growth (IG), which enhances the social opportunities of economic partners throughout economic progress. Direct connections between micro-, macro-, and economic growth determinants are a key component of its idea. Over time, the output of products and services rises because of economic expansion. It is essential that the calculation be devoid of inflation for precision. Stock prices rise because of increased profits because of an expanding economy. That way, businesses may increase spending and staffing levels. Creating jobs increases wages. Other items and services may receive greater spending from customers. Spending increases GDP. Therefore, long-term economic expansion is a goal for all countries. Overall factor productivity, aggregate factor inputs, and a country's GDP or GNP are examples of macroeconomic aspects, whereas IG indicates economic growth, but IG is the most crucial in a roundabout way. But in less developed countries, economic growth may lead to more corruption, which would make it much more difficult to maintain. The IG has a long-term view despite negative externalities since productive activity improves the income and standard of living of the poor (Thangmuanlal, 2017; Ali & Sajid, 2020).

Development that is inclusive is growth that is both beneficial to everybody and fairly distributed, according to the OECD. In economically dependent communities, IG opens doors for all members and ensures their financial prosperity (Antle and Ray, 2020). The United Nations Development Programme (UNDP) has a process-and result-oriented perspective on IG, which should lead to a fair distribution of benefits among all parties involved (Aggarwal et al., 2019).

Economic progress and the alleviation of poverty cannot be achieved without IG. It should also incorporate a sizable chunk of the country's labour force, which bodes well for individuals and businesses alike by creating a level playing field under fair regulations. For growth to be inclusive, productivity factors need to be greater. Nevertheless, IG places a higher value on dynamic employment than income migration. The goals of IG do not include the distribution of money or the creation of jobs, but these are the likely outcomes.

Inequitable economic development may lead to a misdiagnosis of the most pressing issues facing our society today, including income and wealth disparities, resource waste, and severe environmental harm. Global productivity and growth declined as uncertainty and inequality worsened. Public and private sectors both suffer because of growing income inequality and economic instability. Issues of this kind require IG's intervention. Everybody, especially the impoverished, has access to growth-related economic opportunities thanks to IG (Ali and Son, 2007). Giving low-income people decent work is IG's aim (Munir and Sami, 2018; Malik and Rehman, 2020). Pakistan's economic growth over the past 20 years has not been enough to alleviate poverty, and instead has served to widen the gap between different socioeconomic groups. Pakistan has increased funding for pro-poor initiatives, but the country still has to do more to alleviate poverty. It needs a large percentage of the workforce and widespread use across several sectors to ensure its continued success in the long run. Development and poverty reduction necessitate inclusivity, which include gender equality, market protection, and safe work transition (Spence, 2008; Kilyachkov and Chaldaeva, 2021). IG provides a workable answer to these problems since it focuses on equity instead of the economic channels used by traditional development models. So, the IG values relationships between humans and the natural world more than accumulation.

Backers assert that localizing Inclusive Growth has practical underpinnings, according to Turok (2010). When calculating potential contributors to rising living standards, GDP ignores context-dependent features such as the mix of growth (by industry, profession, or other reasons). Growth is the beginning of virtuous cycles. How exactly is growth that benefits all stakeholders defined? More than one concept is associated with these words. We prefer broad to specific understandings.

Economic and social costs and benefits assess environmental resilience, which includes minimising climate risk, preserving natural capital, and ensuring intergenerational justice. Growth promotes inclusivity. Industrialized nations' real median household market

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income and GDP per capita climbed by 2-4% annually between the early 1990s and 2005, before the global financial crisis (Nunn, 2009). This would create meaningful jobs and raise wages for hundreds of millions of people.

Expansion promotes diversity by addressing deficiencies in the employment market. Government transfers and tax policies in growing economies may help a lot of people. Following taxes and transfers, the actual market earnings of 20-25% of households were either unchanged or decreasing, according to the research (Sternfels et al., 2021). Fifty to seventy percent of families had a decline in real market wages prior to these transfers. Despite a 2.9% loss in US median family income in 2020 as a result of the pandemic, poverty decreased if government subsidies were taken into consideration.

Investment and longevity are the results of growth. A more favorable investment climate for the energy transition will result from a growing economy, which boosts consumer confidence, spending, and demand. Higher investment deepens capital, which increases productivity, incomes, and growth, according to research on excellent developing nations. The economy benefits from increased demand and investment brought about by inclusive and sustainable practices. New commercial prospects emerged because of clean technology's emphasis on sustainability (Sternfels et al., 2021).

Poverty and growth, two interrelated issues with both macro and local roots, were part of an inclusive growth strategy. Fast, sustained, broad-based growth that includes the whole country's workforce is necessary to eradicate poverty (Asif et al., 2021). According to Adams (2004), the effect of economic progress on poverty is heavily influenced by the distribution of wealth. Therefore, the elasticity of poverty increase is conditional on the level of economic disparity in each nation. As a result, we need a holistic approach to studying economic growth, poverty, and income inequality.

2. Methodology

2.1. Developing an Inclusive Growth Index: Methodology Adopted

The current analysis has adopted a dual-dimensional approach: The first section will include developing an Inclusive Growth Index (IGI) that uses important metrics to determine relative performance over various time periods. A quick empirical study will be conducted in the second phase to determine how various macroeconomic factors have affected growth inclusivity from 1995 to 2019.

Although there are several processes required in developing IGI, this study used the technique created by the Asian Development Bank (ADB) (Khan et al., 2016).

The choice of the dimension along with indicator will be necessary at the first stage of building the IGI, for example.

Evaluation of dimension is $V = \{v_1, v_2, v_3, \dots, v_n\}$

Evaluation area collection is $V = \{v_{j1}, v_{j2}, v_{j3}, \dots, v_{jn}\}$

Evaluation index collection is $V = \{v_{j11}, v_{j21}, v_{j31}, \dots, v_{jim}\}$

where "j" refers to the evaluation dimension,

I is the evaluation area and m is the evaluation indicator.

Each indication will be given a weight in the second stage, which will be determined by its importance and reflection.

"W" will be assumed as weight then $W = \{w_1, w_2, w_3, \dots, w_i\}$.

Each indicator will be given a weight after which the univariate standards will be applied to create the R-matrix, i.e.

 $VR = \{r_{111}, r_{r112}, r_{113}, \dots, r_{11m}\}.$

After the creation of the R-matrix, IGI will be given weights as

$$IGI = \sum_{i=1}^{m} \left(\sum_{i=1}^{n} V_{R} \times w_{j} \right) \times W_{i}$$

Where wi is the weight allocated to a single indicator, VR stands for univariate standardization, and Wi is the weight allocated for every dimension.

IGI will be given a value of 100; a closer IGI to 100 indicates a higher level of integration in indexation. There are two possible integration levels in indexation: Possitive range and negative. In addition, the IGI indexation is split into three categories for improved display. For example, an IGI value between 01 and 30 indicates inadequate inclusive growth, an indexation score between 31 and 70 indicates standardization, and an IGI value between 71 and above indicates great inclusiveness. The indexation formula will be as follows:

$$U_{tj} = \frac{X_{tj}}{Z_{tj}} \times 100$$

Where

 U_{tj} = score of j index for time t

 $X_{tj} = actual \ value \ of \ j \ index$

 $Z_{tj} = value \ of \ j \ index$

The most thorough method was used by the Asian Development Bank, which weighted various elements and indicators according to how much they contributed to the measurement of IG. Other scholars have measured the growth and development based on IG using these weights of the indicators (Khan et al., 2016; & McKinly, 2010). According to Hansen (2010), these weights are allocated according to the part that each particular dimension contributes in growth and development. The variables with the biggest weights according to ADB are those that directly impact the economy, income, and job possibilities. Four are the general dimensions of IG: (1) infrastructure, economic growth, and employment possibilities received a weight of 40 percent; (2) access to basic facilities received a weight of 25 percent. (3) 20 percent of the weight went to poverty and inequality, and 15 percent went to the environment. The first IG pillar's 40 percent weight was split further, with half of it going toward economic growth, 25 percent going toward infrastructure. In a similar vein, the 25% weight assigned to the second IG pillar access to basic facilities was further split into 40% for health and 60% for education. Similar to this, the third pillar of IG, which is poverty

and inequality, was given a weight of 20% and is further divided into 50% for each of the two pillars. The environment was the last pillar of IG, receiving a weight of 15%. The table below displays the whole weighted system that was described as well as a detailed breakdown of these indicators and their weights:

Table 1. Weightage Scheme of Different indicators for inclusive Growth index								
Dimension Index		Area Index		Indicators				
Indicators	Weight	Indicators	Weight	Indicators	Weight			
Economic Growth, Employment opportunities, Infrastructure (V ₁)	40%	Economic Growth (V ₁₁) Employment (V ₁₂) Infrastructure (V ₁₃)	20% 10% 10%	GDP per capita growth rate (V_{111}) Industrial share in GDP (V_{112}) Agriculture share in GDP (V_{113}) Employment in Industrial sector (V_{121}) Employment in Services sector (V_{122}) Length of Roads in Km (V_{131})	8% 6% 6% 5% 5% 10%			
Access to basic facilities (V ₂)	25%	Education (V ₂₁) Health (V ₂₂)	15% 10%	Female to male primary enrolment ratio (V_{211}) Female to male employment ratio (V_{212}) Total Expenditure on Health (V_{221})	8% 7% 10%			
Poverty & Inequality (V ₃) Environment (V ₄)	20% 15%	Poverty (V_{31}) Inequality (V_{32}) Environmental protection (V_{41})	10% 10% 15%	Head Count ratio at national level (V ₃₁₁) GINI Coefficient Index (V ₃₂₁) Area under Forests (V ₄₁₁)	10% 10% 15%			

Table 1: Weightage Scheme of Different Indicators for Inclusive Growth Index

2.2. Reasons for adopting Inclusive Growth Index (IGI) methodology

The literature demonstrated that the inclusivity of growth was measured using a variety of metrics. A measure of inclusive growth derived from a "utilitarian social welfare function" taken from a consumer choice study was used by Munir & Sami (2018) and Anand et al. (2013) to calculate inclusive growth. According to this measure, inclusive growth is influenced by two factors: (i) income growth and (ii) income distribution. Like consumer theory, this method breaks down the income and substitution impact in growth with distributional components, with indifference curves showing fluctuations in aggregate demand over the course of time. In order to encompass these characteristics, the fundamental social welfare function needs to meet two requirements: (i) It must exhibit an increasing argument (to capture the growth dimension); and (ii) it must meet the transfer property, which posits that any "transfer of income from a poor person to a richer person reduces the value of the function (to capture distributional dimension)". The Inclusive Growth Index was applied in this study. Using a methodology created by "The Asian Development Bank," the Inclusive Growth Index is a composite estimate for inclusive growth that incorporates "growth, social protection, accessibility, and inequality" into a single unit of measurement. This will be Pakistan's first "unified measure of inclusive growth," using our finest abilities. Second, according to McKinley (2010), this metric was used to assess the variables influencing Pakistan's inclusive growth.

3. Results

3.1. Inclusive Growth Calculation

A detailed explanation of the calculation process and factors involved in calculating inclusive growth is given in Table 2. It provides a number of indicators with their corresponding weights that are used to evaluate inclusive growth over a period from 1980 to 2019. These indicators include the GDP growth rate, the industrial and agricultural shares in GDP, employment in the industrial and service sectors, changes in the length of roads, gender parity in enrollment and employment in primary education, government spending on health as a percentage of GDP, rate of poverty, inequality, and forest rents as a proxy for the area under forests. Each indicator's percentage weight is also shown in the table, demonstrating its importance in calculating inclusive growth.

An index based on a weighting scheme and scoring method was followed. A composite index was constructed with a weighted score of 1-100 percent. The country is said to be unsatisfactory in inclusive growth if, its Inclusive Growth Index score was 1-30 percent and satisfactory if, Inclusive Growth Index score was 30-70, and was superior in inclusive growth if Inclusive Growth Index score was 70-100 percent. Table No. 2 shows that Pakistan was mostly at satisfactory performance in growth inclusiveness.

The table No. 2 shows the inclusive growth from the year 1980-2019. The table shows that inclusive growth was the lowest during the year 1999. It was due to low GDP growth, a high poverty ratio, and a decrease in infrastructure in that year. Inclusive Growth was the highest in the year 1983, the main reason for the highest inclusive growth was the high increase in infrastructure in that year. The results show that GDP growth, Poverty ratio, government expenditure on health and change in the length of roads (Used as a proxy for infrastructure) have the maximum effect on inclusive growth.

Starting from the 1980s, the table shows that inclusive growth was only 50 percent during that year, although economic growth was more than 6 percent accompanied by a 26.5 percent industrial share in GDP during 1980. This was because of high poverty headcount, i.e. (31 percent) during 1980. The inclusive growth rises to 71 percent during 1983, although there was a 32 percent poverty headcount ratio, this was because of the high increase in infrastructure in that year. It means that an increase in infrastructure has a high effect on inclusive growth. Inclusive growth is consistently high from the year 1987 to 1991. This was because of high GDP growth, and high government expenditure on the health sector accompanied by low poverty in these years. In 1993 poverty was low but due to less increase in infrastructure and negative GDP growth, the inclusive growth remained low. In 1999 the inclusive was at the lowest level, the reason was that there was low GDP growth and a decrease in the infrastructure in that year.

In the year 2001, inclusive growth was at the edge of a satisfactory level but in 2002 again it was below the satisfactory level. There were several reasons i.e. high poverty with low GDP growth, low infrastructure, less government expenditure on health as well as low agriculture share in GDP in the year 2002.

Table 2: Inclusive Growth (1980 to 2019)										
Year	Inclusive growth	Year	Inclusive growth	Year	Inclusive growth	Year	Inclusive growth			
1980	50.00	1990	58.84	2000	40.94	2010	35.58			
1981	42.76	1991	61.24	2001	30.20	2011	46.27			
1982	45.50	1992	52.93	2002	29.91	2012	39.20			
1983	71.32	1993	44.61	2003	34.09	2013	32.71			
1984	46.78	1994	49.49	2004	33.19	2014	31.11			
1985	54.94	1995	52.50	2005	32.38	2015	35.26			
1986	58.48	1996	55.31	2006	33.57	2016	37.69			
1987	61.43	1997	49.14	2007	37.35	2017	38.46			
1988	65.11	1998	40.80	2008	37.12	2018	38.81			
1989	62.54	1999	24.35	2009	35.89	2019	36.51			

Table 2: Inclusive Growth (1980 to 2019)

Source: Calculations based on the data taken from:

i. The World Development Indicators

ii. Pakistan Economic Survey

iii. World Income Inequality Database

From 2003 till 2019, the inclusive growth was in a satisfactory position. Although GDP growth and infrastructure growth were negative during 2008-2010 and 2019, but inclusive growth was still at a satisfactory level. The main reason for the satisfactory inclusive growth was that poverty was the lowest along with low inequality and the forest rent increased in that years.

Studies conducted by World Bank, (2019) fostering inclusive growth, increasing social well-being, and eliminating poverty and inequality are all significantly impacted by an increase in GDP growth. Growth in gross domestic product has been proven to positively correlate with many measures of inclusive growth. Increases in GDP contribute to less poverty and higher living standards as a result of more income and employment possibilities. Increases in the gross domestic product allow governments to put more money into areas like healthcare, education, and infrastructure, making those areas more accessible to the general public (Klasen & Lamanna, 2009).

Reducing poverty and inequality in Pakistan boosts inclusive growth and sustainable development. Poverty reduction improves education, healthcare, and basic services (Ahmad & Ramzan, 2020). Pakistan may empower marginalized people by giving resources, skills training, and employment opportunities to the most vulnerable (World Bank, 2019). This boosts productivity, job creation and income which promotes inclusive growth (Khan et al., 2020). Inclusive growth requires addressing economic disparity. Mutiiria & Dumor, (2020) discovered that lowering income inequality in Pakistan boosts economic growth and human development. Progressive taxes, fair education and skills development, and social safety nets diminish inequality (World Bank., 2016). These strategies give economic and social advancement possibilities to poor people. Pakistan may improve inclusive growth by lowering inequality (Nasir et al., 2020).

An increase in government health spending boosts inclusive growth by boosting well-being, eliminating health inequities, and developing human capital. Most of the studies show that government health investment is linked to inclusive growth. Healthcare infrastructure, accessibility, and quality improve social and economic outcomes. Better healthcare improves health, productivity, and expenses (World Bank, 2017). Governments may improve preventative care, access to healthcare services, and vulnerable population healthcare by giving greater resources to the health sector and supporting inclusive growth. Increased government health spending reduces poverty and inequality by providing inexpensive, high-quality healthcare to everybody. Accessible healthcare prevents catastrophic health costs from plunging families into poverty (Wagstaff et al., 2018). Reaching marginalized groups and improving health outcomes reduces health inequities, allowing people to fully participate in economic activities and attain their potential.

Road length and infrastructure can boost inclusive growth. Infrastructure development improves connection and market access for underprivileged populations, enabling inclusive growth (Timilsina et al., 2020). Infrastructure initiatives attract private investment and provide long-term jobs (Rauniyar & Kanbur, 2010). Better road infrastructure helps farmers enhance production and revenue by efficiently transporting agricultural products. Improved infrastructure improves healthcare and education access, eliminating inequities and boosting regional development (Nchake & Shuaibu, 2022). Infrastructure development boosts economic activity, reduces poverty, and improves chances for poor groups.

4. Conclusion

The analysis of inclusive growth from 1980 to 2019 shows that key factors such as GDP growth, poverty reduction, government health spending, and infrastructure development are crucial for economic and social progress. In the early 1980s, inclusive growth was low despite strong economic performance due to high poverty rates. By 1983, it reached its peak, driven by significant infrastructure investments, highlighting the importance of infrastructure in fostering inclusive growth. From the late 1980s to the early 1990s, inclusive growth remained high due to robust GDP growth, increased health spending, and declining poverty. However, 1999 saw the lowest level of inclusive growth, mainly due to low GDP growth, reduced infrastructure development, and persistent poverty. In the early 2000s, inclusive growth fluctuated, particularly in 2002, due to high poverty and insufficient government investment in health and infrastructure. From 2003 onwards, inclusive growth stabilized at satisfactory levels, even during periods of negative GDP and infrastructure growth, thanks to reduced poverty and inequality. The analysis underscores the importance of

addressing poverty and inequality to sustain inclusive growth, as well as the need for government policies that focus on boosting GDP, expanding infrastructure, and increasing health expenditures. Prioritizing these factors ensures that the benefits of economic development are shared widely, leading to a more equitable and prosperous society.

References

- Adams Jr, R. H. (2004). Economic growth, inequality and poverty: estimating the growth elasticity of poverty. *World development*, 32(12), 1989-2014.
- Aggarwal, S. C., Satija, D., & Khan, S. (2019). Inclusive Growth in India–Learning from Best Practices of Selected Countries.
- Ahmad, E., & Ramzan, M. (2020). Relationship between poverty, inequality, and human development: Evidence from selected South Asian countries. Journal of Policy Modeling, 42(6), 1204-1219.
- Ali, A., & Sajid, A. (2020). Towards Inclusive Growth: Financial Sector Dynamics and Poverty Reduction in Pakistan. *Journal of Business and Economic Options*, 3(4), 129-140.
- Ali, I., & Son, H. H. (2007). Measuring inclusive growth. Asian Development Review, 24(1), 11.
- Anand, R., Mishra, S., & Peiris, J. S. (2013). Inclusive growth- meaurement and determinants. IMF working paper, 13/135.
- Antle, J. M., & Ray, S. (2020). Sustainable agricultural development: An economic perspective. London: Palgrave Macmillan.
- Asif, M., Bashir, S., & Khan, S. (2021). Impact of non-renewable and renewable energy consumption on economic growth: evidence from income and regional groups of countries. *Environmental Science and Pollution Research*, 28(29), 38764-38773.
- Hansen, S. (2010). ADB's Contribution to Inclusive Growth in Transport and Energy Projects.
- Khan, A., Khan, G., Safdar, S., Munir, S., & Andleeb, Z. (2016). Measurement and determinants of inclusive growth: A case study of Pakistan (1990-2012). *The Pakistan Development Review*, 455-466.
- Khan, M., Jehan, N., Zahoor, M., & Naz, N. (2020). Impact of Virginia Tobacco Cultivation on Poverty Status: Evidence from District Charsadda, Khyber Pakhtunkhwa. *Sarhad Journal of Agriculture*, *36*(1).
- Kilyachkov, N., & Chaldaeva, L. (2021). Modeling Economic Cycles: Exploring the Dynamics of Global GDP Growth Rates. Journal of Business and Economic Options, 4(4).
- Klasen, S., & Lamanna, F. (2009). The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries. Feminist Economics, 15(3), 91-132.
- Malik, M. R., & Rehman, M. (2020). The Impact of Economic Factors on Income Inequality in Pakistan: A Cointegration Analysis. Journal of Business and Economic Options, 3(2), 56-64.
- Mckinley, T. (2010). Inclusive Growth Criteria and Indicators: An Inclusive Growth Index for Diagnosis of Country Progress. ADB Sustainable Development Working Paper Series.
- Munir, F., & Ullah, S. (2018). Inclusive growth in Pakistan: Measurement and determinants. *The Pakistan Journal of Social Issues*, (Special Issues (June 2018), 150-162.
- Mutiiria, O. M., Ju, Q., & Dumor, K. (2020). Infrastructure and inclusive growth in sub-Saharan Africa: An empirical analysis. *Progress in Development Studies*, 20(3), 187-207.
- Nasir, M., Shahbaz, M., & Amjad, M. (2020). Does income inequality hinder economic growth? Evidence from Pakistan. South Asia Economic Journal, 21(2), 166-186.
- Nchake, M. A., & Shuaibu, M. (2022). Investment in ICT infrastructure and inclusive growth in Africa. Scientific African, 17.
- Nunn, N. (2009). The importance of history for economic development. Annu. Rev. Econ., 1(1), 65-92.
- Rauniyar, G., & Kanbur, R. (2010). Inclusive growth and inclusive development: A review and synthesis of Asian Development Bank literature. *Journal of the Asia Pacific Economy*, 15(4), 455-469.
- Spence, M. (2008). Commission on Growth and Development. 2008. The Growth Report: Strategies for Sustained Growth and Inclusive Development.
- Sternfels, B., Francis, T., Madgavkar, A., & Smit, S. (2021). Economic growth for the good of all: Sustainable and inclusive McKinsey.
- Thangmuanlal, G. (2017). Inclusive Growth and Lamka Town: Identifying the Inclusive Growth Proliferators Within the MSMEs in Lamka Town (Doctoral dissertation, Tata Institute of Social Sciences).
- Timilsina, G. R., Hochman, G., & Song, Z. (2020). Infrastructure, economic growth, and poverty: A review. *World Bank Policy Research Working Paper*, (9258).
- Turok, I. (2010). Inclusive growth: meaningful goal or mirage? In *Handbook of local and regional development* (pp. 74-86). Routledge.
- Wagstaff, A., et al. (2018). Universal health coverage and poverty: Evidence from Thailand. The World Bank Economic Review, 32(1), 99-117.
- World Bank. (2016). Pakistan: Inequality of opportunity in access to basic services among children.
- World Bank. (2017). The World Bank Group's Global Knowledge and Research Hub in Malaysia: Health Impact Evaluation Analytical Work and Technical Assistance to Malaysia, Mongolia, and Nepal.
- World Bank. (2019). Poverty and shared prosperity 2019: Ending poverty, investing in opportunity.