

# Impact of Socio Economic Political Factors on Learning Poverty- A Study on India and Neighboring Countries

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## ABSTRACT

To be able to Read is a foundation for future learnings. In the absence of it students often fail to thrive later in school (Primary, Secondary or even Higher Education) or even when they join the corporate world. In the absence of good learnings, they fail to acquire the human capital that is very much required to progress in their careers and economies once they leave school, nor the skills for a better family life. This paper examines the relationship of learning poverty indicators across five SAARC countries with their GDP, their GDP growth rate, the per capita income, adult literacy rate, national poverty headcount ratios and indicators of political institutions. The Ordinary least Square Method is used in this paper to examine the relationship between learning poverty indicators and the various variables of interest. The  $R^2$  values from the OLS method are found to have the highest for adult literacy rates and political stability, followed by National Poverty headcount ratios and Per Capita Incomes. Astonishingly, GDP and growth rates as well voice and accountability do not show higher  $R^2$  values. This, then, points to the attention for focused interventions to increase adult literacy rates and poverty alleviation measures as well regime and policy consistency. This result corroborates with the existing literature on human development which has shown how economic growth on its own is not enough to alleviate learning poverty.

## KEYWORDS

National Poverty, Education, Political Stability, Accountability, Economics of Education, SAARC, Economic Growth, Economy and Education, Human Capital, Poverty Alleviation

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Reading is a foundation for future learnings. In the absence of it students often fail to thrive later in school (Primary, Secondary or even Higher Education) or even when they join the corporate world. In the absence of good learnings, they fail to acquire the human capital that is very much required to progress in their careers and economies once they leave school, nor the skills for a better family life. This paper examines the relationship of learning poverty indicators across five SAARC countries with their GDP, their GDP growth rate, the Per Capita Income, Adult literacy rate, National Poverty headcount Ratios and indicators of Political institutions. The  $R^2$  values from the OLS method are highest for adult literacy rates and political stability followed by national poverty headcount ratios and per capita incomes. Surprisingly, GDP and growth rates as well voice and accountability do not show higher  $R^2$  values. This points to the need for focused

interventions to increase adult literacy rates and poverty alleviation measures as well regime and policy consistency. This result corroborates with the existing literature on human development which has shown how economic growth on its own is not enough to alleviate learning poverty.

<sup>1</sup> The South Asian Association for Regional Cooperation (SAARC) was established on 8<sup>th</sup> December 1985 in Dhaka, Bangladesh, and comprises of eight Member States: India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka. The objectives of the Association is to promote the welfare of the people of South Asia and to improve their quality of life among others.

This paper is divided into 5 sections. Section 1 is dedicated to the State of Learning in South Asia,

Section 2 deals with Understanding on Learning Poverty, Section 3 deals with Data on Indicators of Learning Poverty, Economic Indicators and Political Indicators, Section 4 is on Data Analysis and finally, Section 5 is on Conclusions and Recommendations.

### Section 1. Introduction- State of Learning in South Asia

South Asia has a staggering number of children in the category of out-of-school children and youths. An unbelievable 93 million out of school children, adolescents and youth with 12.5 million at primary level (six to nine years) and 64 million at the secondary level (10 to 14 years), **UIS 2019**. The concerns are more alarming, when these millions of children will be deprived of in mastering foundational literacy and numeracy. The **UNICEF target for South Asia 2021**, 10 million previously out-of-school girls and boys be enrolled and learning in pre-primary, primary and secondary schools.

South Asian countries comprises of India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka. Besides sharing a history of colonization by the British Empire, these countries also share national borders and deep cultural and social history. This region has been marked by sporadic conflicts and ethnic tensions. Post-independence, these countries were characterized by rampant poverty, illiteracy and malnutrition.

South Asia is a home to 1.82 billion people, constituting 23.5 per cent of the world population. This is also one of the poorest region of the world after Sub Saharan Africa with per capita incomes of \$1923. South Asia's primary *Net Enrollment Rate* (NER) rose from 89.0 percent in 2010 to 92 percent in 2018-19, closer to that of regions such as Latin America and the Caribbean (95.0 percent) and East Asia and the Pacific (96 percent). According to UNICEF progress report for 2018-21, only 69 per cent of children have access to early childhood education in South Asia.

To reach SDG 4 targets, current rates of education in the world are far too slow. Going by the current rate of improvement, in 2030, about 43 per cent of children will still be learning-poor. The World Bank Brief on Learning Poverty (2019a) points out that even if countries are able to lower their learning poverty at a swift pace, still the target of ending it by 2030 will not be met. Education SDGs have interlinkages with other SDGs on eliminating poverty, hunger and creating equality of

opportunities.

According to same brief by World Bank (2019a), there is no guarantee that the children will be able to read proficiently who are even going to school. The same brief calls it the “*leading edge of a learning crisis*” which is threatening countries’ efforts to build human capital and achieve the Sustainable Development Goals (SDGs).”

The learning crisis includes both kinds of deficits- **Quality** and **Quantity** of schooling which then becomes a major component of the human capital deficit. Inability to read leads to a deficit of human capital formation<sup>2</sup> which has repercussions on economic growth, sustainable development and poverty reduction. It is very well documented that poor education has a direct implication on future prosperity, since human capital is one of the most important contributor of wealth, globally. As countries progress towards richness, human component increases as an economy. The difference between poor and rich countries is stark- while human capital makes up 41 per cent of wealth; in *Organization for Economic Co-operation and Development* (OECD) countries, human capital makes up over 70 per cent of wealth.

<sup>2</sup> The Human Capital Project is raising awareness of the costs of inaction. The average Human Capital Index (HCI) score across countries is 0.56; this means that by the age of 18, a child born today will be only 56 percent as productive, as a child would be under the benchmark of a complete education and full health. (WB, 2019)

According to **Amber Gove and Anna Wetterberg (2011)**, “In the aggregate, reading and learning achievement are central to economic productivity and growth.” The research by **Hanushek and Woessman (2009)** reveal that “it is learning rather than years of schooling that contributes to a country’s economic growth”: in fact, they found a 10 percent increase in the share of students reaching basic literacy translating into an annual growth rate of 0.3 percentage points higher than it would otherwise be for that country. The phenomenon of educational poverty tends to perpetuate through a vicious cycle, passing from generation to generation and, going by **Amartya Sen (1989) and Martha Nussbaum’s (2011)** capabilities theory, depriving children and adolescents of the opportunities to know, to be, to

live together and to do. In 2018, **Paul Romer** (Nobel Prize in Economics and the Royal Swedish Academy of Sciences) stated that he had shown "how knowledge can function as a driver of long-term economic growth.

Human capital formation is by and large an important component of economic growth. According to **Mincer (1981)**, "The contribution of human capital theory to economics does not lie in a reformulation of economic theory, but in pushing back the boundaries of economics beyond the sphere of market transactions." He identified two areas where the role of human capital is significant – (1) From a *Macroeconomic perspective*, the social stock of human capital and its growth are central to the process of economic growth. (2) From a *Microeconomic perspective*, differences in individual human capital stocks and in their growth can explain much of the observed variation in the wage structure, and in the personal distribution of income.

## Section 2. Understanding Learning Poverty

In 2019, the World Bank introduced the concept of Learning Poverty which draws on new data developed in coordination with the UNESCO Institute for Statistics. Learning Poverty essentially means being unable to read and understand a simple text by age 10. This concept includes both schooling and learning indicators. The measure looks at the share of children who haven't achieved minimum reading proficiency (as measured in schools) and is then adjusted by the proportion of children who are out of school (and are assumed not able to read proficiently).

Using a database developed by UNESCO Institute of Statistics, the World Bank press release on learning poverty (2019) points out that 53 percent of children in low- and middle-income countries cannot read and understand a simple story by the end of primary school and it goes up to 80 percent in poor countries. This gives threats to all other global educational and other related sustainable development goals. **Hooper (2006)** illustrates this using results from the Progress in International Reading Literacy Study (PIRLS)<sup>3</sup> which finds decline in fourth graders' and their parents' reading attitudes from 2001 through 2016 in most countries.

The difficulties in reading results in children lagging behind their peers. **Mullis et al (2007)** find this may hinder them in the transition from 'Learning to Read' to 'Reading to Learn', which starts, on an average,

around the fourth year of schooling. According to **Lembke and Foegen (2009)**, this may affect academic development in other subjects as well.

<sup>3</sup>PIRLS, the Progress in International Reading Literacy Study, is one of the core studies of IEA. Directed by the TIMSS and PIRLS International Study Center at Boston College and conducted every five years since 2001. PIRLS is recognized as the global standard for assessing trends in reading achievement at the fourth grade. PIRLS provides internationally comparative data on how well children read and offers policy-relevant information for improving learning and teaching. PIRLS provides trends and international comparisons of fourth grade students' reading achievement and students' competencies in relation to goals and standards for reading education, system and helps to identify areas for improvement. <https://www.iea.nl/studies/iea/pirls>

**The Human Capital Index (HCI)** quantifies the contribution of health and education to the productivity of a country's next generation of workers, based on evidence from micro-econometric empirical studies. Variations in the Human Capital Index, which is used to track countries' progress in health, education, and survival, can be predominantly explained by differences in educational outcomes.

Complementing the HCI is the World Bank's **Human Capital Project (HCP)** which aims both to advance measurement and research and to enhance country engagement on the topic of human capital. "The new target of halving Learning Poverty by 2030 aligns with the Human Capital Project's efforts at building the political commitment for accelerating investment in people." (World Bank, 2019c)

Age ten is accepted by policymakers and researchers in this area as an inflexion point when children are expected to be in fourth grade and when many children finish mastering the mechanism of basic reading in high-performing systems (World Bank, open data sources). Studies like IEAS (2016) points out that in many countries, third grade students are "reading to learn" more and have finished the intensive phase of "learning to read" that constitutes "early grade reading."

For calculation purposes, Learning Poverty is [as measured by the World Bank (2019) the weighted average of the share of the population below the minimum proficiency level, adjusted by the out-of-school population.

$$LP = [(BMP) \times (1-OOS)] + [1 \times (OOS)]$$

where,

**LP** = Learning poverty.

**BMP** = Share of children at the end of primary who read at below the minimum proficiency level<sup>4</sup>.

**OOS** = Out-of-school children, as a share of children of primary school age, and in which all OOS are regarded as being below the minimum proficiency level.

The report further lays out that how learning poverty calculations use data from both cross-national and national large-scale assessments that are judged as being of sufficient quality in terms of design, implementation, comparability, timeliness, frequency, documentation, and access. The actual measurement of learning poverty is based on cross-national or national assessments that are administered in grades four, five or six and therefore at ages between 10 and about 14.

### Section 3. Factors affecting Learning Poverty

There are differences that exist which are associated with the characteristics of the students' background, for example race/ethnicity, gender, rural/urban residence status, or immigration/migration status instead of students' ability to comprehend and his effort to learn. Socio economic status (SES) background is one of the critical variables in education research which is common among countries that explains a significant amount of variance in students' achievement scores (Broer, 2019).

The hindrances created by Socio-economic background can be potentially compensated by School characteristics such as clarity of instruction, cognitive activation, classroom management, and a supportive climate, as identified by Klieme, Pauli and Reusser (2009), while Thapa, Cohen, Guffey, and Higgins-D'Alessandro (2013) added a safe and orderly school climate as additional one.

<sup>4</sup>As defined by the Global Alliance to Monitor Learning (GAML) in the context of the SDG 4.1.1 monitoring

Nilson et al (2016) find in their study that there was a clear distinction between highly-developed and developing countries where school characteristics differed in their relationship to educational equity in these two groups. In many highly-developed countries, family background was found less

important and school characteristics were consequently related to greater equity. Thus, achievement gaps related to family background need to be addressed if countries are concerned with equity. This distinction indicates that the more highly developed countries have better capacity to compensate and ameliorate the effect of SES on student achievement.

Social economic status and early learning activities are linked to each other. Meinck et al (2018) highlighted that early learning activities can mitigate social inequalities. Better educated parents tend to support their child's development with greater frequency and intensity than parents with financial and educational limitations.

Moreover, the importance of teachers in the academic performance of their students is firmly established in the academic literature as illustrated by Rivkin, Hanushek and Kain (2005). S. Polikoff and Zhou (2015) quipped that students' in-school reading activities are directly affected by teachers' instruction, which is directly influenced by instructional policies such as school, district, state, regional, or national curriculum policies.

Parents' involvement in the education of their children matters with research suggesting that students whose parents take an active role in their school activities are more likely to attend school regularly, achieve higher grades and test scores, and continue their education beyond high school, Henderson and Mapp (2002); OECD (2012). Parental education also has a positive association with level of parental involvement in school, while, parents with lower education levels are likely to participate less in school and vice versa.

Stephens et al (2015) found that it is more common for girls than boys to enjoy reading frequently, among those children whose parents have positive attitudes and behaviors. The most consistent predictor for students who succeed educationally against the odds and are considered "academically resilient".

For both boys and girls, feeling safe in school seems to be positively related to academic achievement in many countries, TIMSS (2015). Katschnig and Hastedt (2017) found that student perceptions of safety at school may vary by gender, or across different groups of students (such as immigrant versus non-immigrant students), or by school setting (urban or rural).

Political institutions organize social, economic and political life (Vollmer and Zeigler, 2009). The

authors work find that living in a democratic system positively affects human development measured by life expectancy and literacy rates even controlling for GDP, in Sen's (1999) words- fulfilling a constructive and instrumental role giving people the opportunity to express, to form and aggregate their preferences and thus to steer public action in an efficient and effective manner. Thus, democratic regimes in comparison to autocratic ones are expected to lead to higher redistribution and thus higher public expenditures as well as reflect the needs of the society more than in autocracies. Moreover, it is believed that democratic control mechanisms will assure the implementation of policies so that a high degree of compliance with laws, directives and orders is reached. However, the authors note that the performance of democracies will vary according to specific circumstances. They find that democracies quantitatively and qualitatively perform better than autocracies in terms of redistribution which they define in their work as the public provision of goods and services.

Ivic and Pesikan (2012) look found that constant attempts to introduce the necessary innovation in education in Serbia e.g., including standards of student achievement, standards for the evaluation of teachers, standards of textbook quality, the professional promotion of teachers, etc.) is very difficult for many reasons, including: the lack of political support; the inertia of the education system; the negative influence of sociocultural and economic variables; some of the measures are not well executed professionally (e.g., standards of textbook quality); sometimes mechanisms for the implementation of measures are not ensured (e.g., the professional promotion of teachers), etc. Lack of a conceptual theoretical framework and the arrival of a new political structure since 2005 are attributed for these problems.

#### **Section 4- The Data on Learning Poverty- SAARC Region**

Due to significant progress in measuring learning and establishing comparability, the new Learning Poverty indicator covers four-fifths of the target population. Even in low- and middle-income countries, eighty percent of children are given at least one learning assessment at the end of primary, carried out in the past eight years, that is of sufficient quality to be used for SDG monitoring. This coverage of learning poverty in fact surpasses that of global monetary poverty indicator when it was first launched.

The data on Learning Poverty is available for five

SAARC countries- India, Pakistan, Bangladesh, Sri Lanka and Afghanistan. Hence, this paper attempts to look at data on these 5 countries so as to relate them to the available data on Learning Poverty.

Table 1 shows the figures for learning poverty for all and then gender wise for all the five SAARC countries. These indicators related to learning poverty have been calculated for both girls and boys separately as well, although this gender breakup is not available for most of the selected SAARC countries.

The Global Alliance to Monitor Learning (GAML) has defined a Minimum Proficiency Level (MPL) for reading at the end of primary which serves as the basis for determining shares of students with at least minimum reading proficiency and for comparing levels across various kinds of assessments in various countries. The core concept of MPL is as follows,

*“Students independently and fluently read simple, short narrative and expository texts. They locate explicitly-stated information. They interpret and give some explanations about the key ideas in these texts. They provide simple, personal opinions or judgements about the information, events and characters in a text” (2019).*

These assessments do not include out-of-school children, therefore the calculated proficiency rate are discounted by the share of children who are not enrolled in school, thus combining quality and quantity measures of schooling. Out-of-school primary-age children are counted as learning-poor for two reasons: (1) empirically, they are very unlikely to read proficiently; and (2) from a human rights perspective, the Learning Poverty measure should signal that all children should be both in school and learning to read, and that the absence of either one is a form of poverty. (World Bank, 2019c)

The World Bank site on defines Human Capital Index or HCI as a measure of amount of human capital that a child born today can expect to attain by age 18. The HCI illustrates the productivity of the next generation of workers compared to a benchmark of complete education and full health and is constructed for 157 countries. The HCI index is made up of five components: the probability of survival to age five, a child's expected years of schooling, harmonized test scores as a measure of quality of learning, adult survival rate (fraction of 15-year olds that will survive to age 60), and the proportion of children who are not stunted.

According to **Filmer et al**, students in different countries who have completed the same number of years of school often have vast but different learning outcomes. The authors have come up with a new summary measure ‘Learning-Adjusted Years of Schooling (LAYS)’ that combines quantity and quality of schooling into a single easy- to-understand metric of progress. The cross-country comparisons which this measure produces are amenable to different ways of adjusting for learning (for example, by using different international assessments or different summary learning indicators). The working paper argues that (1) LAYS improves on the standard metric, because it is a better predictor of important outcomes, and it improves incentives for policymakers; and (2) its qualities of simplicity and transparency make it a good summary measure of education.

$$LAYS_c = S_c \times R^n_c$$

LAYS = Average years of schooling × Test scores  
(Crawford et al, 2019)

where,

- $S_c$  is a measure of the average years of schooling acquired by a relevant cohort of the population of country c, and
- $R^n_c$  (or benchmark) country n. A simple way to define  $R^n_c$  is a measure of learning for a relevant cohort of students in country c, relative to a numeraire is to use the highest-scoring country in a will be less than 1, for all countries other than the

The measure of relative learning as:

$$R^n_c = L_c / L^n$$

$R$  is the measure of average learning-per-year in countries c and n respectively.  $L_c / L^n$  can be understood of as a measure of the learning “productivity” of schooling in each country, and  $R^n_c$  is productivity in country c relative to that in country n. The authors clarify that LAYS can be straightforwardly interpreted as an index equal to the product of two elements, average years of schooling and a particular measure of learning relative to a numeraire. given year as the numeraire (meaning that  $R^n$  top performer), although this numeraire could be established in other ways.

Table 1 provides the data on Learning Poverty on the 5 SAARC countries. Indicators like learning poverty,

below minimum proficiency and out of school, for all, are highest in Afghanistan at 93.4, 87 and 49.6, respectively and lowest in Sri Lanka at 15, 14 and 0.9, respectively. Human capital index and learning adjusted years of schooling are also highest in Sri Lanka at 0.6 and 8.3, respectively and lowest in Afghanistan at 0.39 and 4.9, respectively.

Learning Poverty in these SAARC countries is higher for boys than for girls. This result is a composition of two effects. First, the share of Out-of-School children is higher for boys than for girls (except in Sri Lanka where it is the same). And second, boys are less likely to achieve minimum proficiency at the end of primary school than girls (Learning Poverty Brief, 2019a).

Table 2 shows the wide variation in GDP and annual GDP growth rates across the five countries. Bangladesh has the highest growth rate followed by India while India has the highest GDP followed by Pakistan. On the other hand, per capita GDP is highest for Sri Lanka at \$4102 and lowest for Afghanistan and Bangladesh at \$520.

National poverty headcount ratio is the percentage of the population living below the national poverty lines where national estimates are based on population-weighted subgroup estimates from household surveys. National poverty headcount ratio calculated at national poverty lines varies from 4 per cent in Sri Lanka to 55 per cent for Afghanistan.

Adult literacy rates is defined as the percentage of the population aged 15 years and over who cannot both read and write with understanding. This is highest for Sri Lanka at 92 per cent and again lowest for Afghanistan at 43 per cent.

It is interesting to note that a country which is neither the top ranked in GDP or GDP growth rate among the selected 5 SAARC countries, has the highest adult literacy rate and the lowest poverty headcount rate. On the other hand, Afghanistan which has faced continuous armed conflict and instability over decades now is the lowest performing on all the selected indicators.

Political Institutions affect education directly and indirectly through number of channels which in turn affect government policies for making decisions regarding poverty reduction and quality education. The government has a very vital role in increasing education by their public spending in education.

Table 3 shows the data on various governance indicators where the estimate of governance ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance for each of the indicators.

The indicator on Voice and Accountability reflects perceptions to the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media with India having the strongest in this group at 0.35 and Afghanistan the lowest at -0.99.

Indicator on Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism shows Sri Lanka having the strongest with -0.18 while Afghanistan with the lowest at -2.75.

Political Effectiveness reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies where India has the highest at 0.28 and Afghanistan the lowest at -1.46.

Regulatory Quality reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development with Sri Lanka at -0.5 and Afghanistan at -1.13.

Rule of Law reflects the extent of perception to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence with both India and Sri Lanka are at 0.03 and Afghanistan is at -1.67.

Control of Corruption reflects the extent of perception to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests with India at -0.19 and Afghanistan at -1.50.

### Section 5- Key Findings and Inferences

The literature presented in Section 3 illustrates that many variables impact learning poverty. Some of these micro variables are student, parent and school characteristics. It is also hypothesized that national

incomes, income growth rate, income per person, literacy rates, poverty rates and political institutions are some of the macro variables impacting learning poverty outcomes. In this section, the relationship between learning poverty outcomes and selected economic and political institutions variables have been explored for the five SAARC countries using Ordinary Least Squares (OLS) methodology.

The coefficient of determination<sup>5</sup>,  $R^2$  from OLS is used to analyze how much differences in one variable can be explained by a difference in a second variable.

Table 4 gives the  $R^2$  values from the OLS between indicators of learning poverty and economic and political institutions.

Neither GDP (one per cent for Learning Poverty and 0 for Below Minimum Proficiency) nor GDP growth rates (three per cent for both) show significant  $R^2$  with any of the learning poverty indicators. The  $R^2$  between per capita incomes and learning poverty indicators are stronger than GDP and growth rate (75 per cent for Learning poverty and 79 per cent for Below Minimum Proficiency). This can be because of the huge populations in the selected five SAARC countries as well as the unequal economic growth that has taken place there. It may also be that in the initial phases of GDP growth, younger children also join the workforce because of enhanced economic opportunities as well as the scope to help the present occupations of their parents. This is indicated by the comparatively lower value for OOS at 18 per cent for per capita incomes.

<sup>5</sup> R-squared gives the percentage variation in y explained by x-variables. The range is 0 to 1 (i.e. 0 per cent to 100 per cent of the variation in y can be explained by the x-variables).

Among the indicators for political institutions, political stability is the most significant. This indicates that certainty and consistency in policies, and administration are very important for educational outcomes rather than forum for redressals and opinions. **Kahn (1997)** shows that how a government whose decision makers reflect the finite horizon of their constituents would choose policies that affect accumulation of knowledge. He uses coups and revolutions as indicators of political instability. One of the ways through which farsighted policymakers implement an efficient policy is to enact a law that is difficult to undo, which would be difficult to achieve in an environment of political instability. The

analysis of **Nir and Kafle (2013)** show that as far as educational quality is concerned, political stability plays a far more significant role compared to countries' economic circumstances evident in the GDP per capita.

For all Learning Poverty, adult literacy rate and political stability are the most important explanatory variables at 95 per cent and 91 per cent, respectively. For Below Minimum Proficiency, adult literacy rate at 93 per cent and 88 per cent poverty headcount ratio are significant. Regulatory Quality at 61 per cent and Rule of Law at 58 per cent are the most important variables for Out of School. For Human Capital Index and LAYS, adult literacy rate and political stability have R squares at 82 per cent.

Barring  $R^2$  for out of school children, adult literacy rate is the most significant social variables impacting all the learning poverty variables. The next variable is political stability. A third variable is poverty headcount ratio. This indicates a vicious cycle- a less literate population, frequent changes in governments and widespread poverty has a bigger impact on the population being more 'learning poor', more below minimum proficient in learning, having a lower human capital index and lesser scores on learning adjusted years in school.

The linkage of adult literacy and poverty headcount ratios with learning poverty indicators is obvious. The literature review in Section 2 clearly mentions that family characteristics and socio economic status are the key variables in influencing Learning Poverty outcomes. The linkage between political stability and learning poverty is an interesting outcome and can be explained in terms of the planning horizon of the education policymakers and derailment due to frequent regime changes.

## Section 6: Conclusions and Recommendations

The ability to read is a big enabler. It not only facilitates learning as a child progresses through school but also creates awareness and knowledge about the world around. Reading is also one of the cheapest and easiest sources of information- pamphlets, billboards, newspapers, books, magazines, websites and notices. Lacking such a fundamental skill such as reading is often an impediment to other kinds of learning as well.

This paper shows that adult literacy rate and political stability of institutions show maximum explanation of the variations in learning poverty outcomes. This

is followed by the poverty headcount ratios calculated at national poverty lines. The link between school education outcomes and adult literacy is obvious. As the literature on this suggests, both parent and family characteristics play a critical role in education outcomes of children. This takes place through parental education level, parental involvement and reading habits, early education development, teacher engagement and favorable school environment and pedagogy.

The link between educational outcomes and poverty headcount ratios is straight forward. Poverty leads to loss of incomes which makes it harder for families to send children to school. Also children are often pulled out from school to work outside in order to supplement family incomes. Girls are often made to do household work and look after younger siblings in order to free the adults for earning outside. Poverty also makes it difficult to allocate resources to schools and offer adequate salaries to teachers and staff. For example, lack of a hygienic and safe toilet for girls in the school compound is a big deterrent for families to send their girl child to schools. Toilet construction and maintenance requires a sustained flow of resources besides supply of water. South Asia still remained the region with the second largest grouping of the global poor whose share of the global poor has increased from 27.3 per cent to 33.4 per cent between 1990-2013, despite the number of poor people in South Asia falling by 248.8 million (World Bank, PovcalNet).

An interesting result is the strong explanation of variation in Learning Poverty Outcomes by the 'Political Stability'. **Nir and Kafle (2013)** show that political stability which fosters continuity seems to be essential to enable professional considerations to dominate educational processes and allow educators to conduct pedagogical programs from start to finish. World Bank (2004) among others point out that the government plays a major role in financing education, establishing educational objectives, developing a national curriculum, managing teachers, setting student evaluation standards and governing aspects of the education process. **Alesina, Ozler, Roubini, and Swagel's (1996)** find that political instability reduces growth, and that the occurrence of a government change increases the likelihood of subsequent changes, suggesting that political instability tends to be persistent over time.

The lack of variations in GDP, GDP growth rate and per capita incomes on learning poverty outcomes is not surprising. It supports studies that have proved wrong the notion that economic growth in itself can

take care of education. The poverty and inequality levels as well as overall education attainment of the people are very important determinants.

It is worthwhile to note that it is political stability among all the political institutions indicators that has the maximum relationship with learning poverty indicators. One would have expected, Voice and Accountability, Rule of Law, Control of Corruption, Regulatory Quality or Government Efficiency to show the maximum impact. Although the  $R^2$  for all the political institutions indicators have been higher than GDP, GDP growth rate or per capita incomes, among them political stability is the one which stands out. Stability of political institutions ensures consistency of policies. It also brings in incentives since it leads to a long term horizon of planning and resource allocation for both education reforms and other indicators of human development.

This may mean that in South Asia, consistency and predictability of rules and policies are more important because it would be uniform and reliable over a longer horizon. Frequent regime changes inflict far greater damages to education reforms and investments than the kind of regime. It must be noted that out of the five South Asian countries selected for this study, four of them barring Afghanistan, have been democracies albeit with variations.

There remain major gaps in data coverage so a full understanding of the process of learning, the reasons for the learning gaps and possible ways to plug them are only partially understood. One difference is in geographic coverage by income level where virtually all children in high-income countries are in educational systems with such monitoring, while only one-third of those living in low-income countries are.

There is difference in recency of data where in high-income countries, 70 per cent of these assessments took place in the last four years, but in low- and middle-income countries, the figure is only 35 per cent. Data comparability, which is one of the huge impediments to fully capturing any kind of educational change— both within and across countries, as well as over time— also poses a significant challenge. The pre and post reform data comparability as well as lack of baseline studies are significant challenges. Moreover, some cross-national assessment programs make significant changes in their scales between rounds or even have design instruments suited only for cross-national comparison within rounds, which results in an inability to monitor progress over time.

This research study uses data from the World Bank. While this is a good starting location, there is a lot of scope in evaluating additional sources of data to add depth to the analysis. How do each of the indicators address to (say) levels of infrastructure e.g. Roads, Access to clean water, Number of schools per million people, Availability of power and so on. We have not explored the nature of investment either – is public-private partnership an influencer or are private schools very different from public ones? Additionally even for the indicators referenced here, we have evaluated the impact at the country level – the analysis should be extended to the regional level to bring in additional factors that might be relevant. For instance is there an urban-rural divide? Are regional and local executive and judicial branches of government catalysts or do they have no impact? Even within the same country, is there a difference between the top three cities from other tier one and tier two ones? Finally, on the nature of the analysis, we have looked at very simple measures of correlation. A thorough analysis that looks at many variables, perhaps through a detailed supervised learning analysis is recommended.

The UNICEF Progress Report on South Asia (2018-21) recommends a multi- sectoral approach involving both structural and systemic changes to reduce the number of out-of- school children in South Asia. It also requires attitudes and behaviour to change. In South Asia, more girls than boys who will never go to school which leads to the highest incidents of child marriage and child labour in the world. Majority of classroom learning is characterized by teacher-centred rote and often pupils are also victims of corporal punishment and discrimination. There is also the problem of inadequate care for children below the age of five years depriving them of the nurturing they need to achieve their full development potential which then impacts school enrolment, full participants and retention. Only a quarter of students leave school with the secondary skills they need and this creates a skill gap in the economy which impedes economic growth with wider social and political repercussions.

Studies have shown (**Sandoval- Hernandez et al., 2013 among others**) that multiple factors contribute to student learning. While economic growth leads to a general improvement in living standards and increase in economic opportunities for the population, the real push for lowering of poverty and having governments that are stable overtime. The vicious cycle thus resulting can lead to outcomes that

can ameliorate the learning crisis engulfing South Asia.

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Tables  
Table 1- Data on Learning Poverty for 5 SAARC Countries for 2018

COUNTRIES	INDIA			PAKISTAN			SRI LANKA			BANGLADESH			AFGHANISTAN		
	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls	All
Learning Poverty	56.3	53.7	55	NA	NA	75	NA	NA	15	NA	NA	57	NA	NA	93.4
Below Minimum Proficiency	55	53	54	NA	NA	65	NA	NA	14	NA	NA	55	NA	NA	87
Out-of-School	2.9	1.6	2.3	21.7	33.3	27	0.9	0.9	0.9	7.9	1.7	4.9	NA	NA	49.6
Human Capital Index	0.43	0.45	0.4	0.39	0.38	0.4	NA	NA	0.6	0.46	0.49	0.5	0.4	0.36	0.39
Learning-Adjusted Years of Schooling	5.6	5.9	5.8	5.1	4.4	4.8	NA	NA	8.3	6.2	6.7	6.5	5.3	3.8	4.9

Source (Learning Poverty): <https://datacatalog.worldbank.org/dataset/learning-poverty/resource/9d5a45af-f7d4-404b-ae7b-8bf56d105d71#{}>

Table 2: Selected Indicators for 5 SAARC Nations (year for which data has been collected is in parenthesis)

Indicators	India	Pakistan	Sri Lanka	Bangladesh	Afghanistan
GDP (current USD) <sup>1</sup>	2.78 trillion (2018)	3.15 billion (2018)	88.9 billion (2018)	2.7 billion (2018)	1.94 million (2018)
GDP growth rate (annual %) <sup>2</sup>	6.81 (2018)	5.83 (2018)	3.21 (2018)	7.86 (2018)	1.03 (2018)
GDP Per capita (USD) <sup>3</sup>	2009 (2018)	1482 (2018)	4102 (2018)	520 (2018)	520 (2018)
Adult Literacy rate <sup>4</sup>	74 (2018)	59 (2017)	91.9 (2017)	73.9 (2018)	43 (2018)
Poverty Headcount Ratio at national poverty lines (% of population) <sup>5</sup>	25.7 (2011)	24.3 (2015)	4.1 (2016)	24.3 (2016)	54.5 (2016)

Source<sup>1</sup>: World Development Indicators

<https://databank.worldbank.org/indicator/NY.GDP.MKTP.CD/1ff4a498/Popular-Indicators>

Source<sup>2</sup>: World Development Indicators <https://databank.worldbank.org/reports.aspx?source=2&series=NY.GDP.MKTP.KD.ZG>

Source<sup>3</sup>: World Development Indicators

<https://databank.worldbank.org/indicator/NY.GDP.PCAP.CD/1ff4a498/Popular-Indicators>

Source<sup>4</sup>: World Development Indicators (<https://databank.worldbank.org/reports.aspx?source=2&series=SI.POV.NAHC>)

Source<sup>5</sup>: World Development Indicators (<https://databank.worldbank.org/reports.aspx?source=2&series=SI.POV.NAHC>)

Table 3- Data on Governance Indicator for 5 SAARC Nations for 2018

Country/Territory	India	Pakistan	Sri Lanka	Bangladesh	Afghanistan
Estimate of Voice and Accountability	0.38	-0.80	0.01	-0.73	-0.99
Estimate of Political Stability and Absence of Violence/Terrorism	-0.96	-2.27	-0.18	-1.03	-2.75
Estimate of Government Effectiveness	0.28	-0.63	-0.24	-0.75	-1.46
Estimate of Regulatory Quality	-0.18	-0.64	-0.15	-0.83	-1.13
Estimate of Rule of Law	0.03	-0.67	0.03	-0.64	-1.67
Estimate of Control of Corruption	-0.19	-0.79	-0.34	-0.91	-1.50

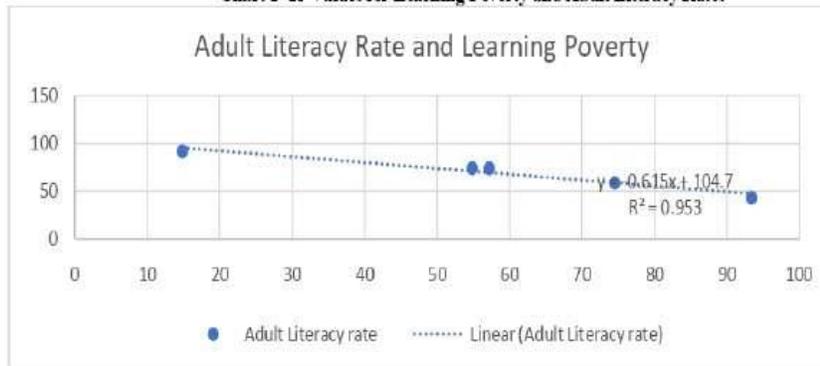
Source: Database on Political Institutions (DPI) <http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/DPI2012.xls>

Table 4- Coefficients of Determination between Learning Poverty Indicators and Variables of Economic and Political Institutions

Learning Poverty Indicators→	Learning Poverty	Below Minimum Proficiency	Out of School	Human Capital Index	Learning Adjusted Years of School
Economic and Political Institutions Indicators ↓					
<b>GDP</b>	1%	0%	56%	0%	0%
<b>GDP Growth Rate</b>	3%	3%	29%	0%	0%
<b>Per Capita Income</b>	75%	79%	18%	59%	58%
<b>Literacy Rate</b>	95%	93%	17%	82%	81%
<b>Poverty Headcount Ratio for National Poverty Lines</b>	84%	88%	26%	63%	61%
<b>Voice and Accountability</b>	48%	43%	51%	27%	27%
<b>Political Stability</b>	91%	85%	13%	82%	82%
<b>Government Efficiency</b>	43%	41%	78%	18%	18%
<b>Regulatory Quality</b>	67%	66%	61%	38%	37%
<b>Rule of Law</b>	71%	70%	58%	42%	41%

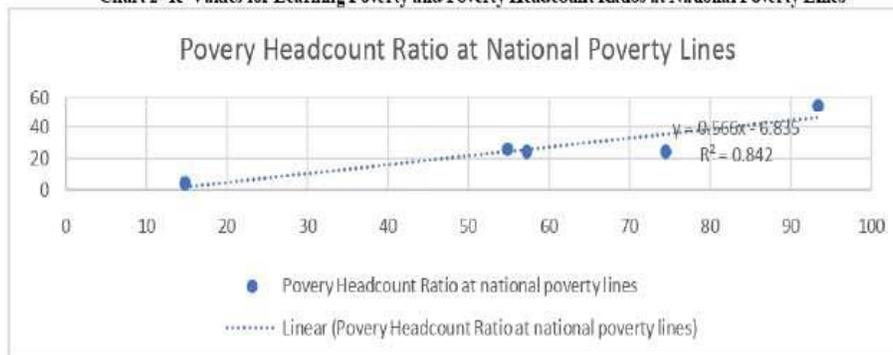
Charts

Chart 1- R<sup>2</sup> Values for Learning Poverty and Adult Literacy Rates



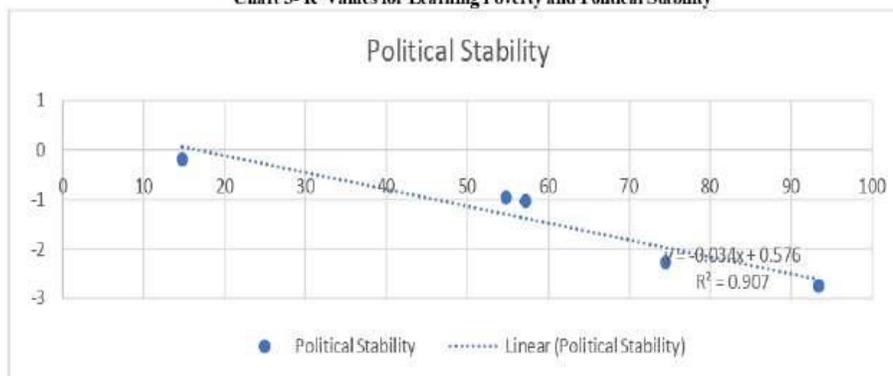
Source: Table 4

Chart 2- R<sup>2</sup> Values for Learning Poverty and Poverty Headcount Ratios at National Poverty Lines



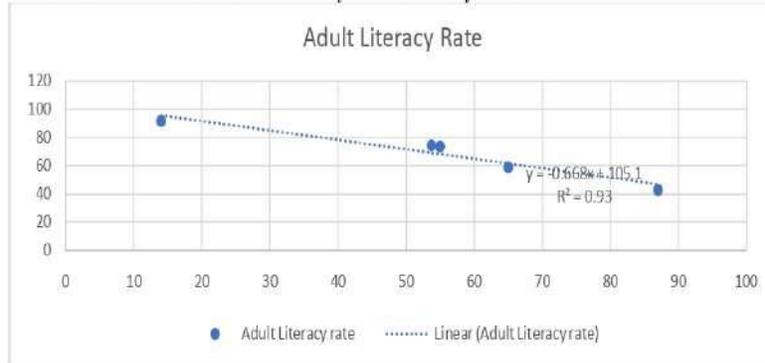
Source: Table 4

Chart 3- R<sup>2</sup> Values for Learning Poverty and Political Stability



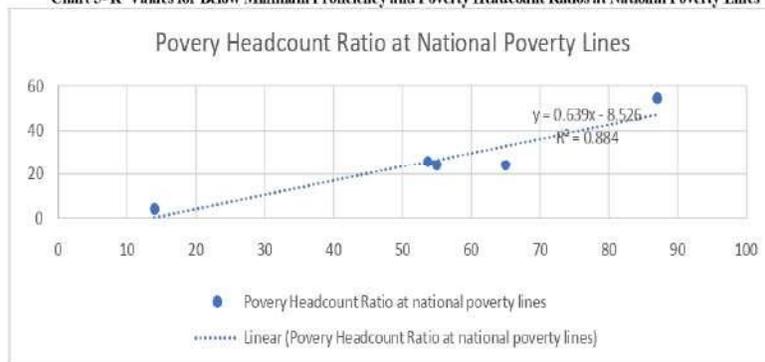
Source: Table 4

Chart 4- R<sup>2</sup> Values for Below Minimum Proficiency and Adult Literacy Rate



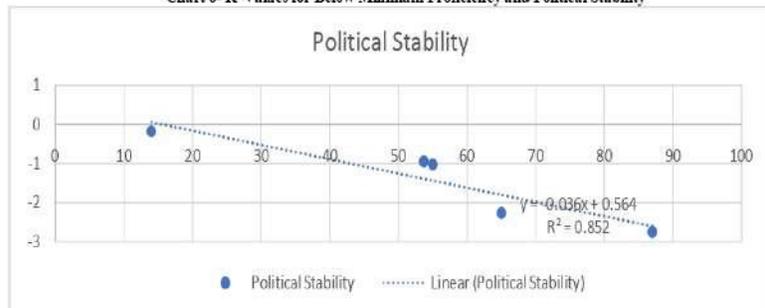
Source: Table 4

Chart 5- R<sup>2</sup> Values for Below Minimum Proficiency and Poverty Headcount Ratios at National Poverty Lines



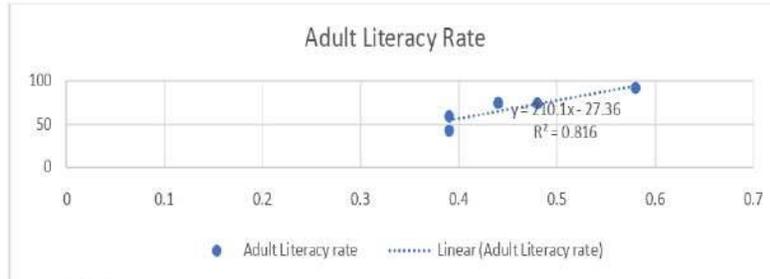
Source: Table 5

Chart 6- R<sup>2</sup> Values for Below Minimum Proficiency and Political Stability



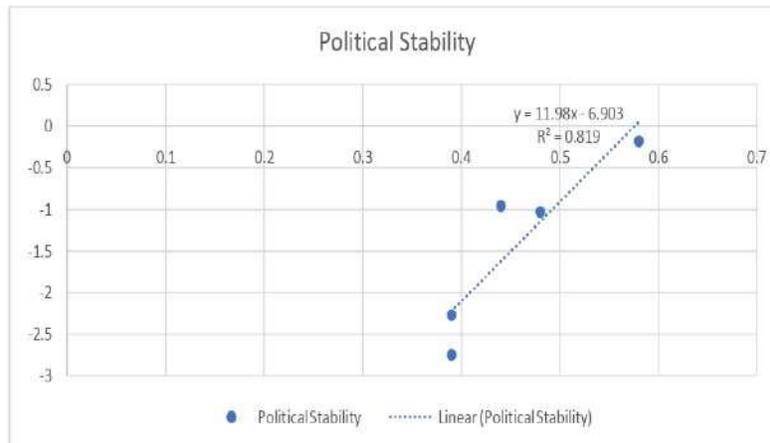
Source: Table 4

Chart 7- R<sup>2</sup> Values for Human Capital Index and Adult Literacy Rate



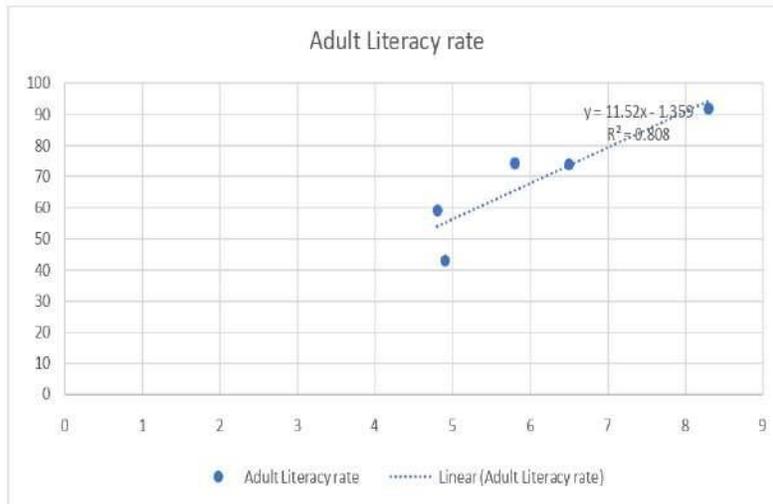
Source: Table 4

Chart 8- R<sup>2</sup> Values for Human Capital Index and Political Stability



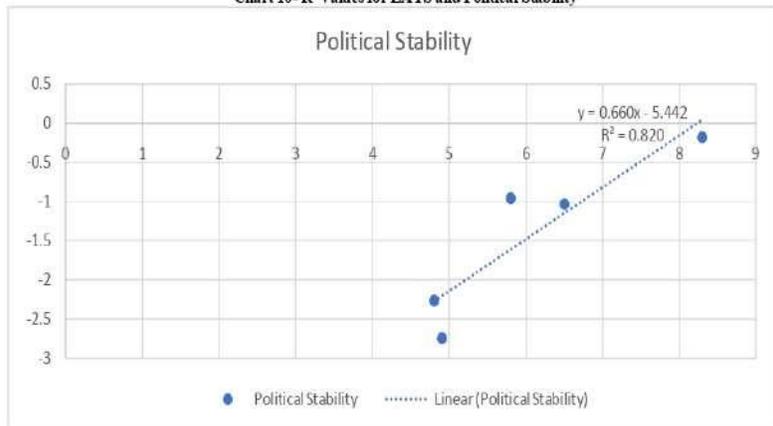
Source: Table 4

Chart 9- R<sup>2</sup> Values for LAYS and Adult Literacy Rate



Source: Table 4

Chart 10- R<sup>2</sup> Values for LAYS and Political Stability



Source: Table 4