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ROLE OF QUALITY EDUCATION FOR SUSTAINABLE DEVELOPMENT GOALS (SDGS)

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Abstract

At this critical time, the best thing that the government can do to stimulate progress is to provide the nation with the best minds to help the nation tackle future challenges. Now that the race towards the attainment of the Sustainable Development Goals (SDGs) is on, it is pertinent to set the key performance indicators for assessing progress in line with the overall vision of the development agenda. In this paper, the role of quality education for sustainable development goals (SDGs) is explored. Quality education is called SDG-4 because it is a 4th goal of the SDGs. The introduction and background of the quality education and sustainable development goals is defined in first section. In section 2, some relevant theories about the role of education in

development are presented. Literature review of some selected studies is given in section 3 of the study. In section 4 of the study, the comparison is made among SDG-4, MDG-2 (Goal-2 of Millennium Development Goals) and EFA (Education for All) and reasons are given that how SDG-4 is differ from MDG-2 and EFA. In next section, it is defined that how we can achieve equitable and good quality of education and some priority targets will be set to achieve the goal. The challenges for higher education and the steps involved in translating global commitments are given in subsequent section. At the end, the conclusion of the study is given.

Keywords

Sustainable Development Goals, Quality Education, Higher Education

1. Introduction and Background of the Study

17 goals related to the sustainable development were set when General Assembly of United Nations selected the 2030 Agenda for Sustainable Development. These 17 goals were implemented from January 2016 and for next fifteen years these goals will drive international development work. Quality Education was the goal 4 of this agenda. This goal emphasizes on quality education and ensures equitable and inclusive education and promoting life time learning opportunities. This agenda focuses on the shifting of fundamental thoughts and recognizing the dynamic interlinkage between three aspects i.e., economic, social and environmental, driving integrated and universal development in all the nations of the world.

Through education, we can achieve many other Sustainable Development Goals (SDGs). The people can break the vicious cycle of poverty when they are able to obtain quality education. Through education, the inequalities can be reduced and it also empowers the people to live more sustainable and healthy life. Education can also foster tolerance in people and make the society more peaceful (Adegbesan et al, 2010).

Education is considered the top priority of UNESCO because it is included in basic human rights and it is helpful to build peace in society and to achieve sustainable development. Education is the specialized agency of United Nations and it provides regional and global leadership and it also responds contemporary global challenges and strengthens education system of a country with special focus on the gender equality (United Nations, 2015).

UNESCO, the United Nations' organization for instructions is depended to lead and facilitate the Agenda of Education 2030, which is a piece of a worldwide development to kill neediness with the help of 17 Sustainable Development Goals by 2030. These objectives have its

own particular devoted Goal 4, which means to ensure fair and comprehensive quality instruction and advance deep rooted learning doors for all people. The Education 2030 agenda gives direction to the usage of this yearning objective and responsibilities.

On 25 September 2015, the General Assembly of United Nations received the 2030 Agenda to achieve Sustainable Development Goals (UN, 2015). The widespread, transformational and comprehensive SDGs depict real challenges for humankind. The main point of the 17 SDGs is to secure a feasible, quiet, prosperous and fair life on the earth for everybody now and later on. The objectives cover worldwide difficulties that are critical for the survival of humankind.

A key element for the 2030 Agenda of Sustainable Development is its all inclusiveness and unbreakable quality. It tends to all countries as target economies and all those countries who are implementing the 2030 Agenda are to adjust their own particular advancement endeavors to the point of advancing success while ensuring the planet with a specific end goal to accomplish feasible improvement. Consequently, regarding the SDGs, all nations can be considered as creating and all nations need to make earnest move.

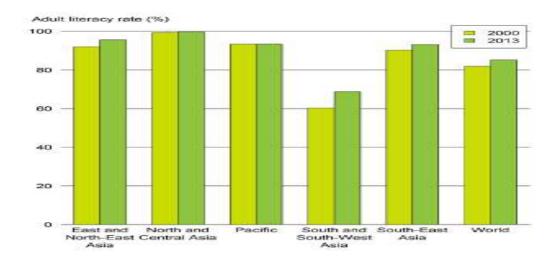


Figure 1: *Adult Literacy Rate*

Source: United Nations Development Program

Lieracy rate of youth were lowest in South-West and South Asia and it was 81 percent for females and 88 percent for males in 2013. But other sub-regions of the Asia have achieved the gender parity. Universal literacy rates were adopted in these countries to uplift the youth literacy rate and it is improving slowly.

The proportion of expenditures on education ranges from 6.7 percent to the level of 21.7 percent in Asia and Pacific. In figure 2 bellow, the proportion of public expenditures on the education for 35 countries is shown from 2009 to 2013.

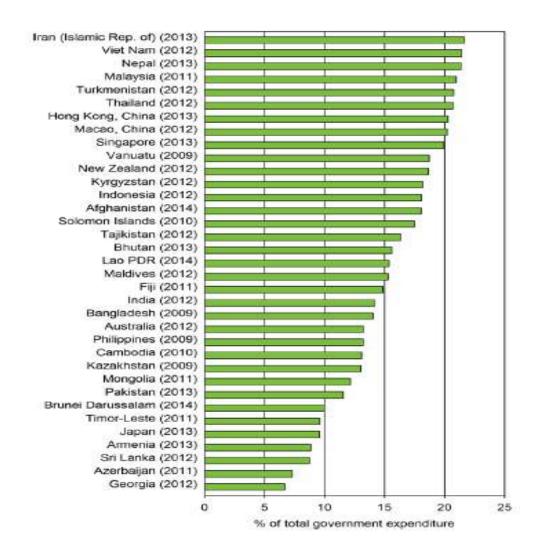


Figure 2: Expenditures on Education for Selected Countries

Source: United Nations Development Program

3. Theoretical Framework

The concept of quality education appears frequently in the world education framework i.e. Education for All (EFA) has placed the role of quality education in EFA goals and framework. The significance of quality education goes beyond the level of international discussions. Every school jurisdiction and ministry of education in this world struggles with the same problem that how to give quality education to its students in minimum cost (UNESCO,

2000). Quantitative methods are used to measure the outputs as a source of quality i.e. retention rates and enrollment ratios, rates of returns for investment in education in terms of cognitive skills and earnings (Barrett et al. 2006).

According to the humanist tradition, the education is a process and students are the centre of this process. The education goals include vast social goals (e.g., social justice, human rights and democracy) and some personal goals. The humanist tradition insists that children have innate ability and interest to learn and aims to develop the creativity as well as personality and problem-solving abilities. The humanist approaches are defined with expressions as democratic and participative, learner centered and have contemporary concerns of environmental sustainability and human rights (Barrett et al., 2006; Kumar and Sarangapani, 2004).

There some theories are defined related to the role of education, training and human capital.

Bowles (2012) opposed the traditional theory of human capital and argued that the theory of human capital excludes the connection of class conflict which imposes limitations on the ability of individual to operate in the market (Bowles and Gintis, 2002). Both Bowles (2002 and Becker (2007) agreed that productivity of workers increase due to education. Bowles and Becker presented two divergent arguments about the human capital. Bowles introduced the idea of class struggle in education while Becker relied on his traditional view about the role of education in a capitalist society and its ability to enhance the human well being.

Bowles work has many inferences for the education of workforce. In his theory he argues that education, health care and training perform dual function in perpetuation and production of social order (Bowles, 1975). On other side, the reproduction of class structure of capitalist is assured through training, education, and bearing children. According to Bowles, the earning of a person can be increased through education because it creates preferences that enhance incentives.

Endogenous Growth Theories were presented in 1980s in order to overcome the shortcomings of the neoclassical growth models which do not explain the origins and causes of economic growth. So, endogenous theories cover this gap by developing different macroeconomic model. One of the main assumptions of these models is that the determinants of growth are endogenous and the main importance is given to the human capital and new technologies. So is argued that human capital through investment in health, education and research can increase economic growth.

One of the simplest forms of endogenous growth theories is the Rebelo (1991) growth theory on the basis of following production function:

$$Y = f(K, L) = AK \tag{1}$$

The only input used in this model is capital (K) while production function is linear which indicates constant returns to scale. K includes physical as well as human capital while A is exogenous constant. It is assumed that depreciation in both capital and population growth is zero. Rebelo (1991) concluded that rate of growth for an economy depends only on productivity of technology and rate of saving.

Paul Romer (1990) argued that there is increasing returns to scale in economy. Continues economic growth in the Romer model is assumed due to constant returns to scale. Economic growth depends on investment like Harrod Domar model.

$$Y = AK^{\alpha+\beta} L^{1-\alpha}$$
 (2)

There is no technological progress and hence A is fixed. The rate of growth for per capita income in the economy is:

$$g - n = \beta / [1 - \alpha + \beta]$$
 (3)

Here 'n' and 'g' show population growth rate and output growth rate respectively. One of the main features of this economic model is that with a spillover of investment, the model avoids the diminishing returns to capital.

Robert Lucas in 1988 presented his growth model by presenting the concept of human capital. According to Lucas, there exist constant returns to scales in all inputs and all the inputs could be accumulated and growth can be obtained through human capital investment.

Lucas (1988) used following production function:

$$Y = A K^{\alpha} (UHL)^{1-\alpha}$$
 (4)

Here, a shows constant efficiency parameter and U is total working time. $0 < \alpha < 1$. H represents the stock of human capital. Constant returns to scale are presented in K and UH. Growth model of Lucas (1988) is two-sector model where existing human capital is used as a medium of production of new human capital. In this model, the inclusion of the concept of human capital may further lead towards the level of steady state. The increasing returns of the human capital are the main source of long run economic growth for this model.

4. Review of Literature

There are a lot of studies which had defined the role of education in development of the country. Here we give the review of some selected studies.

Johnson and Stafford (1973) explored the importance of investment in the quantity as well as quality of education. The data was collected from survey research centre of the Michigan University in 1965. They had taken expenditure per student after adjusting it for the prices of 1964 to measure the effect of quality of education and indicated 1.4 percent of the variation in the income was due to the average education expenditures per student.

Nasir and Nazli (2000) calculated the effects of education on income and indicated that higher education was associated with more earning in Pakistan. The impact of education, literacy, quality of school, training and numeracy skills on income level was examined. It was explored that for each extra year of schooling, the income was increased by 7 percent. The effects of literacy and numeracy skills were also found significant.

Khan and Toor (2003) examined the trends of marginal rate of returns to education for different education levels and analyzed that how the returns for additional level of investment had changed with time. They collected data from Pakistan Integrated Household Survey and applied Mincerian earning function. It was found that each additional level of education did not lead to higher level of returns. Moreover, in private sector, higher economic returns were observed which showed the quality of education in public sector was continuously decreasing. Mustafa et al. (2005) explored the role of skilled development programs and vocational education on human capital formation. They argued that skills development and training were necessary part for human capital formation. The survey of labor market revealed that 58 percent firms confirmed that the workers needed 3-6 months on-the-job training after pas-out from vocational education.

Kimenyi et al. (2006) evaluated the returns of education and human capital externalities of earnings of workers in private sector of Kenya. Impact of different levels of experience, education, sex and geographical region was examined. The pupil-trained teacher ratio was used as a proxy for primary schools and it was concluded that the earnings were high in those districts was that ratio was low.

Faridi et al. (2010) found the impact of education on employment level by using primary data from Bahawalpur Pakistan. They applied logit model consist of enrollment, years of education, household assets, health and marital status. The results declared that job experience

has positive and significant impact on education level. Level of education and opportunities of employment were positively correlated. Moreover, the health of worker indicated significant and positive effect on employment level.

Fulford (2016) analyzed the returns to education in India and found that individuals with more years of education had more consumption per capita and approximately with each additional year of education the per capita consumption was increased by 4 percent with no additional consumption for the female cohort. Average returns of education were found low for females than males due to ineffective use of female workers in the production process.

Sen and Cekerol (2018) explored the importance of development in open universities in Turkey that are providing low cost and high quality education to a large number of students. They highlighted the importance of program diversity to increase the number of students in Open University in Turkey. Cekerol (2018) also emphasized the importance of distance higher education in Turkey. These programs also faced many problems like quota and organizational problems. Cherechi (2018) explored the challenges to teachers education during 21st century in Nigeria. Many policy reforms by the management staff of teacher trainings were expected according to this study. These all are some current revolutions in the field of education.

Moyo et al.(2018) seek to find out the role teacher education (TE) can play in promoting and cultivating a culture of technology designing, invention, digital utilization as a necessity for African socioeconomic transformation. Data analysis indicated that TE face challenges in embracing techno-digital teaching approaches remaining traditional, focusing on chalk-talk-approaches and setting an incorrect precedent. The qualitative 'analytical model of constant comparison' was used in gathering and analyzing data. The major conclusion to this research was based on the argument that, if TE institutes include techno-digital courses its product are likely to pursue, follow and cultivate a sustainable scientific culture in schools for both immediate and future ends.

5. How Does SDG-4 Differ From MDG-2 and EFA

SDG4 differs from both Education for All (EFA) and education related Millenium Development Goals (MDGs) in coverage area, scope and policy focus. In below, table 1 highlights some of these differences. The main focus of MDG2 was access to primary level education while EFA had the agenda of fulfilling the basic education needs of children and youth.

The goals of both MDG2 and EFA were not fulfilled by the deadline set for the year 2015. Therefore, SDG4 prosecutes this incomplete agenda of education and also goes beyond by the commitment of all the countries of world to assure equal access to learning and quality education in all education levels in lifelong perspective.

Table 1: Global Agendas for Education

| | MDG2 | EFA | SDG4 |
|---------------------|-----------------------|-------------------------|-------------------------|
| Scope | Child Primary | Basic Education for | Basic Education; Post |
| | Education | children, youth and | Basic Education and |
| | | adults | Training for Lifelong |
| | | | perspective |
| Geographical | Countries with low | Although, universal in | Universal agenda is |
| Coverage | income | intention but in | recommended for all |
| | | practice, it focused in | countries regardless of |
| | | low income countries | income and |
| | | | development level. |
| Policy Focus | Access to basic | Access to basic | Access to basic |
| | primary education for | quality education for | education for all |
| | all | all | +access to training |
| | | | and post-basic |
| | | | education+relevance |
| | | | of learning for global |
| | | | citizenship and work. |
| | | | |

6. Need of Education to Achieve Sustainable Development and SDGs

"Education must, and can contribute to a new vision of sustainable global development". (UNESCO, 2015)

Setting out on the way of manageable advancement will require a significant change of how we think and act. To make a more maintainable world and to draw in with supportability related issues as portrayed in the SDGs, people must progress toward becoming maintainability change-creators.

They require the information, aptitudes, qualities and mentalities that enable them to add to economical improvement. Instruction, consequently, is pivotal for the accomplishment of supportable improvement. Be that as it may, not a wide range of training bolsters reasonable advancement. Instruction that advances monetary development alone may well likewise prompt an expansion in unsustainable utilization designs. The now settled approach of Education for Sustainable Development (ESD) enables students to take educated choices and capable activities for ecological uprightness, financial reasonability and an only society for present and who and what is to come.

7. Achieving Equitable and Good-Quality Basic Education for All

Essential training is more extensive than quite recently essential instruction. While the significance of widespread essential instruction is stressed in both the Millennium Development Goals (MDGs) and the UNESCO-drove Education for All plans, there is a developing agreement that fair, comprehensive access to and interest in "quality" learning ought to be guaranteed for all youngsters, youth and grown-ups, and that fundamental training envelops higher degrees of instructive accomplishment, for example, that managed in bring down optional and in the end upper-auxiliary schools. As the run of the mill normal term of tutoring has expanded in nations in the locale, so has the significance of higher types of tutoring for all gatherings in the public arena. Numerous nations in the area have officially broadened their obligatory instruction prerequisites, with just six nations in the district having a base required term of tutoring that is essential training (proportionate to around six entire years of schooling).3 Recognition of the significance and pertinence of optional instruction has brought about expanded endeavors in Asia and the Pacific to enhance access to training over a more extensive scope of ages.

8. Youth and Adult Literacy

Literacy is one of the basic human rights of the people and it is guaranteed under the right of education in Universal Declaration of human rights. It is a basic and fundamental tool for the empowerment of people, communities and countries. Due to the movement of Education for All, the adult literacy rate of the world has been increased by 3.3 percent. In 2000, it was 81.9 percent and it is 85.2 percent in 2013. There are 757 million adults in the world who could not write or read in 2013, and out of them 478 million adults belongs from Asia and Pacific. South-West and South Asia had lowest rate of literacy in whole region which is 69 percent in 2013 compared with 93 percent literacy rate in Pacific and 90 percent in South-East Asia.

In addition to the variations in sub-region, rate of literacy is also varied by the level of development. The literacy rate ranges 69 percent in low income countries. The main source of disparity in literacy rate is gender baseness. In 2013, the female illiteracy in the region is 65 percent. However, the rate of literacy is high in North-East Asia and East Asia, which is 93 percent in females and 98 percent in males. The highest gender disparity in literacy is present in South and South-West Asia where 60 percent females and 78 percent males are literate.

9. Priority Targets

As noted earlier, there are ten targets that nations need to meet before anyone can say that Goal 4 has been met. However, in our opinion, it is essential that countries should prioritize these targets based on the identified gaps, instead of tackling all at once. That way, one can in phases determine how well a nation is performing. Therefore, we think the following targets should be the immediate focus of the government:

- By 2030, ensure that all boys and girls complete equitable, free and quality education of both primary and secondary level which will lead to effective learning outcomes of SDGs.
- By 2030, ensure all boys and girls have free access to the pre-primary education, care and quality early childhood development so that they will be ready for the primary education.
- By 2030, ensure the access of both men and women to vocational and technical education including university level education.
- Upgrade and build facilities related to education that are gender sensitive, disability and provision of safe, nonviolent, effective and inclusive environment of learning for all people.
- By 2030, ensure all substantial proportion of youth, both women and men will obtain literacy and numeracy skills.
- By 2030, ensure all people acquire the skills and knowledge to enhance sustainable level
 of economic development and lifestyle, gender equality, human rights peace and nonviolence, appreciation of culture diversity and global citizenship.

10. Three Challenges for Higher Education and the SDGs

The SDGs explicitly refer to higher education as part of the vision for lifelong learning for all. Higher education plays a vital role in teacher training and other aspects of educational development. There are following three challenges for higher education and SDGs.

Challenge 1: Making Higher Education an Integral Part Of The New Agenda

The event stressed that higher education still has a way to go to become and be recognized as an integral part of the overall action plan for implementing the SDGs, and not simply one of the targets. Higher education's inclusion in the agenda was little more than an afterthought. To help address this, IAU has been advocating for broader recognition of the role higher education plays in research for planning, curriculum design, teacher training, evaluation and assessment, and IT use.

Challenge 2: Mobilizing Higher Education Institutions Worldwide

Higher education institutions need to be both better informed and mobilized to engage in the overall SDG agenda and Education 2030. This is especially the case for universities in industrialized countries and for those not well-versed in the UN discourse and policy agenda circles. The SDGs are still insufficiently on the radar of higher education leaders in industrialized nations, and if they are aware of this agenda, it is often limited to issues of environment, greening the campus or climate change.

Challenge 3: Turning Goals into Action

The third challenge is to do with turning lofty goals and targets of this global agenda into meaningful and feasible strategies and actions at government and institutional levels. By 2030, guarantee equal access for both men and women to affordable and quality tertiary, technical and vocational education. To meet all three of these targets – access, affordable, and quality – it is said that countries require different strategies shaped to respond to their unique obstacles and resources. For example, equal access may mean building physical or human capacity or it may mean overcoming long-standing exclusions based on language, disability and socio-economic background.

11. What can we do?

- Ask our governments to treat the education as a priority in both practice and policy.
- Lobby our governments to make commitments in providing primary level education to all the people including marginal and vulnerable groups.

- Private education sector should be encouraged to invest in educational tools and facilities.
- NGOs should be encouraged to partner with people and specially youth to enhance the importance of education in local communities.

12. Important Steps for Translating Global Commitments of SDG4

i. Building a shared understanding at country level

In order to translate the global SDG4 commitments building and understanding of 2030 agenda among all stakeholders is precondition. This includes consultations about the new agenda with education and other economic and social sectors to ensure the dual-way incorporation of education and other SDGs goals.

ii. Assessing country readiness

It is compulsory to assess readiness of country for the conversion of the commitments of Sustainable Development Goals into national education system. It includes the assessment of planning, policy, management and monitoring the national education system and identifying the gaps with the SDGs ambitions and commitments and the actions required to adjust or adopt planning and policy frameworks for SDGs.

iii. Policy context

Estimation of the national administrative and policy context against the SDGs 2030 agenda implies the examination of the frameworks related to legislative, policy and administrative frameworks and understanding the potential gaps between the global commitments and context of national policy.

iv. Planning context

It is necessary to indentify the entry points that help in future for the integration and mainstreaming of the commitments of SDGs into the context of national planning. With the help of specific national planning/policy cycles, this can be achieved by the development of subsector plans or by updating the existing plans for the commitments of SDG4.

v. Monitoring and evaluation

It involves monitoring and evaluation of existing national commitments and monitoring for the requirements of global indicator for the evaluation of SDG4 progress.

vi. Management context

It involves a coordination of sector processes and mechanisms for the requirements of inclusiveness, system wide and transparency of the Education goals of SDGs 2030. Partner

dialogues should also be organized to ensure coordination and efforts to scrutinize SDG4 commitments.

13. Conclusion

To say that these are not the best of times for us as a nation is an understatement. Although successive governments have done their best (whether good enough or not) to make life abundant for citizens in the past three decades, their efforts have yielded little results. With the present day realities globally in general, the Sustainable Development Goals (SDGs) could not have come at a better time. In SDGs, the education agenda has raised the bar by setting targets that ensure that not only would pupils enroll and complete schooling, but that the quality of the education they receive will foster a more agile environment which improves the quality and speed of decision making and intuitive thinking. This would enable such pupils have improved quality of life with consequences for sustainable development of their communities.

At this critical time, the best thing that the government can do to stimulate progress is to provide the nation with the best minds to help the nation tackle future challenges. Now that the race towards the attainment of the global Sustainable Development Goals (SDGs) is on, it is pertinent to set the key performance indicators for assessing progress in line with the overall vision of the development agenda.

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