Journal of Social Sciences Review (JSSR) DOI: https://doi.org/10.54183/jssr.v3i1.182

How to Cite This Article: Ashraf, M. S, Ahmed, F., & Rehman, S. (2023). Sustainable Economic Growth and Sustainable Development Goals (SDGs): Empirical Evidence from Low & Lower Middle-Income Countries. *Journal of Social Sciences Review*, 3(1), 824-832. https://doi.org/10.54183/jssr.v3i1.182

Sustainable Economic Growth and Sustainable Development Goals (SDGs): Empirical Evidence from Low & Lower Middle-Income Countries

Muhammad Sajjad Ashraf	Department of Economics and Finance, Greenwich University, Karachi, Sindh, Pakistan.
Farhan Ahmed	Economics and Management Sciences Department, NED University of Engineering and Technology, Karachi, Sindh, Pakistan.
Shafiqur Rehman	Department of Economics and Finance, Greenwich University, Karachi, Sindh, Pakistan.

Vol. 3, **No.** 1 (Winter 2023)

Pages: 824 – 832

ISSN (Print): 2789-441X

ISSN (Online): 2789-4428

Key Words

Green Economic Growth, Poverty, Zero Hunger, Health, Education, Gender Equity

Corresponding Author:

Muhammad Sajjad Ashraf
Email: muhammad.sajjad.ashraf@gmail.com

Abstract: *Based on World Bank's country classification scheme, this study has examined the contribution of the people category of SDGs towards sustainable economic growth (SEG) of 22 low and lower-middle-income countries of the Asian region during the period ranging from 2001 to 2019. The results showed that the measure of SDG-01 (No Poverty) proxied as "employed poverty rate" has a significantly negative impact on SEG by around 0.75%. The second SDG aims for zero hunger proxied as "percentage of the stunted child" is found to have an insignificant impact on SEG. Moreover, SDG-03 (good health and well-being) measured as "government's per capita health expenditure" and SDG-04 (quality education) proxied as "government's per capita education expenditure" have been proven to have a positive significant impact on SEG are likely to improve by 50.27% and 36.19% respectively. Last among the SDGs from the people category is focused on (gender equality) which is proxied as "percentage of women member of national assembly" is turned up with statistically significant but negative impact on SEG, estimating around 0.57% improvement. FDI inflow as a control variable was found to have a statistically insignificant impact on SEG in low and lower-middle-income nations of Asia.*

Introduction

Progressive-oriented attributes of the human race took mankind to new horizons and helped us achieve perpetual growth at a rapid pace. As everything has some cost attached to it and so does the modern economic growth these days which is lacking sustainability big time. The tradeoff between growth and sustainability has proven to be a core concern for the world these days. The issue of unsustainable global growth is not limited to any particular jurisdiction and therefore requires a global solution. The United Nations' Sustainable Development Goals (SDGs) represent a worldwide effort to address and potentially mitigate the negative impacts of unsustainable global growth. All 17 SDGs are classified into five interlinked groups (hereafter 5Ps of SDGs) namely – "People", "Planet", "Prosperity", "Peace", and "Partnership" (UN, 2015). The core interest of this study is limited to the "People" dimension of SDGs and its nexus with the sustainable economic growth of low and lower-middle-income countries of the Asian region. People's category of SDGs ranges from SDG-01 to SDG-05 which are concerned with eliminating poverty, ending hunger, health, quality education, and gender equality respectively.

Alienating poverty from the world is catered at the very first in the list of SDGs (hereafter SDG-01). Poverty is a major concern of humanity

and particularly for developing nations (Khan et al., 2022; Omar & Inaba, 2020), which turned life-threatening in the year 2020 during the COVID-19 pandemic that was majorly due to a rise of around 8% in global poverty (Sumner et al., 2020). Global progress of SDG-01 not only slowed but also set back decades from the original target year of 2030 (Ouechtati, 2020). Around 60 million people alone in East Asia and the Pacific region dropped below the international poverty line during COVID-19 out of which the majority are from the South Asian region (World Bank, 2020). All SDGs are interconnected to each other, and their complementarity attributes are well discussed in the available set of literature (Fasoli, 2017; Tosun & Leininger, 2017). On the same ground poor score on the SDG-01 index (No Poverty) tilts the SDG-02 index (Zero Hunger) to the lower side. The end of poverty is essential for achieving food security and ending hunger, as poverty is one of the main drivers of food insecurity. Eradicating poverty can improve access to food by increasing income and creating employment opportunities, leading to improved diets and reduced hunger. For instance, the high rate of poverty in the Asian region incarnates issues like the prevalence of undernourishment which increased from 8.6% to 9.1% in the year 2021.

Reducing hunger can contribute to improving the general health of people and increase productivity levels, which can drive economic growth. The need for well-equipped healthcare facilities and practices has been undertaken by the UN under SDG-03 (Good Health). Healthcare is now attributed as a core contributor to the human capital index (hereafter HCI) along with learning and education quality. As per Wanigasuriya and Hettiarachchi (2022), state-of-the-art health practices are likely to improve average life expectancy in the longer run. According to the World Health Organization, the average life expectancy in the Asian region has increased from around 60 years in the 1950s to around 70 years in the early 2000s and has continued to rise in many countries. As good health is the major driver of economic growth, governments do spend back certain percentages of their GDP. Good health provides a fertile environment for the cognitive development of a society that is spotlighted by the UN under SDG-04 which is concerned about the quality of education. The nexus between human capital (hereafter HC) and the economic growth of a country is not an unsolved puzzle anymore in the existing body of literature. Education and learning facilities are aided by the government by reinvesting a certain percentage of GDP in the education sector based on their regional priorities. For instance, the Central Asian region was found to be on top in terms of government spending in the education sector which is around 6.84% of GDP. East Asian countries spend around 4.41% of their GDP in the education sector. Whereas the lowest investment in the education sector was observed in the South Asian region which is on average just around 0.97% of GDP.

Fifth and last among the Peoples category of SDGs is SDG-05, which is focused on global practices promoting gender equality. The progress rate of SDG 5 in the Asian region varies across countries and regions. The most prominent areas of deprivation are Labor force participation and Political representation. Traditional cultural beliefs and gender biases continue to hinder women's involvement in the workforce and limit their chances of progression in many Asian countries, particularly in low and lower-middle-income nations. A report published by International Labor Organization (hereafter ILO) highlights the importance of gender equality in attaining sustainable and environmentally friendly economic growth (ILO, 2012).

Prior Literature

SDG-01 (No Poverty) and Economic Growth

The debate on the relationship between health and economic growth has led to the argument that the level of growth in developing countries is closely tied to the level of poverty present in

those countries (Lawanson & Umar, 2021). Developing economies are the prime victims of poverty which result in limited economic resources, and hindrances against investment in national developmental projects i.e., healthcare, education, renewable energy projects, etc. Omoniyi (2018) concluded that poverty acts as a prime hurdle in the way to invest in healthcare. As a result, economic activities may be restricted, leading to a lack of economic growth. The saying "health is wealth" is popular for a reason, as poor health is a significant aspect of poverty. Improved health can lead to a reduction in poverty (Bloom & Canning, 2003) and ultimately boost the economic growth of nations (Lange & Vollmer, 2017). These finds led us to our first hypothesis, asking the explore the nexus between poverty and sustainable economic growth in low and lower-middle-income countries of Asia.

H1: No Poverty (SDG-01) has a significant impact on the sustainable economic growth of the low and lower-middle-income countries of Asia.

SDG-02 (Zero Hunger) and Economic Growth

Sustainable development goal aiming to eliminate hunger from the world is strongly interconnected with other SDGs in the list and it complements others (Candelise et al., 2021; Fader et al., 2018; Messerly et al., 2019). An empirical study conducted by Mary (2018) concludes that child stunting is negatively associated with the GDP per capita of 74 developing countries during the period of 30 years ranging from 1984 to 2014 and it is estimated to improve GDP per capita by 13.5% as a result of every 1% reduction in child stunting. SDG-02 (Zero Hunger) is proxied as stunted child per capita and in the context of this, below is the second hypothesis which is testing the impact of child stunting on the sustainable economic growth of the selected sample.

H2: Zero Hunger (SDG-02) has a significant impact on the sustainable economic growth of the low and lower-middle-income countries of Asia.

SDG-03 (Good Health) and Economic Growth

Tekabe (2012) tested five low-income countries in Africa to answer the same question, during the timeframe of 40 years ranging from 1970 to 2007. Where the quality of healthcare facilities was proxied as mortality rate and life expectancy along with economic growth as real per capita income. Empirical findings vindicated the existence of a negatively significant impact on the mortality rate of real GDP per capita in low-income countries of Africa, along with a bidirectional granger causal linkage between the mortality rate and GDP per capita. On the other hand, life expectancy was found to have no causal link with the real GDP per capita of select low-income countries of Africa. Though, the comparative analysis of different income-based distributed countries suggests that higher-income countries are more likely to have better healthcare indicators. Another detailed study by Blázquez-Fernández et al. (2014), tested the very same nexus through infant mortality rate as a proxy for the quality of health facilities in Spanish areas along with other indicators of the healthcare sector, during the time frame of 18 years ranging from 1980 to 2007. Empirical findings of the linear panel data model and structure system model concluded that the risk of death is correlated with a higher rate of fertility and low investment level in human capital.

H3: Good Health (SDG-03) has a significant impact on the sustainable economic growth of the low and lower-middle-income countries of Asia.

SDG-04 (Quality Education) and Economic Growth

On the grounds of endogenous growth theory, human capital (labor) is one of the factors of production. The knowledge possessed by people (labor) either by intentional efforts in the form of education (Lucas, 1988) or by learning at the workspace through the approach of learning by doing (Azariadis & Drazen, 1990) that results in an increase in the productivity level of labor and capital, so this is why the human capital is

attributed as a driver of economic of growth. Barro (1991) tested the nexus between the rate of student enrollment in school and gross domestic product (hereafter GDP) which is the most used proxy of economic growth in numerous research articles. The finding vindicates the existence of a positive relationship between GDP and the rate of school enrollment. Early in the first decade of the 21st century, Asteriou and Agiomirgianakis (2001) tested Greece and found positive nexus between GDP per capita and the rate of student enrollment in different academic levels like; primary education, secondary education, and higher education. In the very next year, Petrakis and Stamatakis (2002) explored this nexus in different country groups based on regional and socio-economic attributes. The findings of their study unveiled that in the least developed countries (hereafter LCD), economic growth is stimulated by a rate of student enrollment at the primary and secondary level, whereas higher education is attributed to the economic growth of OECD economies.

H4: Quality Education (SDG-04) has a significant impact on the sustainable economic growth of the low and lower-middle-income countries of Asia.

SDG-05 (Gender Equality) and Economic Growth

SDG-05, the final goal under the "People" category of SDGs, aims to achieve global gender equality. Several scholarly works suggest that women's education and equal opportunities in the workforce are crucial for realizing this goal (Minasyan et al., 2019; Morais Maceira, 2017). Excluding women from the labor market and managerial positions can negatively impact labor productivity and income per capita (Cuberes & Teignier, 2014; Esteve-Volart, 2004). Despite efforts towards achieving gender equality, it remains elusive across areas such as education, access to opportunities, and decision-making positions (Asadikia et al., 2021; Cuberes & Teignier, 2014). With the last decade of SDG implementation underway and the ongoing global health crisis, it is imperative to take effective and efficient action to achieve this ambitious goal.

H5: Gender Equality (SDG-05) has a significant impact on the sustainable economic growth of the low and lower-middle-income countries of Asia.

Data and Research Design

The scope of this study covers 22 out of 28 countries mapped as low and lower-middle-income countries of the Asian region based on data availability. The region is further divided into four sub-regions i.e., Central Asian region, East Asia & Pacific region, Middle East region, and South Asian region. But the core focus of this study is not the geographical distribution but the economic volume, proposed in the country classification scheme of the World Bank. The primary objective of the study is to test the indicators of the people category of SDGs as a driving factor for sustainable economic growth in low and lower-middle-income countries of the Asian region. The data type is Panel in nature and so the panel data fixed effect model (hereafter FE) or random-effect (hereafter RE) regression models have been employed to test the existence of a linkage between sustainable economic growth proxied as green GDP per capita and the people category of SDGs ranging from SDG-01 to SDG-05 for this study. The general research model is as below:

$$Green\ Growth_{i,t} = \beta_0 + \beta_1 No\ Poverty_{i,t} + \beta_2 Zero\ Hunger_{i,t} + \beta_3 Good\ Health_{i,t} + \beta_4 Quality\ Education_{i,t} + \beta_5 Gender\ Equality_{i,t} + \beta_6 Foreign\ Direct\ Investment_{i,t} + \eta_t + \varepsilon_{i,t}$$

In the above-mentioned equation, the subscript "i" denotes the country under study, the subscript "t" reflects the year, Green $Growth_{i,t}$ represents the dependent variable proxied as a log of Green GDP per capita, β_0 represents the unobserved country-specific effect on the model, coefficients of independent variables are ranging from β_1 to β_5, vectors of independent variables are No $Poverty_{i,t}$, Zero $Hunger_{i,t}$, Good $Health_{i,t}$, Quality $Education_{i,t}$, and Gender $Equality_{i,t}$ which

are proxied as employed poverty rate, log of stunted children per capita, log of government's health expenditure per capita, log of government's education expenditure per capita, and percentage of women member of national assembly respectively. Foreign Direct Investment is a control variable in the above model and β_6 refers to the coefficient of control variable. In the above equations, ηt represents time dummy variables that describe unobserved time-specific effects on models and εi,t is a representation of the error term, which is supposed to be independently and identically distributed. The general research model which proxies are as below:

$$Log\ (Green\ GDP\ per\ capita)_{i,t} = \beta_0 + \beta_1 Employed\ Povety\ Rate_{i,t} + \beta_2 Log\ (Stunted\ Child\ per\ Capita)_{i,t} + \beta_3 Log\ (Government\ per\ capita\ Health\ Expenditure)_{i,t} + \beta_4 Log\ (Government\ per\ capita\ Education\ Expenditure)_{i,t} + \beta_5 Percentage\ of\ Women\ MPA_{i,t} + \beta_6 Log\ (FDI\ Inflow\ per\ capita)_{i,t} + \eta_t + \varepsilon_{i,t}$$

Table 1

Detail covering variable formula.

Dimension	Indicator or Proxy	SDG	Data Source	Variable Type
Green Economic Growth	Log (Green GDP per Capita)	---	World Bank Database	Dependent Variable
Poverty	Employed Poverty Rate	SDG-01	UN Database	Independent Variable
Hunger	Log (Children moderately or severely stunted / Population)	SDG-02	UN Database	Independent Variable
Health	Log (Health Expenditure USD per Capita)	SDG-03	UN Database	Independent Variable
Quality Education	Log (Education Expenditure per Capita)	SDG-04	UN Database	Independent Variable
Gender Equality	Percentage of women member of Nation Assembly	SDG-05	UN Database	Independent Variable
Foreign Direct Investment	Log (FDI inflow per Capita)	---	World Bank Database	Control Variable

Empirical Findings and Discussion

Descriptive Statistics

In table 2 of descriptive statistics, the mean green GDP per capita of selected low and lower-middle-income countries of Asia is found to be $1,714.925 with a standard deviation of $1,294.916 in the sample. However, the lowest and highest green GDP per capita is found to be $246.348 and $8,184.493 in Uzbekistan and Iran respectively. The average employed poverty rate in the selected sample is 15.68% with a standard deviation of 15.46%. The highest employed poverty rate is found in Cambodia. Whereas the least employed poverty rate among all is found in Iran and Mongolia. The average stunted child per capita is around 0.03% with a standard deviation of 0.018%.

Table 1

Descriptive Statistics

Variables	#Obs.	Mean	Std. Dev.	Min	Max
Green GDP per capita	327	1714.925	1294.916	246.348	8184.493
Employed Poverty Rate	327	15.687	15.463	0.100	67.800
Stunted Child per capita	327	0.037	0.018	0.005	0.096

Govt Health Exp per capita	327	78.361	81.999	8.000	531.000
Govt Education Exp per capita	327	72.380	88.927	3.425	1140.743
Percentage of Women MNA	327	13.379	9.194	0.000	40.000
FDI inflow per capita	327	53.665	169.682	-1359.788	1649.968

Source: Authors' computations.

Average per capita government expenditure on health and education is $78.361 and $72.380 in low and lower-middle-income nations of the Asian region. The highest per capita government expenditure in health is found to be in Iran which is around $531. Whereas the highest per capita government expenditure in education is observed in Myanmar which is nearly $1,140.743. Average women representation in the nation assembly in the selection sample is 13.37% with a deviation of 9.19%, Out of which, the highest percentage of women MNA is found in Timor-Leste.

Correlation Metrix

Table 3 unveils the correlation between selected variables. The existence of a strong correlation among variables is observed in the correlation matrix. Multicollinearity problem has been ensured using VIF test.

Table 3

Correlation Metrix

Variables	[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1] Log (Green GDP per capita)	1						
[2] Employed Poverty Rate	0.59	1					
[3] Log (Stunted Child per capita)	0.57	0.56	1				
[4] Log (Health Expenditure per capita)	0.85	0.49	0.72	1			
[5] Log (Education Expenditure per capita)	0.77	0.37	0.56	0.79	1		
[6] Percentage of Women MNA	0.12	0.19	0.25	0.12	0.21	1	
[7] Log (FDI inflow per capita)	0.52	0.32	0.36	0.58	0.45	0.02	1

Source: Authors' computations.

Note: Bold values shows strong correlation (>0.70) between variables.

Empirical Results

We tested the model for normality through Jarque-Bera test and found the empirical evidence for the absence of non-normality. To select the most appropriate model between FE and RE, we have conducted Breusch-Pagan's Lagrangian multiplier test which was proposed by Breusch and Pagan (1980) for the RE model, whereas the Hausman test was conducted to determine the suitability of the FE model (Hausman, 1978). Findings of Lagrangian multiplier test by Breuch Pagan test and Hausman test vindicated in favor of the RE model. Table 4 shows the findings of regression test.

Table 4

Estimated panel regression coefficients

Variables	Log (Green GDP per Capita)	
	Fixed Effect	Random Effect
Employed Poverty Rate	-0.007***	-0.008***
Log (Stunted Child per capita)	-0.168*	-0.112

Log (Health Expenditure per capita)	0.499***	0.503***
Log (Education Expenditure per capita)	0.363***	0.362***
Percentage of Women MNA	-0.006*	-0.006*
Log (FDI inflow per capita)	0.008	0.008
Constant	3.406***	3.573***
Adjusted R-Square	0.961	0.912
# Observations	337	337
Adjusted Period	2001 - 2019	2001 - 2019
# Countries	22	22

*Note: ***, ** and * indicate statistical significance at 0.1%, 1% and 5% respectively.*
Source: Authors' computations.

The employed poverty rate is found to have a significantly significant but negative impact on green GDP per capita in low and lower-middle-income countries of the Asian region at 0.1% level of significance. Coefficient values show that 1% decline in the number of employed poverty rate will increase the sustainable economic growth of the selected sample of countries by 0.75%. Stunted children per capita have a statistically insignificant impact on sustainable economic growth at an even 5% level of significance. The government's per capita expenditure on health has a significantly positive impact on green GDP per capita 0.1% level of significance. The analysis estimates that 1% increase in the government's per capita expenditure in the health sector would increase sustainable economic growth by 50.27%. Simultaneously, government per capita expenditure on the education sector is positively and significantly contributing to green GDP per capita of low and lower-middle-income economies of the Asian region at 0.01% level of significance. Coefficient values vindicate that 1% increase in the government's per capita expenditure on education will improve sustainable economic growth by 36.19%. The percentage of women MNA is proved to have a significantly negative impact on green GDP per capita at 5% level of significance. Coefficient values show that 1% decline in the number of stunted children will increase the sustainable economic growth of low and lower-middle-income nations of the Asian region by 0.57%. The control variable in the model is FDI inflow per capita, which is found to have a statistically insignificant impact on the green economic growth of selected economies of the Asian region.

Conclusion and Recommendations

There are collectively 22 countries classified under the low and lower-middle-income economies of the Asian region. Empirical findings reveal that except for SDG-02 all selected SDGs of the people's category have statistically significant contributions to sustainable economic growth. The major driving factors in selected countries are the government's per capita investment in the healthcare and education sector, which are estimated to uplift sustainable economic growth by 50.27% and 36.19% respectively. Governments are strongly advised to allocate a higher proportion of their budgets to the healthcare (SDG-03) and education sectors (SDG-04) to ensure adequate funding for these critical sectors of low and lower-middle-income countries of Asia.

To be benefited through comparatively less-effective drivers of sustainable economic growth, impactful initiatives are recommended in selected economies of the Asian region to cut down the prevailing poverty in the employed population which is estimated to accelerate sustainable economic growth by 0.75%. Practically raising the minimum wage has the potential to reduce poverty (SDG-01) and

improve food security by increasing the income of low-wage workers, enabling them to afford a more nutritious diet and reducing their risk of hunger which is the major concern of SDG-02. Additionally, when workers have more money to spend, demand for food increases, which can encourage food producers to invest in sustainable agriculture practices.

The overall impact of higher women representation in low and lower-middle-income countries of the Asian region is found to be statistically significant and negative which is estimated to improve sustainable economic growth by 0.57%. This is mainly because of the cultural mix of dynamic nations. It is important to address the barriers that prevent women from participating fully in the economy and to create a more inclusive and equitable society that values and supports women's contributions to economic growth and sustainability.

References

Asadikia, A., Rajabifard, A., & Kalantari, M. (2021). Systematic prioritisation of SDGs: Machine learning approach. *World Development*, *140*. https://doi.org/10.1016/j.worlddev.2020.105269

Asteriou, D., & Agiomirgianakis, G. M. (2001). Human capital and economic growth: Time series evidence from Greece. *Journal of Policy Modeling*, *23*(5). https://doi.org/10.1016/S0161-8938(01)00054-0

Azariadis, C., & Drazen, A. (1990). Threshold externalities in economic development. *Quarterly Journal of Economics*, *105*(2). https://doi.org/10.2307/2937797

Barro, R. J. (1991). Economic growth in a cross section of countries. *Quarterly Journal of Economics*, *106*(2). https://doi.org/10.2307/2937943

Blázquez-Fernández, C., Prieto, D. C., González, P. P., & Díaz, F. J. L. (2014). Does health enhace economic growth? An Empirical evidence for the spanish regions. *XXI Encuentro Economía Pública*.

Bloom, D., & Canning, D. (2003). The Health and Poverty of Nations: From theory to practice. *Journal of Human Development*, *4*(1). https://doi.org/10.1080/1464988032000051487

Breusch, T. S., & Pagan, A. R. (1980). The Lagrange Multiplier Test and its Applications to Model Specification in Econometrics. *The Review of Economic Studies*, *47*(1). https://doi.org/10.2307/2297111

Candelise, C., Saccone, D., & Vallino, E. (2021). An empirical assessment of the effects of electricity access on food security. *World Development*, *141*. https://doi.org/10.1016/j.worlddev.2021.105390

Cuberes, D., & Teignier, M. (2014). Gender inequality and economic growth: A critical review. In *Journal of International Development* (Vol. 26, Issue 2). https://doi.org/10.1002/jid.2983

Esteve-Volart, B. (2004). Gender Discrimination and Growth: Theory and Evidence from India. *LSE STICERD Research Paper*, *DEDPS 42*.

Fader, M., Cranmer, C., Lawford, R., & Engel-Cox, J. (2018). Toward an understanding of synergies and trade-offs between water, energy, and food SDG targets. *Frontiers in Environmental Science*, *6*(NOV). https://doi.org/10.3389/fenvs.2018.00112

Fasoli, E. (2017). The possibilities for nongovernmental organizations promoting environmental protection to claim damages in relation to the environment in France, Italy, the Netherlands and Portugal. *Review of European, Comparative and International Environmental Law*, *26*(1). https://doi.org/10.1111/reel.12187

Get the Sustainable Development Goals back on track. (2020). In *Nature* (Vol. 577, Issue 7788). https://doi.org/10.1038/d41586-019-03907-4

Hausman, J. A. (1978). Specification Tests in Econometrics EC ON ME R C A VOLUME 46

NOVEMBER, 1978 NUMBER 6 SPECIFICATION TESTS IN ECONOMETRICS. *Econometrica*, *46*(6).

ILO. (2012). *Gender Equality and Decent Work: Selected ILO Conventions and Recommendations that promote gender equality as of 2012*.

Khan, I., Khan, I., Sayal, A. U., & Khan, M. Z. (2022). Does financial inclusion induce poverty, income inequality, and financial stability: empirical evidence from the 54 African countries? *Journal of Economic Studies*, *49*(2). https://doi.org/10.1108/JES-07-2020-0317

Lange, S., & Vollmer, S. (2017). The effect of economic development on population health: A review of the empirical evidence. In *British Medical Bulletin* (Vol. 121, Issue 1). https://doi.org/10.1093/bmb/ldw052

Lawanson, O. I., & Umar, D. I. (2021). The life expectancy–economic growth nexus in Nigeria: the role of poverty reduction. *SN Business & Economics*, *1*(10). https://doi.org/10.1007/s43546-021-00119-9

Lucas, R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, *22*(1). https://doi.org/10.1016/0304-3932(88)90168-7

Mary, S. (2018). How much does economic growth contribute to child stunting reductions? *Economies*, *6*(4). https://doi.org/10.3390/economies6040055

Minasyan, A., Zenker, J., Klasen, S., & Vollmer, S. (2019). Educational gender gaps and economic growth: A systematic review and meta-regression analysis. *World Development*, *122*. https://doi.org/10.1016/j.worlddev.2019.05.006

Morais Maceira, H. (2017). Economic Benefits of Gender Equality in the EU. *Intereconomics*, *52*(3). https://doi.org/10.1007/s10272-017-0669-4

Omar, M. A., & Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. *Journal of Economic Structures*, *9*(1). https://doi.org/10.1186/s40008-020-00214-4

Omoniyi, B. B. (2018). An examination of the causes of poverty on economic growth in Nigeria. *Africa's Public Service Delivery and Performance Review*, *6*(1). https://doi.org/10.4102/apsdpr.v6i1.175

Ouechtati, I. (2020). The contribution of financial inclusion in reducing poverty and income inequality in developing countries. *Asian Economic and Financial Review*, *10*(9). https://doi.org/10.18488/JOURNAL.AEFR.2020.109.1051.1061

Petrakis, P. E., & Stamatakis, D. (2002). Growth and educational levels: A comparative analysis. *Economics of Education Review*, *21*(5). https://doi.org/10.1016/S0272-7757(01)00050-4

Sumner, A., Hoy, C., & Ortiz-Juarez, E. (2020). Estimates of the impact of COVID-19 on global poverty. *UNU WIDER Working Paper*, *April*.

Tekabe Liya Frew. (2012). *Health and Long Run Economic Growth in Selected Low Income Countries of Africa South of the Sahara Cross country panel data analysis*.

Tosun, J., & Leininger, J. (2017). Governing the Interlinkages between the Sustainable Development Goals: Approaches to Attain Policy Integration. *Global Challenges*, *1*(9). https://doi.org/10.1002/gch2.201700036

UN. (2015). *70/1. Transforming our world: the 2030 Agenda for Sustainable Development Transforming our world: the 2030 Agenda for Sustainable Development Preamble*.

Wanigasuriya, W. M. T. J., & Hettiarachchi, K. H. I. S. (2022). The impact of health status on economic growth in Sri Lanka. In *Statistics, and Information Management* (Vol. 1, Issue 1). www.sab.ac.lk/sljesim

World Bank. (2020). Global Competitiveness Report 2020. In *World Economic Forum*.