INTERNATIONAL PURVIEW OF POVERTY CONTROL IN THE NEW EMERGING ECONOMY

Nawazeesh Muhammad Ali *, Wanakiti Wanasilp **

* Corresponding author, International Political Economy and Development (IPED), Rangsit University, Pathum Thani, Thailand Contact details: Rangsit University, 52 347 Ek Prachim Rd, Tambon Lak Hok, Amphoe Mueang Pathum Thani, Chang Wat Pathum Thani 12000, Thailand

** International Political Economy and Development (IPED), Rangsit University, Pathum Thani, Thailand



How to cite this paper: Ali, N. M., & Wanasilp, W. (2021). International purview of poverty control in the new emerging economy. Corporate Governance and Organizational Behavior Review, 5(1), 46-56. https://doi.org/10.22495/cgobrv5ilp5

Copyright © 2021 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).

https://creativecommons.org/licenses/by/

ISSN Online: 2521-1889 ISSN Print: 2521-1870

Received: 19.01.2021 Accepted: 28.05.2021

JEL Classification: G28, F54, O10, I32, J11

DOI: 10.22495/cgobrv5i1p5

Abstract

Poverty is a socio-economic problem in Bangladesh which is an emerging economy. The research question of the study is "What are the ways of poverty drop in Bangladesh from the regulation of international political economy and development perspective and how governance of the country can reduce poverty?". The time period of the research work is from August 2020 to December 2020. The study estimates the multiple regression equation. The study found that life expectancy and crude birth rate per 1000 are significant at a 5% level of significance against per capita GDP. Rising per capita GDP is the chief indicator of poverty reduction in the study, and the export earnings have been found to have a prominent role in rising per capita GDP indicating the needs for a stronger global partnership (SDG-17) alongside a strong local collaboration to achieve poverty reduction and become a middleincome country as per the Government's Vision 2021. The study has observed that Bangladesh is gradually decreasing poverty over the time period, along with rising per capita income for which stable government regulation to drive poverty is needed so that LDC graduation in 2026 can be feasible.

Keywords: Poverty, Per Capita GDP, Export Earnings, Sustainable Development Goals (SDG), Middle-Income Country, Government Policy and Regulation, International Political Economy and Development

Authors' individual contribution: Conceptualization — N.M.A. and W.W.; Methodology — N.M.A.; Validation — W.W.; Formal Analysis — N.M.A.; Investigation — N.M.A.; Resources — N.M.A.; Data Curation — N.M.A.; Writing — Original Draft — N.M.A.; Writing — Review & Editing — W.W.; Visualization — N.M.A.; Supervision — W.W.; Project Administration — N.M.A.; Funding Acquisition — N.M.A.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Poverty is a socio-economic disorder in which one is unable to enjoy a minimum standard of living. It is a state in which people lack sufficient financial resources and are deprived of the five basic needs: food, cloth, shelter, health, and education. A country's political structure takes key inference aiming at the preparation of a universal economic system and development procedure. In 2020,

the international poverty line is set at \$1.90 daily income by the United Nations. Bangladesh has come a long way. Having suffered from terrible famine, especially in the year 1943, Bangladesh had one of the highest poverty rates in the world. However, between 1972 and 2018, Bangladesh's population living on less than \$1.90/day has fallen from 90% to 9%. Ovi (2020) described that the per capita income of Bangladesh rose to \$2,064 in FY20 from \$1,909 registered in 2018–19, and the size of



the GDP at constant price stood at BDT27,963,782 million in the last fiscal year. As with the famous proclamation that "Rome wasn't built in a day", the success of curtailing poverty in Bangladesh did not happen overnight but started from the independence of Bangladesh on 16 December 1971. The root causes of poverty date back to centuries of colonial exploitation and decades of poor governance. World Bank (2015) described that per capita gross national income (GNI) continues to show improvement, positively correlating with greater economic performance in many low-income countries, as is the case of Bangladesh.

In 1757, in the Battle of Plassey, the wealthiest region of the Indian subcontinent, Bengal fell to the British East India Company who overthrew the sovereign ruler Nawab Sirajud-Daulah and replaced him with the incompetent puppet ruler Mir Jafar who smuggled away millions of rupees to the British. Rs. 17,700,000 was claimed alone for war compensation, along with millions of rupees given to top officials of the British East India Company as bribery by their puppet rulers for many years. For 13 years, the wealth of the Bengal was looted by the British colonist, leaving the whole region poor and causing one of the most devastating famines ever seen in the world in 1770 which lead to the death of 10 million people. (Sen, 1981). The British East India Company looted wealth from Bengal and used it to finance the industrial revolution in their home country through transferring capital from Bengal to Great Britain. The once prosperous region sank into poverty for the next 200 years under the governance of the British (1757-1947) and Pakistan (1947-1971) who repeatedly looted the wealth of Bengal. Up to 3 million people died of mass starvation during the 1943 famine. After regaining independence in 1971, through the liberation war, the war-torn economy remained crumbled and the newly independent nation experienced another devastating famine in 1974, where 1.5 million people perished (Alamgir, 1980). Mustafa and Newaz (2014) being Pakistanis, commented that because of their discrimination towards the Bengalis, they ended up losing half of the then Pakistan in 1971. Father of the Nation of Bangladesh, who was taken as a prisoner of the war by the Pakistan army, was President in absentia during the war and after the war ended, Father of the Nation returned to independent Bangladesh on January 10, 1971, and became Prime Minister Sheikh Mujibur Rahman after the 1973 General election and started parliamentary democracy in the country along with the process of implementation of the first five-year plan (1973-1978) and tried to uplift Bangladesh from the state poverty caused by years of colonial exploitation. He started the implementation of numerous pro-people development strategies both in the agricultural and industrial arena. Bangladesh gained UN membership under his leadership in 1974 and was on a fast track to recovery. But alas, Sheikh Mujibur Rahman was killed in a conspirator's coup in 1975 associated international and local political rivals. In the aftermath, between the years 1975 and 1990, dictatorship governance hampered Bangladesh's growth. In April 1991, Bangladesh was hit by a dreadful situation due to a cyclone that leftover 130,000 people dead and caused damage worth \$1.7 billion in 1991 and heavy reliance on foreign aid from the US. Rahman (1993) argued that "The Bangladesh armed forces have gained considerable experience in recent disaster relief operations. Operation Sea Angel should serve them as an example for the future of joint force operation. Good friends like the United States may not always be available during the critical period in future natural disasters" (p. 71). However, this showed Bangladesh's lack of self-reliance and dependency on foreign aid at that time.

After the Awami League government came to power and restored democracy in the nation in 1996, Bangladesh had begun a rapid track of development. Bangladesh participated in the Millennium Summit in 2000 and vowed to implement the Millennium Development Goals. But, this was halted in 2001 after the Bangladesh Nationalist Party (BNP) government came into power. The period of 2001-2007 did not witness much economic progress. After the Awami League Government returned to power following the election of 2008 held on December 29, 2008, they took numerous efficient steps to restore Bangladesh's economy and penalize corrupted officials of the BNP government. They initiated to implement Vision 2021 which aimed at making Bangladesh a middle-income country by 2021 and a digital Bangladesh, emphasizing the importance of digitization of businesses, economy, and trade of the country to compete on the global level. Khan (2005) argued that "Since the most important purpose of estimating poverty is to gauge changes in its incidence over time, one has to find a way to keep unchanged the real living standard represented by the poverty threshold" (p. 2). Bangladesh achieved tremendous success in MDG goal 1 which states "Eradicate extreme poverty and hunger". In May 2020, a devastating cyclone named Amphane with a similar magnitude to the 1991 cyclone threatened to devastate Bangladesh, but due to the efficient disaster management measures of the Government, i.e., the building of numerous cyclone shelters, awareness campaigns, and postdisaster relief, the death toll was below 100 and Bangladesh barely suffered damage of \$130 million, and self-sufficiently recovered from its effects without any foreign support, whereas in 1991, Bangladesh needed foreign aid from various countries like the US. This showed the increasing self-reliance potential of Bangladesh. Palmer (2013) wrote that President Barack Obama on June 27, 2013, cut off long-time US trade benefits for Bangladesh in a modestly symbolic response that resulted in dangerous conditions of the country's garment industry that have cost more than 1,200 lives in the past years. The US, however, remains Bangladesh's largest export market. The total export goods from Bangladesh increases \$37.94 billion in 2019, particularly the ready-made garments (RMG) export has thrived under the present government and is supportive of the boom in the Bangladesh economy. However, International Monetary Fund (2013) depicted that while speedy growth has assisted in decreasing poverty in Bangladesh, there is an indication of an upward trend of income inequality. According to Bangladesh Bank (2020), per capita GDP at the current price is BDT166888 in the financial year 2019-20, while BDT153578 in the financial year 2018–19 indicating a rise of 8.67%.

After the years of colonial exploitation between 1757 and 1971, the economic scenario of this area was very much gloomy. Even after independence, some world-famous economists during different times commented that Bangladesh will be a failed nation which has been proved wrong. Today, Bangladesh is one of the "next eleven countries" achieving rapid economic growth. As such, the study aims at showing how Bangladesh has gradually undergone poverty reduction and economic growth. The study intends to see how Bangladesh hopes to graduate into a middle-income country by 2026.

The research question of the study is:

What are the ways of poverty drop in Bangladesh from the regulation of international political economy and development perspective and how governance of the country can reduce poverty?

Objectives of the study: to investigate the ways of poverty and its reduction from the perspective of international political economics and development; to find out the domestic causes of poverty; to examine the international cooperation to reduce poverty, and to observe the regulations of the reduction of poverty and its consequential effects.

The remainder of the paper is structured as follows. Section 2 consist of literature reviews and theoretical model. Section 3 presents the research methodology. Section 4 discusses the estimated results, whilst Section 5 presents the discussion. Section 6 concludes the study.

2. LITERATURE REVIEW

Streeten (1995) described that "Well-designed public expenditure programs, that contain both a vision of a good society and a careful analysis of the political economy, can contribute substantially to improving the human condition" (p. 28). Thomas Malthus wrote to David Ricardo in a letter in 1817, as mentioned in Landes (1999), "The causes of the wealth and poverty of nations-the grand object of all enquiries in Political Economy" (p. 20). The poverty gap is growing, some countries are not gaining and are getting poorer, relatively and sometimes absolutely. Others cannot hold on their own. Peace and wealth depend in the long run on the well-being of others (Landes, 1999). Ricci (2018) described that the term "unequal exchange" was initially invented by Emmanuel to specify an international transfer of value concealed in arrears superficial fairness in trade. In fact, due to unequal exchange during the British rule from the Indian subcontinent capital was outflowed from the Indian subcontinent. Salahuddin (2001) opined that "Experience shows that in the rural areas the poorest households are critically dependent on female earnings. It has also been observed that economic self-reliance sets the stage for improved female status by improving women's position in the family and increasing their worthiness in the society" (p. 10). Becker, Kominers, Murphy, and Spenkuch (2018) rationalized that low intergenerational mobility at both ends of the income distribution, all the while allowing for a mobile middle class and societies in which human capital is less equally distributed exhibit, on average, lower rates of intergenerational mobility. Employment is said to protect women from violence, but there is mixed evidence, while some studies suggest that employed women are less likely to be victims of violence, other studies suggest that women

contributing significantly to household income make them more vulnerable to violence by other household members (Mehta & Das, 2012). The head-count ratio is used as the classical measure of poverty, but it ignores the depth and distribution of poverty and does not account for inequality. Shorrocks (1995) described that Sen index (1976) measured of the poverty:

$$S = HI + \frac{q}{q+1}(1-I)G_p \tag{1}$$

where, S = Sen index; H = Headcount ratio; I = Income gap ratio; q = number of the poor persons; Gp = Gini coefficient.

The microcredit programs of NGOs, particularly large NGOs such as Grameen Bank, BRAC, ASA, PROSHIKA, and many other big and small NGOs have been instrumental in reducing rural poverty and helping rural landless unemployed people achieve income-generating, self-employment, skill development, and entrepreneurial capabilities. It has been pivotal to the upliftment of the poor (Karim, Rahman, & Murshed, 2009).

Poor people of Bangladesh comprise mainly agricultural laborers, farmers, rural and urban artisans, the unskilled unemployed, disguised employed, and disabled people. One of the main reasons for them being poor is the lack of physical and financial assets, although some big land-owning households have also been found to be poor. Some young people despite adequate training and establishment could not succeed in achieving a livelihood and fell to poverty, while some poor people have come out of the poverty line through their hard work, their lack of resources not being a barrier. Some families lack earning members, their working members may have died or become sick or disabled. While the provision of proper social service could have kept them healthy and active, social services in Bangladesh have been found to be inadequate and unhelpful. Social services are limited to some urban centers and a thorough investigation policy towards proper formulation their implementation is needed (Quasem, 2013). The exchange entitlement approach is said to give a better understanding of the famine. It views a person's ability to command commodities in general and food, in particular, should be enhanced to avoid the adverse effects of a famine such as starvation (Sen, 1981). According to Shorrocks and Hoeven (2004) that economic growth on average is beneficial to everyone in society including the poor people. Poor people often resist wonderful poverty alleviation plans. While an increase in household calorie intake is a good indicator of poverty reduction, poor people usually do not spend much of their money from poverty reduction programs on food, instead, it goes on weddings, dowries, and christenings bearing in mind the cost of weddings is huge, attempts to uplift them from poverty are wasted. Poor people fail to incur savings, thus, when an earning member dies, a huge amount of money is spent on the funeral. Thus, high-cost lavish weddings and funerals are banned in some countries (Banerjee & Duflo, 2011). Mannan (2013) described that in Bangladesh the poorest were the major users of public health services but they also tolerate an uneven portion of the problem of ill health and sufferings. There also exist a number of governance

issues that contribute to the poor quality of services. Ali, Hossain, Chowdhury, and Nedelea (2017) discussed the significant association between NGOs' role in removing poverty and fulfilling SDG 1: "No poverty" and SDG 5: "Gender equality" as a disparity of removing inequality of poor women group has also been visible. Equitable justice and removing income inequality are occurring through Bangladesh NGO Foundation (BNF) grant.

Sen and Ali (2015) depicted that in Bangladesh throughout the time period of the seventh five-year plan narrated the ways to reduce extreme poverty. According to Stiglitz (2017), globalization lacked attention to governance and did not adequately consider the impact of economic policies on the state and its role, thus failing to address both poverty and inequality. Imam, Islam, and Hossain (2018) found that the people from rural areas are suffering the most from poverty and require immediate policy intervention in Bangladesh. Bangladesh has 1.38 crore, underemployed people. Of them, 45.3% are in the service sector, 30.6% in the agriculture sector, and 24.1% in the industry sector, says a government study (Byron & Alamgir, 2019). Barman and Islam (2020) described that hazardous proceedings, Monga condition, resource insufficiency, deprived socio-economic structure, and underdeveloped infrastructure exclusively positioned extreme poverty in the study region of the country. UNDP (2020) argued that in Bangladesh, its HDI value for 2019 is 0.632 which put the country in the medium human development category — positioning it at 133 out of 189 countries and territories. World Bank (2018) described that

building on Bangladesh is extraordinary attainment to date — in dropping income poverty, improving health outcomes and educational achievement, empowering girls and women, and building the early stages of a labor-intensive export-oriented economy that can contribute to the economic development of – the World Bank will endure to effort monitor and support this country in its struggle to reduce poverty and bring success to all Bangladeshis, particularly the deprived people. Ali (2020a, 2020b) described that to overcome the shock owing to COVID-19, not only fiscal and monetary policy is sufficient in Bangladesh but also non-conventional measurers considering the informal sector are very much needed. Ali (2020b) described that Bangladesh's duty is to put emphasis on skill progression and the education scheme to the contests of the 4IR. Savoia and Sen (2020) argued that those countries which have rich natural resources predominantly making better economic progress compared to countries that are not selfsufficient in natural resources. Guzel, Arslan, and Acaravci (2021) observed that the economic, social, and political combination of countries democracy accelerate the process of attaining improved humanity. Lee, Morduch, Ravindran, Shonchoy, and Zaman (2021) described that in Bangladesh, when technology is implemented, its outline can change the relations within families, generating new prospects about what is likely and what is suitable to the imagination of others.

On the basis of the literature review in Section 2, the following theoretical model has been developed in Figure 1.

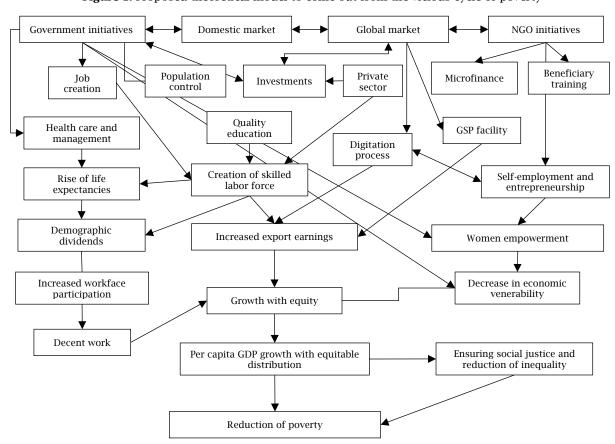


Figure 1. Proposed theoretical model to come out from the vicious cycle of poverty

Source: Authors' elaboration.

In Figure 1, the theoretical model tries to show how poverty can be reduced. Policymakers need to be more proactive. And the corruption-free society is being suggested to fulfill the goals, such as SDG 1: "No poverty" and SDG 17: "Global partnerships". As per the theoretical model, the Government needs to cooperate with both the domestic and global markets. The NGOs will have to work to achieve poverty reduction. In this case, the private sector of the country needs to play a supportive role. The government must create more jobs and a stronger working population while reducing the dependent population to achieve demographic dividends while taking family planning measures to reduce population. The government must invest adequately in health care management, quality education, and the digitization process (keeping in mind the importance of technological adaptation) to create a skilled labor force. Together, this will contribute to increase workforce participation and ensure decent work. On the other hand, the global market should resume the GSP facilities (while Europe continues to do so, it is urged to the US to resume it for the sake of Bangladesh's economic development as well as in the UK after Brexit). This will boost up export earnings. The NGOs must continue their microfinance program along with providing training beneficiaries to successfully use their loans for income-generating activities. This will create more small and medium entrepreneurs. As women are the main beneficiaries of NGOs, this will empower women. And also contribute to increasing workforce participation. Growth with equity needs to be ensured in the country. Thus, the increased workforce participation and increased export earnings will stimulate per capita GDP growth with equitable distribution and bring social justice. As such, inequality will be reduced. This will, in turn, stimulate the poverty reduction in this chain of events.

3. RESEARCH METHODOLOGY

The study is based on data collected from secondary sources. The study draws a theoretical model of poverty to explain the components of reduction of poverty in Figure 1.

The study is quantitative in nature. It collects data from World Bank (2020) and only the 2019 undernourishment rate is collected from Asian Development Bank (ADB, n.d.). The data have been analyzed using IBM SPSS 16.0 software. The study uses the ordinary least squares (OLS) technique of regression analysis. The independent and dependent variables are as follows:

- Independent variable: Per capita gross domestic product (*PCGDP*) = *GDP/Total population*.
- Dependent variables: Life expectancy at birth, total (years) (*LE*); Unemployment rate (*UE*); Crude birth rate (*CBR*) (per 1000).

Priori model

In a priori model, the study assumes the following: Per capita GDP is the main indicator of poverty reduction in Bangladesh, increase in Per capita GDP indicates poverty reduction; the Per capita GDP is higher when the Life expectancy is higher, and the Per capita GDP is lower when the Life expectancy is lower (positive relationship). An increase in Life expectancy positively correlates with poverty reduction in Bangladesh; the Per capita GDP is higher when the Unemployment rate is lower, and the Per capita GDP is lower when the Unemployment rate is higher (negative relationship). An increase in Unemployment negatively correlates with poverty reduction in Bangladesh. The per capita GDP is higher when the Crude birth rate is lower, and the Per capita GDP is lower when the Crude birth rate is higher (negative relationship). An increase in the Crude birth rate (leading to overpopulation) negatively correlates with poverty reduction in Bangladesh.

While other variables affect the independent variable, due to insufficient data, they cannot be used at present, thus these three dependent variables have been selected. Per capita GDP has been taken as the indicator of poverty, as annual data of headcount poverty rate is unavailable, thus this is our independent variable and will indicate the state of poverty in the nation, rise in Per capita GDP will indicate diminishing poverty rate and vice versa. A Dummy variable (DM) will be used to analyze if any structural change has occurred or not, due to different government tenures for the period of 2001–2009, assigned DM = 1 and for the period of 2010–2019, assigned DM = 0 to see the impact of their political policies.

The study did correlation between different variables.

The multiple regression equation is:

$$PCGDP = \beta_0 + \beta_1 LE + \beta_2 UE + \beta_3 CBR + + \beta_4 DM + \mu$$
 (2)

where,

PCGDP = Per capita GDP;

LE = Life expectancy at birth, total (years);

UE = Unemployment rate;

CBR = Crude birth rate;

DM = Dummy variable;

 μ = Error term.

The study will also do correlation analysis. The study has been chosen to do qualitative research work to understand the people who suffer from poverty with their feelings, discernments, and activities. As such, the study uses secondary sources of data from the World Bank (2020) and also other Bangladesh Economic Bangladesh Bank, datacommons.org, and different literature. Exact sources have been mentioned. The study wants to analyze the economic scenario of pre-independent Bangladesh, so that unequal exchange and capital outflow from the country can be assessed. From the secondary sources, the study will determine for the time period from 2010-2011 to 2019-2020 the change in the Total national population, Estimated poverty using the Lower poverty line in percent (extreme poverty rate), number of people below-average poverty line (in million) (*Total national population* × *Percentage* of people in lower poverty line); percent of people below-average poverty line (Number of people below average poverty line × 100/Total national population); Estimated poverty using the higher poverty line in percent (Average poverty rate); Number of people on the average poverty line (in million) (Total national population × Percentage of people in Higher poverty line); Total number of people below the poverty line (in million) (Number of people below-average poverty line + Number of people on average poverty line); Percentage of people below poverty line (Total number of people below poverty line × 100/Total national population); Estimated poverty using the lower poverty line in percent (Extreme poverty rate); Number of people below average poverty line (in million) (Total national population × Percentage of people in Lower poverty line); Percent of people below-average poverty line (Number of people below average poverty line × 100/Total national population). However, in Table 1 data was also collected from 2009 to 2010.

From the secondary sources, the study has determined for the time period from 2001 to 2019 the change in Per capita GDP (USD), Export earnings (USD), and Life expectancy (in years).

The time period of the research work is from August 2020 to December 2020 considering data for the period of 2001–2019.

4. ESTIMATED RESULTS

The study will describe the current scenario of poverty in Bangladesh.

Table 1a. Population and poverty data over the time period

SL No.	Year	Year national the lower poverty line average pove		No. of people below average poverty line (in million)	Percent of people below average poverty line
1	2010-2011	149,300,000	16.5	24634500	16.50%
2	2011-2012	151,000,000	15.4	23254000	15.40%
3	2012-2013	152,800,000	14.6	22308800	14.60%
4	2013-2014	154,500,000	19.7	30436500	19.70%
5	2014-2015	156,300,000	12.9	20162700	12.90%
6	2015-2016	158,000,000	12.1	19118000	12.10%
7	2016-2017	159,700,000	11.2	17886400	11.20%
8	2017-2018	161,400,000	10.4	16785600	10.40%
9	2018-2019	165,600,000	9.7	16063200	9.70%
10	2019-2020	167,600,000	8.9	14916400	8.90%

Source: Data Commons (n.d.), Bangladesh National Portal (2016, 2019).

Table 1b. Population, Gini coefficient (with time interval) and poverty

SL No.	Year	Total national population	Gini coefficient	No. of people below the relative poverty line	Percent of people below the relative poverty line
1	2009-2010	147,600,000	0.458	67600800	45.80%
2	2010-2011	149,300,000			
3	2011-2012	151,000,000			
4	2012-2013	152,800,000			
5	2013-2014	154,500,000			
6	2014-2015	156,300,000			
7	2015-2016	158,000,000	0.483	76314000	48.30%
8	2016-2017	159,700,000			
9	2017-2018	161,400,000			
10	2018-2019	165,600,000			
11	2019-2020	167.600.000			

Source: Data Commons (n.d.), Bangladesh National Portal (2016, 2019).

Table 2. Different dimensions of poverty over the time period

SL No.	Year	Total national population	Estimated poverty using the lower poverty line in percent	No. of people below average poverty line (in million)	Percent of people below average poverty line, lower estimate	Estimated poverty using the higher poverty line in percent	No. of people on average poverty line (in million)	Total No. of people below poverty line (in million)	Percentage of people below poverty line, higher estimate
1	2010-2011	149,300,000	16.5	24634500	16.50%	29.9	44640700	69275200	46.40%
2	2011-2012	151,000,000	15.4	23254000	15.40%	28.4	42884000	66138000	43.80%
3	2012-2013	152,800,000	14.6	22308800	14.60%	27.2	41561600	63870400	41.80%
4	2013-2014	154,500,000	19.7	30436500	19.70%	26	40170000	70606500	45.70%
5	2014-2015	156,300,000	12.9	20162700	12.90%	24.8	38762400	58925100	37.70%
6	2015-2016	158,000,000	12.1	19118000	12.10%	23.5	37130000	56248000	35.60%
7	2016-2017	159,700,000	11.2	17886400	11.20%	22.3	35613100	53499500	33.50%
8	2017-2018	161,400,000	10.4	16785600	10.40%	21	33894000	50679600	31.40%
9	2018-2019	165,600,000	9.7	16063200	9.70%	19.8	32788800	48852000	29.50%
10	2019-2020	167.600.000	8.9	14916400	8.90%	18.6	31173600	46090000	27.50%

Source: Data Commons (n.d.), Bangladesh National Portal (2019).

Table 3. Annual data of Per capita GDP (USD), Export earnings (USD) and Life expectancy

Year	Per capita GDP (USD)	Export earnings (USD)	Life expectancy (in years)
2001	415.034427	4626667974	65.956
2002	413.080255	4619075729	66.43
2003	446.310659	4540718394	66.886
2004	475.29192	8428177805	67.331
2005	499.46194	12052401051	67.773
2006	509.640143	15122908079	68.213
2007	558.05186	17085196605	68.648
2008	634.987056	18294932623	69.072
2009	702.26441	18300147498	69.485
2010	781.153594	18472449276	69.881
2011	861.758444	23892104213	70.256
2012	883.105001	26886324519	70.606
2013	981.839879	27545546099	70.93
2014	1118.85366	28427320147	71.231
2015	1248.4534	27622829782	71.514
2016	1401.62047	28229634197	71.785
2017	1563.91386	27568322833	72.052
2018	1698.35039	29798142127	72.32
2019	1855.73982	33057419969	72.43

Source: World Bank (2020).

The estimated results were obtained:

Table 4. Descriptive statistics

Variable	Mean	Std. Deviation	N
Per capita GDP	8.9731E2	461.43019	19
Unemployment rate	4.1416	0.38193	19
Life expectancy	69.6210	2.08301	19
Dummy variable	0.37	0.496	19
Crude birth rate (per 1000)	21.6374	2.80355	19

Source: Authors' elaboration.

In Table 4, mean and standard deviation were shown.

Table 5. Variables entered/Removed

Model	Variables entered	Variables removed	Method
1	Dummy variable, Unemployment rate, Life expectancy, Crude birth rate (per 1000) ^a	-	Enter

Notes: a. All requested variables entered.

Source: Authors' elaboration.

Table 6. Model summary^b

Model	odel R R-Squared		Adjusted R-Squared	Std. error of the estimate	Durbin-Watson	
1	0.980^{a}	0.960	0.949	104.00724	0.514	

Notes: a. Predictors: (Constant), Dummy variable, Unemployment rate, Life expectancy, Crude Birth Rate (per 1000); b. Dependent

variable: Per capita GDP. Source: Authors' elaboration.

Table 7. ANOVAb

Model		Sum of squares	Df.	Mean square	F	Sig.
	Regression	3681075.717	4	920268.929	85.072	0.000^{a}
1	Residual	151445.084	14	10817.506		
	Total	3832520.801	18			

Notes: a. Predictors: (Constant), Dummy variable, Unemployment rate, Life expectancy, Crude Birth Rate (per 1000); b. Dependent

variable: Per capita GDP. Source: Authors' elaboration.

Table 8. Coefficients^a

Model		Unstandardized coefficients		Standardized coefficients	t	t Sig.	95% confidence interval for B	
		В	Std. Error	Beta		_	Lower bound	Upper bound
	(Constant)	-124002.767	19085.144		-6.497	0.000	-164936.330	-83069.205
	Unemployment rate	-9.090	68.342	-0.008	-0.133	0.896	-155.668	137.488
1	Life expectancy	1499.884	222.299	6.771	6.747	0.000	1023.100	1976.668
	Crude birth rate (per 1000)	946.122	169.127	5.748	5.594	0.000	583.381	1308.862
	Dummy variable	115.999	104.735	0.125	1.108	0.287	-108.636	340.634

Note: a. Dependent variable: Per capita GDP.

Source: Authors' elaboration.



Table 9. Residuals statistics^a

Observed value	Minimum	Maximum	Mean	Std. Deviation	N
Predicted value	380.0571	1.6342E3	8.9731E2	452.22141	19
Residual	-1.53783E2	2.29825E2	0.00000	91.72576	19
Std. Predicted value	-1.144	1.629	0.000	1.000	19
Std. Residual	-1.479	2.210	0.000	0.882	19

Note: a. Dependent variable: Per capita GDP.

Source: Authors' elaboration.

The estimated multiple regression equation was:

$$PCGDP = 124002.767 - 9.0901LE + + 1499.884UE + 946.122CBR + 115.999DM$$
(3)

From Table 5 to Table 9, the study has summarized the results of regression analysis: R-Squared is 0.96 that is 96%, which indicates a very strong relationship between the dependent variable and the independent variable, and proves this is a good model. The Unemployment rate is not significant at a 95% confidence interval as p-value

(0.896) is greater than α (0.05). The Life expectancy is significant at a 95% confidence interval as p-value (0.000) is less than α (0.05); this means rising life expectancy leads to the rise in Per capita GDP. The Crude birth rate is significant at a 95% confidence interval as p-value (0.000) is less than α (0.05), this means fall in Crude birth rate leads to the rise in Per capita GDP. The Dummy variable is insignificant (p-value of 0.287 is less than α — 0.05, insignificant at a 95% confidence interval), which means structural change did not occur over the time period.

Table 10. Correlations

		Unemployment rate	Per capita GDP	Life expectancy	Crude birth rate (per 1000)	Dummy variable
I Ira avasal as usa avat	Pearson correlation	1	0.300	0.321	-0.317	-0.323
Unemployment rate	Sig. (2-tailed)		0.212	0.180	.185	0.178
rute	N	19	19	19	19	19
	Pearson correlation	0.300	1	0.921**	-0.901**	-0.720**
Per capita GDP	Sig. (2-tailed)	0.212		0.000	.000	0.001
	N	19	19	19	19	19
	Pearson correlation	0.321	0.921**	1	-0.999**	-0.867**
Life expectancy	Sig. (2-tailed)	0.180	0.000		0.000	0.000
	N	19	19	19	19	19
Crude birth rate	Pearson correlation	-0.317	-0.901**	-0.999**	1	0.874**
(per 1000)	Sig. (2-tailed)	0.185	0.000	0.000		0.000
(per 1000)	N	19	19	19	19	19
	Pearson correlation	-0.323	-0.720**	-0.867**	0.874**	1
Dummy variable	Sig. (2-tailed)	0.178	0.001	0.000	0.000	
	N	19	19	19	19	19

Note: **. Correlation is significant at the 0.01 level (2-tailed).

From Table 10, the study has summarized correlation analysis: Per capita GDP has a strong positive correlation with Life expectancy with a value of 0.921. Per capita GDP has a strong negative correlation with the Crude birth rate with a value of 0.901. Per capita GDP has a weak positive correlation with the Unemployment rate with a value of 0.300.

5. DISCUSSION

The study has observed that the economic progress of the country is currently going on and the poverty rate is declining. In Bangladesh, both formal and informal sectors are working jointly to reduce poverty through the creation of employment opportunities and also trying to establish an oppression-free society. A vast majority of laborers work in the informal sector, which includes self-employed persons, wage laborers, unpaid family labor, seasonal workers, and other hired labor. Although they work side by side with the formal laborers for the development of the nation, the contribution of informal laborers is sadly not widely recognized to the extent of the formal laborers. It is important to motivate the informal laborers to boost up their performance and improve their living standards for the purpose

the betterment of the economy. When Bangladesh became independent, the international community provided different sorts of aid. These aids were utilized for the well-being of the people. Both public and private sectors have been working together in livelihood, healthiness, arranging institutionalizations, and infrastructure assistance development in a collective manner using human and physical capital. Both sectors have invested in numerous development projects such health care, infrastructure, education, employment etc. opportunities, that have helped the development and poverty reduction of the nation. While the public sector is driven by elected representatives to serve the people, the private sector has been driven mainly by the profit motive, yet it has served the purposes of philanthropy. They help improve each other's efficiency in any area one of them lags behind, such as the government's pollution tax on private production allowing for a restricted but sufficient amount of production of commodities needed in the society. The public sector is often victimized by problems of pollution due to over usage and free-rider problems, such as pollution of lakes and other water bodies available for all the people. In such a case, privatization encourages the protection of intellectual property from misuse and is better at protecting privatized

lakes from the potential consequences of water pollution. Thus, the private-public partnership is crucial to maintain overall social welfare and balance one another in any sector one of them may lag behind. The country is also arranging a digitalization process that will gradually bring a positive impact on poverty reduction. The need to travel long distances for simple financial transactions is being reduced due to the implementation of various methods of online transactions that save valuable time for the people who can utilize this time for more productive purposes. Population growth rate reduction has a positive impact on the decrease of poverty. Per capita growth of income per year is rising, which has also been another causative factor to decline in poverty. Annual increases in export earnings are also helping the economy to boost up and decrease poverty. The export earnings are rising due to the gradual strengthening of the global value chain by the exporters of the country. Life expectancy is rising which implies that the health sector has a positive impact due to the reduction of poverty. Guzel et al. (2021) observed that attaining international cooperation can act as a remover of poverty as well as to attain Sustainable Development Goals.

Bangladesh Government and NGOs are working side by side to assess different recovery steps for the economy which are helping to gradually reduce poverty. Expansion of women empowerment in the economy leads to poverty reduction. Participation in the labor force by women is increasing. Noteworthy advancement in Bangladesh's poverty reduction effort is being supported by the steady and harmonious political environment and reinforced by its continued and rapid socioeconomic progress of the country. Arranging selfesteem, freedom from hunger, and freedom from ignorance put the country reduce drastically over the last eleven years. Local economies are being strengthened and more emphasis has been given to both farm and non-farm activities in the rural areas. Cottage, small and medium enterprises have also played a vital role. During the ongoing COVID-19 pandemic, the Government of Bangladesh has taken initiatives to put distribution in a manner so that people's welfare can be arranged and no one is left behind and suffers from starvation. The integrated effort by the governmental and non-governmental organizations and foreign donor agencies have played a remarkable role to come out the vicious circle of poverty. The alliance between the Bangladesh government and the international community has been working to reduce poverty in the country. The gradual development of pro-poor economic growth, proper human skill development, an increase of social safety net, and also arranging participatory governance have helped to decrease the poverty rate. The Gini coefficient of the country should be improved and equal distribution of wealth must be maintained. Proper regulatory policies must be implemented to prevent people from falling behind the poverty line again due to the COVID-19 pandemics. Structural change of the economy is very important so that downtrodden people can sustain the aftermath of any sort of pandemic or natural disaster.

6. CONCLUSION

From the result of the multiple regression equation, the study has found that constant term was significant and life expectancy was significant, and Crude birth rate (per 1000) was significant at a 5% level of significance. But the Unemployment rate is insignificant. This means that a lot of things need to be done for creating employment opportunities and the use of percentage GDP for creating employment will be very much needed. The Dummy variable was also insignificant which means that there was no structural change. The country needs a corruption-free society as well as growth with equity which is needed to develop a poverty eradicating community.

There is still a long way to go, to achieve Vision 2021 in making Bangladesh an upper-middleincome country and to achieve the Sustainable Development Goals and its 169 targets. Bangladesh is scheduled to graduate into an upper-middleincome country by 2026. Bay of Bengal Initiative for Multi-Sectoral, Technical and Economic Cooperation (BIMSTEC) comprising Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, Thailand can work as a catalyst to reduce poverty through regional cooperation and exchanging technical know-how, trade incorporating regional employment opportunity for economic development. Governance and regulations for removing poverty are essential elements which need to be strictly handled both by public and private sector of the country. The government of Bangladesh has drafted a 20-year plan to graduate into the position of a developed country by 2041. The completion of the construction work of the Padma Bridge will remove disparity in different wings of the country and poverty will reduce especially for the people who live near the riverbank as it will reduce transportation costs and time wastages due to long-distance traveling. The poor people will thus have more money in hand that they needed to waste for transportation before the Bridge's completion and will also save a lot of time in faster traveling via the bridge, and thus can utilize this time and money for more productive purposes to uplift themselves from the state of poverty by virtue of the bridge. Growth with equity, social justice, and removing inequality are essential for social, economic, and political upliftment. As such, international and regional cooperation will be beneficial for the country. Poverty is highly correlated with the international political economy and development. However, poverty cannot be fully eliminated but gradually can be reduced. In Bangladesh, poverty is the legacy of the past and now it is evident from the previous section that is gradually declining. Poverty a multidimensional phenomenon and needs to be addressed from a multidimensional perspective. Bangladesh needs to create employment for youth as well as empowering women so that redistribution of income can be felt.

In the era of the fourth industrialization and digital business, Bangladesh needs to invest further in the information and communication technology sector and must ensure an e-procurement system through utilizing artificial intelligence. Bangladesh has been also lagging behind in technological utilization, having one of the slowest internet speeds, ranking 120/122 studied countries. This

situation needs to be improved as in the era of the fourth industrial revolution, a faster internet speed is required to keep up the progress of economic development at global levels. The high population density of the country remains a problem as demographic dividend is yet to be achieved. The study has observed that the population has a decreasing trend but still high population is remaining as of now and it will take a long time to achieve a negative population growth rate. Based on these observations, the study has some recommendations. The theoretical model summarizes the means to reduce poverty in Bangladesh as described in the discussion part. However, if the COVID-19 pandemic continues for another one to two years, then all over the world including Bangladesh, the trend of poverty, i.e., new poor may rise for which global collaborative effort is being needed. This can be done through strengthening integrated international political economy development partnerships among the nations.

The study has faced the following limitations. Time was constrained. The budget was limited as no fund was received. Restriction on the accessibility of data was prevailing in Bangladesh. As such, based on secondary sources, the study was done. The study did not prepare any case study on those who come out of the vicious circle of poverty of at least 4/5 households through taking interviews by field investigation due to ongoing pandemic situation and to maintain social distances.

Following recommendations being substantiated from the study: Strengthening ties with the US to regain GSP facility, so that diversified exportable commodities can be used. To maintain strong ties and the GSP facility with the European Union, especially for the RMG sector is being required. Regional cooperation, especially BIMSTEC, should be started in full swing through arranging seamless connectivity which will rise business among the region and help to reduce poverty through creating employment. Need for special export facilities after Brexit in the UK till 2030. Increase of export earnings, FDI, and remittance from all over the globe for which demographic dividend is needed for the country. Creation of more employment and entrepreneurial opportunities in the country, so that unemployed people can get employment, especially taking care of small businesses. Taking strong

population control measures to strictly implement two-child policies. Violating the policies should be severely penalized by the country. Specialize in the development and provision of adequate training of technology and innovation to meet the needs of employment in the modern digital economy and put an end to job loss due to structural unemployment in Bangladesh. The country needs to invest in digitization and the digital business economy. The local-level economy should be strengthened by adopting planned effort and implementation to do both agrarian and non-agro-firm-based business. Corruption should be reduced. Equal importance should be given between import substitution industrialization processes and export promotion growth strategies with vertical and horizontal coordination. Keep up the current pace of economic growth, so that per capita GDP can further increase to achieve the target to become a high-level income country by 2041. Trade and investment alliances with friendly countries are required to overcome the economic shocks induced by the COVID-19 pandemic. Bangladesh requires to gain membership of BRICS (The New Development Bank) which may assist to attain SDG1: "No poverty". Regional and global collaboration among the countries is being needed, in compliance with SDG 17: "Global partnership" for the goals to reduce poverty. Good governance can help to remove disparity from society and a corruption-free society can help to reduce income inequality.

In the future, an in-depth study can be done by using both qualitative and quantitative analysis. However, it needs to be careful about misleading results. Primary sources of analysis may also be done by preparing the closed-end questionnaire through conducting a survey. While preparing the questionnaire, ethical considerations may be well-thought-out. Data reliability, validation may be done considering hypothesis testing. Further, in-depth research work on a particular NGO, which is trying to remove poverty in different districts of the country, may be done. For this purpose, considering the NGOs' various programs and the well-being of the beneficiaries of that NGO need to be assessed in another research paper. the purpose of poverty, forecasting, the autoregressive integrated moving average may need to be considered in the future.

REFERENCES

- 1. Alamgir, M. (1980). Famine in South Asia: Political economy of mass starvation. Cambridge, MA: Oelgeschlager, Gunn & Hain.
- 2. Ali, M. M. (2020a). Grim situation of the world due to COVID19: Economic perspective. *Geopolitics under Globalization*, *3*(1), 24–29. https://doi.org/10.21511/gg.03(1).2020.03
- 3. Ali, M. M. (2020b). Digitization of the emerging economy: An exploratory and explanatory case study. *Journal of Governance & Regulation*, *9*(4), 25–36. https://doi.org/10.22495/jgrv9i4art2
- 4. Ali, M. M., Hossain, M. K., Chowdhury, A. A., & Nedelea, A. (2017). SDG-1 and 5 complemented by BNF at Bangladesh: An investigation. *International Journal of Statistical Distributions and Applications, 3*(4), 113–123. https://doi.org/10.11648/j.ijsd.20170304.18
- 5. Asian Development Bank (ADB). (n.d.). *Poverty data: Bangladesh*. Retrieved from https://www.adb.org//countries/bangladesh/poverty
- 6. Banerjee, A. V., & Duflo, E. (2011). Poor economics: Barefoot hedge-fund managers, DIY doctors and the surprising truth about life on less than \$1 a day. Bungay, England: Clays Ltd, St Ives plc.
- 7. Bangladesh Bank. (2020). *Current national income aggregates*. Retrieved from https://www.bb.org.bd/econdata/nationalincome.php
- 8. Bangladesh National Portal. (2016). *Bangladesh Economic Review 2016*. Retrieved from https://mof.gov.bd/site/page/44e399b3-d378-41aa-86ff-8c4277eb0990/

- 9. Bangladesh National Portal. (2019). *Bangladesh Economic Review 2019*. Retrieved from https://mof.gov.bd/site/page/44e399b3-d378-41aa-86ff-8c4277eb0990/
- 10. Barman, R. P., & Islam, M. (2020). Root causes and consequences of extreme poverty in Northern Bangladesh. *ABC Research Alert*, 8(3), 139–146. https://doi.org/10.18034/abcra.v8i3.497
- 11. Becker, G. S., Kominers, S. D., Murphy, K. M., & Spenkuch, J. L. (2018). A theory of intergenerational mobility. *Journal of Political Economy, 126*(S1), S7–S25. https://www.journals.uchicago.edu/doi/full/10.1086/698759
- 12. Byron, R. K., & Alamgir, M. (2019, October 13). I.38cr people underemployed. *The Daily Star.* Retrieved from https://www.thedailystar.net/frontpage/unemployment-in-bangladesh-138cr-people-underemployed-1812961
- 13. Data Commons. (n.d.). Bangladesh. Retrieved from https://datacommons.org/place/country/BGD
- 14. Guzel, A. E., Arslan, U., & Acaravci, A. (2021). The impact of economic, social, and political globalization and democracy on life expectancy in low-income countries: Are sustainable development goals contradictory? Environment, Development and Sustainability. Advance online publication. https://doi.org/10.1007/s10668-021-01225-2
- 15. Imam, M. F., Islam, M. A., & Hossain, M. J. (2018). Factors affecting poverty in rural Bangladesh: An analysis using multilevel modelling. *Journal of the Bangladesh Agricultural University*, 16(1), 123–130. https://doi.org/10.3329/jbau.v16i1.36493
- 16. International Monetary Fund. (2013). *Bangladesh: Poverty reduction strategy paper* (IMF country report No. 13/63). Retrieved from https://www.imf.org/external/pubs/ft/scr/2013/cr1363.pdf
- 17. Karim, K. M. R., Rahman, M., & Murshed, S. M. Å. (2009). *Women and poverty alleviation in Bangladesh*. Dhaka, Bangladesh: A H Development Publishing House.
- 18. Khan, A. K. (2005). Measuring inequality and poverty in Bangladesh: An assessment of the survey data. *The Bangladesh Development Studies*, 31(3/4), 1-34.
- 19. Landes, D. S. (1999). The wealth and poverty of nations (1st ed.). New York, NY: W.W. Norton & Company Ltd.
- 20. Lee, J. N., Morduch, J., Ravindran, S., Shonchoy, A., & Zaman, H. (2021). Poverty and migration in the digital age: Experimental evidence on mobile banking in Bangladesh. *American Economic Journal: Applied Economics*, 13(1), 38–71. https://doi.org/10.1257/app.20190067
- 21. Mannan, M. (2013). Access to public health facilities in Bangladesh: A study on facility utilisation and burden of treatment. *The Bangladesh Development Studies*, *36*(4), 25–80. Retrieved from https://bids.org.bd/uploads/publication/BDS/36/36-4/2_Mannan.pdf
- 22. Mehta, S. K., & Das, M. B. (2012). *Poverty and social exclusion in India* (2nd ed.). Oxford, United Kingdom: Oxford University Press.
- 23. Mustafa, G., & Nawaz, A. (2014). The separation of East Pakistan: Socio-economic factors. *Asian Journal of Multidisciplinary Studies*, 2(1), 45–51. Retrieved from https://www.researchgate.net/publication/270280982 _The_Separation_Of_East_Pakistan_Socio-Economic_Factors
- 24. Ovi, I. H. (2020, August 11). Bangladesh's per capita income rises to \$2,064. *Dhaka Tribune*. Retrieved from https://www.dhakatribune.com/business/economy/2020/08/11/bangladesh-s-per-capita-income-at-2-064-for-fy20
- 25. Palmer, D. (2013, June 28). U.S. suspends trade benefits for Bangladesh over safety. *Reuters*. Retrieved from https://www.reuters.com/article/us-obama-trade-bangladesh-idUSBRE95R08D20130628
- 26. Quasem, M. A. (2013). Poverty eradication Bangladesh perspective. Dhaka, Bangladesh: Palok Publishers.
- 27. Rahman, S. U. (1993). Disaster in Bangladesh: A multinational relief effort. *Naval War College Review, 46*(1), 59–72. Retrieved from https://digital-commons.usnwc.edu/nwc-review/vol46/iss1/5/
- 28. Ricci, A. (2018). Unequal exchange in the age of globalization. *Review of Radical Political Economics*, 51(2), 225–245. https://doi.org/10.1177/0486613418773753
- 29. Salahuddin, K. (2001). *Income generation and savings of women and institutional credit arrangement in Bangladesh early initiatives* (1st ed.). Dhaka, Bangladesh: Palok Publishers & Bangladesh Women Writers Association.
- 30. Savoia, A., & Sen, K. (2020). The political economy of the resource curse: A development perspective (WIDER Working Paper 2020/123). https://doi.org/10.1146/annurev-resource100820-092612
- 31. Sen, A. (1981). Poverty and famines (1st ed.). Oxford, United Kingdom: Oxford University Press.
- 32. Sen, B., & Ali, Z. (2015). *Ending extreme poverty in Bangladesh during the seventh five year plan: Trends, drivers and policies* (Background paper for the preparation of the seventh five year plan). Retrieved from http://socialprotection.gov.bd/wp-content/uploads/2017/07/25_Ending-Extreme-Poverty-in-Bangladesh.pdf
- Shorrocks, A. (1995). Revisiting the Sen Poverty Index. *Econometrica*, 63(5), 1225–1230 https://doi.org/10.2307/2171728
- 34. Shorrocks, A., & Hoeven, R. V. D. (2004). *Growth, inequality, and poverty: Prospects for pro-poor economic development*. https://doi.org/10.1093/0199268657.001.0001
- 35. Stiglitz, J. (2017). Globalization and its discontents. New York, NY: W. W. Norton & Company.
- 36. Streeten, P. (1995). *The political economy of fighting poverty* (Issues in Development, Discussion Paper No. 1). Retrieved from https://www.ilo.org/employment/Whatwedo/Publications/WCMS_123382/lang--en/index.htm
- 37. UNDP. (2020). *The next frontier: Human development and the anthropocene* (Human development report 2020). Retrieved from http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BGD.pdf
- 38. World Bank. (2013). PovacalNet. http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx
- 39. World Bank. (2015). *WB update says 10 countries move up in income bracket.* Retrieved from https://www.worldbank.org/en/news/press-release/2015/07/01/new-world-bank-update-shows-bangladesh-kenya-myanmar-and-tajikistan-as-middle-income-while-south-sudan-falls-back-to-low-income
- 40. World Bank. (2018, November 15). *Bangladesh: Reducing poverty and sharing prosperity*. Retrieved from https://www.worldbank.org/en/results/2018/11/15/bangladesh-reducing-poverty-and-sharing-prosperity
- 41. World Bank. (2020). Bangladesh. Retrieved from https://data.worldbank.org/country/bangladesh