Inequality of Opportunity in Education and Sustainable Development: The Case of Bangladesh

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

This paper examines how the sustainable development aspirations of an economy or country are impacted by unequal opportunities, especially in education, by employing balanced panel data from 2000 to 2020 of Bangladesh. Random effects, ordinary regression, general trends used to understand the impact of inequality in education on Sustainable development Goals (SDGs). The empirical study based on panel data, extensive literature review and qualitative analysis confirms that the agenda-2030, which Bangladesh would like to achieve along with other developing economies by 2030, is highly affected by long-prevailing unequal opportunities in access to quality education. The male-female, rural-urban, poor-non-poor disparity in enrolment, and literacy rate, low teacher-student ratio, low public spending on education as a percentage of GDP, higher individual out of pocket expenditure, and the significantly large drop-out rate among female and regional disparity simultaneously lead to learning poverty and unequal employment opportunities. The higher the level of education, the lower the incidence of poverty among people. Education is highly interlinked with most others SDGs; any shorts of inability to guarantee equal opportunities in education profoundly interfere with a nation's dream of ending poverty and promote a peaceful and just society. Without inclusive, equitable quality education, intergenerational inequality perpetuates by leaving the poor in the cohort of the poverty trap. Alternatively, ensuring fairness in achieving skill-based lifelong learning opportunities for people accelerates a country's vision to build an effective, prosperous and just planet. The study also shows a country's advancement in different socio-economic indicators may halt in the absence of equal access to quality education for all in the long run.
Keywords: Sustainable Development; Agenda-2030; Inequality of Opportunity (IoP); Bangladesh; Inclusive Quality Education; Out-of-Pocket (OOP) Expenditure.

1. INTRODUCTION

Everyone ranging from the pope to butcher and the rich to the poor, desire peace and development. In this context, 193 UN countries have adopted the agenda-2030 to transform the planet into a peaceful and prosperous one for its inhabitants, focusing on the principle of economic, social and environmental development. However, the agenda-2030 has come out with a view to transforming the world when our beloved planet is already divided by the rich and the poor. There are several reasons behind this ever historic level of disparities between societies. Among them, inequality of opportunity, particularly in education, matters most to build a peaceful and prosperous planet.

‘Inequality of opportunity’ is the state of not being equivalent, especially in rank, rights, and privileges. It is a concept of social justice, highly interlinked with sustainability and exerts enormous impacts on development. Inequality of opportunity in any country is perceived as a share of overall imbalance derives from circumstances beyond the authority of an individual (such as colour, place of birth, gender, religion, parental education, caste, etc.) and is thus regarded as discrimination towards the meritocratic values of a society [1]. Here in my paper; I want to study how unequal opportunities, particularly in education, influence a nation's development ambitions by reshaping individual life and perpetuating its effect on achieving different sustainable development goals. Mainly intergenerational and cyclical impact of inequality of opportunity is the most exciting part of this paper.

The effects of “unequal opportunities” on development, especially sustainable development, are observed as reverse causation. A closer look at both the developing and developed states reveals that not only the developing nations are profoundly suffering for equal access to different opportunities but also the developed countries. Moreover, the extent of disparity has reached such an extreme situation that disrupts their long-standing societal harmony and coherence on a balanced growth pathway. The fact has also been reflected in the speech of US President Barak Obama in 2013, and he identified inequality as the “defining challenge of our time”. Inequality of opportunity has become one of the most terrible development challenges of our time. It does not compare with a distinct developmental stage of an economy; the challenge is faced by all alike [2].

As a nation, Bangladesh is promising towards attaining SDGs to end poverty and ensure all people enjoy peace and prosperity by 2030. In this regard, access to education is considered a fundamental human right for its citizen by the constitution of Bangladesh. On the verge of its Golden-jubilee (50th anniversary) of independence, commendable progress has been made in different socio-demographic indicators like gross enrolment, literacy rate, gender parity at the primary level, life expectancy at birth. However, according to sustainable development report-2020, Bangladesh faces critical challenges in reaching seven (7) sustainable development goals out of seventeen (17), where ensuring inclusive, equitable, and quality education (SDG goal: 4) is one of the significant obstacles that Bangladesh encounter along with SDG: 2, 3, 6, 9, 11, 16, and 17. Though the report mentions that Bangladesh is on track regarding SDG:4; due to substantial drop-out, inadequate financing, poor student-teacher ratio, and the lower attainment of proficiency still make the vision of achieving quality education by 2030 a tough one. The SDGs require mutual enterprise across various stakeholders within and outside the education sectors to attain advancements in the many conditions that influence the opportunities for quality education such as poverty, hunger, gender discrimination, women empowerment, inequality within and across societies, loss of biodiversity, climate change and above all raising a well-disposed, just and prosperous world.

Poverty, disparities in educational attainments and related facilities are critical concerns in many developing countries, like Bangladesh. From our discussions at part-5 we find that though outstanding progress has been made in achieving gender parity in primary education, there exist considerable disparities in secondary and tertiary education levels. The net enrolment is still low, and substantial differences remain in poor and non-poor enrolment at all three levels of education. Besides, male-female and rural-urban disparity in enrolment, drop-out rate, adult and child literacy, low teacher-student ratio are major concerns of unequal opportunities in
education. Inequality in proficiency attainment across different income quintiles, high unemployment and incidence of poverty in the low level of education is also a topic of apprehension in our country. Alongside inadequate government financing in education, low expenditure as a % GDP, high individual out of pocket expenses, the difference in the distribution of resources and facilities by locality are the most common forms of disparity in our education system.

The country-specific analysis of unequal access to education facilities and its overall impact on sustainable development has been measured by different conventional education indicators for Bangladesh is the main focus of this research. The exciting literature review reveals the meaning of inequality of opportunity and sustainable development and their correlation in securing a peaceful society, especially in Bangladesh. The correlation symbolises a very strong assertive relationship \((r=0.94)\) between average years of schooling and the incidence of poverty in Bangladesh. At the same time higher level of Out-of-Pocket (OOP) spending symbolises lower government expenses to education, higher private education expenditure burden on people, which ultimately lowers their access to quality education.

2. RESEARCH OBJECTIVES

The paper investigates how great the impact of unequal opportunities in education on realizing SDGs. The study is designed to fulfil the following objectives:

1. To examine how inequality of opportunities intervene in the process of sustainable development?
2. To study the dimensions of unequal opportunity in education that creates restrictions to achieve inclusive, equitable, and quality education (SDG-4).
3. To scrutinize the reasons behind how inequality of opportunities in education impacts other SDGs on the way to build a balanced, peaceful, prosperous, and developed society.

2.1 Significance of the Study

Bangladesh has made tremendous progress in different socio-demographic indicators, especially education, in the last two decades, but still a long way to achieve SDGs by 2030. Though gross enrollment in primary education is high, a substantial drop-out issue at the secondary level has serious difficulty ensuring universal quality education. Besides poor non-poor, regional and gender disparity in education is very common. The sector is also suffering from low proficiency and a STEM (Science, Technology, Engineering and Mathematics) related skilled workforce shortage. On the other hand, public financing in education is very low, and per capita, government expenditure on education has become stagnant over time. As a result, mass people have to bear the enormous cost that makes them unable to access quality education very often. Besides, the skilled workforce shortage in many sectors and its unequal spreading across countries makes our objective to attain inclusive and quality education for all a challenging one. To ensure inclusive, equitable and quality education by promoting lifelong learning opportunities for all; the practical implementation of education policies, minimizing drop out, increasing teacher density and distribution, government education expenditure is still challenging. This paper will help to understand the nature of inequalities prevailing in the education sector of Bangladesh and how it interrupts our aspiration to achieve post-millennium development agenda.

3. METHODOLOGY

To carry out research, applying a single method is difficult. Basically, different research styles and methodological tools apply to various research problems. Therefore, qualitative analysis has been done in this research work based on highly quantifiable data collected mainly from secondary sources. Besides, qualitative analysis simple regression analysis has also been done to estimate the robustness of the linear relationship between the incidence of poverty and the level of education variables. The results have been analyzed by presenting data in a total of 8 tables and 11 figures.

3.1 Data

Secondary data, diverse pertinent sources like the Bangladesh Bureau of Statistics (BBS), Bangladesh Bureau of Information and Education Statistics (BANBIES), The World Bank (WB), Ministry of Education (MoE), Department of Primary Education (DPE), Ministry Health and Family Welfare (MoHFW), International Labour Organization(ILO), Education Household Survey-2014 (EHS), Household Income and Expenditure
Survey (HIES) has been used. Different relevant journal articles, publications, reports, books, rules and regulations, websites, and web-based newspapers have been reviewed.

3.2 Data Analysis Approaches

This study reflects the causal relationship between inequality of opportunities in education sectors of Bangladesh and how it retards the development aspiration of the country. The data and information retrieved mainly from the secondary sources are presented in a tabular and graphical mode. Later ordinary least square (OLS), correlation, regression and usual trend analysis are run to have the impacts. One way ANOVA, F tests were also conducted to get the effect of the interactions between independent and dependent variables.

4. WHY STUDYING INEQUALITY OF OPPORTUNITY IS ESSENTIAL (LITERATURE REVIEW)

Inequality is a widespread phenomenon, and it exists in every society. Consequently, a course of literature on inequality and development has come out over the last few decades. Though earlier literature found inequality beneficial to growth, it shows disapproval of the earlier consensus [3]. Alesina and Rodrik (1994), Persson and Tabellini [4], Perotti [5], and Alesina and Perotti (1996) all highlighted the risks of inequality for development. They supported that inequality is inversely related to growth in a cross-sectional context. It is extensively demonstrated that prevailing levels of world inequality are intolerable [6]. While most of these articles are concerned with the income or wealth-related inequality here, the author's primary focus is the inequality of opportunity. Alessandra Mezzadri [7] said that “material inequality (income and wealth) only represents the set outcome of far more rooted oppression structures”. Steiner [8] found that world inequality is now more about the disparity in opportunities than inequality in earnings closely associated with education, gender, and social inequality. A society with unequal opportunities is characterised by aspects beyond individual control, leading to intergenerational inequality and poverty, with severe implications throughout development [9]. Alternatively, equality of opportunity creates a level playing field so that factors such as place of birth, ethnicity, religion, gender, or background of the family do not affect a person's outcomes of life. Progress in life should depend on people's talents, efforts, and choices, not on their circumstances at birth [10]. Whereas inequality of opportunity is the early phase, inequality of outcome is the final stage, and very often, unequal opportunities ultimately lead to unequal outcomes [11]. It is also connected with inefficiencies, squandered economic potentials, and an incompetent allocation of resources.

Wilkinson and Pickett [12] have identified many adverse outcomes of inequality that simultaneously impact wealthy and disadvantaged groups. First, it creates a sort of knowledge gap between the people at peak, who consider they have got there through self-efforts, and the group below the benefits string, who wonder when their attempts will pay off [13,14]. Second, because people are usually less concerned about a yacht and a raft while everything is mounting, nevertheless, when an economy looks hampered—as it did in the course of the Great Depression and global economic meltdown in 2008—a nation can expose itself to a vicious cycle [15]. Third, people often think that higher productivity benefits everyone, but no law says technological improvement serves everybody or even the most. It is possible that productivity can go up, and the economic pie becomes sizable; however, majorities have no share in that success [16]. Harvard economist Benjamin Friedman said, “If we fail to grow fairly, we may stick in a wicked equilibrium in which our absence of growth present political insensibility, and the political paralysis defends the growth deficiency” [17].

In addition to that, the social and human cost of the present unequal development process is significantly high, especially for the lower and working poor. It brings social, political as well as economic instability. In every society, citizens have to go through economic reversals, uncertainty, and unfairness for a time, sometimes a long time, and they do it as long as they trust the system. Nevertheless, persistent, massive unequal access to different basic human needs promotes mistrust among people and results in an ineffective, intertwined economic, social, and political system [11]. Consequently, a feeling develops among the lowest social stratum in a society that the system and people who control it are self-interested and will not challenge it. As a result, the aspiration of balanced development remains a daydream for many nations, uniquely for the developing ones.
In addition to that, inequality exists in almost all other SDGs, such as 'poverty,' 'zero hunger,' gender equality, to 'promote peaceful, just and inclusive societies.' The role of sustainability is crucial to the way of the accomplishment of these goals and targets. These reciprocities offer an occasion to re-evaluate the connection between development and inequality in sustainability contexts. This cross-cutting relationship is mirrored by LeBlanc’s (2015) ranking of "inequality" in terms of relational quality as second amid 17 SDGs, implying its close association with other development goals.

The magnitude of the unequal opportunities is often estimated by studying non-income scopes such as health, education, availability of essential services, and human development status. These individual circumstances, which are beyond an individual's controls, are crucial to examine inequalities in opportunities. Although Bangladesh has made exceptional progress in increasing education access, substantial educational disparities in attainment remain the central issue towards ensuring equity in education [18]. Advancement has made various fundamental education indicators due to different policy initiatives; however, these improvements did not necessarily lead to systematic enhancement of equity and quality conditions [19]. It is evident that access to education is highly determined by household income [20,21]. In Bangladesh, primary education being free and compulsory; it requires considerable additional private costs that guardians have to bear for their children's tuition (Ahmad et al., 2007). These costs include examination fees, private tuitions, notebooks, and other accessories in the upper grades. Despite significant quantitative escalation, evidence of development suggests that the past accomplishment in the rapid expansion of enrolment has been achieved at the expense of quality [22]. Here in Bangladesh, one can apparently observe mounting geographical, gender-based, and group-based inequalities along with the increasing trend of income inequality. Educational facilities are asymmetric between cities and rural areas that do not consider the need for remote areas. Besides, the differential quality of education is a significant setback at all spheres/tires of the education system.

So inequality matters in many ways, especially while we are committed to building up a peaceful planet where people will live in prosperity that comes through partnerships (UN Agenda-2030).

By amplifying political and social anxieties, weakening social adherence, and, in some circumstances, encouraging instability and disputes mounting inequality detriments to the economy [7]. It also erodes our happiness and makes society conflicting with each other [23]. Inequality of opportunity also induces racial disparities, and today the biggest threat to the class system [24]. The greater the discrepancies, the more we move further from democracy toward plutocracy [25]. Similarly, the higher the unequal opportunity, the higher the society's hunger limiting human development and retards to achieve SDGs.

On the other hand, Sutcliffe (2005) and Wacquant (2010) claimed that higher equality would facilitate a comprehensive use of human resources by creating enormous opportunities and reducing society's costs. In these circumstances, sustainable development could be a solution to overcome the problems of unequal opportunity as it applies to the diverse means and pathways to harmonise eco-friendly, social, and economic dimensions of life. Besides, it would seem to be a stimulus that nearly everyone deems SDGs is desirable: admittedly, it is not hard to coincide with the idea [26]. Because the absolute need for socio-economic development explicitly recognises the interrelatedness of lives on earth. Actual development must be defined to enhance sustainable human well-being, not merely improving material consumption [27].

Furthermore, it also soon becomes economically unviable and socially detrimental for the few to exclude the many [7]. So the fight against inequality of opportunities must be fought on many fronts as it has so many dimensions to make society a better place to live in by achieving sustainable development goals.

5. DISCUSSION

According to the Constitution of Bangladesh, access to education is a fundamental right of all citizens. It is the State obligation to take up practical steps “to guarantee uniform, mass-oriented and universal access to all basic needs, free and compulsory education of all age’s people” (Article 15(a) & 17 of “The Constitution of the People’s Republic of Bangladesh (ACT NO. OF 1972)”, 2021). In addition to such international imperatives, Bangladesh is also committed to achieving the post-15
development agenda of inclusive, quality education. From the beginning of its independence, the country has taken many initiatives, programs, policies, and adopted education goals, focusing on access, equity, and quality. Despite the priority accorded to education in the country's development strategy, the progress towards actualising these goals has been slow, especially in terms of quality.

5.1 Education

Education the backbone of a nation, and for decades, it has been treated as a means of social reform. Bowles [28] first considered equal access to education as an overriding instrument for equalising economic opportunity, the redistribution of income, and the elimination of poverty. “Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all (SDG-4)” is the crucial issue that must achieve with proper attention since it plays a vital role in escalating additional opportunities necessary to achieve the SDGs by 2030. However, the disparity in education has appeared as a key obstacle in attaining universal education. Here the literacy rate (75.20%) [29], is still substantially low and the relationship between education and poverty is circular. Lack of education leads disadvantaged households to engage in less productive activities resulting in poverty; consequently, poverty compels households to make the low investment in education. Poverty, insufficient allocation of funds and its improper implementation, geographic isolation, the opportunity cost of schooling, frustration, high unemployment rate among educated young and existences of some structural cusses are persisting inequality in education.

5.2 Structure of the Education System of Bangladesh

A multifaceted, diverse education system prevails in Bangladesh. At the primary, technical, and tertiary levels, the government-run organisations are dominant, but private institutions are leading at the secondary level. In addition, the religion-based traditional Madrasah and Qawmi Madrasah systems are also common both at primary and secondary levels. The characteristics of these diverse structures are as follows:

5.3 Disparity in Enrolment by Poor vs Non-poors

From Tables 2 and 3, we notice that substantial progress has made in enrolment, especially for the female in the primary level, both GER and NER maintain parity, but in secondary and tertiary levels, the differences are noticeable both in terms of poor non-poor and gender. As the gap in net enrolment increases from primary to secondary level, the tertiary level has the lowest rate of enrolment. However, gross enrolment has risen in all three levels of education, and females dominate both primary and secondary levels. Only in higher education males have higher access than females due to higher drop-out among females at the secondary level.

5.4 Unequal distribution of Enrolment across Income Groups

From Fig. 2 we observe that almost parity is maintained across different income segments of
people in case of gross enrolment at Primary education. However, the disparity in enrolment is significantly high in secondary and tertiary levels, which is also hard to attain for low-income students. Tertiary level education is dominated by students from the top two quintiles of society which is even more unequal than secondary level education.

5.5 The Student-teacher Ratio

The teacher-student ratio with other yardsticks measures the quality of education of a country. In a jam-packed classroom, teachers do not have enough time to spend on each student, and it becomes complicated for students to take lessons. The teacher-student ratio of 1:30 is considered a global standard. At the primary level of the country, it was 1:30.05 in 2018, as targeted 1:30 at our National Education Policy (NEP)-2010. Nevertheless, at the secondary level, the situation even worse (1:42); this is far higher than the global average (24.26) and even more extensive than the average in Asia (21.42). Moreover, at the secondary level, only 35.2% of the teacher has a male-female ratio of 1.17, whereas, at the primary level, the trained teacher is 50.43% with a 1.07 of male-female ratio.

5.6 Rural-Urban inequality in Literacy Rate

According to SDG, target (4.1) is “all boys and girls will complete free, equitable and quality primary education by 2030”. In this perspective, if we investigate our situation, we see that the literacy rate above seven years of children in 2000 was 44.90%, which has reached 74.40% in 2020, increasing 1.50% per year. If this rate prevails, the national level literacy rate may stand to 88.26% by 2030, 11.74% below the SDG target.
Fig. 2. Distribution of enrolment across income group
Source: Author’s calculation based on Education Household Survey (EHS) 2014 [31]

Fig. 3. Literacy Rate of Children (< 7 years old) and its future projection by Locality
Source: Author’s compilation using Household Income and Expenditure Survey (HIES) of BBS-2000, BBS-2005, BBS-2010, BBS-2016 and BBS-2020 Data

Fig. 4. Actual literacy rate (Rural Vs Urban) of (< 7 years old)
Source: Author’s compilation using Household Income and Expenditure Survey (HIES) of BBS-2000, BBS-2005, BBS-2010, BBS-2016 and BBS-2020 Data
Besides, we observe a significant rural-urban disparity in literacy rate. The literacy rate in 2000 was 40.90% and 60.20% for rural as well as urban areas; it increased to 69.10 and 80.00% in 2020 with an average growth of 1.41% and 0.99% per year correspondingly. If the rate continues, the literacy rate for rural and urban areas might be 84.51% and 87.21% in 2030, which shows a rural and urban gap of 15.49% and 12.79%, respectively, compared to the SDG target, which supposed to be achieved by 2030. Thus, though the annual rural literacy rate is increasing at a higher speed, still a substantial gap prevails between the two regions.

5.7 Male – Female Disparity in Literacy Rate

Child literacy here in Bangladesh also varies across gender. The literacy rate of the male children was 49.50% in 2000 at the national level, which has increased to 74.4% in 2020 with an annual average rise of 1.25%. Continuation of this rate indicates that in 2030 literacy rate at the national level might be increased to 87.92, which is 12.08 % lower than the SDG target. That means it will take another extra ten years to reach the 100% literacy target. If we look at the Fig. 3, we see that the rural literacy rate is substantially lower than urban for both males and females over the period. If we notice carefully in Fig. 4, we find that the female literacy rate is considerably lower than the male counterpart at all three dimensions (national, rural and urban level). However, it has been increasing at a faster rate due to various initiatives taken by the government and NGOs.

5.8 Regional Disparity in Literacy Rate

For children literacy, male vs female, rural vs urban disparity is very prominent across eight divisions of Bangladesh. The literacy rate for the rural female is highest in the Khulna division (97.1%), whereas the rate is lowest for the Chottogram division (89.9%). The literality rate is highest in the Khulna division (95.65%) but most deficient in the Chottogram division (85.25%) for the rural male. The urban female literacy rate is highest in Khulna (96%) but the lowest in the Sylhet division (90.05%). However, for urban males, the rate is highest in Rajshahi (97.05%) and lowest in Mymensingh (83.25%) division.

**Fig. 5. Male-female literacy rate of children (< 7 years old)**

*Source: Author’s compilation using Household Income and Expenditure Survey (HIES) of BBS-2000, BBS-2005, BBS-2010, BBS-2016 and BBS-2020 Data*

**Fig. 6. Regional disparity in literacy rate across eight divisions of Bangladesh**

*Source: Author’s compilation using Household Income and Expenditure Survey (HIES) of BBS-2000, BBS-2005, BBS-2010 and BBS-2016 Data*
5.9 Adult Literacy Rate of (< 15 Years Old)

Like child literacy, the gender differences in adult literacy is also vivid over the periods in Bangladesh. The gap between male and female literacy rates is still high though both of them show increasing trends. In 2005, the literacy rate for an adult male was only 58.3%, and it increased to 76.6% in 2019, with an average 1.17% increase per annum. On the other hand, the adult literacy rate for females has also increased from 48.6% to 71.9% over the period, with an annual increment of 1.30% on average. Though the female literacy rate is growing at a higher speed, the gap is still high, and it's an obstacle to achieving universal education for all as well as SDGs by 2030.

5.10 Differences in Rural Vs Urban Adult Literacy Rate

Despite many efforts, the disparity between rural and urban areas is very high as educational opportunities are not evenly distributed throughout the country. In 2010, rural-urban adult literacy rates of 53.1% and 70.4%, respectively, with a gap of 17.3 points. In 2019, though this gap has reached 13.80 points with a rural-urban adult literacy rate of 68.4% and 80.2%, respectively, the discrepancy is still substantial. Low teacher-student ratio, inadequate logistic supports and provision of stipend, higher opportunity costs of schooling are major setbacks behind the higher rural-urban disparity in adult literacy rate in Bangladesh.
5.11 Inequality in Drop-out Rate at a Different Level

Drop-out is the wastage of public resources. Though the enrolment of students at the different level of education is quite encouraging, a significant number of students, especially girls, drop out of the secondary level of education. In 2016, 42.19% of girls admitted in grade-6, fail to accomplish secondary education, while 33.88% of the boys dropped out of school. They are the worst sufferers of secondary level drop-out. The reasons behind the girls dropping out of school are mainly marriage and social security, and most of the girls put an end to education from class-8 (Bangladesh Education Statistics-2016). The percentage of drop-out of pupils significantly varies with their poverty status. The rate falls from 10.50 in 2000 to 3.02 in 2016 for non-poor children with a decrease of 0.45 percentages per annum. However, this rate shows quite the opposite trend for poor children, and it increases from 7.80% to 15.35%, with an annual increase of 0.47% during the same time period (2000-2016). Under the circumstance, the target of achieving inclusive education under SDG 4.1 might not be possible within the time frame. The disparity in male-female drop-out rate is also considerable, and the drop-out rate of poor males is almost twice that of poor females. The drop-out rate at the secondary level reached 36% (BANBEIS, 2019), which was only 21% in 2000. Due to the Covid-19 pandemic may reach more than 45%, reported by the South Asian Network on Economic Modelling (SANEM) in August 2020.

5.12 Learning Poverty

The disparity in enrolment, huge drop-out, regional, gender and poor non-poor differences in literacy rate, high teacher-student ratio all lead to learning poverty (deficit in educational outcomes) in Bangladesh. It is expected that after completion of primary level of schooling, all children will be able to by the age of 10, but 57% of children here in the late primary are not proficient in reading. Here we observe that almost 5% of students are excluded from learning opportunities as they are not enrolled in school. Besides, 55% of the students do not achieve minimum learning proficiency at the end of primary school, which is alarming for our education system, particularly towards achieving quality education by 2030. This lower proficiency is also reflected in the participation in STEM-related subjects and decent job status.

5.13 Disparity in Employment Status

Women's participation in the labour force has increased (from 7.9 million to 29.1 million in 17 years) substantially over time. The number of employed men was 31.10 million in 2000 and reached 47.20 million in 2017, whereas the number of employed women reached 29.1 million, from only 7.9 million in this period. Though women's overall participation in the labour force has increased a lot, it is still hovering around 36%, especially in the last seven years, and a long way to achieve parity in employment status with men. Besides, there exists a rural-urban disparity in the labour force participation of women. So despite gaining parity in enrollment and literacy rate, they need higher education because only then women empowerment and employability will be high, which will, in turn, bring about the opportunity of inclusive development and real prosperity of society.

5.14 Linkage between Education and Poverty

Historically it is proven that people with higher education are less prone to poverty. That is, education is closely associated with poverty. From Table 12, we see that people with no education are highly exposed to poverty; as long as their education status increases, the incidences of poverty decline.

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Table 4. Inequality in male-female dropout rate at primary level by poverty status

<table>
<thead>
<tr>
<th>Year</th>
<th>Poor</th>
<th>Non-Poor</th>
<th>Male</th>
<th>Non-Poor</th>
<th>Poor</th>
<th>Non-Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7.80</td>
<td>10.50</td>
<td>20.60</td>
<td>14.10</td>
<td>6.50</td>
<td>6.70</td>
</tr>
<tr>
<td>2005</td>
<td>18.43</td>
<td>9.36</td>
<td>21.55</td>
<td>13.02</td>
<td>15.80</td>
<td>5.53</td>
</tr>
<tr>
<td>2010</td>
<td>12.84</td>
<td>5.52</td>
<td>17.78</td>
<td>8.09</td>
<td>8.31</td>
<td>1.69</td>
</tr>
<tr>
<td>2016</td>
<td>15.34</td>
<td>3.02</td>
<td>15.93</td>
<td>6.29</td>
<td>9.21</td>
<td>1.87</td>
</tr>
</tbody>
</table>

Source: Author's compilation using Household Income and Expenditure Survey (HIES) of BBS-2000, BBS-2005, BBS-2010 and BBS-2016 Data
Table 5. Learning Poverty among Girls and Boys in Bangladesh

<table>
<thead>
<tr>
<th>Indicators and Components</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Poverty</td>
<td>-</td>
<td>-</td>
<td>57.2%</td>
</tr>
<tr>
<td>Below Minimum Proficiency</td>
<td>-</td>
<td>-</td>
<td>55%</td>
</tr>
<tr>
<td>Out of School</td>
<td>7.9</td>
<td>1.7</td>
<td>4.9%</td>
</tr>
<tr>
<td>Human Capital Index</td>
<td>4.6</td>
<td>4.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Learning Adjusted Years of Schooling</td>
<td>6.2</td>
<td>6.7</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Source: Authors Compilation of UIS and the World Bank Data, October 2019

Table 6. Employed Men and Women in Bangladesh (In Millions)

<table>
<thead>
<tr>
<th>Years</th>
<th>Women (%)</th>
<th>Men (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7.9</td>
<td>31.1</td>
</tr>
<tr>
<td>2005</td>
<td>11.3</td>
<td>36.1</td>
</tr>
<tr>
<td>2010</td>
<td>16.2(29.94%)</td>
<td>37.9(70.06%)</td>
</tr>
<tr>
<td>2013</td>
<td>16.8(28.96%)</td>
<td>41.20(71.03%)</td>
</tr>
<tr>
<td>2017</td>
<td>18.0(30%)</td>
<td>42.0(70%)</td>
</tr>
</tbody>
</table>


Table 7. Incidence of Poverty in Bangladesh as per Education Level

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National</td>
<td>Rural</td>
</tr>
<tr>
<td>No education</td>
<td>16.00</td>
<td>17.20</td>
</tr>
<tr>
<td>Completed class I-IV</td>
<td>12.60</td>
<td>13.40</td>
</tr>
<tr>
<td>Completed class V-IX</td>
<td>7.90</td>
<td>9.40</td>
</tr>
<tr>
<td>Completed class SSC+</td>
<td>2.70</td>
<td>4.50</td>
</tr>
</tbody>
</table>

Source: Author's Compilation using Household Income and Expenditure Survey(HIES) of BBS-2016 Data

Fig. 8. Relationship between education and poverty in Bangladesh
Source: Author's compilation using Household Income and Expenditure Survey(HIES) of BBS-2016 Data

The prevalence of poverty is 16% among uneducated people, whereas it only 2.70% among people with education level grade 10 and above in Bangladesh. From Fig. 13 it is evident that the link between the level of learning and incidence of poverty is negative. That means the higher the level of schooling, the lower the prevalence of poverty. Here the value $R^2 = 0.94$, from the simple linear regression, explains 94% variability in the poverty status of people is linked with education which is highly significant. “One additional year of education raises person’s incomes by up to 10%, and Gross Domestic Product (GDP) increases by 0.37% per annum with an added year of schooling” [32]. So, to ensure sustainable development by eradicating poverty and hunger, education has no alternative.
Table 8. Regression analysis

<table>
<thead>
<tr>
<th>Regression Statistics</th>
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<tr>
<td>Multiple R</td>
<td>0.966988545</td>
</tr>
<tr>
<td>R Square</td>
<td>0.935066846</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.902600268</td>
</tr>
<tr>
<td>Standard Error</td>
<td>1.804549167</td>
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<td>Observations</td>
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<table>
<thead>
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<tbody>
<tr>
<td>df</td>
<td>1</td>
</tr>
<tr>
<td>SS</td>
<td>93.78720461</td>
</tr>
<tr>
<td>MS</td>
<td>93.7872</td>
</tr>
<tr>
<td>F</td>
<td>28.80091</td>
</tr>
<tr>
<td>Significance F</td>
<td>0.033011455</td>
</tr>
</tbody>
</table>

| Residual               | 2 |
| df                     | 2 |
| SS                     | 6.512795389 |
| MS                     | 3.256398 |

| Total                  | 3 |
| df                     | 3 |
| SS                     | 100.3 |

<table>
<thead>
<tr>
<th>Coefficients</th>
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<tr>
<td>Intercept</td>
<td>16.8184438</td>
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<tr>
<td>Standard Error</td>
<td>1.58839843</td>
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<tr>
<td>t Stat</td>
<td>10.58536</td>
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<tr>
<td>P-value</td>
<td>0.008807</td>
</tr>
<tr>
<td>Lower 95%</td>
<td>9.9822177</td>
</tr>
<tr>
<td>Upper 95%</td>
<td>23.65467</td>
</tr>
<tr>
<td>Lower 95.0%</td>
<td>9.982218</td>
</tr>
<tr>
<td>Upper 95.0%</td>
<td>23.65467</td>
</tr>
</tbody>
</table>

| level of education     | -1.039769452 |
| Standard Error         | 0.19374655 |
| t Stat                 | -5.36665 |
| P-value                | 0.033011 |
| Lower 95%              | -0.87393574 |
| Upper 95%              | -0.20615 |
| Lower 95.0%            | -0.87339 |
| Upper 95.0%            | -0.20615 |

Source: Derived by using the Data of Household Income and Expenditure Survey (HIES) of BBS-2016

![Government Education Spending as a Share of GDP and Total Spending](image)

Fig. 9. Government Education Spending as a Share of GDP and Total Education Spending

Source: Author’s compilation using Ministry of Finance (MoF) and Ministry of Education (MoE) Data-2000-2018 ("Bangladesh Public spending on education as a share of GDP, 2000-2020 - knoema.com", 2020) [33]
5.15 Financing Challenges in Education

In Bangladesh government overall spending on education as a share of the GDP is very low. Despite increasing government allocation for different economic spheres, the government total spending in education as a share of GDP has persisted stagnant at around 2%, which is supposed to be above 6%. This rate is almost 72% less than the average expenditure in South Asia and almost 70% shorter than most other similarly developed countries. Besides, public spending on education as a share of total expenditure is moving about 15.53 on average in the last 15 years, which is also insufficient.

5.16 Disparity in Rural-Urban Household Expenditure on Education

Household out of pocket expenditure on education has increased disproportionately between rural and urban areas in the last 15 years. Nationally it had risen almost 5.53 times from 198 in 2000 to 1096 in 2015. For rural areas, a household out of pocket, expenditure had increased nearly six folds from 132 in 2000 to 795 in 2015. The rural-urban gap is ever highest in 2015 when it had reached 2,081 from 458 in 2000.

6. HOW UNEQUAL OPPORTUNITIES IN EDUCATION ARE IMPACTING OTHER SDGs

The link between inequality of opportunities in education and other SDGs is pretty meaningful. As fundamental human rights education have qualitative and far-reaching impacts on almost all other sustainable goals. In this perspective, without addressing existing imbalances regarding ensuring qualitative education for all walks of people, achieving SDGs is a daydream. The ways disparities towards access to inclusive, equitable education in Bangladesh impact its sustainable development ambitions are given below:

The association between education and poverty (SDG-1) is robust. Millions of people could be lifted out of poverty if all students in low-income countries could achieve minimum proficiency at school. According to Hanushek and Woessmann [34] "proficiency in education can lead GDP growth rate by 2% more and effectively eradicate poverty."

Education also increases the opportunities for saving the life of people, particularly children. Many children in low-income countries are stunt and suffer from nutrition in early childhood. If all mothers in developing countries completed primary education, 1.7 million children would be saved from stunting and the number reduced to 12.2 million if they had secondary education (UNESCO, 2013). So unquestionably, education put forward a conspicuous impact on reducing hunger (SDG-2).

Comprehensive education creates the ground for a healthy and prosperous life (SDG-3) by preventing sickness and disorders. "Higher education amid mothers helps to enhance nourishment and immunisation rates among children and reduces preventable childhood diseases and deaths" [35].
Quality education (SDG-4) and sanitation are highly interlinked, resulting in a health improvement. The availability of clean water increases education to children, and women with health and sanitation education help maintain healthy lives that once again realise in the pandemic of Covid-19.

The right to inclusive and quality education provides opportunities for full development and reduces gender disparities (SDG-5) at every level. It also promotes a sense of dignity and respect among each other by empowering them equally. The economic cost of failing to educate girls and boys to the same standard in developing countries is equivalent to a loss of US$92 billion per year [36].

Access to clean water and sanitation (SDG-6) facilities is vital for socio-economic development and to save the world from environmental pollution. Education provides technologies that can enhance clean energy availability, change the life pattern of the people, and bring socio-economic development by saving the environment and energy.

No nation can prosper without education, and there is a positive correlation between education and economic growth (SDG-8). Education is an essential determinant of growth, and quality education has a significant impact on economic development [37]. According to Hanushek and Woessmann [34], a nation's GDP increases by 0.37% with each additional year of schooling.
Quality education enhances the opportunity of innovation, better technology (SDG-9), and encompassing planning for developing a country's infrastructure. A nation is blended well with modern infrastructure, and resilient infrastructure expedites the multifaceted developments through increased mobility.

In the case of reducing inequality (SDG-10) within and among countries, education works to bridge the gaps. "A 0.1% advancement inequality of a country's education can boost its income per capita by 23% in forty years [35]". Vietnam is a vivid example in this regard.

Education also promotes sustainable cities (SDG-11) and communities by developing sound technology, creative solutions, better management techniques, and planning. Now the world focuses on urbanisation for its development, and according to UNDESA-2018 report, by 2050, 6.5 billion will live in cities. So, without remodelling and managing our urban spaces, agenda-2030 cannot be achieved.

According to the UN, "every year 1.3 billion tones (1/3 of total production) of world food valuing around $1 trillion ends up rotting in the bins of consumers and retailers or destroys due to poor transportation and harvesting". Alongside the problem of scarcity, poverty, and hunger can be addressed by developing a sense of responsibility and awareness resulting from education. The advancement of education can promote sustainable production and consumption (SDG-12) by reducing resource loss.

For the sake of development, we recklessly use the resources and endanger our existence on the planet by damaging the world’s climate. Education aware people regarding the immediate hazard to our planet and pave the way for concerted efforts to face climate challenges (SDG-13) by modifying our mode of production, transportation, farming, and conservation.

The oceans and seas (SDG-14) are vital for social welfare, and it is the point at which the planet, people, and prosperity evolve collectively [38]. Due to the development of modern technology, the exploitation of oceans, seas, and marine life has increased. Recently the curriculum from school to university has been given due importance to the awareness about marine life, ecosystem, biodiversity and land degradation (SDG-15); the concern for the environment and related issues develop with higher education.

In many parts of the world, where people fight against frivolous issues, they are mostly less educated. Education develops consciousness and brings tolerance among people through remunerative employment, stable families, and productive citizens. So, building just, effective, accountable, and inclusive institutions (SDG-16) to promote peace and prosperity at all levels of society, quality education is the prerequisite.

A collective effort all around the globe through an effective partnership (SDG-17) is crucial for accomplishing Sustainable Development. The partnership renders confidence, collaboration, and guidance for implementing the agreed programs and policies. According to the UN High-Level Panel, "education explicates how collaboration can bring better outcomes, avoiding wasteful replication of policies and flowing local leadership."

So from this, it is evident that almost all the sustainable development goals are extensively impacted by SDG-4 (Quality education). The lack of the opportunity of inclusive, equitable, and quality education cyclically jeopardises an individual's dream of prosperity in life. If a person does not have access to education, they will not be able to access different vital facilities (health, sanitation, energy, etc.), information and equal rights. Similarly, in the absence of quality education, the individual will not succeed in having a decent job. Without a good job, individuals are unable to overcome poverty, hunger, malnutrition, and inequality.

Moreover, if learning does not become inclusive, fostering industry, research, and innovation, ensuring resilient cities, climate actions, responsible consumption and production, and building strong institutions, peace, and justice through global partnership can hardly be possible. Overall without inclusive, equitable quality education, intergenerational inequality perpetuates by keeping the poor at the bottom of the development highway. If we fail to make sure quality education and lifelong learning opportunities for all, achieving SDGs will be a fancy expectation from our end.
7. CONCLUSION

Every society strives for development, but the most crucial challenge is how to sustain it, especially in developing countries like Bangladesh. In this respect, examining the relationship between sustainable development and inequality of opportunities in education is vital because unequal opportunities create substantial imbalances in a society with considerable impacts on sustainability.

From the discussion above, the presence of significant unequal opportunities in Bangladesh's education sector is apparently evident. Though Bangladesh has made remarkable progress in reducing poverty after 2000, unequal access to quality education remains widespread and persistent. The prevalence of poor non-poor, male-female, and rural-urban disparity is prominent at all tiers of the education system. A similar type of inequality also exists in literacy rate, drop-out ratio, and even in learning proficiency. Huge financing constraints and a rural-urban gap in household education expenditure were also noticed.

A strong positive correlation was found while examining the relationship between education and poverty and their consequences on SDGs. The higher the attainment of an individual's education status, the lower the incidence of poverty. More than 90% of cases changes in the individual's poverty status are associated with his/her educational attainment, which is highly significant. Similarly, the inability to access quality education brings impoverishment to a person's life by lowering their competency and productivity. Out-of-Pocket expenditure in education is very high compared to public spending in Bangladesh. It exerts a tremendous barrier to the individual on sustainability by gradually placing them to a lower cohort of income status.

Such inequality of opportunities has materialised not only due to divergence in what people acquired and won; but because of considerable variations in reaching opportunities and experiencing outcomes. In such a situation, Bangladesh needs concentrated effort from all aspects of society to achieve sustainable development. Economic inequalities are always a policy issue that calls for active initiatives to the functional aspects of economic and social opportunities.

7.1 Policy Implication

The objective of SDGs is to free humanity from the cruelty of poverty, improve and secure our planet, and undertake the transformative and striking actions that are straight away required to shift the world on a resilient route of sustainability. And to do so, we must eradicate all sorts of inequality of opportunities on the route to ensure inclusive and quality education by taking strict policy measures so that we can create a knowledge-based, prosperous and just society that we always expect to inherit as a universal citizen.

Assuring fairness by leaving no one behind in the process of economic, social and environmental development. The targets related to education emphasise reiterating this call for equity, with the overarching aim of reducing inequality of opportunities to make a balanced and sustainable society.

Government focuses only on enrolment is not enough; they must ensure the required learning proficiencies that students must accomplish after completing each stage of education. Government must rethink how to retain students at the tertiary level, especially the poor. For example, different benefit schemes or higher education support programmes must be introduced at tertiary level students like primary and secondary levels.

Special education support programmes must be taken based on the needs of the regions (Divisions) lagging and to minimise the educational gap in many dimensions across the country.

Financing an appropriate portion of money into the education sector as a percentage of GDP and ensure its proper implementation is a must. More attention required to the rural level where the drop-out rate of both females and males are high and very low teacher-student ratio compared to urban regions. Additional costs in terms of different education support materials, private tuitions fees and others must be reduced to keep the individual out-of-pocket expenditure at a tolerable limit. In no way individual income would be the deciding factor for students to attain higher education.

7.2 Limitations of the Study

This paper deals with one of the very fundamental social issues: inequality of
opportunity. Lack of primary data is also a significant constraint for this dissertation. Besides, due to the COVID-19 pandemic, we were unable to interact with our respondents in person. Obviously, this opportunity would enable us to use the available resources and time more efficiently.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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