

Importance of Education and Issues of Implementation in Sustainable Development Goals (SDGs) : The Case Study of Nepal

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This article endeavors to contribute to the growing body of scholarship on Sustainable Development Goals (SDG) linkages by making SDG 4 “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” as its central focus. This article discusses the intricate interconnections between SDG 4 and other Goals proving importance of education for SDGs. Then, it explores the issues that a developing country like Nepal will face in achieving this important goal. This paper is based on secondary data, related reports and literature. The research paper tried to analyze factors that place hurdles in Nepal to achieve SDG no. 4. Having large numbers of goals, confusing macro targets, limitation related to financial resources, unsatisfactory performance in retaining students, and substandard quality of education are all seen as major factors that will impede the achievement of goal of education.

[**Keywords** : Sustainable Development Goals, Education, Nepal, Developing countries]

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1. Introduction

The Sustainable Development Goals (SDGs) and the 2030 Agenda present a unique opportunity to raise awareness of the importance of taking worldwide actions and start putting measures in place to reach the targets posed by the United Nations (UN). The SDGs are not perfect, but they can function as a catalyst for real change. They show major development challenges for humanity. The world might not be able to achieve all the goals and targets, but it will certainly veer humanity towards path of progress to a point that we did not expect a few years ago.

Among 17 sustainable development goals, Goal no. 4 which states “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” is one of the most important goals. There is wide body of literature that presents and supports education as vital and most important factor for sustainable development. Realizing its importance UN started the ESD (Education for Sustainable Development) program long before SDGs itself. The field of education has established linkage with all the other remaining goals and will play significant role in achieving other goals.

There is no doubt as to the importance of this goal. However, understanding the importance of it and achieving the goal are different matter. Especially, developing countries such as Nepal will have to face many issues in achieving this goal. For Nepal, it will not be easier to achieve targets set by SDGs.

This article endeavors to contribute to the growing body of scholarship on SDG linkages by placing SDG4 at the center and analyze the issues faced by Nepal to achieve it.

2. SDG 4 : Ensure Inclusive and Quality Education for All and Promote Lifelong Learning

The SDG framework has a specific goal on Education (SDG4 - Ensure Inclusive and Quality Education for All and Promote Lifelong Learning) that involves 7 targets and 3 means of implementations (MOI) as shown in the figure 1.

Goal for education has tried to cover very broad area that ranges from pre-primary education to higher education. Also it has included the issues of gender equality and equal access in education.

It has given emphasis on quality education and designed 3 means of implementation which includes training teachers, scholarships and safe learning environment.

Figure-1. Sustainable Development Goals (SDG) no. 4



Source : UNESCO, 2018

3. Methodology

This paper uses library research for clarifying the significance of the education (goal 4) in order to achieve the SDGs. Systematic efforts to connect SDG4 and other SDGs is very vital to achieve the widest possible range of co-benefits. A growing number of literature suggest that effort to connect the SDGs are more effective in order to achieve SDGs as a whole.

This paper examines SDGs from perspective of education and relies mainly on selection of reports from international organizations and scholarly papers. First, it examines the reports addressing the connections of education with other goals. It collects relevant evidence from recent policy documents published by UNESCO (The United Nations Educational, Scientific and Cultural Organization) and a few other international agencies. Then this research paper focuses education sector of Nepal and issues related in achieving the SDGs.

4. Importance of Education

SDG describes major development challenges for humanity and aims to secure a sustainable, peaceful, prosperous, and equitable life on earth for everyone. The changes that are occurring in our planet

show that relying on government alone or any other single organization is not the right decision. Global citizens' engagement is needed to make the right decisions. For that, we need the involvement of all actors (government, business, international organizations etc.), and citizens need to be educated, informed and committed in order to make the right decisions. Achieving the SDGs will not be plausible unless there is active participation of every citizen. For every citizen to be able to actively participate in the implementation of the SDGs, a set of skills, attitudes and values needs to be fostered.

The SDGs success will pulldown barriers to sustainable development such as environmental degradation, inequality, and unsustainable consumption patterns. In order to achieve sustainable development, profound transformation of behavior and understanding will be required. To engage with sustainability-related issues as described in the SDGs and create a sustainable world, individuals must become participant of change-makers. People require the knowledge, skills, and attitudes that will enable them to contribute to sustainable development (UNESCO, 2017). Education can help to attain these factors. Education, therefore, is crucial for the achievement of sustainable development.

5. Linkage between SDG 4 and other SDGs

Education serves as a means of implementation that cuts across all of the SDGs and will support the overall achievement of the post-2015 development agenda.

No country can achieve sustainable economic development without substantial investment in education (Ozturk, 2008). Education is recognized as having one of the highest long-term returns on investment of all development goals (Didham and Ofei-Manu, 2019).

According to EFA global monitoring report 2011, 12% reduction in global poverty could be achieved merely by insuring that all children in low-income countries leave school with basic reading skills - this is the equivalent of lifting 171 million people out of poverty (EFA Global Monitoring Report 2011: 8). The OECD estimated that by achieving basic education and basic skill levels for all youth by 2030, lower and middle income countries could tap a 28% higher GDP per year over the next 80 years (Hanushek and Woessmann, 2015).

At an individual level, each additional year of schooling strengthens individual earning potential by an average of 10% (Polachek, 2008). According to Lochner, education has a more positive influence on health than income or employment (2010). Other reports suggest that attainment of primary education leads to reduction in child mortality rates up to 50%, and educated mothers are generally more responsive to children's health needs (EFA Global Monitoring Report, 2011; Mattos, MacKinnon, & Boorse, 2012). Report published by Arabella shows strong links between increased education and improvements in civic participation and political stability (2006).

A report by the International Council for Science and International Social Science Council, which examined SDGs from a scientific perspective (ICSU and ISSC, 2015) linked education with all the other goals of SDGs. The following table summarizes the links.

Table-1 : Link of SDG 4 to other Goals

Goal	Linkage	Target
1	Education is critical for lifting people out of poverty	1.1,1.4,1.5
2	Education plays a key role in helping people move towards more sustainable farming methods, and understanding nutrition.	2.3,2.4
3	Education can make critical difference to a range of health issues, including early mortality, reproductive health, spread of disease, healthy lifestyle and well-being.	3.2, 3.7, 3.c
5	Education for women and girls is particularly important to achieve basic literacy, improve participative skills and abilities, and improve life chances.	5.5, 5.a , 5.b
6	Education and training increases skills and capacity to use natural resources more sustainably and can promote hygiene.	6.2 , 6.b
7	Educational programs, particularly in non-formal and informal sectors can promote better energy conservation and uptake of renewables.	7.2
8	There is a direct link between such areas as economic vitality, entrepreneurship, job market skills and levels of education.	8.3, 8.4, 8.6
9	Education is necessary to develop the skills required to build more resilient infrastructures and more sustainable industrialization	9.4, 9.5, 9.c

10	Where equally accessible, education makes a proven differences to social and economic inequality	10.2, 10.3
11	Education can give people the skills to be participants in shaping and maintaining more sustainable cities, and achieve resilience in disaster situations	11.5, 11.7, 11.b
12	Education can make a critical difference both to production patterns (eg. With regards to the circular economy) and to consumer understanding of more sustainably produced goods and prevention of waste	12.3, 12.8
13	Education is key to mass understanding of the impacts of climate change and to adaptation and mitigation, particularly at the local level.	13.1, 13.3, 13.b
14	Education is important to developing awareness of the marine environment and building proactive consensus regarding wise and sustainable use.	14.1, 14.4, 14.a
15	Education and training increases skills and capacity to underpin sustainable livelihoods and conserve natural resources and bio diversity particularly in threatened environments.	15.2, 15.3, 15.c
16	Social learning is vital to facilitate and ensure participative, inclusive and just societies as well as social coherence.	16.7, 16.10
17	Life- long learning builds capacity to understand and promote sustainable development policies and practices.	17.9, 17. 17

Source : ICSU and ISSC, 2015

6. Case of Nepal

Nepal is a least developed country (LDC) characterized by slow economic growth and low level of human development. In 2018, Nepal remained one of the least developed countries in Asia and ranked 149th out of 188 countries in the UN Human Development Index (UNDP, 2018). According to the Asian Development Bank (ADB), about 25 percent of the population existed on less than USD \$1 per day in 2010/11(2019).

Even though Nepal has lot to progress in various sectors, it did made significant improvement in achieving some of the Millennium Development Goals (MDGs), a pre-cursor of the SDGs, despite the political instability at the time. Many targets pertaining to poverty, health, women's empowerment and education were achieved.

7. Issues of implementation in Nepal.

The Importance of SDG 4 is apparent to all the countries developed and/or developing alike. But the implementation and achievement of the goals and targets is a challenge for LDC like Nepal. In this part of the paper, researcher will analyze issues that will make it difficult for Nepal to achieve the SDG4.

Nepal has signed SDG declaration and have made its own policies to work on SDGs. Nepal was ranked 102 in SDG Index for 2018 (Bertelsmann Stiftung and Sustainable Development Solutions Network, 2018). Especially in education sector, even though Nepal has made good progress in primary education with the Net Enrollment Ratio (NER) now standing at 96.2 percent and the literacy rate of 15-24 year olds at 88.6 percent (National Planning Commission, 2017), it still faces many different issues which will make it very hard for Nepal to achieve targets set by SDGs. These issues are analyzed in detail below:

7.1 Unrealistic Targets

There have been concerns that some of the targets of SDG 4 are too ambitious while others are unrealistic. For example, one of the targets of SDG 4, Target 4.1 is deemed unrealistic to meet in the proposed timeframe due to the addition of achieving free, universal secondary education by 2030, when the past fifteen years of effort on MDG 2 and EFA (education for all) goal 2 to achieve free, universal primary education stalled half way through this period (EFA Global Monitoring Report, 2015). There are still 58 million children today who do not receive primary education (EFA Global Monitoring Report, 2015). Also, target 4.1 asks for completion of secondary education and free provision. But target 4.2 only requires state agencies to ensure pre-primary education and there is no mention of making it free and compulsory.

Target of MDG2 was achieving universal primary education. The SDG4 has taken a further step by expanding this vision from achieving primary education to promoting lifelong learning opportunities and universal secondary education. A question that arises how does a country commit to free secondary education, if it is struggling to meet primary education goals?

These kind of ambitious targets does not only obstruct the single target but create hindrances in achieving other targets. A set of

ambitious and unrealistic targets may hinder developing countries in developing effective implementation strategies. It will also lead to a situation where resources become too divided to achieve meaningful progress in any single target (The EFA Global Monitoring Report, 2015.).

This situation is applicable to Nepal also.

7.2 Multiple Goals

There are 17 goals in SDGs. LDCs like Nepal always face financial resource constraint. So having more and ambitious goals to attain, hinders to achieve all goals. Nepal has to work on various sustainable development goals including education. Now it will have to divide its already scanty financial resource to meet many different and ambitious goals namely poverty reduction programs, infrastructures, health, and education etc. Relying on mobilizing government revenue alongside existing levels of aid is not going to be enough.

According to Hoy (2016), there is huge gap between required and available financial resources for 3 goals (poverty, health, and education) in LCDs. If other goals are added to it, this gap will increase even further.

Report published jointly by Bertelsmann Stiftung, a German social responsibility foundation and sustainable development solutions network (SDSN) in 2018 states that Nepal still needs to work a lot to meet targets of ending hunger (Goal 2), promoting good health and wellbeing (Goal 3), ensuring access to affordable and clean energy (Goal 7), and promoting decent work and economic growth (Goal 8). In addition, Nepal also needs to put in lots of effort to build and promote sustainable industry and foster innovation (Goal 9), create sustainable cities and communities (Goal 11), and promote peace, justice and strong institutions (Goal 16).

So, having numbers of larger and ambitious goals will hinder the achievement of those goals. It is true, especially to Nepal which is low income country.

7.3 Finance

It is commonly agreed that governments, through public expenditure, hold the key mechanism and main responsibility for long-term, sustainable financing of education.

Effective financing is critical in achieving quality education that is inclusive and equitable, provides lifelong learning, and also strengthens sustainable development. Mobilizing all financial streams “domestic public, domestic private, international public, international private and blended finance” and coordinating them for greatest impact is critical (United Nations, 2014).

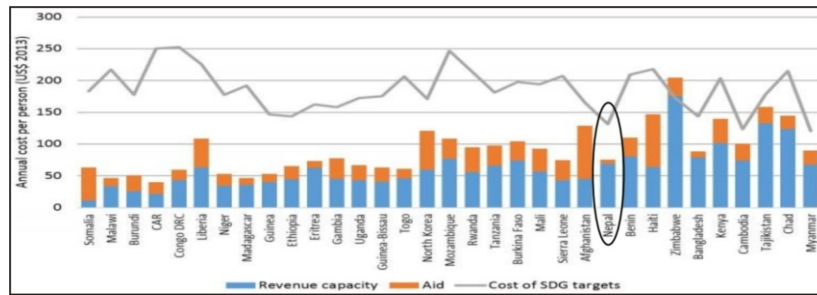
In Nepal, where large investments are still required for overall infrastructure improvements in education systems, international aid and financing remains crucial. Report published by national planning commission states that the amount of official development aid (ODA) inflow will have to double from existing levels in order to get sufficient fund to work on SDGs (2015). Nepal needs large amounts of ODA to bridge the funding gaps for SDG implementation. Problem with ODA is there is no guarantee that pledged country will certainly provide it. During the MDG period many countries did not disburse the ODA they had pledged. There are no guarantees of increased ODA for implementing the SDGs either. The level of disbursement declined from 85.7 percent of commitments in 1999/00 to only 55.4 percent in 2014/15 (National Planning Commission, 2017). Current ODA is insufficient to meet the expenditure needed for Nepal to achieve the goals. Receiving enough ODA itself is major challenge.

Also, G20 countries agreed in 2002 to provide 0.7% of the Gross National Income (GNI) for ODA. But as of 2016, it is still less than 0.4 %. So there is gap of 2.9 trillion USD between target and actually provided ODA (MacFeely, 2019).

Another report states that the share of aid to education that actually reaches the recipient countries is significantly lower than in other sectors. Of the total direct aid to education, only 68% of it reaches recipient countries (EFA Global Monitoring Report 2015: 273).

In 2014, an UN Intergovernmental Committee (UNIC) of experts estimated that total cost of the SDGs will be trillions of dollars a year. The total cost for the SDGs targets related to poverty, health and education is estimated to be USD 148 billion a year in low income countries alone (Hoy, 2016). The gap between the public finance available vs cost of key targets is astonishingly big in case of LCDs. The chart below shows the gap between two:

Chart 1 Gap between required and available financial resource for SDGs (education, health and poverty) in LCDs.



Source : Hoy, C. (2016)

From the chart above big gap between cost of SDG targets and revenue and aid in Nepal is clear.

Also in 2006, the High Level Group on Education for All (EFA) recommended that governmental spending between 4-6% of gross national product (GNP) and 15-20% of public expenditure should be allocated to education. These benchmarks were then included in the Muscat Agreement on Global Education for All Meeting in May 2014 (EFA Global Monitoring Report 2015: 241). However, for domestic spending on education, it is projected that there would still be a shortfall of USD 22 billion annually over the next fifteen years to achieve the basic education targets by 2030 (EFA Global Monitoring Report 2015 : 296).

All these issues show financial resource that Nepal has is not enough for achieving targets. In addition to these issues, 2015 earthquake brought new and unexpected challenges. It brought new challenges, as large reconstruction and recovery needs because of infrastructure damage (National Planning Commission, 2017). So financial constraint will be big factor that may create gap between the target and actual achievement at the end. This shows the financial pressure that Nepal will face in order to meet the target.

7.4 Dropouts and out of School

Another issue that Nepal faces is the low transition rate from primary to lower secondary and from lower to higher secondary level. High dropout rates show that many children do not enroll in secondary education. Despite achieving almost universal enrollment, retention of students in the primary and secondary levels is still a serious problem in Nepal. Only 76.8 percent of pupils that enroll in elementary education survived until the last grade of

elementary education in 2015 (Dilas, Cui and Trines, 2018). Unless this challenge is not addressed, dropout rate will be an issue which definitely will create obstacle in reaching the target of secondary as well as primary education for all. Various reports and research shows that large number of students drop out of school for various reasons in Nepal. Financial problem, children with special needs, language of instruction are main reasons for the higher dropout rate.

High indirect cost of schooling is one of the reasons of drop out. Though the current constitution of Nepal guarantees every citizen the right to “free education up to the secondary level from the state,” (Constitution of Nepal, 2015), many parents are still required to pay school fees and pay for items, such as books or uniforms. According to Dilas, Cui and Trines (2018), half or even more of all expenditures on secondary education in Nepal were still borne by private households in 2015.

Children with special needs dropout rate is also higher. Bringing and retaining children with disabilities and ensuring they are able to complete at least the secondary level of education through proper incentives will be a big challenge for the government of Nepal. Among the total students enrolling in primary education, 1.1 percent are different able students (Devkota and Bagale, 2015). But still government has no such pertinent mechanism that will address needs and problems of children with special needs. Policies and programs are neither sufficient nor efficient for providing the required optimal learning environment to these children (Devkota and Bagale, 2015). Government has provided scholarships to the needed children. But the efficiency of distribution, is still a problem (Department of Education, 2018).

Another reason is language of instruction. Nepal is multi lingual society. However, the language used for teaching is mainly the Nepali language. Curtis (2009) claims that indigenous children are often deprived of schooling in their mother tongue and teaching curriculum ignores their traditional knowledge, which means “school curriculum is often far removed from their cultural practice”. According to Serpell (1993), the inconsistencies take place between the goals of the curriculum and social groups when a designed school curriculum alienates students from their culture. This becomes a reason for students to quit school.

But there are many challenges to implement multilingual education in all schools in Nepal. For example, lack of teaching

material in multiple languages, the lack of well-trained multilingual teachers, and lack of written forms of many languages etc. are few reasons (Bhandari, 2015).

Another pressing issue that haunts education sector in Nepal is “out of school children”. The causes of being out of school, especially for girls, are many. Marginalized communities face barriers such as poverty, norms, lack of awareness in parents, and child marriage. Apart from that migration, child labor, and civil strife are other major barriers (UNESCO, 2016).

According to UNICEF (2008), a big proportion of the primary school age out-of-school children, 6.4 per cent, are expected to never enter school. At the lower secondary level, 5.7 per cent of children are out of school, out of whom 44.3 per cent are expected to never enter school. Girls are especially likely to be out of school at the lower secondary school age. It is more likely that they will never enter school (UNICEF, 2008).

Even after making progress in the gross enrollment ratio (GER), in primary education, Nepal hasn't been able to fix this issue of dropouts. This is certainly one big barrier that Nepal will find hard to overcome. These issues which are intertwined with each other will create intricate problems in achieving the SDG 4.

7.5 Quality of Education

SDGs do not encompass only primary education but quality education as well. In the case of Nepal, this is still a problem. Bhandari (2015) states many different issues that are rampant in the education sector of Nepal. One of these issues is the lack of policy about the education for the society with multi-culture and multi-ethnicity. Another is prioritizing memorization of the textbook (rote learning). All these issues hinder to act smoothly in order to meet goal of quality education. UNESCO (2008) reported for Nepal that child-centered education is not included in teacher training programs. It focuses on acquisition of knowledge, its memorization and reproduction. It does not encourage the kind of learning that young people need for their future. Education system of Nepal still cannot get rid of rote-learning, teacher-centered, exam-oriented practices. Though government has policy of training teachers for more advanced ways of teaching, results are still to show. The pedagogical approach of teachers in schools affects the quality of

education. Not only that, supplementary, age-appropriate reading material in order for children to develop the reading habits are mostly unavailable in Nepal (Ministry of Education, 2016; 12).

In the case of higher secondary level education, number of subject teachers are also not adequate in many schools as the government provides financial support only for two subject teachers for grades 11 and 12 per school. In addition, there are quality issues in the secondary level textbooks and the timely distribution of textbooks to students is still a major concern (Ministry of Education, 2016; 25).

In Nepal's case many teachers, who are teaching, especially, science, math and English in community schools, need to strengthen their subject knowledge. Very few schools have teachers who can effectively teach in English (Ministry of Education, 2016; 12).

7.6 Issue of Data

Adding to all the other hurdle, unavailability of data is another hurdle that can obstruct the flow of the improvement towards achievement. Lack of data makes it harder to measure achievement made towards SDGs. To know the stage of accomplishment, proper data is required. It's not just quantity of data. Quality of data is more important. Disaggregated data provides a good basis to understand progress towards goals that are critical. But, first, it must be collected and disaggregated. This is of paramount importance to ensure that the vulnerable people are not being left behind.

According to SDG knowledge platform (2017), weak database and lack of availability of disaggregated data by sex, age, social groups, disability status, geography, income, and sub-national level is one of the challenges for Nepal. National Planning Commission (2017; iv) also highlighted that the monitoring of the outcome and impact level indicators is hampered by the lack of disaggregated information. For collected data, it may be inaccurate if census collectors or surveyors are poorly-trained.

Inaccuracy of data will make it harder for making plans and policies that will address the real issue directly. Already, Nepal is grappling with multiple issues and problems. Inadequate data will only make the process of making policies and activating mechanism to address the goal no. 4 slower. Though it may seem like not so important but availability of data is serious challenge in the SDGs and this is most serious for developing countries like Nepal.

8. Conclusion

Education's role in achieving SDG is without doubt very important. It is linked to all the other remaining goals. So achieving goal of education is very important. However, in the context of the least developed countries, it poses challenge in implementation. LDC like Nepal faces many different issues on the way to achieving the SDGs which are interlinked, indivisible, and ambitious. Ambitious macro targets, weak financial resources, pertinent social issues, and weak database will be huge hurdle for Nepal to achieve the goal of education by the given time frame. The scale of these challenges that Nepal confronts for the achievement of the goal of education makes it more difficult for Nepal.

Ambitious and unrealistic targets and multiple goals are huge and almost impossible task for Nepal to complete within given time frame. When these goals and targets are paired with financial constraint, challenge becomes even bigger for Nepal. And these issues are interrelated. These ambitious goals require lots of financial resources. For LDC like Nepal, there is always a gap between required financial resource and availability of it. Whatever resources Nepal has, will have to be divided for different goals. This will make it very difficult for Nepal to finance any single goal, adequately. So, goal of Education will be equally affected by lack of finance.

Adding to these issues, existing problems of high dropout rate and out of school students due to various social and financial factor, make it in even bigger challenge in achieving the goal of education. Also, there is issue of quality education. Quality education is very much important target of SDG no. 4. However, education of Nepal is plagued with various problems that prevents it from increasing its quality. Rote learning, lack of education policy to address the need of multi-cultural and multi ethnic society, lack of supplementary materials and lack of well-trained teachers makes attaining quality education difficult.

Finally, unavailability of disaggregated data and inaccuracy of available one makes it hard to measure the real achievement made.

All the challenges discussed in this paper are hurdles that are needed to be dealt with. It demands extraordinary commitment from every stakeholder at various level.

References

- Arabella, *Center for Global Development : Evaluation of Impact, Arabella Analytical Report*, December 2006.
- Asian Development Bank. (2019). *Poverty in Nepal*. [online] Available at: <https://www.adb.org/countries/nepal/poverty> [Accessed 17 Feb. 2019].
- Bertelsmann Stiftung and Sustainable Development Solutions Network, *Global Responsibilities : Implementing the Goals. SDG Index and Dashboards Report 2018*, Bertelsmann Stiftung and Sustainable Development Solutions Network, 2018.
- Bhandari, M., *Challenges of Education in Nepal post 2015*, 2015, pp. 1-18.
- Constituent Assembly Secretariat, *Constitution of Nepal 2015*, Kathmandu : Nepal Law Society, 2015.
- Curtis, M., *A World of Discrimination : Minorities, Indigenous Peoples and Education. State of the World's Minorities and Indigenous Peoples*. (2009). [online] Available at: <http://www.minorityrights.org/> [Accessed 3 May 2019].
- Department of Education, *A study on the Effectiveness of the Scholarship provided at School Level and Identification of Measures for its Improvement*, Kathmandu : Government of Nepal, 2018.
- Devkota, S. and Bagale, S., "Primary Education and Dropout in Nepal", *Journal of Education and Practice*, 6(4), 2015, pp.153-157.
- Didham, R. and Ofei-Manu, P., "The role of education in the sustainable development agenda : Empowering a learning society for sustainability through quality education", M. Bengtsson, S. Olsen and E. Zusman, (eds.), *Achieving the Sustainable Development Goals : From Agenda to Action*, the Institute for Global Environmental Strategies (IGES), 2019, pp.93-129.
- Dilas, D., Cui, J. and Trines, S. Education in Nepal. *World Education News Reviews (WENR)*. (2018). [online] Available at: <https://wenr.wes.org/2018/04/education-in-nepal> [Accessed 20 Apr. 2019].
- EFA Global Monitoring Report 2011, *The Hidden Crisis : Armed Conflict and Education*, UNESCO Publishing, 2011.
- EFA Global Monitoring Report 2015, *Education For All 2000-2015 : Achievements and Challenges*, UNESCO Publishing, 2015.
- Hanushek, E. and Woessmann, L., "Universal basic skills should become the primary development goal", *SSRN Electronic Journal*, 2015.
- Hoy, C. (2016). *Can developing countries afford the SDGs? - Devpolicy Blog from the Development Policy Centre*. [online] Devpolicy Blog from the Development Policy Centre. Available at: <http://www.devpolicy.org/can-developing-countries-afford-the-sdgs-20160209/> [Accessed 18 Apr. 2019].
- ICSU and ISSC, *Review of Targets for the Sustainable Development Goals : The Science Perspective*, The International Council for Science (ICSU), the International Social Science Council (ISSC), 2015.

- Lochner, L., "Education Policy and Crime", National Bureau of Economic Research, Working Paper 15894, 2010.
- MacFeely, S., To measure the SDGs, we need a data revolution. [online] World Economic Forum. (2019). Available at: <https://www.weforum.org/agenda/2019/01/its-time-for-a-data-revolution/> [Accessed 12 Mar. 2019].
- Mattos, T.V., MacKinnon, M.A. and Boorse, D.F., "The Intersection of Gender, Education, and Health : A Community-Level Survey of Education and Health Outcomes for Women in Southeastern Togo Gordon College", *BIO381 Public Health Research*, 2012, 1-22.
- Ministry of Education, *School Sector Development Plan, 2016-2023*, Kathmandu: Government of Nepal, 2016.
- National Planning Commission, *Sustainable Development Goals 2016-2030*, [online] Government of Nepal. Available at: <https://www.undp.org/content/dam/nepal/docs/reports/SDG%20final%20report-nepal.pdf> [Accessed 7 Mar. 2019].
- National Planning Commission, *National Review of Sustainable Development Goals*. (2017). [online] Government of Nepal. Available at: <https://www.npc.gov.np/images/category/reviewSDG.pdf> [Accessed 6 Dec. 2018].
- Ozturk, I., "The Role of Education in Economic Development: A Theoretical Perspective", *SSRN Electronic Journal*, 2008.
- Polachek, S., "Earnings over the Life Cycle : The Mincer Earnings Function and Its Applications", *Foundations and Trends® in Micro-economics*, 4(3), 2008, pp.165-272.
- SDG knowledge platform Voluntary National Review 2017*. (2019). [online] Available at: <https://sustainabledevelopment.un.org/memberstates/nepal> [Accessed 9 Apr. 2019].
- Serpell, R., *The Significance of Schooling*, Cambridge : Cambridge University Press, 1993.
- UNDP, *Human Development Reports*. (2018).[online] Available at: <http://hdr.undp.org/en/composite/HDI> [Accessed 10 Apr. 2019].
- UNESCO, *All children in school- Global Initiative on Out-of-School Children*, UNESCO, 2016.
- UNESCO, *Education for Sustainable Development Goals Learning Objectives*, UNESCO, 2017.
- UNESCO, *Paving the road to education : A target by target analysis of SDG 4 for Asia and the Pacific*, UNESCO, 2018.
- UNICEF, *Building UNESCO National Education Support Strategy Nepal 2008-2013*. (2008). [online] UNICEF.
- United Nations, *The road to dignity by 2030 : ending poverty, transforming all lives and protecting the planet*, New York, 2014. ★