

Review Article

EDUCATION IN BHUTAN: AN OBSERVATION FROM SUSTAINABILITY PERSPECTIVE

RAJEETA SAPAM, ELANGBAM HARIDEV SINGH (PHD), DR RAJNISH RATNA3

Received: 14.10.2019

Revised: 11.11.2019

Accepted: 15.12.2019

ABSTRACT

This study is a qualitative study on GNH based education policy of Bhutan based on literature review. Modernization of Bhutan despite being a land-locked country is due to its paradigm shift from Monastic education system to modern education system based on GNH principles and policy. Most of the GNH values align with SDG laid down by UN. However it is also seen that GNH education policy is a continuous attempt to protect and preserve cultural integrity of Bhutan. It has special importance as the society is exposed to forces of westernization through mass-media and internet. This study is an attempt to analyze how far Bhutan has achieved in terms of providing equitable and quality education. This study is also an inquiry into whether education has equipped its youths with minimum knowledge and skills to compete in the global markets. The continuation of green school initiatives is bound to have a positive impact on environment sustainability which is one of key pillars of a sustainable society.

Keywords: Education policy, GNH, sustainable policy, Bhutan, Sustainable goals, inclusive education

© 2019 by Advance Scientific Research. This is an open-access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>) DOI: <http://dx.doi.org/10.22159/jcr.06.03.10>

Role of education in modernizing Bhutan

Education is undoubtedly one of the most important tool for human beings to change attitudes, enhance knowledge and upgradation of skills to enable individuals to contribute towards social progress. It is a formal mode of transferring information to the group for larger gain of the society. In fact, education plays a pivotal role in bringing Bhutan to the present stage. Education in Bhutan was confined in monastery till 1950s (Jamtsho, 2018). Modern education began in Bhutan in 1913 when first Druk Gyalpo [Dragon King], Gongsu Ugyen Wangchuck, established the kingdom's first school in the high valley of Haa in western Bhutan (Mathew J. Schuelka, 2016). Modern education has helped Bhutan diversify its economy to secondary and tertiary sector. There is growth of Bhutanese economy from 135 dollars in 1980 to 2.5 billion dollar in 2018. The life expectancy of the Bhutanese population is also increased from 34 years in 1960 to 71 years in 2018, credit must be given to modern education system of Bhutan which have enabled most of its population with basic literacy and communication skills. Along with improvements in education sector and more economic opportunities, consumerism has led to increase in CO₂ emission from .0012 tons per capita in 1970 to 1.28 tons per capita in 2018 (World Bank, 2019). This article Tries to find the important policy shift in Bhutanese education toward sustainable development goals.

Are UN SDG and GNH policy of Bhutan compatible?

UN Sustainable development goals consisting of 17 goals and 169 targets aims to provide universal guidelines and framework for educational policies. Every country now feels a sense of urgency to achieve the targets by 2030 (UN, 2018). The key to these achievements for any country is very dependent on how far it has reached in terms of achieving Sustainable Development goal 4(SDG inclusive and equitable quality education. Significantly, many countries are aligning their economic and social policies with Education for Sustainable Development with the vision to build a sustainable society. Thus education policies of countries becomes the

backbone to sustainable development (UNESCO, 2014). Bhutan's GNH policy initiated by the fourth king, Jigme Singye Wangchuk is wholistic development policy which has drawn international interest due to its unique feature which touches the core issues of sustainable development. Bhutan's education policy which gives emphasis on Green School initiatives has to be contributing factor to environmental sustainability of Bhutan (Dawa & Singh, April 2018). A comparative study of SDG and GNH goals by (Yangka, Newman, & Devereux, 18 May 2018) concludes that GNH model is one of the unique model which combines happiness and prosperity with carbon neutrality policy as well as aligning with universal goals and Paris agreement. Also National Educational policy of Bhutan ensures that international benchmark is maintained, which is at least 7.1% of Gross Domestic Product and or 23% of the national budget, outlay for education. The education for Gross National Happiness initiatives which started in 2010 put Bhutan on the path of sustainable education. However, subjects like global citizenship education, human rights, consumer education, ecological literacy and media literacy are missing in the mainstream curricula and assessment (Jamtsho, 2018)

What is the contribution of GNH education policy to cultural integrity?

GNH education policy has been able to blend cultural aspects seamlessly taking into consideration that culture, economy, social welfare and education are not isolated fields but interdependent entities (MoE, 2018). This aspect has been continuously given consideration throughout the implementation of GNH policy in Bhutan. It is reflected in the inclusion of Bhutanese cultural values 'Tha-Dam-Tshig Ley Gyu-Drey' in its education policy at all levels of education (MoE., 2018); (Mathew J. Schuelka, 2016). The GNH model has undertaken the robust task of integrating cultural values and modernization of society without overshadowing each other. But only time will tell its success rate. Empowering citizens to be able to make choices for themselves be it through formal or informal education is also part and parcel of the GNH policy. Buddhism, Buddhist philosophy and Buddhist values of

harmony, integration and stability have direct impact on better implementation of GNH policy and its sustainability despite exposure to elements of modernization and ICT diffusion in Bhutan (Shrotryia, 2013). However it is found that certain sections of population consider 'Driglam Namzha' (code of conduct) as not that essential part of GNH (Centre for Bhutan Studies & GNH Research, 2016). It is also significant that some sections of the population feel that something need to be done for increasing cultural awareness and preserving traditions (Centre for Bhutan Studies & GNH Research, 2016). It is thus questionable whether improved educational opportunities has led to cultural dilution despite attempts to incorporate fair proportions of culture and tradition in the country's education policy (MoE, 2018). However, mindfulness or meditation is not taken seriously by students unless enforced as part of school activity. It is naturally a negative impact of globalization and more exposure to western culture as seen in most Asian countries (Utha, et al., 2016).

Are GDP and GNH related?

Bhutan is an exceptional country where GDP is not given much priority but more importance is given to increasing happiness of people. Another significant change is the drastic economic structure of Bhutan with the contribution of the primary sector (comprising of agriculture, forestry, and mining) to the GDP decreased from 56% in 1980 to 27% in 2003 and decreased to 16.5% in 2016. But the secondary sector comprising the energy, construction, and manufacturing sectors, increased from 11% to 41%, while the tertiary sector remained constant at 33%. So Bhutan is gradually changing to a market based modern economy from a traditional agrarian and forestry-based economy. Bhutan's average annual GDP growth rate is 7.6% which led to an increase in per capita GDP from US\$834 in 2003 to US\$2897 in 2016 (Yangka, Newman, & Devereux, 18 May 2018). It implies that Bhutan is graduating into a middle income country by 2021 as per the World Bank's criteria. But Bhutan is also an import driven economy with 53% accounting for Imports of goods and services. Will the country's social progress and happiness continue as Bhutan graduates to a middle-income country and beyond? Can Bhutan continue its carbon neutral pledge as it progresses into a market based modern economy as well as a sustainable society? (Yangka, Newman, & Devereux, 18 May 2018). There is definitely enough scope to explore and train human resources in the field of alternative clean and affordable energy sources without affecting the ecological framework as well as achieving sustainable goals. This would call for diversification from its huge dependence on hydro-electric power resources as sources of power and revenue generation (Kartikeya & Purvi, 2017). The lack of diverse and specialized supply of workers is reflected in Bhutan's current unemployment rate as 2.5% within which youth unemployment rate stands at 10.7% (National Statistics Bureau, 2016). Youth unemployment is linked to lack of educational programme diversity especially in technical and science stream, skill mismatch, lack of entrepreneur skills and job saturation both in government and private sector. So the question arises whether the current technical and vocational education system should be upgraded or expanded to create more employment opportunities suitable to the current economic system to curb unemployment and migration of skilled workers? (Tertiary Education Board, December, 2017).

How far does GNH education policy give provisions of inclusive education?

In the areas of provisions for equitable and inclusive education opportunities, there is continuous upgradation of

pedagogy and use of ICT facilities in educational practices like introduction of STEM in school curriculum and MOODLE in tertiary education sector (MoE., 2018). Nevertheless scarcity of human resources and finances are deterrents to its success rates. Also only 18.6 percent of 3-5 year olds in Bhutan have access to organized learning environments in the form of ECCD or daycare centers (Jamtsho, 2018). Early Childhood Care and Development (ECCD) is an important factor for improvement in learning outcomes, reduction in drop-outs, better health, higher productivity, increased workforce participation, lower crime rates and less dependence on welfare services (World Bank, 2011); (MoE., 2018). Bhutan ranks 121 out of 144 countries in gender parity and lacks women's participation and political empowerment (World Economic Forum, 2016). Girls represent only 37% in tertiary education (MoE, 2016). Thus there is a need to understand the reasons behind poor girls' participation in tertiary education if a strategy to tackle the problem of gender parity is to be sought. Another area of concerns in education sector is the establishment of central schools by the beginning of 2014 as part of the government's reform agenda to provide equitable and quality education and the generous fund allocations (Mathew J. Schuelka, 2016). And the government intends to open more central schools. But it is likely to reduce funding for areas related to quality like teacher professional development, curriculum improvement and learning resources. Sustainability of free and compulsory education provisions till tertiary education levels along with maintenance of quality education is questionable especially in the light of development of private educational institutes from ECCE levels and changing attitudes of parents. Another factor to be taken into consideration is changing attitudes of parents towards educational facilities (Jamtsho, 2018); (MoE., 2018). Boarding schools have been known to diminish socio-cultural investment by parents on children due to limited interaction accumulated over years. So the question arises on whether there is any effect on social domains of GNH as a result of attempts to improve educational opportunities for the people (Jamtsho, 2018).

There is always a continuing debate whether social justice is achieved while making attempts to provide equitable educational opportunities in a society by any educational policy. During any educational paradigm shift there is always high probability of differently abled children and gifted children being left out though it may benefit average or normal children. The paradox is can sustainable goals be achieved without achieving the minimal required social justice? At this juncture, it is observed that inclusive education has been a part and parcel of Bhutan's education policy partly due to belief in Buddhist philosophy and also non consideration of education as an economic enterprise (Schuelka, 2012)

However, it does face challenges in its implementation due to shortage of trained specialized teachers and resource crunch despite wide acceptance of importance of inclusive education. Also, many schools in Bhutan lack physical infrastructure and learning resources for children with special educational needs. It is felt by many school principals that there could be more improvement in area of special education given the positive school environment generated by virtue of Bhutanese values of social inclusiveness; and teachers trained to deal special education needs should be as far as possible exempted from other school duties. Principals also expressed the need of support services from all stakeholders especially at the community level for implementing of inclusive education (Subbaa, et al., 2018). The school system has not been able to cater to the needs of those children with learning disabilities

often labelling them as under-achievers by teachers and parents (Utha, et al., 2016).

Another aspect of inclusive education often neglected in sustainable education agenda is the tertiary education sector. Youth unemployment is often related to lack of proper policy planning in tertiary education sector. Thus the need arises to reflect on whether adequate skill development opportunities are provided by the tertiary education sectors-both formal and vocational education. This implies not just increasing the enrolment rates but also widening tertiary education to co-ordinating with research agencies and community service for shifting to a sustainable perspective (Owens, 2017).

Green school initiatives-Does it have a positive impact on society?

Keeping in mind the integration of ecological sustainability in school curriculum, the concept of Green school initiative in Bhutan closely resembles similar models followed in countries like Australia, Indonesia, Thailand, Iran, Canada etc. The study on green school pointed out that inculcating values of ecological sustainability apart from its present attempt of maintaining and conservation of ecology within the educational premises needs to expand beyond it. Also continuous efforts needs to be put in to interlink cultural and traditional values with Green schools and consequently contribute to GNH. This holds great importance in the advent of continuous and increased exposure to elements of consumerism i.e. the mass-media and internet and prevention of soil, water and air pollution (Drakpa & Dorji, 2013). The paradigm shift in education model is also a result of teachers' perception that GNH values are better implemented outside the confines of classroom teaching lectures (Sherab, 2013). The practice of mass-cleaning programs in schools maybe one of the contributing factors leading to values related to environment conservation observed in Bhutan. One of the striking features of Green school initiatives is the value and philosophy it passes on to its students, reflecting in their lives through daily activities of recycling materials, waste segregation at household levels, individual responsibility for maintenance of streets and institutions which is more prominent within school campus and community work for conservation of nature (Kelly, 2013). What is encouraging most about green school campaign is prevention of taking and eating junk food within school campus and formation of WMVG to take care of littering and systematic disposal of waste. WMVG promotes volunteerism, proactive strategies for proper waste management, civic sense and self-responsibility to practices for sustainability of natural resources. Another significant contribution of WMVG is reduction of school maintenance manpower resources through mass participation of its students and prevention of wastage of school finances for unnecessary expenditure on maintenance of staff members.

Are nationalist values promoted by present education policies?

One unique feature of Bhutan's education policy in the face of globalization is its endeavor to promote national identity, discipline through scout programs and life-long learning skills through practical based value education. The school agriculture program and supw programmes in school has been instrumental in imbibing values of dignity of labour. These values will directly contribute to growth of GNH values as long as the Green school initiatives continue (Zangmo, 2018). These school agricultural program and SUPW programs also contribute to creation of sense of belongingness among students towards the school. The existence of democracy clubs

in school policies and encouragement of volunteerism through participation in scouting and SUPW in schools is a great step towards ensuring a good foundation as global citizens. Life skill education through incorporation in extra-curricular activities as well as strengthening of cultural values through uniform dress code and 'Driglam Namzha' practices are related to building national identity among students (Shrotryia, 2013). Its continuity at tertiary levels of education ensures maintenance of national identity among Bhutanese citizens (Powdyel, 2010). Studies could be conducted on whether teaching of these nationalist values have positive impact on maintenance of law and order and projection of Bhutan as a peaceful nation to tourists.

Does GNH school initiatives go hand in hand with quality education?

Studies have shown that though GNH school initiatives do not necessarily lead to happiness partly due to the huge challenge for teachers to infuse GNH through all the school subjects. Nevertheless it has led to improvement of physical environment and positive changes in behavior among students. Difference of opinion is found between students and parents as children favour democratic teaching methods while parents opt for more authoritative discipline in class. This factor may hamper children's learning process and teacher's choice of teaching affecting quality of teaching and learning process in schools. Thus unfavourable working conditions due to heavy workload especially in the phase of implementation process of changes in education policy and lack of learning resources in remote locations is leading to reduction in graduates opting for teaching jobs. There is also greater preference for mutual peer-learning strategy among the students which could be used positively by 21st century educationists (Utha, et al., 2016). The change in behavior may be attributed due to incorporation of GNH values of intellectual greenery, aesthetic greenery, spiritual greenery, naturally green, academic greenery, social greenery, cultural greenery and moral greenery in the school curriculum. The peaceful environment observed in Bhutan could be a consequence of such aspects in the education system. Maintenance of school and community relationship through continuous contact with parents and other caretakers is another critical measure towards achieving sustained relationships with stakeholders for sustainability of communities (Shrotryia, 2013). Thus the education policy needs to incorporate better measures for retention of trained teachers, attracting young trained teachers and better opportunities for professional advancement.

Is GNH education policy helping in disaster mitigation?

Ecological preservation awareness through GNH education policy at all levels of education has linkages with preparedness of Bhutanese population to deal with disasters and mitigate losses due to disasters. Moreover the disaster management policy ensures for safety and prevention of disasters at the institutional level (Shrotryia, 2013). The school disaster management personnel's have been playing a pivotal role in creating disaster management awareness from primary to secondary level students. Strict adherence to disaster management policy from the school level may also be related to better management of disasters in the country (Darla Middle Secondary School, 2012; Motithang Higher Secondary School; MoE., 2018). Thus, Bhutan's current education model is an effort to align with the whole school approach adopted in OCED countries, while using education as a mobilizing agent to meet ecological challenges in future (Wals & Benavot, 2017).

What are the challenges for GNH policy implementation?

Bhutan in its journey for 2030 Agenda for Sustainable Development faces challenges for improvement of key social outcomes, economic resilience, human capital development, managing impacts of climate change, diversification of economic base and strengthening partnerships. Bhutan's attempt to eradicate poverty and address malnutrition is challenged by the increasing and recurring costs of providing free health and education facilities to all its citizens. Tertiary Education sector scholarships have undoubtedly helped in increasing the skilled manpower resources. But quantity needs to be equated with quality if sustainable development goals are to be kept in mind (Owens, 2017). Bhutan still needs to work on ECCD education sector despite its attempt to integrate existing teacher education programmes with training in ECCD. Often the challenges of implementing ECCD programmes for the benefit of general population especially in remote areas is shortage of trained special educational needs and increasing privatization of education. This has the potential of widening of educational disparities and increasing social inequality among urban and rural population as have been witnessed by other developing and developed nations (UNICEF, 2015). There arises a question whether achievement of sustainable goal of inclusive and equitable education is going to be defeated in future with increasing preference of parents for privatization of education for better educational opportunities despite centralization of educational institutes and scholarship facilities even in tertiary education. Addition of programmes for increasing awareness for prevention of violence against children and women in schools and other educational institutions no doubt increases the workload of teachers but is a positive approach to involve communities in creating safer societies. Growing demands for water, energy and food coupled with increasing effect of climatic change due to increasing economic activities poses threat to its ecology. Thus it is felt that creating more awareness on SDGs and more co-ordination with stakeholders i.e. community, civil society and private sectors would be instrumental in achieving the SDGs. Bhutan's 12th FYP similar to 11th FYP is furthering efforts to integrate SDGs into the National plan. Thus whether the 12th FYP focused on three C's- "consolidation, coordination and collaboration" will be able to achieve a sustainable, just and harmonious society has to be seen and studied in years to come (Royal Government of Bhutan, 2018)

CONCLUSION

Among the nine domains of GNH, good health (13.10%), ecology (12.41%) and community vitality (11.56%) contributed most to the 2015 GNH Index. The lowest contributors were education (9.78%), good governance (10.18%) and psychological wellbeing (10.48%). But GNH in Bhutan is fairly balanced across the nine domains. While comparing 2010 and 2015 GNH reports, it is observed that the percentage contribution of community vitality domain decreased from 12.40 to 11.56 percent and psychological wellbeing decreased from 11.16 to 10.48 percent. The contribution of living standard increased from 10.26 to 10.91 percent. But the concerns for ecology among people have decreased (Centre for Bhutan Studies & GNH Research, 2016). It is mentionable here that Bhutan despite earning reputation as a pristine eco-friendly nation is facing the problems of solid waste disposal problems with increasing consumerist behavior and lack of recycling technological knowledge among the people.

Bhutan has made significant achievements of many MDGs as compared to many developing and least developed countries after adoption of GNH development model. Poverty rate,

multidimensional poverty and inequality has decreased to 8.2 per cent, 5.2 per cent and Gini coefficient at 0.38. Economic growth is at 7.5% over the last few decades, along with structural changes. Unemployment rate is comparatively low at 2.1%. Till now there is reduction of school drop-outs who are unemployed as most of them are inducted into vocational education and technical education sectors. Free health and education policy have led to 100% school enrollment with gender parity at secondary level. Youth literacy is at 93 per cent, and life expectancy stands at 68 years. Bhutan at present has 70 per cent of forest cover and 50 per cent of protected areas making it a carbon neutral nation (Royal Government of Bhutan, 2018).

For progressing towards the status of developed nation more inputs needs to be given to research and design sector apart from providing adequate skills and knowledge to the youths (Owens, 2017). Thus Bhutan has the potential to achieve many of the MDG and SDG if it continues to follow the whole school and whole institutional approach which integrates education and life-long learning process paving the path for a sustainable society (Wals & Benavot, 2017). Also, equitable provisions of ECCD programs in the government educational institutions can certainly contribute to increasing school readiness among children increasing learning outcomes in school improved health and nutrition status of children. These efforts would promote quality of education. The integrated approach of including health programs with school activities up to secondary level definitely is one of most effective means of public health awareness and policy implementation at grassroot level e.g. WASH programs (UNICEF, 2015). The tragedy of most under developed and developing countries in many developmental programs is underutilization of grants or misutilization of grants by donors which hampers in sustainability of development goals. However Bhutan so far has maintained a good track record of submitting donor reports timely (UNICEF, 2015). This factor should contribute towards achievement of many unfulfilled sustainable development goals in future.

ACRONYMS -

Driglam Namzha- Code of Conduct
ECCD- Early Childhood Care and Development
FYP- Financial Year Plan
GNH- Gross National Happiness
MDG- Millenium Development Goals
MOODLE- Modular Object Oriented Dynamic Learning Environment
OECD- Organisation for Economic Co-operation and Development
SDG- Sustainable Development Goals
STEM- Science Technology Engineering and Mathematics
Tha-Dam-Tshig Ley Gyu-Drey- Sublime statement of genuine commitment to others and the truth of causality and inter-dependence
WASH- Water Sanitation and Hygiene
WMVG- Waste Management Volunteer Group

REFERENCES

1. Centre for Bhutan Studies & GNH Research. (2016). A Compass Towards a Just and Harmonious Society 2015 GNH Survey Report.. Retrieved from <http://www.bhutanstudies.org>: <http://www.bhutanstudies.org.bt/wp-content/uploads/2017/05/2015-Survey-Results.pdf>

2. Darla Middle Secondary School. (2012). Policy Document. Retrieved from <https://docslide.us:https://docslide.us/documents/darla-middle-secondary-school-school-policypdf.html?h=document.onl>
3. Dawa, D., & Singh, E. H. (April 2018). Education Policy in Bhutan: An Observation through the Lens of GNH and Sustainable Development. *Educational Quest: An Int. J. of Education and Applied Social Science*, 66-70.
4. Drakpa, D., & Dorji, R. (2013). Green School for Green Bhutan: Relationship with Gross National Happiness in Chukha Dzongkhag. *International Journal of Business Intelligents (IJBI)*, 2 (314-324).
5. GNHC. (2017, May). Guidelines for preparation of the 12th Five Year Plan 2018-2023. Retrieved from <https://www.gnhc.gov.bt:https://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/Finalized-Guideline.pdf>
6. Jamtsho, S. (2018). Education in Bhutan : Quality and Sustainability. Retrieved from <http://drukjournal.bt:http://drukjournal.bt/education-in-bhutan-quality-and-sustainability/>
7. Kartikeya, S., & Purvi, V. (2017). The leapfrogging opportunity: The role of education in sustainable development and climate change mitigation. *European Journal of Education*, 52:427-436.
8. Kelly, A. (2013, January 2). Let nature be your teacher': Bhutan takes conservation into the classroom. *The Guardian*.
9. MoE. (2018). 32nd Education Policy Guidelines and Instructions. Retrieved from http://www.education.gov.bt:http://www.education.gov.bt/wp-content/downloads/guidelines/epgi/32nd_epgi_2018.pdf
10. MoE. (2018). Annual Education Statistics. Retrieved from <http://www.education.gov.bt:http://www.education.gov.bt/wp-content/downloads/publications/aes/Annual-Education-Statistics-Book-2018.pdf>
11. MoE. (2018). National Education Policy Draft. Retrieved from <https://www.gnhc.gov.bt:https://www.gnhc.gov.bt/en/wp-content/uploads/2018/06/National-Education-Policy-v13.pdf>
12. Motithang Higher Secondary School. (n.d.). Retrieved from <http://www.motithanghss.edu.bt:http://www.motithanghss.edu.bt/pdf%20file/Policy.pdf>
13. Owens, T. L. (2017). Higher Education in the Sustainable Development Goals Framework. *European Journal of Education*, vol 52, pp 414-420.
14. Powdyel, S. L. (2010). Bhutan/A-Guide-to-School-Management. 14th Annual Education Conference. Phuentsholing.
15. Rinzin, Y. C. (2018, May 21). National education policy drafted. Retrieved from <http://www.kuenselonline.com/:http://www.kuenselonline.com/national-education-policy-drafted/>
16. Royal Government of Bhutan. (2018, July). Sustainable Development and Happiness; Bhutan's Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development. Retrieved from https://www.gnhc.gov.bt:https://www.gnhc.gov.bt/en/wp-content/uploads/2018/07/VNR_Bhutan_July2018.pdf
17. Schuelka, M. J. (2012). Inclusive Education in Bhutan :A small with alternative priorities. *International Journal of Inclusive Education*, 15(1);145-156.
18. Sharma, D. (2019, Feb 9). An education Act for enlightened Bhutan? Retrieved from <http://www.kuenselonline.com:http://www.kuenselonline.com/an-education-act-for-enlightened-bhutan/>
19. Sherab, K. (2013). Gross National Happiness Education in Bhutanese schools: Understanding the experiences and efficacy beliefs of principals and teachers. Retrieved from www.academia.edu:www.academia.edu/20485976/Gross_National_Happines_s_Education_in_Bhutanese_schools_Understanding_the_experiences_and_efficacy_beliefs_of_principals_and_teachers
20. Shrotryia, V. K. (2013). Culture, Gross National Happiness and Disasters: Strategies for preparedness and Management of Disasters in Bhutan . *Journal of Integrated Disaster Risk Management*, 170-183.
21. Subbaa, A. B., Yangzom, C., Dorji, K., Choden, S., Namgay, U., & Nickerson, S. C. (2018). Supporting students with disability in schools in Bhutan:perspectives from school principals. *International Journal of Inclusive Education*, 1-23.
22. UN. (2018). The Sustainable Development Goals Report. Retrieved from <https://unstats.un.org:https://unstats.un.org/sdgs/files/report/2018/TheSustainableDevelopmentGoalsReport2018-EN.pdf>
23. UN. (2019, June 22). Transforming Our World:The 2030 Agenda For Sustainable Development. Retrieved from <https://sustainabledevelopment.un.org:https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
24. UNESCO. (2014). Shaping the Future We Want UN Decade of Education for Sustainable Development (2005-2014) . Retrieved from <https://unesdoc.unesco.org:https://unesdoc.unesco.org/ark:/48223/pf0000230302>
25. UNICEF. (2015). UNICEF Annual Report 2015; Bhutan. UNICEF.
26. Utha, K., Giri, K., Gurung, B., Giri, N., Krogh, L., Keller, H. D., & Søren Willert & Kurt Dauer Keller. (2016). Quality of School Education in Bhutan - Case Studies in the Perspective of Gross National Happiness and Assessment Practices. Retrieved from https://vbn.aau.dk/ws/portalfiles/portal/244108383/Quality_of_school_education_in_Bhutan_online.pdf
27. Wals, A. E., & Benavot, A. (2017). Can we meet the sustainability challenges? The role of education and lifelong learning. *European Journal of Education*, vol 52 pp 404-413.
28. World Bank. (2019). <https://data.worldbank.org/country/bhutan>. Retrieved from <https://data.worldbank.org/country/bhutan:https://data.worldbank.org/country/bhutan>
29. Yangka, D., Newman, P., & Devereux, V. R. (18 May 2018). Sustainability in an Emerging Nation: The Bhutan case study. Sustainability.
30. Zangmo, Z. (2018). Educational Policy Borrowing in the Bhutanes Education System. Retrieved from https://eprints.qut.edu.au:https://eprints.qut.edu.au/122873/1/Zinpai_Zangmo_Thesis.pdf