

**ADVANCING SUSTAINABLE
SOCIO-ECONOMIC DEVELOPMENT
THROUGH EDUCATION IN THE
BAY OF BENGAL REGION**



Contents

Advancing Sustainable Socio-Economic Development Through Education in the Bay of Bengal Region

Editorial Panel

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Forwarding	V
Acronyms	VI
Summary of Papers	VII-XI
Chapter 1.	
Higher Education in the BIMSTEC Region: Can Bangladesh Play a Catalytic Role? Md. Shariful Islam, <i>Bangladesh</i>	13
Chapter 2.	
Gross National Happiness: How Does Bhutan's Education of Holistic Citizens Create Opportunities Across the Bay? Rinzin Wangmo, <i>Bhutan</i>	29
Chapter 3.	
The Essential Aspects of Successful Education Reform Mohamed Yunus, <i>Myanmar</i>	49
Chapter 4.	
Borderless Universities across the Bay – What Does It Take to Make This Work? DNV Kumara Guru, <i>India</i>	65
Chapter 5.	
Where is the Meeting Point? Contemporary School-Level Educational Challenges Facing the Developing Countries Keshar Khulal, <i>Nepal</i>	77
Chapter 6.	
Children with Disabilities: Implications for Inclusive Education Biplob Acharya, <i>Nepal</i>	93
Chapter 7.	
Historical Relations of Bay of Bengal Region: A Case Study of Revisiting Pluralistic Memory Through Historiography of 11th and 12th Century Sri Lanka, India (Southern) and Myanmar Prof. N. Melegoda & N. Wijegoonawardana, <i>Sri Lanka</i>	111
Chapter 8.	
Marine Science in the National Curriculum: Would It Change Students' Behaviors and Protect Our Marine Resources? Tawin Kim, <i>Thailand</i>	127

Editors' Note

The editors would like to register their deep appreciation of the efforts of all the authors who have enriched this volume by contributing papers on a range of important aspects concerning the education sector which is a critically important driver of socio-economic development in the Bay of Bengal region. The authors, all of them Fulbright scholars, deserve sincere thanks for their scholarly inputs which blend their knowledge, expertise and rich experience. This volume and the exercise that preceded it would not have been possible without the full support of the US Embassy in Dhaka. In this connection, we are extremely grateful to Mr George Mesthos, Cultural Affairs Officer, The American Center, US Embassy Dhaka for his excellent support to Coast Trust and his interest in this volume. On behalf of the authors and the editorial board, a special word of profound gratitude to all editors who have put in enormous efforts in getting this manuscripts ready for publication..

Forwarding

The American Center Dhaka and the Coastal Association for Social Transformation (COAST) Trust signed a cooperative agreement in September 2015 to implement a project entitled "The Bay of Bengal Working Group." The main objective of this project is to establish a people-to-people constituency among U.S. Exchange Program Alumni who are members of civil society (academia, non-governmental organizations, and the media) from the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) member states through video conference conduct and joint publication. The American Center and US Embassies in other Bay of Bengal region and selected 23 exchange alumni in three thematic areas; education, climate change and blue economy.

The education is one of the thematic issues, on which the alumni's have submitted their paper from different BIMSTEC member countries. The papers have comprehensively addressed the current education systems in these countries, indentifying limitation and future potential and also tried to find out the opportunities of sector cooperation in necessary areas to enhance the regional education facilities towards sustainable socio-economic development in this region.

"These papers are the beginning of a conversation about education in the Bay of Bengal meant to spur more in-depth research with the appropriate methodology. We express our heartiest congratulations to the authors for their write ups and giving their intellectual and empirical inputs. The American Center also deserves gratitude for their immense patience to continue supporting this project with COAST after huge disruptions in 2015 and 2016 that underscore the need for greater people-to-people cooperation in the emerging Bay of Bengal region."



Rezaul Karim Chowdhury
Executive Director
COAST Trust

Acronyms

AISHE	- All India Survey on Higher Education
ASEAN	- Association of South East Asian Nations
AUW	- Asian University for Women
BIMSTEC	- The Bay of Bengal Initiative for Multi-sector Technical and Economic Cooperation
BAC	- The Bhutan Accreditation Council
BPEP	- The Basic Primary Education Plan, Nepal
BOU	- Bangladesh Open University
CAMPE	- Campaign for Popular Education
CWVD	- The education for Children with Visual Disability
EIU	- Education for International understanding
FAO	- Food and Agricultural Organization
GDP	- Gross Domestic Product
GNH	- Gross National Happiness
GNI	- Gross National Income
GNP	- Gross National Product
HEIs	- Higher Educational Institutions
GNHC	- The Gross National Happiness Commission, Bhutan
HEQEP	- Higher Education Quality Enhancement Project
ICESCR	- International Covenant on Economic, Social and Cultural Rights
IDPs	- Internally Displaced Persons
IEP	- Individualized Educational Programme
IISc	- Indian Institute of Science
IIEP	- Institute for Educational Planning
IUT	- Islamic University of Technology
MDGs	- Millennium Development Goals
MoE	- Ministry of Education, Bhutan
NCTB	- The National Curriculum and Textbook Board, Bangladesh
NGOs	- Non Government Organizations
OIC	- Organization of Islamic Cooperation
QAA	- Quality Assurance and Accreditation
QAAC	- A Quality Assurance and Accreditation Committee
SAEO	- South Asia Environment Outlook
SAARC	- South Asian Association for Regional Cooperation
TEIs	- Tertiary Education Institutes, Bhutan
UDHR	- Universal Declaration of Human Rights
UGCs	- University Grant Commissions
UNEP	- United Nations Environment Programme
UNICEF	- United Nation International Children Emergency Fund
UNESCO	- United Nation for Education, Scientific and Cultural Organization

Summary of Papers

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional grouping whose potential has tended to remain unexplored and unexploited. As may be recalled, BIMSTEC was established in 1997 with Bangladesh, India, Sri Lanka and Thailand as the original member countries. The group expanded further when Myanmar, Nepal and Bhutan were admitted following the first regional summit held in Bangkok in 2004. The region has a population of approximately 1.57 billion, which is approximately 22 percent of the world population and a combined gross domestic product (GDP) of 2.7 trillion dollars. There is a need to identify possible avenues and modalities through which the emerging opportunities of deeper cooperation among BIMSTEC countries can be realised through concrete steps and targeted measures.

Various studies indicate that, there are significant scope and opportunities to undertake a diverse range of activities to ensure sustainable development, and advance the economic interests, of the countries in the BIMSTEC and also the greater Bay of Bengal region. Thanks to the significant size of the regional economy, a formidable market size, rising share of manufacturing and services, the growing share of the young population, the region holds great promise for accelerated development over the near-term future. At the same time, the region is set to be confronted with formidable challenges as it strives to achieve sustainable development as is envisaged under the Sustainable Development Goals (SDGs). This scenario also emerges from a SDG assessment report concerning the BIMSTEC Countries which was published recently by the Sustainable Development Solution Network (SDSN). The aforesaid report titled “SDG Index & Dashboards” provides SDG index for 149 countries. The Index ranks countries according to their initial status with regard to the 17 SDGs, where “initial” refers to data for 2015 or proximate years. According to the report, Thailand ranks the top (61st) among the BIMSTEC countries while Bangladesh ranks the last (118th). Among others, Myanmar ranks 117th, India 110th, Sri Lanka 97th, Bhutan 82nd and Nepal ranks 103rd.

One recalls that, a number of regional platforms have emerged over the three decades, where BIMSTEC countries are members in various configurations. These platforms aim to promote regional integration, alleviate poverty and support sustainable development of member countries. However, as a regional grouping BIMSTEC could claim some distinction, and possibilities that are unique in nature. BIMSTEC provides many of the South Asian countries a gateway to East Asia, an opportunity to translate their potentials through closer cooperation and integration with ASEAN. At the same time, ASEAN can also benefit significantly through closer cooperation with South Asia, through the BIMSTEC window.

This volume is the first of three volumes which examine the possibilities and benefits of closer cooperation in the BIMSTEC region in a diverse range of areas. The present volume is the result of an endeavour to examine how quality education could contribute to sustainable development in the BIMSTEC region. As may be recalled, a 'demographic dividend' awaits all the member countries of the BIMSTEC. Only through harnessing the opportunities that could originate from good education can these opportunities be realised by the BIMSTEC countries and the demographic bulge can be translated into demographic dividend, by avoiding the 'demographic albatross'. The seven papers included in this volume make an attempt to examine these opportunities by identifying the key challenges and offering possible solutions. It is hoped that these cross-country perspectives will help policymakers and general readership gain useful insights by providing information and evidence to translate the possibilities of quality education and cooperation in education areas into sustainable development of the countries of the region. Authors of the volume include academicians, practitioners and activists, who have tried to focus on a number of issues that are critically important in this regard. Papers in the volume reflect diverse perspectives from seven countries: Bangladesh, Bhutan, Sri Lanka, Nepal, Thailand, Myanmar and India.

In his paper titled 'Higher Education in the BIMSTEC region: Can Bangladesh play a catalytic role?' the author, Md. Shariful Islam (Bangladesh), makes an attempt to examine the Bangladesh case in particular. The author assesses the state of higher education sector in the BIMSTEC region and presents his perspectives in view of the organization's objectives. He is of the opinion that, in order to address

the rapidly rising religious extremism, minority-oppression, violence against students, and a deteriorating human rights situation, Bangladesh needs to undertake a serious revisiting of her education system and the relevant institutions. In particular, the country needs to seriously change the structure, curriculum and procedures of governance concerning its higher seats of learning (at the university level). He suggests introduction of wide-ranging exchange programs for students, teachers and education administrators to learn about best practices in the region. This, according to the author, would contribute towards sustainable economic progress and peace in the Bay of Bengal region.

In her paper, Rinzin Wangmo (Bhutan) examines how the infusion of the idea of Gross national Happiness could contribute to raise the effectiveness of the education sector in Bhutan. The paper titled 'Gross National Happiness: How Does Bhutan's Education of Holistic Citizens Create Opportunities Across the Bay?' argues that, the practices of infusion of GNH in the education system in Bhutan could create significant opportunities and synergies for countries across the Bay of Bengal region. GNH is a multi-dimensional development approach that aims at achieving a harmonious balance between materialistic, spiritual and emotional wellbeing of the people. The suggested modalities are knowledge sharing, attending workshops and conferences and through exchange programs for students. Joint initiatives, activities and research could also meaningfully contribute in this connection. The author argues that human society will gain most when material and spiritual developments take place in tandem and in harmony.

Mohamed Yunus (Myanmar) in his paper titled 'The Essential Aspects of Successful Education Reform' discusses various aspects of the close interrelationship between education and quality of life. The paper presents essential ingredients of a successful education reform, particularly in view of the Right to Education. The author observes that, poor education often leads to poor quality of life. Consequently, all must come together to improve the state of education, both formal and non-formal. The government and civil society organizations must do the needful to address the needs of the teachers. The author argues that, teachers must engage themselves closely with students and be at the forefront of the struggle for reforms in the education sector.

DNV Kumara Guru (India) in his paper titled 'Borderless Universities Across the Bay – What Does it Take to Make this Work?' looks for answers to some specific and relevant questions. The author wants to understand the structural changes that are needed to enable seamless mobility for faculty and students across regions and whether this warrants changes in the university systems in the various regional countries. He is also keen to know what changes in the visa rules have to be made to make this happen. The author is keen to understand the lessons from the success and challenges in the context of the South Asian University. Since the requirements of education and mode of its delivery and consumption are changing rapidly, how countries across the Bay region can best take advantage of technology-assisted learning tools to enable greater educational cooperation in the region. The paper attempts to answer these questions by coming up with frameworks to enhance greater engagement and cooperation in the BIMSTEC education arena by making use of best examples and best practices from around the world.

Keshar Khulal (Nepal) discusses the challenges facing school level education in the developing countries. In his paper titled, 'Contemporary School-level Educational Challenges of Developing Countries', the author discusses the issue of quality of education from a diverse range of perspectives: merit, values, market demand and skills. These four pillars will need to be calibrated in a way that meets the demands of the rapidly changing education-specific scenarios in the region.

In the paper 'Children with Disabilities: Implications for Inclusive Education' Biplob Acharya (Nepal) focuses on the issue of inclusive education for physically challenged children. The author points out the need for reflection concerning the basic rules of education in the various components of the curriculum for teachers' training programs and teaching and learning methods deployed, at all levels. The paper argues that regulations relating to education should be designed in a manner that it helps attain the goal of 'education for all' which is central to the development of regional countries.

Prof. N. Melegoda and N. Wijegoonawardana (Sri Lanka) share the ideas embedded in a case study that relates to community project encompassing Sri Lanka, India (Southern) and Myanmar. The argument informing the project is that, the historiographical distinctiveness of these countries

should be revisited to construct a pluralistic memory about the uniqueness of the region of the Bay of Bengal. This could then act as an intellectual foundation for closer cooperation among the concerned countries.

Tawin Kim (Thailand) in the paper 'Marine science in the National Curriculum: Would it Change Students' Behaviour and Protect our Marine Resources?' focuses on the need for inclusion of the issue of marine science in national curriculum. The author argues that marine economy is expected to emerge as an important component of the regional economy and thus deserves particular attention of policymakers. The author strongly feels that, including comprehensive marine science education in the national curriculum of countries around the Bay of Bengal region will improve knowledge and understanding about the relevant issues. This is essential to bring about changes in the attitude of the Bay's citizens. A large part of the adversarial impacts concerning marine stems fundamentally from human-induced actions such as pollution, overfishing, coastal degradation and destruction of parts of the environment. There is a need for better understanding of the involved issues.

It is hoped that the volume will help policymakers and development practitioners to have a more in depth understanding about the challenges facing the education sector in the BIMSTEC and the greater Bay of Bengal regions. The expectation is that the articles and case studies in this volume will be able to provide useful insights as regards how best to address those challenges. High quality education could be an important driver to accelerate sustainable development in this region - this is the key message of this volume.

Bangladesh



Md. Shariful Islam

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Higher Education in the BIMSTEC Region: Can Bangladesh play a Catalytic Role?

Md. Shariful Islam
Bangladesh

Abstract

The countries of the Bay of Bengal aspire to have an enabling environment for rapid economic growth and social progress. The region's higher education sector could play a significantly important role in this regard by helping the diverse population of the region to assimilate into a dynamic regional community of people. As may be recalled, BIMSTEC has announced trade and investment, transportation and communication, energy, tourism, technology, fisheries and agriculture as priority sectors. Realisation of BIMSTEC ambitions in this context call for a robust enhancement of human capital. In this context, higher education institutions of the region could play a twofold role: reducing the cultural gaps amongst this diverse groups of people, and creating common markets through scientific and technological innovations.

While the paper looks into the higher education sector in the BIMSTEC region and evaluates this against the organization's objectives in general, the author examines the Bangladesh case in particular. Bangladesh needs to undertake significant changes in the structure, curriculum and procedures of governance that at present prevail in her higher seats of learning, particularly at the university level. In order to address the challenges of rapidly rising religious extremism, minority-oppression, violence, and a deteriorating human rights situation, Bangladesh needs to undertake a significant restructuring of her education sector. The author recommends exchange programs that would include of students, teachers as well as administrators for greater learning and diffusion of knowledge across the region. Cooperation in the education area, according to the author, is key to sustainable economic progress and peace in the Bay of Bengal region.

Introduction

“It seems to me that education has a two-fold function to perform in the life of man and in society: the one is utility and the other is culture. Education must enable a man to become more efficient, to achieve with increasing facility the legitimate goals of his life....The function of education, therefore, is to teach one to think intensively and to think critically. But education which stops with efficiency may prove the greatest menace to society. The most dangerous criminal may be the man gifted with reason, but with no morals.”

[Martin Luther King Jr., “The Purpose of Education”,
Morehouse College Student Paper, The Maroon Tiger, 1947.
Emphasis added.]

Almost seventy years after King’s piece was published, the message it conveys still remains relevant with the peoples across the world irrespective of ethnic, religious, sexual, cultural, socioeconomic and national backgrounds, and underpins the argument for a balanced and quality education. The Bay of Bengal Initiative for Multi-sector Technical and Economic Cooperation (BIMSTEC) is a regional organization comprising seven Member States - Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar and Thailand - and is considered a bridge between South and South-East Asia. The objective of building the economic block - a bridge between SAARC and ASEAN states - was to “harness shared and accelerated growth through mutual cooperation in different areas of common interests by mitigating the onslaught of globalization and by utilizing regional resources and geographical advantages”¹. A sector-driven cooperative organization, BIMSTEC incorporates a wide range of areas: trade, technology, energy, transport, tourism, fisheries, agriculture, public health, poverty alleviation, counter-terrorism, environment, culture, people to people contact and climate change.

To attain some meaningful success in all of these areas, BIMSTEC must concentrate on mutual cooperation in higher education² systems that can lead to a huge human capital formation, and thereby serve the two-fold function: utility and culture of the region. The Declaration of BIMSTEC seeks “to provide assistance

to each other in the form of training and research facilities in the educational, professional and technical spheres”³. Again, due to its very strategic location and natural resources, Bangladesh has the potential to be an education hub of the BIMSTEC region.

This is significant that BIMSTEC states strive to strike a balance between utility or material part and culture or spiritual part of education. While the material part relates to skills, efficiency, production, capital, and market, the spiritual part encompasses democratic institutions, prevalence of human rights including minority rights, equity, justice, and rule of law. What Gary A. Haugen and Victor Boutros observed in “The Locust Effect” appears to be a compelling reminder to the BIMSTEC leaders, “There’s nothing shielding the poor from violent people. In one of the most remarkable - and unremarked upon - social disasters of the last half century, basic public justice systems in the developing world have descended into a state of utter collapse.”. And eventually, this “undercuts development”⁴.

Higher Education in BIMSTEC Region

General Feature, Standard and Accreditation

Around 1.5 billion people live in the BIMSTEC region that constitute around 22% of the world population, and its combined GDP is about US\$ 2.7 trillion. Over the last five years, BIMSTEC Member States have been able to sustain an average 6.5% economic growth trajectory despite global financial meltdown⁵. Despite some encouraging developments in the field of higher education in the BIMSTEC region, some countries still lag behind others. In 2015 no Indian university was there in top 200 of the world⁶, and remarkably, in QS World University Rankings 2016, Indian Institute of Science (IISc) Bangalore has been ranked 152 in the world⁷. According to QS “University Rankings: Asia 2015”, three Thai universities - Mahidol University, Chulalongkorn University and Chiang Mai University - made place in Asia’s top one hundred⁸. The standard of education in Thailand was for a long time the worst in the region, and access to higher education was limited⁹. In Bangladesh, the University of Dhaka has been ranked 109 in Asia by QS World University Rankings¹⁰.

Political instability, weak institutions, and poverty have often been the stumbling blocks to quality education in the BIMSTEC countries. Factors such as low salaries of university teachers, poor allocation for research, challenges to freedom of scholarly exercise leads to low qualifications of university teachers. Despite the region's growing emphasis on the economic development agenda, rising demands for higher education is not being adequately addressed. An estimated thirty-two million¹¹ students or more are enrolled in higher education across the BIMSTEC region, while the unmet demand is estimated at three to four times this number¹². Female participation in higher education remains low, however, rapid progress takes place due to diversified public and private initiatives supporting female education.

In order to strengthen the higher education sectors and ensure more autonomy to the universities, the University Grant Commissions (UGC) of many BIMSTEC states have developed new strategies and received funds from World Bank, USAID and other agencies. The Bhutan Accreditation Council (BAC) is the national accrediting agency that accredits institutions of higher learning in Bhutan. The Council "administers the process of accreditation, renders accreditation decisions, and formulates bylaws, policies, procedures, and accreditation requirements"¹³. The accreditation depends on a peer-review process which is mission driven, evidence informed and outcome based providing professional evaluation and recommendations for improvement¹⁴. BAC maintains a Quality Assurance and Accreditation Division.

The University Grants Commission (UGC) of India is "the only grant-giving agency in the country which has been vested with two responsibilities: that of providing funds and that of coordination, determination and maintenance of standards in institutions of higher education"¹⁵. Despite India's remarkable success in tertiary education in the BIMSTEC region, according to the QS World University Rankings 2015, no Indian University was listed in the top 100. However, two institutions – the Indian Institute of Science, Bangalore and the Indian Institute of Technology Delhi made it to the top 200 in the rankings¹⁶.

Nepal established the University Grants Commission (UGC) after the country implemented multi-university concept. The

Commission is "responsible for allocation and disbursement of grants to the universities and their campuses, regulating their activities and formulating policies and programs on establishment of new universities"¹⁷. The UGC of Nepal has launched the Quality Assurance and Accreditation (QAA) program as part of its reform measures in higher education. A Quality Assurance and Accreditation Committee (QAAC) has been formed in 2007 for the development and implementation of QAA activities in higher education.

The University Grants Commission (UGC) of Sri Lanka is the apex body of the University System in the country which was established on 1978. The functions of the UGC are: planning and coordination of university education, allocation of funds to Higher Educational Institutions (HEIs), maintenance of academic standards, regulation of the administration of HEIs and regulation of admission of students to HEIs¹⁸. In Sri Lanka, the role of the Standing Committee on Quality Assurance and Accreditation is to function as the advisory body to UGC.

The University Grants Commission (UGC) of Bangladesh is the statutory apex body in the field of higher education in Bangladesh, and the primary objectives of the Commission include supervision, maintenance, promotion and coordination of university education. The UGC assesses the financial needs of the public universities and advises the government in various issues pertinent to higher education¹⁹. The Commission, with the support of the World Bank, has undertaken a Higher Education Quality Enhancement Project (HEQEP). The project attempts to improve the quality of education and research capabilities, and encourages innovation and accountability by enhancing technical and institutional capacities at the university level²⁰.

Bridging Across Cultures

Beyond establishing an integrated overseeing, funding, and quality assurance mechanism, University Grants Commissions (UGC) of the BIMSTEC states might undertake a coordinated scheme aimed at greater cultural cohesiveness across the region. Cultural heritages of common interest including archeological sites, foods, dances, music, and classical literatures of the peoples

of the region can form part of the common curriculum to be offered at the universities in the BIMSTEC states. Exchange amongst faculty, students and staff levels can be an effective move towards cultural assimilation. BIMSTEC states have enormous potentials in bilateral and multilateral exchange programs for scholars and entrepreneurs who can contribute to building up a common market.

Connectivity Needed

A wider connectivity in the region facilitating free movement of peoples, goods, and services will ensure rapid development of member states and overall well-being of the peoples. A wider connectivity includes a regional accreditation system for universities of the member states and closer integration in the education systems that transform the huge population of the region into human capital. BIMSTEC region witnesses widespread demand on strengthening regional cooperation in the field of higher education, as this is essential for improving quality in education and research²¹.

Higher Education in Bangladesh

General Features

The Ministry of Education holds the overall responsibility for policy formulation, strategic leadership and preparation of budget for funding in higher education²². Currently, Bangladesh maintains thirty-seven public universities²³, ninety-one private universities²⁴, and three international universities²⁵. As Monem and Baniamin show, until 2010 there were over 1 million students studying at higher education level in Bangladesh. The total number of students in the public universities was 112,430, and in the affiliating National University (NU) and the Bangladesh Open University (BOU) had 777,492 and 437,500 students respectively, while in the BOU only 84,271 were pursuing higher education studies²⁶. The number of teachers in public universities other than NU and BOU were 6,280 (until 2010) of whom about 17 percent were absent on diversified grounds²⁷. Leaving aside the absentees, the average student/teacher ratio in the public universities were about 1:18²⁸. As of 2007 almost 100,000 students got themselves admitted into the private universities each year, amongst which

about one fourth of the total number of students of private universities was reported to be girls²⁹.

Public Universities

Public sector higher education stands as a legacy of the British colonial education system, and public universities represent, in general, general universities, engineering universities, agricultural universities, science and technological universities. Public sector higher education is highly subsidized and they appear to be the first choice of the majority students. Monem and Baniamin explain the reasons³⁰: First, they offer wide range of subjects in Science, Commerce, Liberal Arts, Humanities, Engineering and Technology, Law, Education and Medicine disciplines. Second, public universities attract the best achievers as teachers, although with insufficient salaries. Third, library, laboratory, internet and research facilities are much better there than anywhere in the country. Fourth, frequent seminars, symposiums, workshops, debates, exhibitions and visiting scholars' lecture series. Fifth, residential and boarding facilities at subsidized rates.

Private Universities

By the 1980s, the increasing social demands for higher education could not be accommodated by the existing public institutions, and the government approved the options of private universities through a parliamentary act in 1992³¹. Private universities offer only limited number of courses, and at the undergraduate programs they are typically business administration, computer sciences, engineering, and English language. Post-graduate programs, in addition, offer economics, medicine and such other options.

International Universities

Bangladesh hosts three international universities: Asian University for Women, Islamic University of Technology, and South Asian University. The Asian University for Women (AUW) is located in Chittagong, a coastal city in South-East Bangladesh with a rich heritage of Muslim, Hindu, and Buddhist traditions. As the university website puts it, "Bangladesh's history of state and private sector commitment to advancing education, as well as its secular political culture and a number of notable NGOs involved

in women's empowerment, provides an excellent context for a school with the explicit mission to graduate women leaders and change agents."³² Islamic University of Technology (IUT) is an educational and research institution in Bangladesh governed and funded by the Organization of Islamic Cooperation (OIC).³³ South Asian University (SAU) is an international university established by the eight member nations of SAARC, and it started its operations from the academic year 2010³⁴.

Challenges to Higher Education Sector

As the USAID portrays Bangladesh's education sector, "...an additional year of average secondary or university-level education in a country raises national output by 19 percent. As globalization increases the demand for higher-level skills, a growing number of young people in the developing world find themselves without the relevant knowledge to fully participate in and contribute to economic growth."³⁵ In Bangladesh, higher education sector confronts diversified and intertwined challenges. As the World Bank observes, Bangladesh apportioned about 2.1% of its GDP to education, but just 0.12% was allocated to tertiary education – a very low share by any standards³⁶. The World Bank notes that "low levels of funding leaves little money for investing in research, labs, equipment, computers, books or electronic journals, and infrastructure maintenance for improvement of teaching, learning and research."³⁷

With some exceptions, university-curriculum in the BIMSTEC countries fall short of international standard, and a persistent question of debate is "what socio-economic and political objectives the higher or tertiary education (first degree and above) sub-sector can achieve."³⁸ Fragile state institutions, appalling human right situation and authoritarian practices tend to be the hindrances to scholarly freedom of producing quality curriculums. Despite the fact that Bangladesh is the third-largest Muslim country in the world, following Indonesia and Pakistan, and "it is only natural to assume that Islam plays an important role in moulding its politics and culture"³⁹, the recent terror attacks in Bangladesh signals that a thorough and coordinated institutional measure should be in place to fight terrorism.

Students of public universities in Bangladesh have shed bloods in the trajectory of democratic struggles, and have left indelible imprints of their talents in national and international landscapes. However, the perpetuation of their political tradition in the post-independence period "proved subversive to the democratic tradition where students came to be identified with gunmen threatening exam invigilators, electoral ballot boxes being hijacked, students leaders becoming entrepreneurs, and turf wars being settled through the gun."⁴⁰

Potentials for Bangladesh

The BIMSTEC Secretariat, inaugurated in September 2014, is the first-ever headquarters of any inter-governmental organization to be established in Dhaka⁴¹. This is an extraordinary opportunity for Bangladesh - an emerging economy with enormous potentials in human capital. With its 160 million people and a per capita GNI of \$599, Bangladesh has achieved remarkable progress in terms of poverty reduction and a number of human development indicators⁴². Since early 2000s, per capita GDP growth has been above 5 percent, while headcount poverty has declined from 59 percent in 1991 to 40 percent in 2005⁴³.

Over the past few years gross primary enrolment rate is above 90 percent, secondary enrolment has more than doubled since independence, and the gender parity target of the Millennium Development Goals (MDGs) has already been achieved both at primary and secondary education levels⁴⁴. However, the higher education sector has a different feature. Except HEQEP, no major external funding has been received in this education subsector. Academic Innovation Fund, established under the HEQEP, "has been successful in generating a culture of research, innovation and competition and improving the quality of higher education in Bangladesh."⁴⁵

Looking Forward: Can Bangladesh play a Catalytic Role?

As a UNESCO and International Institute for Educational Planning (IIEP) sponsored research puts forward, "Human capital plays a more important role in generating income and wealth in an economy/society than the traditional factors of production,

e.g. land (natural resources), capital and machinery. For example, it is estimated that human capital in the United States is now at least three times more important than physical capital.”⁴⁶ The role of the tertiary education sector in generating a knowledgeable and skilled workforce has become crucial, as BIMSTEC aspires to growth of industries and service sector and attract investments.

Bangladesh’s rich heritage of being a moderate Muslim country, its longstanding communal harmony, its flourishing tourism sector, and its strategic location can make it a popular destination for BIMSTEC students. For that end to be achieved, Bangladesh needs much more investment in its tertiary education sector. According to UGC reports, the total number of foreign students in the private universities in 2011 and 2012 are 1651 and 1642 respectively.⁴⁷ The current trend of foreign students coming to Bangladesh’s private universities, and the successful operation of three international universities in the country demonstrate the strong potentials of the higher education sector.

However, Bangladesh needs to go far in terms of its governance of higher education sector. Allocation in research, creating necessary infrastructure, recruiting highly qualified teachers, allowing foreign investments, and above all, culture of accountability and transparency can render Bangladesh a higher education hub in the BIMSTEC region. For the University Grants Commission of Bangladesh, this would be an effective move to use university curriculums as a vehicle for teaching communal harmony, religious pluralism, and respects for human dignity.

BIMSTEC states can draw investments and boost up bilateral and multilateral trades by creating industry-university partnerships and initiating supportive exchange programs for the stakeholders. “The primary focus of most industry-university collaborations is joint research, but many have an impact on teaching and learning that develops naturally out of the partnership.” It has been observed in a scholarly paper, “Professors join a project inside the company and researchers agree to lecture, creating a fruitful ongoing exchange that helps modernize curricula.”⁴⁸ Exchange programs can be developed with the objective of creating demand for scholars or experts on the part of specific countries on a given area of knowledge.

Bangladesh can offer its expertise in such areas as community-based adaptation techniques in agriculture and fisheries especially in the face of global climate change challenges. Bangladesh’s narrative of becoming a lower middle income country, her success in microcredit operations, and her encouraging private sector performance could be of interest to BIMSTEC students, scholars and stakeholders. However, Bangladesh will need to do the needful to maintain political stability, ensure independence of democratic institutions and people’s access to justice, establish human rights, and promote rule of law in order to play a catalytic role in realising BIMSTEC’s ambition of rapid economic progress through high quality human resources endows with good quality higher education.

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Bhutan

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Gross National Happiness: How does Bhutan's Education of Holistic Citizens create opportunities across the Bay?

Rinzin Wangmo

Bhutan

Abstract

Gross National Happiness (GNH) is a multi-dimensional development approach that aims at achieving a harmonious balance between materialistic, spiritual and emotional wellbeing of the people. It is believed that the human society benefits most when the materialistic and spiritual development occurs side by side. The philosophy of GNH was coined by His Majesty the Fourth King, Jigme Singye Wangchuk, when he proclaimed in the 1980s that "Gross National Happiness is more important than Gross Domestic Product".

Bhutan's principles have been set in policies through the GNH index, based on equitable social development, cultural preservation, conservation of environment and promotion of good governance, which are the four pillars of GNH. Happiness literally means the feeling or display of pleasure or contentment and it comes by being kind and loving to others. The two conditions of happiness are physical wellbeing and the inner peace and contentment.

In the absence of formal education, in Bhutan moral values were transmitted traditionally through religious recitation, stories, folktales, culture and customs. Later, separate classes on Values Education were taught through dedicated booklets. Eventually, the MoE replaced classes allocated to teach Values Education in schools by introducing principles and values of GNH which is inbuilt in all activities, interactions and classes.

The purpose of infusing GNH principles and values in the school system is to instil human values in the youth who are the future leaders and good citizens of the country. GNH values and principles are to be rooted in the consciousness of the youth so that they are able to lead the country with confidence. The GNH-inspired graduates will sleep soundly and happily at the end of each day knowing that she or he has given all they could to their families, to their communities, and to the world.

Of the five pathways to integrate GNH more deeply into the schools, meditation or mind training is thought to be the key components. This helps in calming our mind and maintaining focus. It is believed that this contributes to improve academic achievement and also helps to deal with disciplinary issues.

The practices of infusion of GNH in the education system in Bhutan would create opportunities for cross-country learning across the Bay through sharing of knowledge, participation in workshops and conferences and by way of students' exchange programs. Joint programs in the areas of education and research are also recommended by the author.

The Royal Government of Bhutan has identified nine domains which form the GNH framework as a core element to determine happiness of the people by creating enabling conditions around those domains. The author is of the opinion that, countries across the Bay could identify their own domains and develop indicators of happiness accordingly, based on their specific cultural contexts. For instance, Mexico has developed "Genuine Progress Index" and other countries such as the United Kingdom, France and Brazil have undertaken similar initiatives towards achieving the wellbeing of their people. Likewise, South Korea has a concept of "Education for International understanding (EIU)" which puts emphasis on a vision for a peaceful and sustainable future that highlights understanding of cultural diversity, human rights, justice and equity as well as absence of violence.

The author highlights the importance of joining hands to shape the future of children by instilling the right human values at the school and college levels, so that they could become productive, culturally grounded, socially responsible, ecologically sensitive and spiritually aware citizens of the BIMSTEC region.

Background

Since 1971, Bhutan has been arguing against the traditional view that Gross Domestic Product (GDP) is the only way to measure economic progress of a country or of human beings. In its place, a new approach to development, which measures prosperity through formal principles of Gross National Happiness (GNH) and the spiritual, physical, social and environmental health of its citizens and natural environment, was introduced.

The Vision 2020 states, "Education must be guided by a holistic concept based on the holistic development of the child and the need to ensure that the innate potential of each and every child is fully realized."

In the absence of formal education in Bhutan, the values were transmitted through religious recitation, stories, folktales, culture and tradition. Later, separate classes on values were taught through separate booklets developed by the Curriculum and Professional Support Division (CAPSD), Ministry of Education (MoE).

Later, the MoE did away with the classes allocated for Values Education in schools and replaced it by the introduction of principles and values of GNH inbuilt in every activity, interaction and class. The project, the Educating for Gross National Happiness, was launched in December 2009 by inviting international experts for a week-long workshop for all school principals and district education officers across the country.

Concept of GNH

GNH is a multi-dimensional development approach aimed at achieving a harmonious balance between materialistic, spiritual and emotional wellbeing of the people. The philosophy of GNH, coined by His Majesty the Fourth King, Jigme Singye Wangchuk, is widely accepted by the people of Bhutan as an indicator that measures the quality of life or social progress in a more holistic and psychological way than the GDP. In the mid 1980s, His Majesty proclaimed that the "Gross National Happiness is more important than Gross National Product". It is believed that the purpose of development and the role of the state create conditions

within which people can pursue and find what they aspire for most in life. GNH suggests that the beneficial development of human society can be achieved when the materialistic as well as spiritual development takes place side by side to complement and reinforce each other.

His Majesty the Fourth King said that the Gross National Product (GNP) should be the nation's principal yardstick for measuring progress and that at the end of the plan, if the people in Bhutan are not happier than they were before, then it could be assumed that the plans have failed.

The Pillars of GNH:

There are four pillars of GNH. These are:

1. Sustainable Socio-economic Development

A successful GNH economy must value social and economic contributions of households and families, free time and leisure given the roles of these factors in Happiness.

2. Environmental Conservation

Environmental Conservation is considered a key contribution in addition to providing critical services such as water and energy, as the environment contributes to aesthetics and enjoyment of beautiful colors and light, unspoiled breeze and silence in the midst of nature.

3. Preservation and Promotion of Culture

Preservation of culture contributes to happiness. Developing cultural resilience to maintain and develop cultural identity, knowledge and practices is useful to overcome challenges and difficulties.

4. Good Governance

Good Governance is considered to determine the conditions in which Bhutanese flourish. While policies and programs developed in Bhutan are generally in line with the values of GNH, there are also a number of tools and processes employed to ensure the values that are embedded in the social policies.

Bhutan's principles have been set in the policies through the Gross National Happiness index, based on equitable social economic development, cultural promotion and preservation, environment

conservation and promotion of good governance. The nine domains and index of GNH are:

1. Sustainable Socio-economic Development:

- i. Living standard - Assets, Housing and Household Per Capita Income;
- ii. Education - Literacy, Schooling, Knowledge and Values; and
- iii. Health - Mental Health, Self-Reported Health Status, Health Days and Disability.

2. Environmental Conservation:

- iv. Ecological Literacy and Resilience - Ecological Issues, Responsibility towards Environment, Wildlife Damage and Urbanization Issues.

3. Preservation and Promotion of Culture:

- v. Time use - Work, Leisure and Sleep;
- vi. Psychological wellbeing - Life Satisfaction, Positive Emotions, Negative Emotions and Spirituality;
- vii. Community vitality - Donations (time & money), Community, Relationship, Family and Safety; and
- viii. Cultural Diversity and Resilience - Speak Native Language, Cultural Participation, Artistic Skills and Driglam Namsha (culture).

4. Good Governance:

- ix. Good Governance - Government Participation, Fundamental Rights, Services and Political Participation.

Happiness

Happiness literally means the feeling or display of pleasure or contentment. It is a subjective experience of positive effects but happy behavior indicates the presence of happiness which is not happiness itself. Happiness is the pleasant effect when an aspiration has been met.

Happiness to my understanding is the state of being that can come only from being kind and loving to others and being true to oneself. Happiness is not a life without worries or struggle. Happiness is the robust sense of fulfillment one feels when bravely confronting hardships.

A short Bhutanese folk tale narrated below would help us get a deeper meaning of happiness.

Once, there lived an old man called Mey Mey Halay Halay who was poor, yet he was not unhappy. One day when he was digging in his meadow, he found a precious turquoise. He decided to carry home the precious stone. On the way, however, he traded it for a horse, then exchanged the horse with an ox, the ox for a sheep and the sheep for a goat and the goat with a rooster.

After that, he met a singer. The closer he walked to the singer, and the more joyous he felt. So, Mey Mey Halay Halay decided to exchange the rooster with a song. The singer taught him the song.

Mey Mey Halay Halay felt like he was the most successful trader in the village, the richest man in his society, and most importantly, the happiest person in the world.

“They want to be happy at home and happy on the job - money is somewhat secondary” - via Forbes Happiness day.

Conditions of happiness

GNH is based on the belief that since happiness is the ultimate desire of every citizen, it must be the purpose of development to create the enabling conditions for happiness. There are two conditions of happiness:

1. Physical wellbeing: It depends on health, prosperity and equitable distribution.
2. Inner peace and contentment: The inner peace and contentment is the result of training the mind such that their actions would benefit themselves and others around them.

Culture of peace

A culture of peace is an integral approach toward preventing violence and violent conflicts, and an alternative to the culture of war and violence based on education for peace, the promotion of sustainable economic and social development, respect for human rights, equality between women and men and democratic participation.

Peace is when people are able to resolve their conflicts without violence and can work together to improve the quality of their lives. Peace occurs when everyone lives in safety, without fear or threat of violence and when everyone has fair and equal access to the basic needs for their wellbeing – such as food, clean water, shelter, education, healthcare and a decent living environment. It is believed that happiness can be achieved by balancing needs of the body with those of the mind within a peaceful and secure environment.

The youth today should be given skills in conflict resolution, stress/anger management and life skills through workshops, seminars, conference and so on so that they can lead the country peacefully and happily. Knowing the importance of promoting peace at home, in schools/colleges, communities, countries and the world, related programs are organized to instill the values and skills.

Human values

Values are those principles or standards, which help better the quality of life. Values include love, compassion, sympathy, empathy, tolerance, etc. and lay foundation to the externally-practiced values such as integrity, honesty, discipline, punctuality and loyalty. Values tend to influence attitude and behavior and it helps to solve common human problems.

Values are obtained through different modes. The most important platform for imbibing values is the person’s family, the school and the environment in which the child grows up in. Education begins at home and is carried on in school. A teacher’s professional duties extend beyond teaching since they play a critical role in imparting values and shaping the life of the youth.

The education system in the country is the foundation to teach and demonstrate such values to the young minds. The values that children imbibe at the early age of their growth and development would help shape their character, personality and integrity, creating a lasting imprint on their lives. The quality of education, teachers, parents and peers surrounding their lives would be a major factor in teaching/imbibing good values for good citizens of the country.

Bhutan recognizes the importance of youth in any policy of growth and development, and the philosophy of GNH is streamlined to reach the youth in schools. Values are transmitted through classroom lessons, and everyday interactions among teachers and youth through extracurricular school activities and interaction. It starts with the morning assembly of teachers and students where values such as calmness, compassion, wisdom, forgiveness, interdependence, participation, pride, leadership, loyalty, truth and devotion are transmitted through morning prayers, meditation, singing of national anthem, speeches and announcements. Values are also instilled through speeches by the youth, teachers and guest speakers. A series of activities are carried out such as guidance, counselling, directives, advice, religious discourses and evening prayers to supplement. In addition, a variety of extracurricular activities like sports, cultural programs, literacy programs, club activities and community work may contribute to the cultivation of values.

Roles of teachers and parents

Teachers should present themselves as role models to be followed since children learn more through observation, perception, experience and intuition, rather than being advised or taught. If there are good teachers, there will be good students and as a result, the future workforce will be strong. Aristotle said, "Educating the mind without educating the heart is no education at all."

His Majesty the Fifth King, Jigme Khesar Namgyal Wangchuk, said, "I am not saying that material wealth is not important. I am saying that if our youths in our schools become more capable and hard-working than others, they become national wealth. If one single teacher does his work admirably with love and commitment, that one teacher becomes part of our national wealth. If one civil servant immerses himself not in corrupt practices but in observing his civil service mandates and working dedicatedly for the country and the people, that civil servant becomes a national wealth. If the country does well, then we all stand to benefit; if it doesn't, we will suffer equally. So we share the same destiny." If we, the educators and our young people do not have firm commitment, there is literally no future.

Values that the youths acquire in schools are crucial in grooming and building them to become responsible and productive citizens. Globalization and modernization has led to unlimited wants with many individuals willing to satisfy their desires even at the cost of compromising one's integrity and values. Therefore, utmost priority should be given to guide, educate and counsel them.

The former Minister of Education, Lyonpo Thakur S. Powdyel, stated in his speech: "You represent a vast reservoir of positive energy. What better ways can be there to use the marvels of your mind and your creative genius than to commit those to the making of our nation?" He added, "Educating for Gross National Happiness is essentially an invitation to education, to all of our educators, to look for and to discover the soul behind our role."

Purpose of infusing GNH into school system

The values and principles of GNH are to be rooted in the consciousness of today's youth who being the citizens and leaders of the future are expected to guide the country wisely and peacefully to balance socio-economic development with environment conservation, cultural dynamism and good governance. Education is to uphold and serve as guardians of its unique culture for the promotion and preservation of national identity.

They will be able to see clearly the interconnected nature of reality and understanding the full benefits and costs of their actions. They will not be trapped by the lure of materialism, and will care deeply for others and for the natural world.

The personal values and morals of an individual, the values and culture of a family, the customs and beliefs and tradition of Bhutanese society play very important roles in the fight against corruption, crime, suicide, murder, drug abuse, etc.

The successful GNH graduate should manifest as follows

The Honourable Prime Minister said that the success of a GNH educated graduate is not measured by money, career, acquisition, fame, power and self-exaggeration. He also believes that the young people leaving university must be equipped with degrees, but it is more important that they are gifted with a strong sense

of values that bring meaning and purpose in their lives and help them make a bright future ahead for the society and the world as a whole.

We should work in transforming our graduates into citizens who are genuine human beings, realizing their full and true potential, caring for others, including other species, and are ecologically literate. Thoughtful as well as analytical in their understanding of the world, free of greed and without excessive desires; knowing and whole-heartedly appreciating that they are not separate from the natural world and from others.

The GNH-inspired education graduate will sleep soundly and happily at the end of each day knowing that she or he has given all to their families, to their communities and to the world. In the end, a GNH-educated graduate will have no doubt that his or her happiness derives only from contributing to the happiness of others.

The Hon'ble Prime Minister was not happy with the answers given by the students about their ambitions to become just teachers, doctors and engineers or other professionals. While few answered they wanted to serve their King, country and people, it was sad since not a single child said something like he or she wants to return with gratitude to his or her parents for what they have given. Further, he said a generation ago, that would have been the first thing out of a child's lips. These values are missing with the modernization and development of the society. If we do not take care of it now, things will get worse in a few generations.

In addition, the former minister of education said that our graduates should be "the youth who requires hands that do not steal; lips that do not lie and senses that are not numbed by the power of drugs".

His Majesty the Fifth King of Bhutan said, "Values are the root of our character - if we do not tend the roots, the character that springs from it, no matter how much wealth, power and fame surrounds it, it will bring little benefit to oneself, the lives of others and to the wellbeing of the planet. All these buildings, monuments, this life that we hold so dear - all of these must give way and perish - not values - values of kindness, integrity

and justice. Even death shall not extinguish them - "Nothing travels endlessly with time and stays relevant from generation to generation, era upon era except fundamental human values."

The GNH graduates shall be productive, socially responsible, cultural grounded, ecologically sensitive and spiritually aware citizens ready to lead Bhutan into a better future.

A short anecdote of a man and his father portrays the real GNH graduate

A son took his father who was of advanced age to a restaurant. While he was eating, a little bit of food fell from time to time on his shirt and his trousers. The other diners watched the old man with their faces distorted in disgust, but the son remained totally calm.

He then helped his father by taking him to the restroom, cleaned up the leftovers from his wrinkled face and his clothes. On the way out of the restroom, the son paid the bill and escorted his father.

Just then a man among the diners asked the son, "Don't you think that you've left something here?" The young man replied, "No, I haven't missed anything." Then the stranger said, "Yes, you've left something! You left here a lesson for each child, and hope for every parent!"

The biggest honour is the ability to take care of those older adults who cared, sacrificed their lives, with time, money, efforts and unconditional love. They deserve our utmost respect and care when they are old, which seems to be missing these days.

Gross National Happiness Commission (GNHC)

The Gross National Happiness Commission (GNHC), renamed the Planning Commission in 2008, is the central planning agency of the government that identifies and recommends priorities, allocation of resources, setting of targets, and coordinates, monitors and evaluates policies and programs. It is responsible for operationalizing GNH by mainstreaming its elements into its plans and programs. The GNHC uses the GNH Index, its domains and indicators and the survey results (published by Centre for Bhutan Studies (CBS) to draw attention to areas that need to

be addressed, and as the basis for resource allocation, and to formulate public policies, plans and programs in the country.

The CBS assists the GNHC in respect to the construction of a practical and target-oriented GNH index, related work and research to keep it up to date and relevant. It shall provide feedback on issues under consideration in the GNHC as and when necessary.

How was GNH infused into the school system?

Bhutan's entire educational system was effectively cultivated with GNH principles and values, with an expectation of including deep critical and creative thinking, ecological literacy and competency to deal effectively with the modern world, preparation for the right livelihood and informed civic engagement.

Paths - Five key ways to bring GNH more deeply into schools:

1. Meditation and mind training

Meditation is effortless awareness in all our actions. Meditation is a scientific method of enhancing the capacity of the mind that fixes the mind on one's magnetic force. This is the key to self-realization.

Meditation is an effective way to calm the mind and gain focus. Some teachers use it as a tool to gain attention of the students. "Understanding and directing the mind to positive ends is the purpose of our life," said the Fourth King of Bhutan.

Meditation and mind training is an important element in preparing our children for becoming GNH graduates. Meditation has proven its benefits in learning through enhancement of concentration, memory and self-discipline. In a study conducted on integrity and values education in schools in 2012, more than 85 percent of the respondents said they experienced positive impact of meditation while 10 percent felt that more can be done to train the mind.

The students would benefit by way of improvement in academics, stress relief and nurturing positive emotions in general. It is believed to be helpful in curbing disciplinary issues.

a. Methods of Meditation and Mind Training:

- i. Breath Meditation
- ii. Guided Meditation:
 - a. Light Meditation
 - b. Rainbow Meditation
 - c. Lotus Meditation
- iii. Walking Meditation
- iv. Passing the Water Bow

Studies show that meditation has both physical and psychological benefits as follows:

b. Physical Benefits of Meditation:

- i. Deep rest, decreases in metabolic rate and heart rate, and reduces work load of the heart.
- ii. Decreases blood pressure and improves flow of air to the lungs resulting in easier breathing.
- iii. Relaxes the body, mind and develops positive view toward life.
- iv. It enables to tune into creative inspirations for artistic expressions.
- v. It enables one to get rid of addictions such as cigarettes, alcohol, narcotics, etc.
- vi. Induces greater communication and interaction between the two hemispheres of the brain.
- vii. Experience much more stable health. People have fewer illnesses in general in their lives.
- viii. It can reduce sleeping disorders.
- ix. It can normalize a person's weight. An overweight person can lose weight through meditation and vice versa.

c. Psychological Benefits of Meditation:

- i. Increases brain wave coherence. Harmony of brain wave activity in different parts of the brain is associated with greater creativity, and so meditation improves moral reasoning and helps gain higher IQ.
- ii. Decreases anxiety, depression, irritability and moodiness.
- iii. Purifies one's character.
- iv. Improves learning ability and memory.

- v. Increases self-actualization, feelings of vitality and rejuvenation.
- vi. Increases happiness and emotional stability.
- vii. Helps to develop will power.
- viii. Studies have also shown that those who meditate regularly react more quickly and more effectively to a stressful event.

2. Bringing GNH into the School Curriculum

A second broad way of infusing our educational system with GNH principles and values is for teachers to teach their normal curricula with a GNH-based approach and from a GNH perspective. Infusing GNH in the education system is not adding a new subject but enriching learning, and improving the process of education. It has to do with creating a context and approach that infuse a GNH consciousness into everything that is learned and taught. This will make the curriculum and learning more enjoyable, more pleasurable and more relevant. Often there is no clarity on why we teach things, and so, learning gets inevitably boring. Infusing GNH understanding creates a purpose and goal for teaching and learning for both the teachers and the students that makes study less burdensome and more enjoyable. For instance, math is a difficult subject for many students and they do not enjoy learning it. A GNH-based approach can make math much more relevant, practical and less abstract, and teach essential skills without compromising the curriculum in the slightest and without adding content. All basic math can be taught through their household budget approach. Likewise, teachers can apply this notion of GNH-based curricular approaches to science, environmental studies, language, history and other subjects.

3. Broader Learning Environment

Education does not mean that children learn only from textbooks, curricula and within classroom, but they learn from their family, peers and communities through media, internet, advertisement and other means. There are five aspects of broader learning environment: (i) Community services; (ii) Sports; (iii) Arts, music and craft; (iv) Ambience of school culture and the psychological and physical atmosphere of schools; and (v) Classroom citizenship and discipline.

4. Critical Thinking and Media Literacy

The GNH-based education should be able to sharpen the intellectual quality and improve analytical reasoning of the students. In today's world, youths are attracted to consumerist and materialist messaging by which they are being increasingly misinformed unless their intellects are sharp enough to distinguish reality clearly, and to know the truth.

5. Assessment

This is the process of obtaining, analyzing and interpreting evidence for use by both the teachers and the pupils to enable the review, planning and improvement of learning. The schools are encouraged to come up with self-reflections and self-assessments on plans and programs and work on further improvements.

The following types of assessments are used to measure the schools' performance and they are ranked accordingly:

School Self-Assessment (SSA); 2. School Improvement Plan (SIP); 3. School Performance Scorecards: a. Academic Learning Scorecard (ALS), b. Enabling Practices Scorecard (EPS) and c. Gross National Happiness Scorecard (GNH).

Characteristics of a Gross National Happiness School: Indicators

- i. Leadership and management practices: This indicator ensures that the school has a written management policy which covers all aspects of management system and is understood by all stakeholders. The school conducts morning assembly meaningfully.
- ii. Green school:
 - a. Physical ambience: This indicator ensures that the school is clean, safe and have adequate toilet and drinking water facilities. The organic farming is encouraged in the school.
 - b. Psycho-social ambience: This ensures the school has safe, caring and supportive environment, absence of abuses, bullying, corporal punishment, humiliation and harassment, and the school practices mind training/ mindfulness practices. The school practices positive disciplining techniques.

- iii. Curriculum: It ensures strengthening of teaching and classroom management practices and the teachers have fully understood the syllabus and they teach in line with the GNH values and principles.
- iv. Continuous and holistic student assessment: This indicator ensures that the teachers provide regular and prompt feedback on students' tasks for improvement.
- v. Co-curricular dimension: Co-curricular activities for wholesome development: The school ensures that every child participates in co-curricular activities. Different activities are organized to impart knowledge and skills.
- vi. School-community relationship: It ensures that the school and the community share good relationship and participate in each other's programs.

Meaning of life

Everybody moves from one place to another in pursuit of happiness. The short story of a King with four wives would make a better sense of how we should make our lives better.

Once there was a king who had four wives. He loved the fourth wife the most and decorated her with rich robes. He also loved the third wife very much. However, he feared that one day she would leave him.

He also loved the second wife who was kind, considerate and patient with him. The King's first wife was a faithful partner and had made great contributions to maintaining his wealth and the kingdom. However, he did not love the first wife although she loved him deeply.

One day, the King fell ill and he knew that he would not live long. So he asked his wives whether they would follow him and keep him company when he died. The king was hurt when his fourth wife said, "No way". The response he got from his third wife was, "No, life is too good and I am going to remarry!" His second wife said, "I'm sorry, I can only send you to your grave." This made the king very unhappy.

Then a voice called out: "I'll live with you and follow you no matter where you go." It was his first wife who was so skinny, because she suffered from malnutrition. The king regretted for not taking care of her.

In truth, we all have four wives in our lives

Our fourth wife is our body. No matter how much time and effort we lavish in making it look great, it'll leave us when we die.

Our third wife is our possessions, status and wealth. When we die, it will all go to others.

Our second wife is our family and friends. They can stay by us up to the grave.

Our first wife is our Soul, often neglected in pursuit of wealth, power and pleasures of the ego. However, our Soul is the only thing that will follow us wherever we go. So cultivate, strengthen and cherish it now! It is your greatest gift to offer the world. "They want to be happy at home and happy on the job - money is somewhat secondary"- via Forbes Happiness Day.

As Lord Buddha said, "Commit no sin, accumulate merits, and bring one's mind under control. That is my teaching".

GNH and Tertiary Education (TE)

The Tertiary Education Policy developed in 2010 envisages the infusion of GNH in the Tertiary Education Institutes (TEIs) with the aspiration to produce holistic graduates.

It is essential that its Tertiary Education system be transformed to embody and reflect GNH values and principles which must be rooted in the consciousness of today's youth who being the citizens and leaders of the future, are expected to guide this country wisely to balance socio-economic development with environment conservation, cultural dynamism and good governance.

TEIs are expected to awaken the individual and help him/her realize his or her potential for the effective creation, dissemination and application of knowledge to serve and be good to others. Workshops on human values are organized in TEIs at the beginning of each academic session besides other programs to impart GNH values and principles.

How will the Bay of Bengal learn?

The practices of infusion of GNH in the education system in Bhutan would create opportunities for across the Bay through sharing, attending workshops/ conferences and students exchange programs. Joint plans and researches could also be helpful.

The Royal Government of Bhutan has identified nine domains forming the GNH framework as the core elements that would ultimately determine the happiness of the people by creating enabling conditions around, so that other countries could identify their own domains and develop indicators for happiness accordingly based on their culture contexts, social fabric, etc. For instance, Mexico has developed Genuine Progress Index and other countries like the United Kingdom, France, Brazil, and Croatia have undertaken similar initiatives towards achieving wellbeing index. Likewise, South Korea has the concept of Education for International understanding (EIU) which emphasizes on a vision for a peaceful and sustainable future which highlights understanding of cultural diversity, human rights, justice and equity as well as absence of violence.

The former Minister of Education of Bhutan said, “GNH is an aspiration, a set of guiding principles through which we are navigating our path towards a sustainable and equitable society. We believe the world needs to do the same before it is too late.”

Stephen. R. Covey has noted about seven habits of the highly effective people. These could be a good source of reference to understand the concept of GNH in a better way and bringing its ideas and values into the education system would be useful.

The best investment in economic development that government and private sector can make is in the physical, mental and spiritual development of children, according to the UNICEF. It is important to join our hands to shape our children by instilling right human values in them so that they become responsible citizens.

Lastly, we must not educate our children to be rich but we must educate them to be happy so that they know the value of things and not the price.

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Myanmar

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The Essential Aspects of Successful Education Reform

Mohamed Yunus
Myanmar

Abstract

“The education system (of Burma) was ‘desperately weak’ and that reform is needed, not just of schools and the curriculum, and the training of teachers, but also of our attitude to education, which at present is too narrow and rigid.”

- Nobel Laureate Aung San Suu Kyi at Oxford University (June 2012)

Education is not only a fundamental human right but also a gateway to success. Education helps create an enlightened society and strong parallels can be drawn between the right to education and the development of respect for human dignity. There is a close correlation between education and quality of life; poor education often leads to poor quality of life. Consequently, all must come together to improve the level and quality of education, both formal and non-formal. Education system in the region is in urgent need of urgent reforms. The system’s credibility has been seriously undermined because of the negative impact of education administrators’ addiction to ‘high pass rates’, which has become a distracting catchphrase.

The role of teachers should not be underestimated in the process of planning, assessment, decision-making and management, as they are the key stakeholders who are in direct and close contact with students. When it comes to improving education, teachers know better than the high-ranking officials sitting in their offices. Thus, teachers must be provided with favourable environment for their professional enhancement, which

is absolutely vital for the good of the students. Students learn best when they are in the hands of high quality and smart teachers. It is safe to say teachers are indispensable assets for national development.

It is imperative to restructure education system in the region through innovation so that it equips students with the necessary capacity and tools to meet current and future challenges. The notion that 'no change is possible without education' provides an adequate explanation as to why developed countries had put education sector at the top of their agenda they were in the phase of development.

All things considered, changes in education sector has now become an urgent necessity and also inevitable. The government and civil society organizations must meet the address the challenges faced by the teachers. On their part, the teachers must also engage themselves in the struggle for reform in the education sector. Many hands make work light, after all.

Introduction

Two means for an end: Which of the means is a higher priority for the masses in achieving an end? An end that aims for a better standard of living! Life is short; so we should make it worthwhile for living. Everyone desires a life that is fit for good living. The life of the people in the Bay of Bengal region is substandard both in terms of economy and education. Clearly, improvement of both is a must for the Bay of Bengal region for a higher living standard. But can we achieve this? And of the two, which is more important?

A good economy, no doubt, brings development which is crucial for improving life standards in today's world. However, often, people speak of development as the most important means of changing standards of life. In fact, the process of development has filled people's mind with the desire for possession and wealth. Moreover, by imitating other peoples' life styles, cultures and even ideas, it has caused us to question whether development is really the priority in life. No doubt, wealth can serve to lead a better life, but what is wealth and possession without education? Can we really take care of our possessions and wealth without the good and right education? This is a legitimate question.

Economic development can be achieved only if the education system develops. It is through education that we will be able to think and act accordingly and better utilize our available resources to ensure a certain standard of living acceptable to all. Furthermore, education gives us a sense of dignity, values and helps set our goals. So it is education that should be life's priority, not wealth. Famed Indian economist Amartya Sen once noted, "The purpose of development is to enrich human lives, not richness of economy which is only a part of it." But the question is how can we enrich human lives? There is only one way and that is education. With education comes the knowledge of how to achieve an appropriate standard of living, for which development plays its part as well. In fact, education teaches us the value of equal share and equal participation among fellow men. However, over the past few years, education has not been as effective as expected. It is surprising how the youth today consider education.

While learning, are we trying to 'understand how and why it is' or to simply 'accept as it is'? We sometimes are not serious enough during the learning process or even if we are, we do not realize how powerful it is. Sadly, there are times when we are reluctant to share our knowledge with others. Therefore, this is a call for the Bay of Bengal region to take a serious, bold and thoughtful step to 'understand how it is' to achieve development and a higher standard of living. The only means to 'understand how it is' is education, which enables us to comprehend all matters in life.

But this will require a thorough reform of the education system. One vital component of this reform agenda is to reassess the role of teachers. But before setting out to reform the education system, policymakers and educators need to do their homework and set a clear agenda. They should keep in mind that "putting good teachers into a bad system is as wasteful as that of bad teachers into a good system".

I. The essential ingredient for successful education reform

The advent of the Information Age has had a deep impact on education, propelling institutions to use data technologies to monitor their progress and performance in the process of teaching and learning. In Myanmar, successive governments set high expectations through empty slogans. Chants about educational improvement in the absence of action plans are pleasing to the ear, but they are a sheer waste of time. Furthermore, the assessment systems now in place are no more than memory tests. We have all witnessed how the country's narrow education system has, for generations, failed to empower students to meet the needs of a competitive workforce. Generally, our country, Myanmar, is not yet attuned to the practices of education management and education leadership. Despite higher pass rates, the learning needs of students in schools across the country are still acute. There is solid evidence that effective management and leadership in education makes a difference in improving learning and teaching methods. Before reforming the education system, policymakers

and educators need to do their homework and set a clear agenda. They should keep in mind that "putting good teachers into a bad system is as wasteful as that of bad teachers into a good system". Teachers and their professional development must play a central role in the process of educational reform; otherwise the success of the process will remain a distant dream.

(a) Let's work together to reform the education system

While the formation of a democratic government is a firm step forward, the new government, which won a landslide victory in November election with the campaign motto "Time to change", will reform the country's education system. But getting the country's education system back on the right track is no easy task. The new government will need regional and global assistance to make such an investment in people. In the past, Myanmar was admired for its high literacy rate and high-quality education. As a British colony, Myanmar further improved its educational standards, and upon gaining independence in 1948, and boasting one of the highest literacy rates in Asia in the late 1940s and 1950s, it was expected to become one of the fastest developing Asian Tigers in the region. However, despite its good track record, Myanmar's education system is now in an abysmal state. Consequently, the education system has disintegrated and students now spend very little time at schools, with few making it to universities. Looking at both the strong and weak points of the education systems, which have been implemented by successive governments since independence in 1948, the new government will reform the education sector as soon as possible. That would be a big challenge, however, and the government will need cooperation from students, parents and teachers to promote education. The people, who are ready to get the second taste of democracy after the country's opening up in 2011, are waiting with high expectations to see 'change' in the education sector.

(b) The need for a student-centred education

As a nascent democracy, Myanmar is in desperate need of people who are energetic, resourceful and dynamic. Decades of poor management has left the country's education system in tatters. This situation is not without a cure. For our education system to

move forward and keep abreast of international standards, all stakeholders must come together to play an active role in creating an education environment where teachers teach and train as students learn and practice. In other words, schools should offer a challenging and stimulating environment in which learning is interesting and teaching is gripping. No doubt, teachers at different levels have been familiar with the widespread use of the student-centred approach. Simply put, this approach is designed to stimulate active learning and to engage students. Still, some teachers are reluctant to adapt themselves to this trend. They might consider teaching as asking questions, correcting mistakes and grading exam papers. In fact, teaching is engaging students in the learning process. It should be noted that no student will be able to develop study skills without being offered the chance to learn and practice. Therefore, teachers need to train students and help them develop these skills so as to evaluate, assess and analyze what they are learning. In fact, the learner-centred approach provides teachers and students with the missing link that encourages teamwork and endows students with the right attitudes and aptitudes.

(c) Understanding trumps memorizing

In Myanmar, students get through their exams just by memorizing facts in each grade. Today's schooling has been described as a system of learning without knowing, and the exam as a way of answering without understanding. It is time for educators and students in this country to learn that passing an exam is one thing and being qualified to complete a grade is another. Now that the government has vowed to reform the education system, teachers and educators alike should prepare to swim with the tide. The time is ripe for our country to exert great efforts to plant the seeds of a dramatic reform in education. As the lifeblood of development, education is central to the political, social, economic and cultural health of our country. Nowadays, with the learner-centred approach coming to the fore in the world of education, rote learning should become a thing of the past. The onus is on teachers to discourage students from monotonous recitation. In addition, they should encourage children to exercise their brains in order to fuel imagination and insight. Memorization itself

is harmless; but putting too much emphasis on memorization can obstruct real learning. Undoubtedly, knowledge matters, especially in this age of information and technology. A teachers' trainer once said that a head full of facts, even memorized facts, is better than an empty one. However, it should be noted that the facts we memorize are not half as useful as those we understand. In fact, education means more than learning facts out of a textbook. It means analyzing those facts and gaining the ability to incorporate them into our lives.

II. Right to Education

Education is not only a fundamental human right but also a gateway to success. It creates an enlightened society. Strong parallels can be drawn between the right to education and the development of respect for human dignity. Article 26 of the Universal Declaration of Human Rights (UDHR) states that, "Everyone has the right to education." Indeed, the International Covenant on Economic, Social and Cultural Rights (ICESCR) recognizes the right of everyone to education. If we look through international instruments on human rights, we can see that the right to education and human rights education permeate in a variety of instruments. In fact, the right to education has been strongly affirmed in international laws, most importantly in the Convention against Discrimination in Education (1960) and the World Education Forum (2000) reaffirmed education as a fundamental human right.

According to Article 26(2) of the UDHR, education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedom. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace. If children and youth are in school, the risk of trafficking, abuse, child marriage, sexual exploitation and forced labor will be low and if they are away from school, they can be dangerous in many ways. The more illiterate people there are, the greater the hindrance in development and democratic practice. Higher literacy means more knowledgeable and skilled people, who are

termed as human capital. Literacy enables a person to understand better, so he enjoys a better socio-economic life and contributes to the nation's overall development.

In accordance with the general international human rights, there can be no discrimination in the provision of education. It is deemed equally important for girls and boys. There are many factors implicit in the discussion of the accessibility of education, including geography, cost, language and poverty. The government must ensure that the right to education can be exercised without discrimination of any kind such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. This should be the very core principle of the government. There must be education for all without discrimination.

All children and young people need and deserve quality education. To achieve this, the governments should ensure that there are sufficient teachers who have the knowledge, skills and attitude to provide this, and that they have the capacity and resources to respond to learners' different needs. The UNESCO marks the Global Action Week for Education, GAWE (24-30 April 2016 omit the year if it's always the same week). It is a worldwide annual event with an aim to raising awareness of the importance of education for all and this event takes education financing as its theme under the banner of funding the future. What I would like to highlight here is that funding plays a crucial role in education. Children in poor countries face many barriers to have access to education. Some barriers are obvious, like not having a school to go to, while others are more subtle, like the teachers at the school do not have the required training needed to effectively help the children to learn. The UNESCO says millions of children still remain deprived of educational opportunities, many as a result of poverty. Regardless of the reason, all children (No child left behind) must be able to go to school, and they all have the right to get the same opportunities to build a future. That's our duty, our gift to our children.

In general, States are obliged to provide free education, at least at the elementary stage. In conformity with Article 26 of the UDHR, children not only deserve free education but also compulsory

education. A nation cannot be built without education. With education, professionals are nurtured who in time will enhance nation-building. In fact, education shapes attitudes, behaviors and values and it is the best investment for socio-economic development. If we want a well-developed country in the Bay of Bengal with good citizens, we must give every child the right to education without discrimination.

Additionally, "it takes a village to raise a child", as the traditional African proverb goes. This highlights how important it is for the parents and community partners to look after children during their formative years. All children, regardless of race, gender and religion, are entitled to have easy access to free and compulsory education once they turn five. Young minds should be trained to view education as an effective means of developing their abilities, their individual judgment and their sense of moral and social responsibility. Only then will they be able to grow into reliable members of the society. With the advent of the internet, everything they want or need to know is just a few clicks away. Unfortunately, they are faced with the myriad challenges of modern life. It is apparent to all of us that social media has become open to misuse. They are prone to develop socially undesirable behaviors if they are left unsupervised and unwatched. It is, however, necessary to bear in mind that too much prohibition of their curiosity will prevent their ability to learn. In other words, children should not be treated as pawns. The onus is on all of us, adults, to create an environment for our children to grow up in an environment of happiness, love and understanding. In addition, we need to teach our children the virtues of justice, freedom and equality through tolerance and solidarity. Undoubtedly, when children feel happy, adults will feel the same automatically.

In the western part of Myanmar is the Rakhine State where 1.3 million Rohingya people are living and whose faith in Islam is severely discriminated by the government. They do not have adequate access to education, healthcare and livelihoods due to restrictions on their movement. They cannot even move freely from one village to another without prior permission from local authorities. How can they then have access to education? Local authorities treat them as stateless people for they are not

considered as Myanmar citizens. And in the northern part of Myanmar's Kachine State, where Kachine people live and who follow Christian faith, do not have enough access to education due to the prolonged sufferings from civil war. Some of these people live in camps of IDPs (Internally Displaced Persons).

III. Education: Myanmar Case Study

Employment prospects for university graduates in Myanmar are unpredictable. The subject they study at university often does not match workforce skill requirements. A physics graduate does not become a physicist. He may work as a taxi-driver. A math graduate will not be a mathematician, but may become a rickshaw? peddler. A history graduate may become a security guard. Many other graduates end up working in non-professional positions like brokers or even doing odd jobs. In neighboring countries, Myanmar's male graduates generally end up becoming manual laborers, and women graduates become babysitters or housemaids. Graduates do not have the skills suitable for working in the areas in which they major at universities. The government has failed to create new jobs, leaving tens of thousands of graduates waiting for years to fill vacant positions in the public sector. More than 6,000 medical graduates are now unemployed in a country with a population of 60 million. The International Monetary Fund estimates Myanmar's unemployment rate to be 5.5 percent, compared to 0.7 percent in Thailand.

(a) Degree 'not worth the paper it's written on'

There is no private university in Burma. Nearly 170 public universities are run by 13 ministries and each minister has his own idea of how to do it. There is no independent university council. Curricula and learning materials are out of date and are not relevant. Graduates lack the necessary skills to tackle the country's immediate needs or the long-term social, political and economic problems that have devastated Myanmar for generations. If you ask a student "What will you do when you graduate?" you will get answers like, "I will attend an English class" or "I will learn Chinese or a foreign language to get a job" or, more frequently,

"I will attend a computer course." Shockingly, some will say: "I will try to get another degree so that I have more letters after my name." No matter what the answer is, it is likely that university graduates will not find a professional job. The country's educated people scoff at their own degree certificates, often saying they are "not worth the paper they're written on". For years, about 25 percent of Myanmar's budget went to the armed forces, compared with 1.3 percent spent on education.

(b) Exam-focused attitude

The common attitude of students, teachers and parents is to focus on passing examinations and earning one or more degrees – not on being a scholar. They encourage a culture of rote learning, with little emphasis on understanding or being able to apply it. Behavioral, interpersonal and communication skills are not taught at universities. If a student can learn the answers word for word and repeat them correctly in an exam, then s/he is awarded the highest score or credited with a 'D' for distinction. Exam 'spots' (two or three sets of possible questions and answers prepared by teachers) are best-sellers during exam season. This exam-focused system discourages students' from developing analytical thinking and acquiring technical skills. Good exam results can be obtained with money and influence. Corruption, favoritism and cheating are common. State-accredited education has lost credibility.

(c) 'Tuition' culture

University admissions are based on matriculation scores. The highest scorers will go to universities of medicine or technology. To pass an exam, to get higher scores or to obtain Ds, parents send their children to 'tuition' classes, where students learn the same curriculum that is taught at school. Students take 'tuition' to get favor from their formal (government school) teacher or from an external teacher who runs a paid class; teachers give 'tuition' to earn money or to augment their low salaries. 'Tuition' is a way of making it easier for students to learn. From kindergarten to PhD level, 'tuitions' are analogous to formal classes. Well-known 'tuition' teachers run tutorial-style classes with extra attention paid to individual students (particularly using edutainment programs), while many distribute notes of lectures to a larger

group of students. ‘Tutors’ prepare easy-to-learn short notes (usually with mnemonics) and exam ‘spots’, which are rehearsed by students before entering the final exam. A ‘tuition’ teacher does not need a degree in education, or to master the art of pedagogy. Any graduate can be a tutor at a self-funded ‘tuition’ class. There are also ‘boarders’, or boarding schools, where a group of pre-university students are boarded in a dormitory after signing a contract with tutors who make sure that they pass the matriculation exam. Each student spends 200,000 to 400,000 Kyats (\$200 to \$400) a month – government schools cost less than \$5 a month. There are also job-related ‘tuitions’ for public sector jobs. Recently, many medical doctors have been taking ‘tuition’ for the job selection exam, which paves the way for occupying one of the 1,500 vacant positions at public hospitals. Students with a strong desire to pass exams with flying colors hire a study ‘guide’ in addition to taking ‘tuitions’. The ‘guide’ is a former student who drills the student through repetitive readings. A ‘guide’ and a student read together on a topic until it is learned by heart. Students are under pressure to get results through formal study at school, spoon-fed learning at ‘tuitions’ and parrot-learning with a ‘guide’. This pressure increased when Myanmar’s universities were broken up and moved to the outskirts of cities to prevent students from uniting against the military dictatorship. Campus lives have deteriorated, buildings are unkempt and university grounds full of grazing cows and stray dogs. Students spend an extra two hours a day just to get to the campus.

(d) Attitudes must change

Rangoon University was founded in 1878, and it became one of the top universities in Asia during the 1950s. Graduates from its medical college were recognized by the General Medical Council in the UK before 1974. Under military rule, the tertiary education system went backwards and Burma’s universities are not included in world rankings of universities due to lack of research and library facilities, an imbalance between students and faculty, and assessment based on the final exam. The Ranking Web of World Universities (Webometrics, July 2012) ranked Rangoon’s University of Computer Studies at 12,109; the University of Medicine (1) in Yangon at 15,930; the University of Medicine in

Magway at 19,228; and the University of Medicine in Mandalay at 19,606. Hardly any Myanmar university has its own website, and no student has a university email account. To regain the past prestige and glory of our universities, we need to change our attitude to education. Myanmar’s universities should introduce a skill-based curriculum and affiliate with international universities. My aspiration is that one of the world-ranking universities (or the Institute of International Education) would build a model university in Myanmar to coincide with the suspension of the European Union and the United States sanctions and with the Myanmar government’s call for international investment. Nobel Laureate Aung San Suu Kyi, in her speech at the World Economic Forum, called for ‘investments that create new jobs to avoid youth unemployment’. At Oxford University, she said the education system (of Burma) was “desperately weak” and that “reform is needed, not just of schools and the curriculum, and the training of teachers, but also of our attitude to education, which at present is too narrow and rigid”.

IV.

Successful Education Reforms: Schools, Parents and the Community

(a) Family and Community involvement in schools

Schools, parents, and the community should work together to promote health, wellbeing, and learning of all students. When schools actively involve parents and engage community resources, they are able to respond more effectively to the health-related needs of students. Family and community involvements foster partnerships among schools, family and community groups as well as individuals. These partnerships result in sharing and maximizing resources. And they help children and youth develop healthy behaviors and promote healthy families.

Research shows that students whose parents are involved in their education are more likely to:

- Adapt better to school
- Attend school more regularly
- Complete homework more consistently

- Earn higher grades and test scores
- Graduate and proceed to college
- Have better social skills
- Show improved behavior
- Have better relationships with their parents
- Have higher self-esteem

Additionally, linking community activities to the classroom

- Improves school-related behaviors
- Positively impacts on academic achievement
- Reduces school suspension rates

(b) Some best practices related to Family and Community Involvement in schools

Effective parent involvement programs include activities that should be undertaken by parents and community.

- Collaborating with community - Community resources are used to strengthen schools, families and students' learning.
- Communicating - Communication between home and school is a regular, two-way and meaningful approach for better education.
- Parenting - Parenting skills are promoted and supported.
- School decision-making and advocacy - Parents are full partners in the decisions that affect children and families.
- Students' Learning - Parents play an integral role in assisting students' learning.
- Volunteering - Parents are welcome in the school, and their support and assistance are sought.

Conclusion

Education is an essential prerequisite of modernization. It enables people to know the world beyond their own surroundings and transforms them to become rationalist and humanist in outlook and world-view. It has to be kept in mind that modernized education was key to modernization of the countries in the Bay of Bengal region. In Myanmar, the education reform promotion programs that are being undertaken will enhance the building of a 'robust higher education system' that can serve Myanmar's needs as it strives to become a modern and developed nation. Furthermore, it will equip Myanmar citizens with quality education and advanced skill or knowledge. Good quality education is essential to addressing the needs of an increasingly competitive regional and global environment and will help create a firm foundation to pursue lifelong learning while nurturing the cultural roots and identity of Myanmar. In brief, it is imperative to renovate and restructure our education system so that it equips students with the necessary capacity to meet current and future challenges. The notion that no change is possible without education provides an adequate explanation as to why developed countries put excellence in education at the top of their national development agenda.

India



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Borderless Universities across the Bay – What does it take to make this work?

DNV Kumara Guru

India

Abstract

The seven countries which form the Bay of Bengal regional cooperation are home to about 22 percent of the world's population. Sandwiched between regional groups such as the ASEAN and the SAARC, the Bay of Bengal regional group for a long period of time never really gained much traction in achieving its objectives. However, with a formal initiative such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) now firmly in place, there is a new hope for closer economic cooperation and integration in the BIMSTEC region. Member countries in the region look up to BIMSTEC to take the lead for greater regional economic cooperation since there are no longstanding political conflicts amongst the member countries of the grouping.

It is visionary for the member countries to have focused mainly on regional cooperation through the lens of economic ties since it is key to sustainable long term relationship. However, for a region which is home to a very large young population, there is not much talk about cooperation in the area of education. From the initial six priority areas for cooperation, there has been significant enhancement of cooperation to 15 areas. Sadly, there is no mention of educational cooperation in this context. There is a strong case for creating a network of borderless universities across the Bay. What could be the structural changes that need to be made to enable seamless mobility for faculty and students across the region? Does it warrant changes in the university systems within the home countries? What changes in the visa rules have to be made to enable this? What are the lessons from the success and failure of the South Asian University? Education and its mode of delivery and consumption are rapidly changing. How can countries across the Bay use technology-assisted learning to enable greater educational cooperation in these emerging economies? This paper attempts to answer these questions and suggests frameworks to engage in educational cooperation using examples from around the world.

Bay of Bengal

From times immemorial, the Bay of Bengal has played an important role in charting the maritime history of the region. The Bay of Bengal has found mention in India's scriptures by different names. In some, it is referred to as the great water receptacle, Mahodadhi. The sixth century Manjusrimulakalpa refers to it as Kalingodra – more referential to the connection between the rulers of Kalinga Kingdom (modern day Odisha) in India to the maritime trade. In more ways than one, the Bay of Bengal has been connecting different nations in the region. Conquests, trade and commerce in the previous centuries have now led to a more regional trade and commerce among the countries on her shore while retaining the strategic importance in terms of national boundaries.

Bay of Bengal Cooperation Group

Historically, we have studies on regional cooperation in blocs as influenced by the western thought process. So, for a good many years, India has never considered Thailand and Indonesia as her neighbors while they are not only maritime neighbors but in fact Port Blair, the capital of the Andaman and Nicobar islands, is less than an hour's flight from Phuket. India's foreign policy of non-alignment and regional cooperation was strengthened through South Asian Alliance for Regional Cooperation (SAARC). We have recently increased our engagement with the Association of South East Asian Nations (ASEAN).

The Bay of Bengal regional alliance provides an opportunity for India to further strengthen her cooperation in the region. This took a formal shape with the formation of the BIMST-EC (Bangladesh, India, Myanmar, Sri Lanka, Thailand Economic Cooperation) in 1997. With the inclusion of Nepal and Bhutan as full members in 2003, it was renamed as BIMSTEC – Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation.

The BIMSTEC region is home to around 1.5 billion people who make up around 22 percent of the global population. This essentially means that one out of every five people on this planet live in the Bay of Bengal region, a significant fact that often receives very little attention. Also, BIMSTEC region has a combined gross domestic product (GDP) of USD 2.7 trillion, and

in the last five years, BIMSTEC member states have been able to sustain an average 6.5 percent economic growth trajectory despite global financial meltdown.¹

Demographic Indicators²

Country	Total population (in million)	Population life		Expectancy at birth (years)	
		Aged 10-24 (percent) 2014	Aged 10-24 (in million) 2014	Male	Female
Bangladesh	158.5	30	47.6	70	71
Bhutan	0.8	29	0.2	68	68
India	1267.4	28	355.3	65	68
Myanmar	53.7	26	13.9	63	67
Sri Lanka	21.4	20	13.5	71	78
Thailand	67.2	20	13.5	71	78
World	7244	25	1797	68	72

BIMSTEC: Areas of Cooperation

One of the stated objectives of BIMSTEC is “to provide assistance to each other in the form of training and research facilities in the educational, professional and technical spheres”. However, when you peruse the list of sectors identified by BIMSTEC, ‘Education’ is missing. Home to one-fifth of the world population and growing at the rates that only emerging economies are now known to have achieved, it is imperative for education to be a focus area of cooperation. Also evident from the demographic indicators is the fact that the region is home to nearly 25 percent of the world population of young people in the age group of 10 – 24.

Education in the Region and International Mobility

Historically, the influence of the British on the education system in the region is quite strong. They took strong interest in introducing English since it served their purpose of growing a cadre of loyal, local staff. Education was still the privy of the rich and the select few. Several decades later, when you review the education system

against measurable parameters globally, you will come to the conclusion that much needs to be done on this front. There is a huge gap in terms of supply and demand. Not to mention the need for high quality educational institutions across the region. All of these factors coupled with a need to cross borders and get the best of education have resulted in a large-scale student mobility from these regions. Interestingly though, a minuscule percentage of the students travel out of their country to study in the region itself.

India has been the second biggest source of internationally mobile students worldwide.³ From an incoming student point of view, Nepal contributed the highest percentage of foreign students to India. As per the All India Survey on Higher Education (AISHE), India was host to 35,178 foreign students in 2012-13, of which Nepal contributed 7,401. Bhutan was second at 2,571. Between the two, they account for nearly 28 percent of the international students in India.⁴

South Asian University

South Asian University is an international university established by the members of SAARC⁵. It started its academic operations in 2010 and is currently functioning out of a transit campus in New Delhi. The idea of establishing a South Asian University (SAU) was mooted by the Prime Minister of India at the 13th SAARC Summit in Dhaka in 2005. The idea was to connect the member countries to pool their resources for creation of a Centre of Excellence in the form of a university that would provide world-class facilities and professional faculty to students and researchers drawn from every country of the SAARC region. This was also fueled by the need to encourage free mobility of students and faculty within South Asia.

Students of the University will be predominantly from the eight SAARC countries. Tuition fees for them are heavily subsidized. Some students from non-SAARC countries may also be admitted on full cost recovery basis. Teachers of the University will also be predominantly from the eight SAARC Countries, but up to 20 percent of teachers may be from other countries. To attract quality talent, attractive salary and benefits packages have been designed for teachers.

Laudable as the intents are, it is probably worth taking a critical look at the present success of the South Asian University. The University hopes to have 7,000 students and 700 teachers at full strength. As per the annual report of 2014, it admitted 243 students, taking the total number of students on rolls to 437.⁶ This is woefully short of the full strength the university hopes to achieve.

Many reasons contribute to this number. Lack of a full-fledged campus has led to students and faculty not being able to experience the 'university life'. While the intent was to have an international student profile, the fact remains that more than 50 percent of the student body is from India and over 90 percent of the faculty members are from India. Visas remain a challenge, especially for Pakistani students given the blow hot blow cold relationship both India and Pakistan share. One of the objectives of the University was to create a South Asian identity. A senior university administrator feels that identity has not evolved among students as a result of their university experience.⁷ A parliamentary report has rapped the government for hurriedly "launching the university without looking into the standards and quality".⁸ So, for more reasons than one, it is safe to say that the South Asian University is still largely a work in progress. It is important to know this background as we attempt to create frameworks for regional cooperation in education.

Borderless Universities

Borderless Education is a term that is gaining currency in recent times. Advances in technology have changed the way we consume products, and education is also affected by this. With workplaces becoming dynamic, people are finding the need to 'get back' to school more than ever before to upskill themselves. However, their circumstances may not always permit them a full-time break from work. Increased globalization has led to the creation of a workforce that is not only mobile, but also strongly rooted to the place that they are from. They are also adventurous and so do not mind experimenting. A busy entrepreneur from the Silicon Valley is enrolled into the Executive MBA equivalent program at the Indian School of Business in India. It requires him to travel to India every six weeks and he finds value in it. When asked

why, his response is that the future of growth is in India and he wants to understand India and build a network here. Illustrations such as these are on the rise and universities are recognizing the changes and are gearing up to operate in an increasingly 'global' world.

Countries in the BIMSTEC region have a perfect setting to experiment with the creation of a network of Borderless Universities. Having looked at the South Asian University, one can safely conclude that the key challenge of visa is probably not a hurdle in this regional alliance. No countries in this alliance are engaged in a political battle and therefore people to people contacts are pretty much with no pre-conditions.

To develop a practical action plan of borderless universities, let us look at some traditional models.

- a) Network of alliance universities in each of the BIMSTEC member states may be entrusted to identify one or more university in their countries and allow students to travel to eachothers' country for the purpose of studies.
- b) Similar to the South Asian University, measures can be taken to develop a nodal university. We need to look no further than the iconic Nalanda University, which can be taken as an ideal example. Six of the seven BIMSTEC countries are MoU partners with the Nalanda University, with the exception of Nepal. We can discuss the pros and cons of such an approach.
- c) Meta University – A Meta university is a concept in higher education under which students can pursue their studies in different networked universities both via in-person contact programs and also via technology-assisted platforms. The open access movement will see us embracing this more rapidly than we had in the past, but, these Meta universities will end up supplementing the traditional universities. A good example of this is the Erasmus Mundus program of the European Union. Erasmus Mundus is a cooperation and mobility program in the field of higher education that aims to enhance the quality of European higher education and to promote dialogue and understanding between people and cultures through cooperation with Third-Countries.⁹ [Third-World Countries??]

Bay of Bengal Borderless Universities

Let us look at this model in some details with respect to the Bay of Bengal region. Each country in the region has some strength to offer so far as higher education is concerned. Each of the seven countries also has some common needs. Culturally, there are so many common threads to weave together for a coherent experience. The region is also an emerging economic powerhouse and is home to India which is among the largest growing economies in the world. Analysts predict India to be the third largest economy by 2020, next only to China and the US.¹⁰ So, both from an economic and cultural aspect, there is a definite case for borderless universities in the region. Let us look at some challenges in making them a reality and how we can address them.

- a) Visa – Key to enabling international mobility of faculty and students in the BIMSTEC region is the issue of an appropriate visa. Let us call it the BIMSTEC STUDY Visa. Students wanting to study in the region should be granted multiple entries, long stay visas. To stay true to the cause of supporting greater regional cooperation, these visas should also allow the students to stay on for a further period of time beyond their program duration to be able to seek job opportunities, internship or any such relevant experience. Similarly, faculty and academic administrators also need to be brought into this ambit. Since none of the countries in the region have an Indo-Pak (or equivalent) sort of a deadlock, one does not foresee a major impediment in issuing such visas.
- b) Regulatory Approvals –The concept of Borderless Universities or Meta-Universities will truly succeed when students are able to gain credits at one university and transfer them to a university in a different country with minimal disruption. This can be achieved on the basis of reciprocal recognition of university standards and degrees. The University Grants Commission or the Higher Education Commission or equivalent regulatory bodies of the various countries should be aligned to this concept. Faster recognitions of equivalence and approval of transfers would be the key. BIMSTEC can house an Exchange house within its secretariat to help push this.

The services rendered could be chargeable and thus this could be a self-serving entity in a medium to long term. A biannual summit of regulators can be held to exchange notes on the various reforms being undertaken and to take stock of, and learn from, the global trends in higher education.

- c) **Technology-Assisted Learning** – Technological advancement in practically every sphere of life has changed the way we live. Education is no exception. Multiple demands on our time, growing aspirations and an increasingly interconnected world are changing the way we learn. Life-long learning is no longer a fashionable term. The way we consume data has also changed. Our hand-held devices are our gateway to the world. The traditional mode of classroom-centric learning is being challenged. When viewed through the lens of all these developments, the case for Meta-universities becomes even stronger. Students in the region can choose to go to a brick and mortar university for duration of their program and then opt to receive certain credits through technology-enabled platforms. An analysis of Erasmus Mundus throws up a lot of positives but lists a lack of investment in technology-assisted learning platforms as one of the weakness of the current program.¹¹ Another reason why this area needs more attention.
- d) **Financial Cooperation** – An alliance such as the BIMSTEC would be well served by creating an educational fund which would help universities to scale up to become world class. The financial assistance could be for specific projects in the form of grants. This will create a spirit of competition for universities in the region to move up.
- e) **Scholarships** – Access to high quality education comes at a cost. Students need to be provided with financial aid and scholarships to pursue programs at universities in the region. A BIMSTEC Scholarship Fund can help not only address this issue but also incentivize students to study at various universities of the region.
- f) **Regional Cooperation** – It is not unfair to say that the Bay of Bengal region suffers from a lack of awareness when it comes to international students wanting to study in the region. A

large number of students from Africa come to India for higher education. By positioning the BIMSTEC region as a bloc and enabling easy mobility of students, the chances of attracting international students into the region becomes very high. India attracts a large number of student groups from the US, Canada and the UK who spend their summers working on projects or taking part in internship programs. Such groups may well plan for region-wide programs if the universities are truly borderless.

Two Potential Cases to be designated as Borderless Universities

All good ideas need to be tested. We need some success stories to get started. One way to test the strength of the idea is to select two existing universities and position them as good examples of cooperation.

1. Nalanda University¹² in Rajgir, Bihar, India, is a centre of excellence established to revive the university that existed in Nalanda many centuries ago. It boasts of an impressive international support. Of the seven BIMSTEC member countries, six of them (with the exception of Nepal) are signatories to the inter-governmental Memorandum of Understanding supporting the Nalanda University. Nalanda can be used as a case study to illustrate borderless university in the region.
2. Asian University for Women¹³ is in Chittagong, Bangladesh. The idea for the University grew out of the World Bank/ UN Task Force on Higher Education and Society. With unprecedented support from the Government of Bangladesh, AUW has since been attracting women students from the region. There are students from over 15 countries currently pursuing their academic training at the AUW. This is another fine example that can be showcased as a borderless university in the region.

Conclusion

As utopian as it may sound, borderless universities are a reality. World over, networks of universities are already working together to make this concept work.

The Minerva Schools¹⁴ at KGI were established in 2012 to provide an extraordinary liberal arts and sciences education to top students around the world. Minerva's unique residential undergraduate program encourages its students to live and learn in up to seven cities around the world.

The mission of the University of People¹⁵ is to offer affordable, quality, online, degree – granting educational programs to any qualified student.

Balkan Universities Network¹⁶ aims to bring together universities in the region, facilitate cross-border academic and scientific cooperation¹⁷.

Closer to home, you have the Himalayan University Consortium¹⁸. The vision of the Consortium is to contribute to enhanced collaboration among the universities of the region and to promote centers of excellence on key topics relevant to the region.

In India, the concept of Meta-University was announced by Prime Minister Manmohan Singh in 2011¹⁹. One of the earliest such initiatives to offer a program under the Meta-university concept was launched jointly by the University of Delhi and the Jamia Millia Islamia University in Delhi²⁰.

The aforementioned cases elucidate the value in the idea of a borderless university and the Bay of Bengal regional alliance provides an excellent opportunity to push cooperation in education. After all, education alliances and partnerships have always thrived on cooperation and not on competition. The paper has suggested few frameworks to enable this partnership. There is much to be done to make this a reality, but then nothing is beyond human will.

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Nepal



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Where is the meeting point? Contemporary School-Level Educational Challenges Facing the Developing Countries

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Abstract

“Quality education” has been the most popular, but difficult to attain, slogan of all political parties and governments of the developing nations. Merit, values, market and skill are the pillars of quality education. A large number of schools has been set up to produce the human resources needed for the progress of the society and significant resources have been invested in an effort to providing the aspired for quality education. However, education providers are tormented by their inability to find the meeting points where the curricular framework, parents’ expectations, market needs and students’ interests could come together to produce the desired results. The four pillars, which complemented each other perhaps at some point in time, are at present failing to address the challenges emanating from the rapidly changing norms and values. The educational practices – curriculum, pedagogy and evaluation – are of cognitive nature. The market’s needs are dynamic; globalization has helped to accelerate it further. While parents’ expectations have are rising, children’s needs, fueled by the growing concept of individual freedom, have become specific and interest-based. Neither the curriculum can afford to be flexible enough to cater the interests of the other three – market, parents and students, nor are the teachers willing to and capable of making the pedagogy dynamic to cater to the emerging needs. School heads are challenged with the task of synchronizing the various tasks and producing graduates who are satisfied, creative, skillful, adaptable, understanding and practical. But how to do this? Where is the meeting point of expectations and capacity to deliver? These questions merit urgent answers which the author has made an attempt to offer in his paper.

Introduction

It is an established fact that learning is a lifelong process. It starts from the womb and ends at the tomb. Even then, it is an established fact that best learning takes place in the early part of one's life. This is the time when a person prepares for the remaining part of his life's journey.

The importance of teaching children was realized as early as at the beginning of human civilization. Education was provided in a variety of ways in different parts of history, but never had it been as complex and challenging as it is today. Drastic change in human needs, values, standards, lifestyle and social relations brought about by the technological advancement has posed many challenges for the providers of formal education all over the world. But, the problems are more apparent in the counties of the Bay of Bengal Area, as in any other developing nations.

History of education in the Bay of Bengal Area

The history of education in the Bay of Bengal Area began before the Common Era, with teaching of traditional elements such as religions, mathematics and astronomy at Gurukuls and Bihars. Teaching took place under the supervision of a Guru in his Ashram, which was often secluded from the main population. Students lived in the Ashram and followed strict monastic guidelines prescribed by the Guru. Societal needs and students' petty interest did not count much.¹

As time progressed, due to superiority complex, brought about mainly by Manu and his followers (around 3rd century BC), education became cast dependent. The Brahmans learned about religion, the Kshatriya the various aspects of warfare, the Vaishya learned specific vocational courses while education was largely denied to the Shudras, the lowest caste. Thus, the overwhelming masses did not receive the formal education.

In the Medieval period (around 500 BC to 500 AD) scholars like Brahmagupta, Charaka, Aryabhata and Chanakya were teaching medicine, mathematics, astronomy and economics in India.^{2,3} At turn of the century, centers like Nalanda and Takshila were teaching theology, mathematics, art, astronomy, medicine,

philosophy, logic, grammar, etc. to thousands of students from as far as China and Central Asia. Vikramashila Mahavihara at Nalanda was famous for Buddhist learning.⁴

With the establishment of the Muslim empires in the Indian subcontinent in the Middle Ages, Islamic education got integrated with the traditional education of the region. Gurukuls and Vihars were strategically substituted by Madarsas and mosque schools where Islam, law, medicine, mathematics, astrology, etc. were taught to boys and young men.⁵

With the arrival of the Europeans in the early 16th century came the Western education in India. The Bibles brought by the Jesuits spread the Christian philosophy in the region. Taking advantage of the conflict between Sanskrit teaching and Persian teaching, Lord Macaulay, who drafted the first modern education act for British India, recommended that all formal teaching be done in English language.⁶ Hence during the British Raj, traditional curriculum and the system of teaching was strongly discouraged and Anglican education system was enforced.⁷ This ultimately laid the foundation of what we now call the modern education system in the region. The English education prospered because it helped bind the conflicting loyalties of the native elites.

Lord Curzon, the Viceroy from 1899 to 1905, made mass education a high priority in colonial India. He restructured the university systems, forced literacy training and stressed on ungraded curricula, modern textbooks, and new examination systems.⁸

Establishment of missionary schools, new colleges and universities with Western curriculum based on instruction in English finally solidified the British education in India and the sub-continent. Many ambitious upper-class men with money, including Gandhi, Nehru and Muhammad Ali Jinnah went to England for further studies, and their influence strengthened the new system in the region. A series of measures continuing throughout the early half of the 20th century ultimately laid the foundation of education in the Republic of India, education in Pakistan and much of South Asia and the Bay of Bengal regional in general.

From the onset of formal education in the ancient time to the recent period, education was confined to mainly the interested

men usually from the elite families. It was perceived as a vocation and teaching – learning took place with passion. The parents, society and the government had little or no influence on what was taught and learnt; rather it was an affair between the teacher and the student. But the paradigm has shifted in recent past. Education has become the basic necessity of life and every country has undersigned the commitment to provide education for all. The emphasis which particular countries place on this matter depends upon their level of development and the particular priorities of the government. Despite the differences, much effort, energy, money and time has been spent by every country in the region in pursuit of quality education for all.

Efforts to provide education for all

Education is a key need, along with other basics, in today's world for anyone, anywhere to have a good quality of life. History reveals that the concept of compulsory education was introduced in the Bay area in 1990 with the introduction of Bangladesh Education Act of 1990. India declared education as the basic child right and made school education free and compulsory in 2009. Bhutan has not yet made school education compulsory, but it is free up to the tenth grade. In Maldives, by constitution it is the duty of the parents and the government to provide primary and secondary education to all children. Although education was free in Sri Lanka over half a century ago, it made it compulsory in 1998. Primary education was made free in Nepal in 1951, but it has not been made compulsory yet. The new Education Policy of Nepal, recently approved by the parliament and waiting for the President's approval, has proposed making primary and secondary education compulsory. ⁶ With the school education made compulsory and/or free in the region, the access to education has increased significantly in recent decades. But, the question is, has it been able to produce the quality manpower that the countries of this region are in desperate need of?

With the initiative of the Millennium Development Goals of the United Nations, the number of students enrolled in lower secondary education in SAARC countries increased by 53 percent between 1999 and 2013, according to the report published by UNESCO, Delhi Office, 2015. Countries like Bangladesh and

Maldives attained 100 percent enrollment whereas Bhutan and Nepal doubled their figures. The number of primary age out-of-school children declined by 73 percent, from 37.7 million to 9.8 million during this period, according to the UNESCO report.⁹ Although the goal of attaining universal enrolment at primary level has been attained by almost all countries of the region, the enrollment at the secondary and tertiary level remains a key challenge. The global survival rate to last grade of primary education was 75 percent in 2011; in South Asia, fewer than two out of three children who enter primary school manage to reach the last grade.¹⁰ This indicates that many secondary level graduates terminate their formal education and resort to either traditional family business or disappear in the cheap unskilled labor market of Malaysia or Middle-East. So, what is the reason for low survival rate? What dissuades students from formal education at higher level?

Role of parents in children's education

Parents have enormous influence on children's education because they are children's first teachers.⁸ Children's brains absorb everything around in the first few years. Thus, parents' behavior in these formative years impacts children's entire lives. If parents motivate children to learn in this early age, they will find education exciting ever. Parents who have received at least secondary education understand the pressures and stresses of school and are more supportive of children. Parents who have obtained further educational opportunities also have less stress in their lives because they are most likely making more money while spending less time making that money than those who, unfortunately, have not been able to finish high school for one reason or another. ⁸ Along with their ability to educate their offspring, the economic status of people plays a huge role in their own education. "Parents with lower incomes often have to work longer hours to earn their small salaries. This leaves less time for them to spend reading to their children and getting more involved in their kids' learning process."¹¹ There is more conflict in homes of lower-income people because there are more tensions caused by stress within the family. Stressed families can neither support children with their school work nor time for listening to their

problems. Lack of financial resources will mean inability to meet children's demands and wishes. Consequently, children might end up feeling inferior in front of friends or become angry and depressed. Such parents expect the school to fill up the void.¹²

The children who were out of the school yesterday and are in school today are not the children from economically well-to-do, educated families, but from poor and illiterate families. Parents of these students are struggling to make two ends meet and thus neither have time nor consciousness to worry about children's progress at school. Children are left entirely at the mercy of the school. The rapidly changing socio-economic pattern is aggravating the situation further as the number of people forced to survive on bare minimum wage is in the upping. Many students have unhealthy atmosphere at home. They come from broken homes or drunkard and violent parents. These children are either tired, angry, frustrated or have the inferiority complex or are emotionally disturbed. As they bring over their family problems to school, it becomes the responsibility of the school to help them overcome them.

With modernization, lifestyle is changing in the region. Drinking and gambling, once considered taboo, have become the essential aspects of socializing in a family or in small gatherings. Playing cards is a favourite part-time hobby of a large population in Nepal and India. When adults resort to such activities freely at any time of the day, and without any remorse, it is natural for children to follow suit. Smoking, erotic and filthy language and violence are the essence of a large segment of films and television sitcoms in the region. These films and programs are unrated and are freely accessible to children. Hence, children are exposed to these at home from infancy. The schools are faced with the formidable challenge of deconstructing these concepts from their tender minds, before constructing anything good.

Children learn the importance of hard work at home. Decades ago, every child helped parents in their profession. This not only helped the child realize the importance of hard work, but also appreciate the parents' efforts. Although children in many villages still lend hands to their parents, because of the awareness of child rights as well as the changing life style, fewer and fewer children

participate in family affairs. In many families one or both parents are abroad or in faraway places. Although they are slaving there, children are oblivious to that. When that hard-earned money is sent home, it becomes easy money for the family members. So, they tend to spend a lavish life. This has deprived the children from realizing the hardship of life, and after graduating from the school, they come to the job market unaware and unprepared.

Parents' Expectations

Expectations parents have for their children's school attainment influence their children's achievement and behavior in school. While some degree of expectation encourages children to achieve more, too high expectations may have adverse effects. In ancient times, parents neither contributed much toward children's education nor expected much from them. The situation is similar, to some extent, in today's First World where parents 'hardly contribute financially to children's education'. But, in poorer countries, parents still have to invest a lot in children's education. Thus, in today's materialist world, it is only natural for parents to expect a lot from children in return for their investment. Research has shown that even in the United States of America, compared with U.S.-born parents, immigrant parents have higher expectations for their children's educational attainment because they wish their children to have easier life than theirs.¹³ We know that even Abraham Lincoln, the famous American President, expected his son to grow up to be an ideal human being. Abraham Lincoln's famous letter to his son's teacher is highly inspiring, and yet, it is a perfect example of what a high hope parents hold on their children's teachers.

Parents' relation is another factor that affects schools directly. In South Asia, irrespective of the religion and culture, it is customary to have arranged marriage and it is supposed to last till death does it apart. However, marriages are breaking down at an alarming rate in recent time. In Asia as a whole, divorce rate was just one per thousand in 1980s, with South Korea and Japan contributing mainly to that figure. However, the figure has doubled in recent years. The word divorce has become a buzz word even in the Bay of Bengal Area. Improvement in women education and empowerment is the main causative agents for this change.

Women's education in East Asia has improved dramatically over the past 30 years, and has almost erased the literacy gap with men. Education has made women more aware, independent, confident, professional and demanding. Thus, marriages have become more fragile.¹⁴ This is a bad new for schools because parents' divorce means more emotionally disturbed students.

Many parents are not supportive toward schools. Education as children's basic right has been widely misinterpreted by parents as liberation from their duty. Many of them perceive their children's education as the state's responsibility rather than their own. They expect the school to teach every life skill, etiquette, values and ethics along with what is in the curriculum. Every failure, underachievement or the misconduct of a child is blamed on the school. The free and compulsory education system is sadly promoting this attitude in parents.

The next category of parents is those who have realized the value of education out of their personal sufferings. These are the hardworking semi-educated lots. They were unable to receive higher education due to financial, family or personal constraints and were forced to take up a job early in life. These parents are willing to sacrifice a large part of their earning on their children's education with the hope that that will ensure better future for them. Such parents, unfortunately, have very high expectations of their children. They want them to learn all the skills, cash every opportunity and achieve everything that they themselves missed. They want their children to compensate for what they have missed.

The third category of parents is the elite parents. Very often they are supportive toward schools and do not pressurize their children either. However, often times they end up becoming a pain in the neck for teachers and the school management. They undermine teachers, try to dominate the management and interface with school matters unnecessarily. Their children often tend to be lazy and unmotivated.

The next category is the neo-rich group. This group of people struggled in life and out of sheer luck made a lot of money. Such parents are arrogant and showy. They are ready to spend any amount of money on their children and meet every demand

of theirs just to show the world how caring they are. They celebrate lavishly on every little excuse. Some of them even try to compensate for the love and care that they could not provide to the child earlier, when he or she truly needed it, because they were too busy making money or building career. They provide everything but the necessary control and proper guidance. Thus, children of such parents get spoiled badly and often pick up bad habits. They are not interested to learn anything and often disturb the academic environment of the school. Although there is no specific data to back up the claim, the population of such parents is on the rise in the Bay of Bengal region too.

Students: Change in values and students' interests

In ancient times, discipline was extremely important. Hierarchy prevailed and seniors were not to be questioned, but only obeyed. Children had little or no free-will. Almost everything was decided for them by their parents, the head of the family or society, or by religious texts or Gurus. Children's personal interests, opinions and desires had no value. Education was perceived as a means to achieve Moksha.[13] Only those interested attended schools to attain wisdom.

Today, the values have changed. Children have rights. So they now have time to enjoy their childhood. They are often encouraged to question, reason and disagree - even with adults. Creativity is appreciated and individual differences are respected. With a few exceptions, students do not ask questions like, "Where did we come from, why did we come and what is our destiny, what is the objective of live and how can one attain Moksha?" Material pleasure supersedes spiritual satisfaction. Students go to university to learn the skills of trade, to obtain training for a job or business that will earn them the materialistic living. Success is evaluated by the amount of wealth amassed, not wisdom or service to the society. Today, in the Bay of Bengal Area, a laborer who works in the Middle-East has a better social standing than a hardworking principal of a school. A corrupt bureaucrat is respected more than a poor professor. So naturally, a person's interest is making money, ethically or otherwise.

One of the major problems with children in today's society is learning apathy. Jeanna Bryner, Live Science Managing Editor, has

reported that every two out of three highschool students in a large survey say they are bored in class every single day.

Learning has become interest-based. Some only want to learn music, some like sports only while another enjoys only literature. Subjects like algebra, geometry, civics, history, grammar, etc. do not appeal them. Moral education is the last thing that students want to acquire. Rather than the national needs, students' interests are of paramount importance. Technical knowledge interests many, but the problem is their knowledge becomes obsolete by the time they graduate because the technology is changing too fast.

Unlike in the ancient times when students obediently followed teachers' instructions without questioning, today's children neither listen to the teachers nor are they motivated to learn. This is because education has become free and compulsory; it's a burden because it was neither their wish nor choice. Most of them have no dreams and do not see the relevance of what is being taught in regards to what they would like to do in life. It is a loathsome journey without a destination, which becomes aimless wandering.

In the past, children had to acquire education. In the Ashrams and Vihars, students cooked food, washed clothes, cleaned the Ashram and even went in search of alms to feed their teachers and themselves. Even in the later part of history when children stayed at home and parents started paying the school fees, children had to help the family earn the expense. Be it minding the younger siblings or animals or helping in the farm, children worked. This gave them the sense of responsibility. It kept them engaged and prevented them from turning into a devil with an empty mind. Furthermore, teaching was a relatively easy job then for the teacher was treated as a Supreme Being. Students absorbed everything, like a sponge. There was little or no family or societal pressure on children to excel in academic performance because many took up family business and competition was less.

Today, students do not take any responsibility at home nor do they remain engaged in family affairs. Everything is provided for free. Thus, children never learn to appreciate what they get. They only demand, and if even the smallest demand is not met, they

go berserk. But after graduation, the bubble breaks and the sky crashes on them.

The rapidly progressing technology has also affected the children badly. In the past, the exposure of a person was often limited to the boundaries of his village. So a child would not hold high expectations. But today, a child in a remote village in Nepal is exposed to the facilities of an American child and hence expects the same.

Societal and national demands

Every society desires peace and prosperity. Every nation desires to be the most powerful nation in the world. Economic growth is the essence of that power, and education provides that prosperity. So every nation, through its education system and curriculum, tries to produce innovative and skilled manpower. Besides, it tries to inculcate in its citizen all the moral and civic qualities. These objectives can be attained only if all the stakeholders – parents, civil society and the teachers – work together. However, in developing nations, the responsibility seems to be shifting more toward teachers and schools. As the government is unable to create enough jobs for people who are rapidly moving away from the traditional labor dominant agriculture and family businesses, the competition for the limited jobs is becoming more intense. Graduates have to exhibit extraordinary qualities in order to get these jobs.

Society also expects its upcoming generations to preserve its culture, language, tradition and values. It expects the educated folk to happily abreast these values and help promote them. However, acculturation promoted by the modern technology has stripped them of their cultural identity, ethics, social norms and the sense of duty. Today's children have no identity of their own and morality has been thrown out of the window.

In the past, when transportation and communication was not so developed, societies existed in virtual isolation. Market then was passive and confined only to the four walls of the villages or towns. But today, the world has become a single market. With nations joining the World Trade Organization, they are opening doors for foreign products. Thus, even the small and medium

enterprises are having to compete with the giants around the globe. The technology has made the market so dynamic that the law of Survival of the Fittest prevails. In this scenario, every industry, business firm or organization looks for the manpower that is smart, creative, innovative, motivated, loyal and cheap. A university graduate is not competing locally, but globally. And to produce such fine graduates is a challenge for most of the schools in developing countries because they lack the necessary hardware as well as the software.

Government's constraints

Every government has its own set of expectations as well as constraints. Being the developing nations, countries of the region have limited resources but unlimited wants. So they cannot afford to be too generous when it comes to spending on education. Furthermore, the countries of the region have a very large and diverse population. Hence, no government can afford to design separate curriculum for every culture, religion, ethnic group, economic group or geographical region. It will have to create one for all, which means compromise. As a result, the national curriculum cannot afford to be too ambitious nor can it cater the needs of everyone. It also cannot afford to be too flexible for the fear of losing harmony and the national unity. But, this very rigidity in the curricular framework makes the job of teachers and educators difficult.

Teachers' limitations

For a teacher, teaching should be a vocation, not a job. But it is difficult to say the same about most of the teachers in the countries of the Bay of Bengal Area. Many of them lack passion, creativity, commitment and accountability – the essential qualities of a teacher. Pedagogy used by most of the teachers is still rudimentary – their lecture method is based on prescribed textbook. They have so much inertia that no amount of training can change them. Many are allergic to technology. Despite all these problems, their job is secured by the law of the land.

Schools' constraints

Majority of the schools in the region do not have sufficient and appropriate physical infrastructure, teaching aids and

qualified, committed teachers. Parents are not supportive and are of the attitude 'Once I pay my fees, my responsibilities are over.' Students come from diverse background and bring family problems to the schools. They are difficult to motivate. Constructive support from the related government authorities is minimal. Schools are marred by the country's dirty politics.

Expectations of the nation and society from its citizen have grown by many folds in recent years. With the growing population of the world and boundaries between countries made porous by technology, the standard of manpower the market is looking for had never been so high. As cultures are drying every day, the need for their protection has become essential. These expectations and needs can only be addressed by providing quality formal education to children, the future of any nation. But it requires wholehearted support of all stakeholders. The major part of the responsibility has unfortunately been dumped on schools and universities that often lack the necessary hardware (infrastructure) and software (education materials). Despite all these, they are expected to produce graduates who are satisfied, creative, skillful, adaptable, understanding, practical, innovative and responsible. So difficult for school heads to meet these expectations.

Conclusion and Recommendations

The purpose, the pedagogy and the importance of education have seen many transformations throughout history with the importance rising in tandem with the technological progress of the modern era. Children are now compelled to attend schools and every effort is being made to improve the quality of education provided to them. The countries in the Bay Area have made a significant progress in terms of providing access to education to their children, but their efforts in providing quality education have been challenged by many socio-economic constraints. While trying to create a curriculum and education system that is capable of producing skilled, innovative and committed manpower capable of producing the much required economic and technological development, governments are also forced to promote the idea of national unity. Governments are constrained further by their limited resources. The market has become dynamic and global. The rapid changes in social norms and values have negatively

affected the students and their parents. They have become more demanding and less responsible. Parents' expectations have become compensatory – they expect their children to achieve what they did not. While teachers are still hesitant to upgrade the obsolete pedagogy into a more child- and technology-friendly pedagogy, students are demanding individual interest-based, child-centred teaching. A lack of parental attention at home, intense competition, access to free money and gadgets are motivating students to walk the devil's path. As the school education can only fulfill its objectives when the curricular framework, parents' expectations, market needs, teachers' competency and students' interests are synchronized, the School Heads are challenged with the task of synchronizing these antagonistic organs of education system and produce graduates who are satisfied, creative, skillful, adaptable, understanding and practical.

The challenges of the School Heads in the Bay area are too complex to suggest a solution. But as an effort to curb them, first of all, governments should spend more on education. Curricula should be made as flexible as possible. Schools' management should be given more autonomy. This will help them address the local needs more effectively. The job security that teachers in many countries are enjoying must be removed. This will help make teachers more accountable. Learning from the practices of our ancestors, higher education should not be free, but a subtle strategy must be adopted such that access to education is not hampered and yet every student has to earn it. This will help develop the sense of ownership in students as well as parents. Schools should give priority to activities that will give opportunity for students to experience the bare realities of life outside the school. This will ensure that graduates are not caught off guard when they enter the job market for the first time. In order to address the problems brought about by social, economic and ethnic diversity of students, good practices of leading in the region [unclear idea]. Teacher and student exchange programs between different types of schools will help accept the differences as well as learn from each other. Regular conferences of School Heads will facilitate them to develop strategies for addressing their common problems.

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Nepal



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Children with Disabilities: Implications for Inclusive Education

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Abstract

Education has three main roles: it is developmental because it instills unique qualities in a child; it differentiates between learners because it treats every child as an individual, appreciating individual differences; and it is integrative because it accommodates people of varying backgrounds (culture, beliefs and values), thereby allowing a cooperative approach in solving problem. It is, therefore, necessary that the components of the curriculum for teachers' training programs, teaching and learning at all levels should reflect these roles, if we are to attain the development goals which include education for all. The development goals for individuals with disabilities has to include elimination of poverty, acquisition of practical and survival skills, employment, empowerment and total integration. All these could be achieved through a well-planned, inclusive education system. Special education provides opportunity for education for all. Special education is part of general education, which treats everyone involved in it as individuals. Special education identifies problems that are specific to individual learners and adopts relevant personnel, methods and materials to overcome the problems. Special needs education ensures that everyone has equal opportunity to participate in the classroom and extra-curricular activities. This paper examines how special needs education uses the inclusive aspect of it to fulfill the aspiration of fundamental human rights to education for children with disabilities. This paper will also examine some issues involved in inclusive education in Nepal with specific reference to issues such as the concept of inclusive education, historical

perspective, policies, barriers, the impact of culture, traditional values and beliefs on inclusive education, solutions and the current practice of inclusive education. The countries of BIMSTEC region have developed national policies and laws, and there is a strong agreement on some vital points among all policies such as education, health, employment, accessibility and transportation. Regarding the issue of education of persons with disability, there is a growing consensus that the persons with special needs should be included in regular education system with a flexible curriculum to facilitate the needs of children with disabilities. The provisions of accessible educational and vocational training to the PWDs by removing all barriers from schools, colleges and other educational institutions are increasing.

The provision of prevention of disability through prenatal, postnatal and antenatal care needs to be given highest priority and focus in national planning. National Plan of Action and National Policies of countries such as Nepal and Thailand give major emphasis on the employment of PWDs, by ensuring job placement, income tax relief and by fixing a quota in employment. They promote self-employment through vocational training and rehabilitation, micro-credit schemes and other mechanism.

Various models of inclusive education are being tried out in the BIMSTEC region. Regrettably, the philosophy of inclusion is not widely shared even among professionals. Integrated education and inclusive education are interchangeably used. Teachers' training institutes, particularly those meant for ordinary schoolteachers, are not sensitive to the needs of inclusive education. It will perhaps take another decade before the new era of inclusive schools gets off the ground. Meanwhile, we must do our best to usher in this new era.

Introduction

The concept of Special Needs Education still remains ambiguous among educationalists of many developing countries, and countries of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) are also not an exception from it. Developing countries are confused about what it is and how to deal with it. This may account for the poor provisions that have been made available by various governments. In fact, the state of education for persons with disabilities in BIMSTEC nations has been an issue of concern for professionals. The provision for children with disabilities across Nepal, one of the BIMSTEC member countries, has often been regarded as a privilege. Proper attention has not been given to special needs education in terms of planning and organization. Its planning, organization and management have been characterized by lack of vision and commitment, inadequate funding, lack of cooperation among experts, negative attitudes rooted in traditional values and culture. In Nepal, most people, if not all, pay lip service to the issue of special needs education in the formulation of national policies in special education. Some of the policies recommend giving a concrete meaning to the idea of equalizing educational opportunities for all children irrespective of their physical and mental conditions. Despite these, the dreams of most people with disabilities are yet to be realized in areas of adequate educational provisions, employment and support services.

The aim of this paper is to highlight the state of special needs education in Nepal with specific reference to inclusive education. It is hoped that this paper will generate discussion that will lead to the development of the right spirit for the promotion of effective inclusive education leading to education for all on an equal basis.

Who are we going to include?

The major problem confronting education and welfare of persons with disabilities in Nepal is the ignorance of the society about who the disable persons are and the kind of provision that could be made to ensure equal opportunities.

We all in one way or other require special services. On a daily basis, we are confronted with situation that affects our

performance at work, school and other social events. However, there are many people in the society whose special needs demand special attention and planning. Look around, and you will find persons who are wearing glasses and who may not be able to read or move around if these aids are removed from them. We really do not have to look far to estimate the seriousness and the importance of special needs education. However, as we plan for inclusive education, we have the following categories of special needs in mind: visual impairment, hearing impairment, mental retardation, learning disabilities, physical and health impairment, speech and language difficulties, behavior disorders and so on. These special needs pose major challenges to teachers in the classroom.

Other Children Requiring Special Needs

The concept of special needs education has been broadened in recent times. In a UNESCO (1999) workshop held in Dakar, Senegal, an African expert group broadened the concept of special education to include marginalized groups. The marginalized groups included children with HIV/AIDS, abused children, children from poor homes, gifted children, abandoned children and children on the street. The issue of HIV/AIDS has become one of the most sensitive areas of discussions in the world today because its prevalence has become an issue of worry to most governments. The HIV/AIDS manifests itself in different forms. Children who have AIDS or who come from extreme poor background, or who have been abused by the step-parents find it difficult to concentrate on their studies.

Concept of Inclusive Education

The ultimate aim of education of children with disabilities is to help them live an independent life in any given community. This means that they are expected to live the life of give and take. The current trend in the education of children with disabilities is integration or inclusive education, which will enable children with disabilities to be included in all social activities. In most countries where inclusive education has been well organized, equalization of opportunity to education and social life has been ensured.

However, inclusive education has been defined from different perspectives. The term inclusive education can be described as an

integration issue whereby participation of students with special needs is provided for within mainstream education.

Within inclusive education, there are two main branches of thinking: mainstreaming and full inclusion. Mainstreaming is a process that allows children with special needs to enter certain standard classrooms after they show the ability to keep up with the rest of their peers.

Full inclusion puts students with special needs in standard classroom environments without testing or demonstration of skills. Individuals that support full inclusion believe that all children should learn in an identical classroom environment.

Why Is Inclusion Important?

While the idea about inclusive education is still somewhat mixed, many studies show that children with special needs thrive in standard classroom environments for a variety of reasons.

On an interpersonal level, inclusive education allows children to develop friendships with their peers and they feel less pressure about their disabilities. Some people believe that children who are placed in standard classroom environments generally have higher self-esteem than children who are isolated to different classrooms simply because they have special needs.

Inclusive education, therefore, gives all children the opportunity to learn together without discrimination. This means that schools where inclusive education is taking place must be sensitive to the differences in the needs of various children with disabilities. For example, different provisions should be made for different inclusive situations: a class that has a deaf child must have such support services as an interpreter fluent in sign language, a speech trainer, a speech therapist and a school audiologist. The class should also be equipped with loops and the child should be given a hearing aid. In case of visually impaired children, they would need braille equipment, mobility aids, tape recorders and optical devices, such as magnifiers. They will additionally require the services of mobility instructor and resource teacher of the blind. The mentally retarded perhaps is the most difficult to deal with. Their inclusion must be carefully planned. The class size must

be small; the level of inclusion will depend on the degree of the disability. The services of the following must be provided: teacher aide and resource specialist who assists with the development of the Individualized Educational Programme (IEP). The physically and health impaired will need some modification of the physical environment and the provision of mobility aids such as wheelchairs. It is also advisable that close and proper assessment be carried out before admission into the school because children with physical and health impairment have been observed to have other conditions like epilepsy, spina bifida, cerebral palsy, respiratory problems, tuberculosis and poor heart conditions.

Children with disabilities who may not benefit from ordinary schools due to the severity of their disability should be educated in special schools. However, these children must be provided with approximate opportunities. Provision for inclusive education should run across all levels of education e.g. primary, secondary and tertiary. Relevant and adequate provision should be made to ensure effective inclusive education.

Historical Development Leading to Inclusive Education

Education for the people with disability began in 1964 in Laboratory School at Kathmandu where classes for the visually impaired were started. A visually disabled lady called Isabell Grant was in Nepal in 1963 on her holidays. She talked to the then officials in connection with the education of the visually disabled as she found no provisions of education for the blind in Nepal. The next year she sent a Peace Corps volunteer with educational materials. The volunteer provided training to the teachers to teach the visually disabled. In 1964, nine visually disabled learners were admitted to Laboratory School, and the education for children with visual disability (CWVD) began in Nepal (Samahit Siksha Suchana Samagri).

The Basic Primary Education Plan (BPEP) developed integrated education for the disabled in 1992 by setting up resource classes in schools. Schools where students with similar disability study are special in nature, and in general schools the disabled are taught together with other students whereas in integrated schools children are taught in the integrated system (Bishes Siksha Suchanamulak Pustika).

The BPEP (1992-1999) marked a shift to an Integrated Education Program. The concept of resource class and resource teacher was introduced to prepare children with disabilities to participate in regular classrooms with their non-disabled peers. Under BPEP's Special Education Program, a resource class was established within the general primary school system. The resource classes are preparatory training classes for children who are blind, deaf or have some mental disability.

Within this program, there was a provision for teaching 10 children with special needs in one resource class. The duration of such resource classes varied from three to six months, depending on the time required by each child for gaining the ideal level for integration into the mainstream class, from class one to five. A resource teacher, trained according to the type of disability among children, attended the class. Even after the children were placed in the mainstream classes, the resource teacher (RT) provided special support. In some cases, after three to six months the children with disabilities were shifted to home schools located near the community from where they came.

Although BPEP-I was a promising step toward providing education to children with disabilities, it did not go beyond integrated education. Inclusion to regular classroom, as the last step of the process, demanded that the children adjust to the education system rather than the system and teachers adjusting to the special needs of the children, creating pressure on the child with disability to prepare herself/himself to be accepted in the regular classroom. Furthermore, children with different disabilities had unequal opportunity for inclusion, with the hearing/speech impaired and mentally challenged children being kept in the resource classes and as a result they are not being adequately prepared to study with their non-disabled peers. Due to these limitations in practice of the resource room model in BPEP-I, the Department of Education took up the challenge of initiating inclusive education in Nepal in the year 2000. BPEP II (1999-2004) has sought to promote inclusive education of children with mild to moderate disabilities in primary education. To achieve this aim, the program has supported primary schools in identifying and assessing children with disabilities, training special education

teachers and creating appropriate provision for teaching-learning materials designed to ensure effective mainstreaming of these children. This has led to a movement toward inclusive education in Nepal, especially at the primary level (UNICEF, 2005:19).

Right to education is a basic need like other essential needs of all human beings, which is enshrined in the 1948 Universal Declaration of Human Rights. Thus, the right to education entails fulfillment of individuals' educational needs regardless of their caste, ethnicity, gender, ability, disability or differences and other disadvantages (Thapa, 2008).

Since 1989, the United Nations Convention of Child Rights has emphasized on the civil, political, economic, social and cultural rights of children. Therefore, all individuals should have an opportunity to get educated. As the Salamanca Statement (UNESCO, 1994) states, "Educational planning by governments should concentrate in education for all persons, in all regions of a country and in all economic conditions, through both public and private schools" (p. 13). So, the Salamanca Statement has strongly emphasized on "all" that accommodates all children without any discrimination in the mainstream schools.

According to the UN Declaration on the Rights of Disabled Persons (1981), the term 'disabled person' means the person unable to ensure by himself/herself, wholly/partly, the necessities of a normal individual or social life as a result of a deficiency either congenital or not in his/her physical or mental capabilities.

Furthermore, the Education for All (EFA), Dakar Framework, 2000, and the Millennium Development Goals (MDGs) 2000 have been reiterated. All these commitments have become the core agenda of any state's education system. The basic principle of EFA is that all children should have the opportunity to learn, and inclusive education has been identified as a key strategy for the fulfillment of the EFA targets (Peters, 2004). In addition, MDGs propose that children and youth with disabilities will be an integral part of the population by 2015.

By and large, all the commitments show the interest to provide better education to all children in mainstream schools without any disparity. The concept of inclusive education reflected by

the guiding principles of Salamanca Declaration (1994:6) is that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups.

The concept of inclusive education in Nepal was introduced as a pilot program by the MoE, BPEP II (1999-2004) under the contribution of Danish government (DANIDA) in 12 schools of four districts. Then a 10 months' training for resource teachers was provided. Nepal has ratified the EFA commitments. The concept of inclusive education may vary from country to country; however, all nations obliged to fulfill their commitments are making their efforts toward the inclusive process. The main aim of inclusion is not to remove differences but to provide opportunity to all students to be included in the education system, which supports and values their individuality (Knight, 1999 cited by Thapa, 2008).

Existing Policy Provision in Nepal

Nepal have developed and adopted policies, which strongly support education of children with disabilities. Also, the Constitution of Nepal 2015 and the Special Education Policy Guidelines (1996) of the Ministry of Education clearly state that all children of school-going age, including those with special needs, should be provided education. There is also a conflict between socially desired intentions and the implementation of those intentions due to the value attached to the disabled persons. For example, while the government attitude toward the education of the disabled is enlightened, favorable and worthy of commendation, in reality, these laudable attitude is hardly seen in the implementation of the Special Education Policies. Some of these conflicts are quite clear when it comes to budgetary allocation. The allocation to Special Education is usually insignificant and does not reflect the expectation of the various National Policies on Special Education, which guarantee equal educational opportunities for all citizens. In fact, some policies have gone further to say that children with special needs must be educated alongside their able-bodied counterparts.

Barriers to Education for All and Offered Solutions:

A number of factors constitute barriers to education for all. These include:

1. Negative attitude influenced by traditional values, beliefs and culture;
2. Lack of appropriate statistics of the number of persons with disabilities;
3. Inadequate funding;
4. Lack of cooperation among specialist administrators; and
5. Adopting policies that are difficult to implement.

Negative Attitudes Influenced by Traditional Values, Beliefs and Culture

The traditional beliefs in Nepalese community do not make matters easy either. The belief of avoiding whatever is associated with evil has from the ancient age affected people's attitude toward people with disabilities simply because disability is generally seen to be associated with evil. Most of these negative attitudes are mere misconceptions that stem from lack of proper understanding of disabilities and how they affect the functioning of those affected. These misconceptions stem directly from the traditional systems of thought, which reflect magico-religious philosophies that can be safely called superstition.

Lack of Statistics on Incidence of Special Learning Needs in Nepal

According to Census 2011, about 2 percent (1.94% i.e. the population 513,321) of the total population is reported to have some kind of disability. Physical disability constitutes 36.3 percent of the population with disability followed by blindness/low vision (18.5%) (47,041 males and 47,724 females and the total 94,765); deaf/hard of hearing (15.4%); speech problem (11.5%); multiple disability (7.5%); mental disability (6%); intellectual disability (2.9%); and deaf-blind (1.8%) (CBS, 2012: 4 & 211). But it has been challenged by the disabled people's organization. They argue that it is not reliable. Eleweke and Rodda (2001) maintain that the majority of people with disabilities live in developing

countries and estimate the number of children with disabilities in developing countries to be 150 million.

Inadequate Funding

Special education is costly and yet it is part of general education. Its budgetary allocation is derived from whatever is given to general education. Special education, therefore, survives on the kindness and understanding of whoever is in-charge of the ministry. In most cases it is the drop outs or leftovers that are given to special education despite the high cost of its operation. Although the right of a child with disability to education is theoretically no longer questionable in Nepal, a question that is still being asked by the man in the street is why should the government or public spend a lot of money on the education of children with disabilities when in fact many of them with severe disabilities will be unable to hold competitive employment after education. This situation definitely influences the government's attitudes when it comes to budgetary allocation for special needs education.

Lack of Cooperation among General and Special Education Teachers

As a special education resource teacher, they have to know the general education curriculum so that special education teacher can support the students and their needs. They teach students in five different grade levels and, therefore, are responsible for knowing five different curriculums.

They have to collaborate with the teachers of all special students to make sure that they are supporting what is being taught in the classroom and are supplementing own resources. Finding the time to talk to each teacher is extremely important and extremely challenging. Being organized enough to do so is also a very difficult task.

Adopting Policies that are Difficult to Implement

Inclusive education emerged by insisting that all children with special needs be included in the traditional classroom. Before the emergence of the inclusive system, it was the concept of integration or mainstreaming which was practiced. The concept of integration is based on integrating children with disabilities according to

their needs and severity of their conditions. Some children with disabilities could benefit from total integration, while others benefit from units, special class or resource rooms and partial integration. The issue of integration is traceable to America, where in 1975, the U.S. Congress approved a law titled Education for All Handicapped Children Act. The law was meant to make education free and mandatory for all children with disabilities. Children with disabilities were to be provided with individualized education program in a least restrictive environment.

In Thailand, under the first educational reform act in 1999, the education system of the country was organized into 175 education districts. This system serves the vast majority of 12 million Thai students in 30,000 primary schools and 2,700 secondary schools. Twelve-year free basic education was granted to students throughout the country for the first time in the history of Thai education in October 2002. Then in May 2009, 15-year free basic education was granted. Following the 1999 National Education Act, which has been the spearhead of major educational reform, quality improvement has become the ultimate goal in the provision of education in addition to maintenance of equity and social justice. The issues of quality in education for normal students, the gifted, the disadvantaged and those with special needs require more attention. To support the provision of education for students with special needs, the Ministry of Education has announced regulations indicating criteria and procedures for providing facilities, media, services and other forms of educational aids as well as ministerial regulations indicating criteria and procedures for allocating education budget for the disabled (Sanrattana, 2010).

The questions that remain unanswered in Nepalese context include:

1. Do we understand what inclusive education is all about?
2. Have we made available relevant provisions in all inclusive schools?
3. Are schools equipped with resource teachers?
4. Are disabled children adequately assessed before being admitted to ordinary schools?

5. Do we have enough positive attitudes to accommodate children with disabilities in ordinary schools?
6. Does the Nepalese government have enough financial resources to support effective inclusive education?
7. Are there avenues for experts from the Nepalese government to meet and discuss issues involved in inclusive education?

Wyman (1995) outlines what we should bear in mind if we are to formulate effective inclusive education policy. These are:

- A climate in which acceptance is the key. In the context of Nepal, this is very relevant in view of popular attitude, beliefs and culture;
- Focus on everyone's abilities and possibilities;
- Cooperation between/among school staff, parents and students;
- Incorporating teachers' strengths with students' needs rather than criticizing the system; and
- Incorporate a variety of learning modalities.

Provision of Inclusive Education in Teachers' Training

The need for the development of training facilities in the BIMSTEC region for teachers of children with special educational needs, inclusive education cannot be over-emphasized. Teachers' training programs for special educators have not been given proper attention in their establishment and structure. This has caused an acute shortage of special educators and negative attitude among ordinary teachers toward inclusive education. If teachers who should be responsible for implementation of inclusive practice have unclear perception of their role, it may seriously undermine the effects of maintenance of restructuring programs toward inclusion. Trained teachers are more positive in matters of inclusion. The effect of training on teachers changes the teachers' attitude toward children with disabilities mainly in their beliefs in the feasibility of inclusive education. It has been noticed that Tribhuvan University in Nepal is just beginning to make considerable progress in this direction of establishment of the training facilities. For example, it runs three programs for special educators (B.Ed, one-year long B.ED and M.Ed) for

students willing to study special needs education. Training special educators locally has a big advantage because the curriculum will be designed to reflect the cultural expectations and resource limitations.

Expected Attitude of the Government Leading to Effective Inclusive Education

The first attitude expected of any government toward children with disability is the disposition toward planning. Government preoccupation should be bound to work out a detailed scheme for attaining the objective of education for all children, including those with disability. This attitude embodies a systematic arrangement of the requirements for efficient education of the children with disabilities.

The second attitude required of the government is the unquestionable acceptance of the education of children with disabilities as a legal obligation. This entails that the governments should take a more concrete step toward implementing the intentions of their policies on education of children with disabilities. This includes integrating children with disabilities into the ordinary schools and unconditional commitment to equalizing educational opportunities for all children irrespective of their physical conditions. However, the general requirements for effective inclusive education should include identification of children with disabilities, enabling programs and services, resources, funds, legislation, public education, etc. The demands of each requirement should be properly understood, articulated into a system and used as a master plan in the education of children with disabilities.

Curriculum oriented to develop vocational skills

Education of children with disabilities should aim at assisting the children to acquire survival skills. This means that any curriculum that is designed for the participation of children with disabilities must be oriented to impart vocational skills. Academic ability of children should be encouraged to pursue education in line with their abilities while the children whose disabilities pose difficulties for excellent academic achievement should be encouraged to pursue a vocation of interest and ability. The curriculum of

an inclusive system should include training in skills such as carpentry, sewing, telephone operating, computers, art work, home economics and music. The normal children will also benefit from such a curriculum.

An Effective Inclusive Education Should Start with Attitude Change

Apart from the influence of traditional beliefs on the way teachers and students perceive children with disabilities, studies have shown that teachers, administrators and students do have negative attitudes toward children with disabilities due to a lack of relevant support and availability of adequate provisions. (Cook et al, 1999; Cook, 2001). However, attitudes are changeable and it is on this understanding that a critical dive into ways of changing identifiable negative attitude should be undertaken. It should be noted that most of these attitudes are devoid of ill will and are expressed with a great deal of sympathy. People pick up these attitudes during the process of growing up without any conscious intention to perpetuate them. They become more organized in one's mind. Today, new information based on scientific knowledge of causes of disabilities and the effect of disabilities could alter the already-held attitudes.

New information can be publicized in the area of informal knowledge about disabilities and their causes. It has also been observed that techniques of providing information can improve the adults' attitudes toward the disabled. This can be achieved through lectures, symposia, seminars, teach-yourself leaflets and through persuasive appeals organized in a structured manner.

Conclusion and Recommendations

Inclusive education provides an opportunity for children with disabilities to be taught in a regular classroom with their normal counterparts. This approach has social advantage and parents have expressed satisfaction with the progress of their children in this direction. A number of factors such as poor planning, traditional practices and beliefs, attitudes of teachers, administrators, and students affect the implementation of inclusive education. If we are to make progress in inclusive education, and attain the development goals for children with

disabilities, the issues raised and addressed in Salamanca must be revisited. We, therefore, recommend that the Nepal government should:

- Give the highest policy and budgetary priority to improve their education systems to enable them to include all children regardless of individual differences or difficulties;
- Adopt as a matter of law or policy the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise;
- Develop demonstration projects and encourage exchanges with countries having experience with inclusive schools;
- Establish decentralized and participatory mechanisms for planning, monitoring and evaluating educational provision for children and adults with special education needs. Encourage and facilitate participation of parents, communities and organization of persons with disabilities in the planning and decision-making processes concerning provisions for special education needs;
- Invest greater efforts in early identification and intervention strategies as well as in vocational aspects of inclusive education;
- Ensure that, in the context of a systematic change, teachers' training programs, both pre- service and in-service, address the provision of special needs education in inclusive schools; and
- Increase coordination with members of BIMSTEC to exchange planning, experiences and policies, as some nations in BIMSTEC have been more successful in implementing inclusive education.

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Historical Relations of Bay of Bengal Region: A case study of revisiting pluralistic memory through Historiography of 11th and 12th century Sri Lanka, India (Southern) and Myanmar

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Abstract

This paper is aimed at proposing a history and community project encompassing Sri Lanka, India (Southern) and Myanmar. The argument behind the project is that the historiographical reception of these countries should be revisited to construct the pluralistic memory of the diverse uniqueness of the region of Bay of Bengal.

First, this joint research paper provides a glimpse on the historiography of the selected countries, on selected socio-economic and cultural relations of the 11th and 12th centuries as an example for the study. This project can be developed even on modern historiography since all the countries have identical historical experiences. An investigation of the past through the examination of materials of the ancient times (archaeology) informs this joint project that will examine the socio-cultural, historical relations of Sri Lanka with selected countries of Bay of Bengal Region (BBR). This project would reinstate the closely entwined history of the country (Sri Lanka) with its BBR's neighbors. The project will bring into focus the shared histories, cultures and socio-cultural relations of the countries of BBR. The new interpretations of historiography of the pluralistic memory will be studied through selected archaeological sites.

The importance of this project lies on the interpretation of historiography from the view point of the community; it will examine different readings of early historiography, mainly from the pluralistic approach of the 21st century. It will provide an opportunity for the interpretation of a common past and common practices as well as historical, linguistic, religious (Buddhist polity) and cultural links and the unique features and long civilization of the BBR, which bind the region together.

Introduction

The paper gives a brief insight to the network of Buddhist polity and further looks at military interventions, economic relations, Hinduism and its influence on the architecture in Sri Lanka and in the selected countries of BBR to find out historical connections. For example, Sri Lanka's contribution towards consolidation of the Bagan Empire in terms of religion, culture and civilization is attested in Myanmar's historical chronicles; on the other hand, it can shed light on what Sri Lanka gained from Myanmar in religious and cultural arena. It also studies the Chola and Pandya influence in Sri Lanka during the 12th century. To revisit and review the integration of BBR through the past (preserving the past for posterity) will be the objective of this project.

The paper in its conclusion will explain pathways of interpreting the existing histories of BBR through new interpretation and revisiting archeological evidence that can help incorporate greater relations between the countries of BBR.

A project that will study pluralistic memory through the historiographical of BBR could lead to new interpretations on the part of involved communities through rethinking and revisiting of the archeological evidence in Sri Lanka, Myanmar and India. The activities could be:

- Further intensive research on the relations between Myanmar and Sri Lanka, especially in terms of archeological and architectural connections i.e. Bagan Temples, Polonaruva ruins.
- Extensive reading of the historiography of Chola and Pandya supplemented with material investigations may reveal the damaged connections and provide an opportunity for the researchers for new interpretations in pluralistic memory.
- Finally, a 21st century history and community project through new interpretations will stimulate greater integration of the Bay of Bengal Region.

The paper first gives an account of Sri Lanka's historical relations with Myanmar, Chola, Pandya (South India) and different nations inside the Bay of Bengal locale. It then examines that the connecting thread of weaving histories of the selected BBR countries exists in historiography.

Buddhism Sri Lanka's Connectedness across the Bay of Bengal

Buddhism was brought to the island by a mission, which set out with the blessing of the renowned Indian emperor Asoka, during the reign of his counterpart Devanampiya Tissa (250-210 BC). It was an event of profound historical significance (Rahula, 1953). It led to a tremendous political and cultural leap forward. Ever since the foundation of Buddhism, its deep impact on all facets of life, social organization, administration, languages and literature, architecture and so forth, continued unabated throughout the ages.

King Vijayabahu I sent large offerings to the Mahabodhi at the Bodh Gaya in India. The Sinhalese ministers who went on these missions almost certainly set up contacts with the diverse schools of Buddhism which then flourished under the Pala pioneers of Magadha. Various scientists who came here from India were unconditionally entertained by Vijayabahu I. In any case, Buddhism in India had, all things considered, lost its vitality. After the death of Vijayabahu I, no influence from North India had any effect on Ceylon Buddhism. Broad Buddhist social order was visible at Kanci and Nagapattnam in South India, yet the basic centers of Buddhism to which the Buddhists of Sri Lanka turned in the 11th and 12th centuries were Burma, Siam and Ligor in the Malay landmass. The dying flame of Buddhism in the Chola was reestablished by a Thera named Ananda of Sri Lanka who is depicted 'like unto a standard in Tambapanni and the light of the Tamil country.' Relations between the Sangha of Burma and Ceylon ended up being extraordinarily cordial in the mid-Polonaruva period. High dignitaries of the famous Burmese Buddhist community visited Sri Lanka. A Burmese clergyman, after 10 years of study in Ceylon, returned to his neighborhood and there he set up the association known as the Sihala (Sinhala) - Sangha which can be explained as a vital part in the subsequent religious history of the country (Luce, 1969).

From the year 1017 to 1070, Sri Lanka had seen many invasions of the Cholas; and when the King took to strengthen Buddhism once again, there were insufficient Bhikkhus. "He sent to his companion, Prince Anueuddha in the Ramanna nation, errand people with blessings and brought thereupon Bhikkhus who

had altogether studied the three Pitakas, who were well trained, and recognized as thes. Subsequent to recognizing them by exorbitant endowments, the King got them re-inducted into the Order. The three Pitakas together with critique every now and again discussed, and saw to it that the Buddhist Order which had declined in Lanka, again shone splendidly" (Luce, 1969, p.40).

This record in the Culavamsa is affirmed by the Tamil/ Grantha engraving of Polonnaruva, dated around 1137 and 1153 A.D.185:- "In the prosperous island of Lanka, the Chakravartin Vijayabahudeva, Sri Samghabodhiarma, a scion of the ancestry of I Ksuaku of the Buddhist brotherhood, put on the holy crown keeping in mind the end goal to take care of the Buddhist religion. So His Majesty had Buddhist ministers welcomed from Aramana (Ramanna) (to Ceylon), and (with their guide) affected the Purification of the Buddhist Order of the Three Fraternities (nikaya) " (Luce, 1969, p.40).

It appears to be far-fetched that Aniruddha could have gotten the structure of Ceylon more than a stream of writings before Vijayabahu I again got hold of the two capitals in 1070 A.D.; however, it is likely that he acquired the same number as he required by around 1075, when Burma ministers (presumably Mons) were present in Sri Lanka to help the Sinhalese to resuscitate Buddhism in the island. Assuming this is the case, the principal surge of the Tripitaka just turned Pagan in the final years of Aniruddha's rule. According to Nichols (1961), during this period, the notoriety of the Sinhalese Sangha stood high in alternate terrains where Theravada Buddhism won. The consecrated altars of Ceylon were respected just about with the similar reverence as those in the heavenly place that is recognized in Buddhism.

A Sangharaja from Ceylon was welcomed in 1361 by the then ruler of Siam to sort out the Buddhist Order in his country, and the Sinhala-Sangha established by him had vital influence in Siam for around two centuries. Burmese, Siamese and Cambodian Bhikkhus came to Ceylon in 1425, took in the sacred texts here, got appointment once again at Kelaniya and, on their arrival to their individual terrains, built up religious site as demonstrated on the Sangha in Sri Lanka. In 1476, a religious mission from Pegu in

Sri Lanka and various Burmese ministers got appointment from Kelaniya. They as well, on their arrival, built up a group known as the 'Sinhala-Sangha' (Nichols, 196, p.110).

On various occasions, Burmese rulers sent rich offerings to the Tooth relic and other sacrosanct items in Ceylon. The Kublai Khan, in 1284 A.C., sent a mission requesting for the Sacred Tooth Bowl and Hair Relics. The Sinhalese leader of the day was sufficiently creative to fulfil the request of the sovereign without denying his nation of the worshipped belongings. The Sinhalese Buddhist of this period made some endeavours to resuscitate Buddhism in South India. Sena-Lankadhikara re-established, or constructed over again, a holy place enshrining a stone picture of the Buddha at Kanci. The Hierarch Dhammakitti, at some point before 1344, re-established a hallowed place at Dhanyakataka in the Andhra nation, and made expensive offerings to it (Culavamsa, Ixxii).

Since the 19th century, Buddhists abiding in the present-day nation states of Myanmar, Thailand and Sri Lanka have viewed themselves as individuals in a shared Southern Asian Buddhist world. This portrayed a long and determined history of compromise over the Bay of Bengal district, dating at any rate to the third century rule of the India's King Asoka. Specialists of Buddhism and savants of the range have begun to develop a more variegated record of Buddhism in South and Southeast Asia, using obvious epigraphic craftsmanship, and archaeological evidence, and also new interpretations of Buddhist accounts.

This paper takes into account the recorded scenes in the 11th to 15th century history of Sri Lanka's Southeast Asian Buddhist affiliations checked by epigraphic and Buddhist account records. These show changes in commonplace Buddhist dedicatory system in the midst of the period 1000-1500, which were the result of new flexibility related to changing conditions of trade to the balanced political natural group in the oceanic Southern Asia.

The study outlines a couple of depictions of this profound relationship. Some - in no way shape or form all - of the depictions of our connections are framed in devout stories of the extraordinary. As per the Myanmar accounts, the principal ruler of Bagan, Anawrahta (Aniruddha) made a phenomenal outing to

Sri Lanka in the 11th century to acquire a copy of the Tooth Relic from his friend Vijayabahu I. At the point when Anawrahta got his solicitation, he wished it repeated, and three more copies were delivered.

Sri Lanka and Myanmar Relations through Buddhism

One of the nation states of BBR with continuously warm relations with Sri Lanka is Myanmar. This association dates back more than 1,000 years. The best outline of this is reflected in the remnants of Bagan, the antiquated capital of Myanmar and in its way of life and human advancement since the 11th century (Goonatilake, 2010). Its Buddhist monuments are incredible accomplishments of development in the antiquated world, much more noteworthy than the development of all (rehash every one of) the church buildings of Europe whose erection had, however, been spread over almost seven centuries - not the 150 years that the Bagan deed took.

Sri Lanka's commitment toward the union of the Bagan Empire inclusive of religion, society and progress is authenticated in the Myanmar verifiable annals, engravings, workmanship and engineering and, additionally, in Sri Lankan accounts. What Sri Lanka picked up from Myanmar is similarly huge. Myanmar's endowments to Sri Lanka - the Amarapura and the Ramanna sects in Theravada contributed, in an extraordinary way, to the religious, social and instructive renaissance in the 18th and 19th centuries.

Ruler Anawrahta is said to have revered the first imitation in the Shwezigon Pagoda in 1059 (archeologists ascribe it to the rule of Kyanzittha). The other three were revered in three different Pagodas ascribed to Anawrahta, the most popular among them being Lawkananda Ceti. Located on the waterway bank, Lawkananda is an old point of interest close to the old harbor where vessels from Sri Lanka, Arakan (Rakhine) and the Mon Ramannadesa moored. The third pagoda remains over the waterway on Mt. Tangyi and it (?) keeps going on to Mt. Tuywin. This material evidence draws a closer connection of sharing cultures and religions which can be used as pathways to newer readings.

Architecture of Plural Memory

Architecture is one of the primary methods of drawing links between the Bay of Bengal countries and hence permits historians to grasp an idea as to the time and the routes through which relations during the early years of the Bay of Bengal were established. An astute example of this would be the architectural history that exists, especially between Burma, Chola, Pandya and Sri Lanka. According to Culavamsa The Chola, success of Sri Lanka, finished in 1017, regulated the fate to the building exercises of the Sinhalese Buddhist architecture for more than six next decades.

They annihilated the Kingdom and its appurtenant structures at Anuradhapura and numerous religious buildings in the old city and elsewhere. Be that as it may, they built up hallowed places for their own particular confidence, mainly Saivism, at Polonnaruva which was their seat of government. These, actually, were in the Dravidian style of engineering, and were unobtrusive in extent to the magnum opuses in their country. The Siva temple which they raised to the transcendence of Siva at Polonnaruva not long after they had settled here represents the considerable engineering patterns of which they were beneficiaries, and it must be figured among the remarkable authentic monuments of this island. Its old name was Vanavan-madevi-isvaram, named after a ruler of Rajaraja I. The building is made of stone, it is proportional and symphonies in framework, and the ornamentation has been connected with sensible limitation. A picture place of block, with trademark Dravidian base moldings, now called Natanarkovil, which in the days of yore was known as Velgam-vehera, is fascinating and widely known like the Tamil Buddhist Pali that exists today.

The Damila-thupa built by the Tamil prisoners-of-war was of an altogether new concept. The vault ascending from the tremendous terrace and formed base is left unfinished at a height of around 50 feet over the ground in order to leave a broad, round level: amidst this level is a little stupa, on a square stage. The suspicion that the arch couldn't be finished and was done off along these lines is not valid negative, yet the way that two other huge stupas, of

the same configuration, additionally worked by Parakramabahu I, exist at Dadigama, the king's origin, and at Yudunganava, close to Buttala, the site of his mother's cremation (Culavamsa, Ixxii).

There was a remarkable architectural development under Vijayabahu V and his successors. This was the time when the neighboring Tamil nation of South India was under Muslim rule, and the various artisans there lost their occupation. Some of these artisans who were compelled to leave their homes seem to have found asylum and job in Ceylon. Thus the presence of a few Buddhist hallowed places in Dravidian style can be seen in the Sinhalese Kingdom right now.

One of the earliest sanctuaries of this classification was found at Alavatura, now known as Ganegoda in the Kagalla district, built by the hierarch Dharmakirti I. This building is currently in vestiges; however, the place of collective worship was built a few years after and was finished in 1344 by the same hierarch at Gadaladeniya in the Kandy district, and is still under adequate conservation. The Gadaladeniya is a hallowed place, which houses a serene Buddha statue in its sanctum.

The Stucco and Terracotta dolls of gods which are smaller than those in normal places of worship are placed on the dividers of Image-houses, and the friezes of diminutive people and these demonstrate an elevated craftsmanship. Bronze figures have been made in heavenly arrangement of Shiva's pictures uncovered at the Shiva Devalas. Among these are Matarajas, Shiva and Parvati, and various Saiva holy people. These bronzes have surely been brought from South India and appropriately have a place with the historical backdrop of craft of that district. An exceptional neighborhood case of the bronze caster's workmanship is the elephant light found in Parakramabahu's stupa at Dadigama. This item represents how a quick mechanical invention can be consolidated with plastic structures which are stylishly fulfilling.

As for the Burmese relations with Sri Lanka, one of the very significant discoveries is the most fascinating sight in Bagan, the Mahavamsa scenes are painted in the Myinkaba Kubyaukgyi Temple in Bagan. This temple has pictorial delineations of countless covering of the historical backdrop of Buddhism in Sri

Lanka up to the rule of King Vijayabahu, the contemporary of King Anawrahta and Kyanzittha.

Military Interventions of the 12th century

The military forces of the island were organized to a high efficiency by Parakramabahu I. This king was able not only to suppress all opposition at home, but also to undertake expeditions to Burma and South India. Then with the memories of the Chola invasions still fresh, Vijayabahu I was alive to the necessity of maintaining the efficiency of the military forces of the country. He organized a system of coast guards to prevent surprise landing by potential enemies (Liyanagamage, 2001).

The armed force is routinely portrayed as 'four-segmented', comprising of elephants, stallions, chariots and infantry. Chariots and steeds were just an ostensible part of the medieval Sinhalese armed force. Nevertheless, in the Pandya crusade of Parakramabahu I, his troops were mostly drawn in by Pandya and Chola equestrian force, and it is said that the defenses sent by Pandya included several cavalymen. Prior to his accumulation as a dominating power, Parakramabahu I had given unique consideration regarding preparing adolescents to ride stallions and elephants. In internal battles elephants were used but were not transported abroad with the armed forces which attacked Burma and Pandya. Yet unique bolts were conveyed by the Sinhalese fighters for protection against the elephant division of the Burmese armed force.

In terms of naval power, Parakramabahu I had an impressive maritime might since he could attack Myanmar and Pandya. It is likely that his capacity to keep his sea routes open and to keep the Chola naval force under wraps was incredibly encouraged by generous help he got from the maritime might of Srivijaya. Parakramabahu's own particular boats were equipped with very advanced technology of ancient Sri Lanka. The military connections give an impressive picture as to how there existed an intimate connection between the histories of Myanmar and Sri Lanka prior to as well as after the war (Culavamsa, Ixxvi).

Myanmar

Parakramabahu I had friendly relations with Alaungsithu, the ruler of Myanmar. It had been a custom for the Burmese King to donate an elephant to each vessel from Sri Lanka which conveyed blessings to him. Alaungsithu stopped this custom. The unhindered fares of elephants from Myanmar to outside nations, including Sri Lanka, was duly permitted and there were numerous shippers in Myanmar ready for such exchanges. Alaungsithu made the exchange of elephants an illustriously imposing business model and multiplied the costs to be paid for them. During the same time, he grabbed a Sinhalese princess who was en route to Sri Lanka through Myanmar to Kamboja. Frustrated by this progression of affront, Parakramabahu I found that there was no option but to go to war and, appropriately, he searched for underway arrangements for an attack on Myanmar (Culavamsa, Ixxvi).

South India: Chola and Pandya

Nissankamalla is said to have attacked and claimed tribute from Pandya, to have Chola and different nations, and to be engaged in war with Chola and Bengal. The leader of his successful campaign to Pandya was the General named Tavuru, a name more Malay than Sinhalese. He built close relations with Kannata, Bengal, Orissa, Andhra, Gujarat, Burma and Cambodia, and took princesses from Srivijaya, Vengi Chalukya and Gujarat. In his military accomplishments, his fundamental goal was the attack and accommodation of Pandya. Toward Pandya he was most antagonistic, toward Chola a great deal less so. That he set foot on Pandya soil is confirmed by his engraving at Ramesvaram; his armed force under the order of the commander walked further into Pandya domain (Nichols, 1961).

From Chola sources we get to know that Vira Pandya, the confiscated Pandya ruler and Sinhalese protégé, made an endeavor some time before 1189 to remove the Pandya lord, Vikrana Pandya, the Chola protégé; however, he was vanquished at the skirmish of Nettur. He then fled to Ceylon since he realized that the Sinhalese ruler would give him protection. It is understood that Nissankamalla supplied military guide to Vira Pandya to wage war against the Pandya ruler and his Chola partners. On the other hand, Parakramabahu I came to the help

of the Pandya sovereign. There was no reason to make war against the Cholas, and Sinhalese troops were on the losing side of the fight. However, an accommodation of the Pandya lord without any encounter puts a question on the veracity of the case. Albeit no Sinhalese authentic work contains any reference to Nissankamalla's outfitted mediation on the issues of Pandya and Chola. The lord's own particular engravings in the Cholas outfit have a proof of it. The Chola King was Kulotunga III (1178-1218). He expected the title of hero of Sri Lanka without any precedent. Another Chola engraving dated in 1194 states that the Chola armed force started to watch everything in the light of the request, (Sri Lanka) that the southerners may come and prostrate themselves and the leader of the Singalavan might be cut off from them [unclear syntax. Please consider rephrasing]. Later engravings say nothing of the continuation of this request.

Nissankamalla's engravings underscore his entitlement to manage Sri Lanka by righteousness he gained from Vijaya of Simhapur in Kalinga, with whom is connected the origin of the Sinhalese government 17 centuries ago. In Nissankamalla's chance, Simhapura and Kalinga of the Indian terrain were for quite some time overlooked spots; however, the city and the nations in south-east Asia bearing the same names were exceptionally understood, and Nissankamalla's inscriptions give birth to the fiction that the progenitors of the Sinhalese government originated from his country. He barred the non-Buddhist rulers of Chola, Pandya and Kerala from any privilege to the claim of the throne of Ceylon. He possessed unmistakable quality to his imperial benevolence in presenting yearly tulabhara endowments containing valuable substances or cash equivalent to his weight. He claims to have dispatched charges for a long time and to have lessened the rate of tax assessment (Liyanagamage, 2001).

Economic Relations

Nissankamalla was the primary ruler. It was not unusual that the individuals and followers of the Sinhalese monarch started conflicts and dispute in the kingdom. Accordingly, Nissankamalla would have been under pressure to govern legitimately and to appease his subjects by magnanimity and philanthropy keeping in mind the end to win them over to his side. He had a huge naval

force, and experts of the Indian sea and large maritime strength to keep close contacts with Andhra, Orissa, Bengal, Gujarat, Burma and Cambodia. Nissankamalla is known for the construction of stately and elaborate structures with which he adorned Polonnaruva. He governed the state till 1196 and the minute he was dead, savagery broke out (Liyanagamage, 2001).

Politics and commerce were not allowed to endanger each other and generally they functioned within their own respective spheres. Proof of this can be seen in the presence of the members of 'the trading corporation' countries of Chola and the Pandya, during the 12th and 13th centuries and even during political conflicts. Evidence of their presence there can be traced in the inscriptions dated in the reign of Kulotunga III (1178-1216), Maravarman Sundara Pandya and Jatavarma Vira Pandya. This trade was by no means a one-way traffic. Powerful South Indian corporations with ramifications in distant Indian territories as well as South East Asia across the ocean included Sri Lanka in their orbit of activity. The well-known Nanadesis, a corporation with an international character signified by its name was also known in Sri Lanka. During the reign of Queen Lilavathi at the end of 12th century, the Nanadesi merchants set up a customs house at Anuradhapura, the proceeds of which were utilized to meet the requirements of an alms house. Though political relations between Sri Lanka and these countries were far from friendly, these traders functioned without any hindrance to their commercial activity (Liyanagamage, 2001). The above brief analysis show that how the selected countries of BBR are entwined quite intimately through the military, religious, economic and architectural linkages.

Revisiting Pluralistic Memory through Historiography of Sri Lanka, India and Myanmar

This section will explain pathways of interpreting the existing histories of BBR through new interpretation and revisiting the archeological evidence to underline greater relations among them. Over the past century, the pre-modern, non-western world has been utilized as a foil against the present day nation state. Anderson's (2006) work of art, *Imagined Communities*, represents this world-view. In the pre-modern time, he contends, religious groups and dynastic domain were "underestimated edges of

reference" and that "all the immense traditional groups thought about themselves as astronomically focal, through the medium of a sacrosanct dialect connected to a super terrestrial request of power."³ This line of thinking prompts hypotheses of a conflict between pre-modern (or medieval/antiquated) and current eras, predicated upon the pre-modern's assumed distinction from the modern. At the end of the day, Anderson presupposes a distinction between the two periods.

In recognizing the previous century's insightful inspirations for contemplating the idea of sovereignty, it is best to convolute the comprehension of the dynamics that existed between the Bay of Bengal regional cultures. In numerous cases, there are striking parallels amongst commercial and monarchical social orders, particularly scholarly traditions and creative style, mirroring a relationship which can be explained as interdependency. Sanskrit artistic writings had flowed inside a tremendous geographic scope, from 3. See more details: Anderson, B. (2006). *Imagined Communities Reflections on the Origin and Spread of Nationalism*. New York: Verso. Central Asia to Sri Lanka and from Afghanistan to Annam. Now people who articulated their personalities through more limited vernacular writing chose to break with a dialect, as well as with social correspondence and self-comprehension⁴. Similarly, Sri Lankan scholars maintain close academic relations with their Indian counterparts and centers of learning throughout the centuries. The Theravada form of Buddhism had been predominant in the island; its learned exponents were conversant with other philosophical developments in the mainland (Godakumbura, 1943). While Pali was the vehicle of Theravada, the Buddhist clergy in Sri Lanka studied Sanskrit in depth and that language served as an effective tool of communication between the learned communities of the two countries. Important Sanskrit works devoted to non-religious themes such as medicine, astrology and craftsmanship were composed in Sri Lanka, and there are quite a few epigraphic records in Sanskrit too. Development in art and architecture are fields in which India influenced and enriched Sri Lanka's cultural heritage throughout the centuries (Liyanagamage, 2001). It is also possible to decipher the spread of engravings and engineering

over the Indian Ocean as implying discrete political-social practices, according to Pollock (1998).

Meanwhile Sinha (2000) infers that the assorted qualities of architectural styles “show a planned endeavor with respect to their creators to change provincial customs” and also “a territorial methodology of reacting to the building universe of the eleventh century” (Sinha, 2000, p. 22). Hindu temples in most of the Bay of Bengal countries mark the historical connections. While earlier the idea of perfect sign served as a general clarification for the temple’s overall structure, at present individual compositional segments are underlined. The architects of the Bay of Bengal countries depict the interventions between the draftsman and his reality.

Conclusion

A project of a pluralistic memory through historiography of BBR will hopefully offer new interpretations to better understand the history of the concerned region. The narratives of involved communities will help us reinterpret and the archeological evidence in Sri Lanka, Myanmar and India will help us to revisit our traditional thinking and provide new insights.

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Marine science in the National Curriculum: Would it change students' behaviors and protect our marine resources?

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Abstract:

Inclusion of comprehensive marine science education in the national curriculum of countries around the Bay of Bengal is likely to significantly improve knowledge, understanding and behavior of the Bay's citizens across the board. A large part of the challenges involving marine issues fundamentally stem from human-induced actions such as pollution, overfishing, coastal degradation and destroying parts of the environment. Many of these actions are committed in ignorance (i.e. standing on coral and thinking it's a rock), and some in negligence (i.e. dumping industrial waste into a river). But if we increase awareness by involving as many students as possible and teach them the importance of protecting the seas, and teach them in a way that is meaningful to them, many of those negative human actions could change to positive ones. This paper aims to explore how ignorance of facts or concepts can easily be eliminated through exposure. Increasing exposure to a topic means greater retention of said topic and its details. Thus a comprehensive marine science, and education that is not just a one-day lesson, will allow students to enhance knowledge, understanding and ultimately lead to change in behavior both in situ and ex situ.

Introduction: Marine resources in the Bay of Bengal – What is there to protect?

Marine ecosystems and resources are extremely important for all countries in the world, and healthy marine ecosystems bless humans with a variety of benefits. It is estimated that phytoplankton in the oceans produces a significant amount of air that we breathe (Falkowski, 2012). Marine ecosystems also provide ecosystem services such as climate regulation, coastal protection against storms and tsunamis, subsistence and commercial fisheries, tourism, transportation of goods and people, carbon sequestration, and not the least inspiration and wonder (Falkowski, 2012; Burke et al, 2011). While natural causes that damage marine resources such as extreme weather conditions are uncontrollable, a lot of marine issues fundamentally stem from human-induced actions such as pollution, overfishing, coastal degradation and destroying parts of the coastal or marine environment through recreational or commercial uses (Burke et al, 2011).

Mangroves

The mangrove ecosystem provides coastal communities with a number of benefits. They act as important breeding grounds and nurseries for many species of commercial fishes, as well as providing food, fuel, medicine and building materials for the locals (Giri et al, 2015). A range of mangroves also serve as a protection against storms and tsunamis by dissipating the ferocity of adverse weathers (Alongi, 2008; Barbier, 2006; Giri et al, 2015). In the tsunami of 2004, coastal areas in Phang-nga and Ranong provinces of Thailand with mangroves were significantly less damaged compared to the areas without, and good protection was there for inland populations (Barbier, 2006).

The Bay of Bengal boasts of the Sundarbans mangrove ecosystem, which is the 'largest contiguous mangrove forest' in the world, stretching 120 km east to west and 60 km north to south (Giri et al, 2015). While Indonesia ranked 1st in most mangrove vegetation cover in the world at a staggering 22.6 percent, South Asia boasts 8.6 percent of total world mangrove cover (Giri et al, 2015) within the Bay of Bengal. This is no small natural asset considering the whole of Bay of Bengal is vulnerable to seasonal monsoons and storms (Sarathi et al, 2014).

Mangroves face severe anthropogenic threats: land acquisition and conversion into agricultural land, shrimp farms, housing, overharvesting of resources (fishing or cutting mangroves for coal), pollution, reduced silt depositions, erosions and adverse weather disturbances (Giri et al, 2015; Valiela et al, 2001). It is unfortunate that equally crucial ecosystems such as mangrove forests receive even lesser publicity compared to the likes of rainforests or coral reefs (Valiela et al, 2001).

Seagrass Beds

Widely considered as 'coastal canaries', seagrass beds are important ecosystems that can indicate coastal ecosystem health, and constitute one of the most productive marine ecosystems, responsible for an approximate 12 percent of net ecosystem production in the ocean (Govindasamy et al, 2013; Bharathi et al, 2014). They act as nurseries for a number of marine species, many of which are of commercial value, and offer these species protection from predators (Jackson et al, 2001). Dugongs are one of famous marine mammals that are synonymous with seagrass beds (BOBLME, 2015).

The Bay of Bengal has one of the highest diversities in seagrass in the Indo-Pacific, with the greatest diversity being around Palk Bay and Gulf of Mannar between India and Sri Lanka with 15 species recorded. Notable mentions include Andaman and Nicobar Islands, and the Straits of Malacca (BOBLME, 2015).

Coral Reefs

Coral reefs are vibrant ecosystems, high in biodiversity, and are quite special because these are able to thrive in clear waters often lacking in nutrients (Richmond, 1993; Maragros et al, 1996). Reef building scleractinian corals are keystone species because they literally create the habitat that many other organisms rely upon for shelter through the secretion and deposition of its calcium carbonate skeleton (Burke et al, 2011). Coral reefs are adaptable to changes in the environment for millions of years. However, in the relatively short time frame that humans are in play, we have put a massive pressure onto coral reef ecosystems around the world like never before (Richmond, 1993).

In the Bay of Bengal, the Gulf of Mannar between Sri Lanka and India contains 'fringing, platform, patch, and barrier reefs', covering a total approximate area of 65 km². (Rajasuriya et al, 2002). A total of 117 hard coral species were documented; and a total of approximately 3,600 species were recorded in the Gulf's mangrove, seagrass bed and coral reef ecosystems (Rajasuriya et al, 2002). Most shallow corals of the Gulf were destroyed by the 1998 global coral bleaching event (Rajasuriya et al, 2002). In St. Martin's Island of Bangladesh, coral communities extend up to 200m offshore (Rajasuriya et al, 2002). The Andaman and Nicobar Islands are also rich in marine life. These two islands contain 203 coral species, eight species of sharks, more than 1,200 fish species, as well as dugongs, dolphins and sea turtles (Rajasuriya et al, 2002). Even islands far from the mainland such as the Andaman and Nicobar Islands are facing anthropogenic threats. Boat traffic, tourism and human settlements were pinpointed as the main contributors to reduced water quality of coastal waters (Vishnu Radhan et al, 2014). In Thailand and Myanmar, coral reefs adorn the archipelagoes on the side of the Andaman Sea in marine national parks along the coast. While islands of Myanmar are only recently gaining attraction due to the opening of the country, Thailand's national parks along the Andaman have attracted more than five million visitors per year (Yucharoen, 2014).

Fisheries

A growing number of populations coupled with changes in diet preferences would mean more demand for fish now than ever (Barange et al, 2014). Thailand and India's dependence on fisheries is considered moderate (3rd quartile), while Sri Lanka, Bangladesh and Myanmar's reliance is considered high (4th quartile). A plot of 'potential catch change and national dependency' by Barange et al (2014) predicted that all five – Bangladesh, India, Myanmar, Sri Lanka, and Thailand – having higher dependencies on fisheries would experience a reduced potential catch in 2050, with Sri Lanka seeing a potential catch decrease of more than 20 percent.

A few figures from State of World Fisheries and Aquaculture (2014) of the Food and Agricultural Organization (FAO) of the United Nations should be taken into account. The Bay of Bengal has seen an increase in total catches, and the trend is ever

continuing. The concern is that over 42 percent of catches are under the category of 'marine fishes not identified', and suggests much needed improvements in monitoring stocks. In 2012, Thailand ranked third globally in fish and fisheries products, with a net value of the industry valued at \$ 8.079 billion. Marine fish comprised more than 50 percent of total animal protein intake in Sri Lanka (FAO, 2014). In 2012, India ranked seventh highest in the world for capture of fisheries, with a total estimated catch of about 3,402,405 tonnes. Fisheries in India are mainly export-based. It is estimated that 0.933 million people are directly involved in the fisheries business, 1.01 million part-time, and 1.39 million involved in ancillary activities (FAO, 2014).

Tourism

In 2014, the most popular domestic tourist destination in India was the state of Tamil Nadu, which is situated next to the Gulf of Mannar. Over 32.75 million visitors or more than 25 percent of total domestic tourists visited Tamil Nadu. The trend continued for foreign tourists in India. Tamil Nadu ranks the most popular destination among foreign tourists with 20.6 percent of overall foreign tourists, around 46.5 million visitors (Ministry of Tourism India, 2014).

In Thailand, coastal provinces around the Andaman Sea are famous for their scenic beaches and islands with crystal clear waters, home to iconic spots such as Phi Phi Island, Mu Ko Surin National Park, Mu Ko Similan National Park, among other destinations. All these attract a large number of tourists to these provinces. Data from the Department of Tourism from January to April of 2016 reveal that on average some 2.8 million domestic tourists visit the six provinces of Phuket, Ranong, Phang-Nga, Krabi, Trang and Satun every month. (Department of Tourism, 2016). Economic valuations in 2001 of popular marine parks in the Andaman Sea, such as Tarutao, Mu Ko Surin, Hat Nai Yang, Mu Ko Similan, Mu Ko Lanta, and Mu Ko Surin National Parks revealed a total approximate of \$2.977 billion (Seenprachawong, 2001).

Marine Science in the Curriculum

This paper proposes the addition of marine science as an integrated science course of the national curriculum. This could

work well at the high school or upper secondary level, where students start to learn subjects like biology, chemistry and physics. The goal is to relate it to their everyday lives, and allow students to have a connection with the ocean (Kim, 2014). Marine science is a fitting denominator to fulfill science standards. According to the US National Research Council, the standards should include: 'Unifying Concepts and Processes in Science, Science as Inquiry, Physical Science, Life Science, Earth and Space Science, Science and Technology, Science in Personal and Social Perspectives, and History and Nature of Science' (Lambert, 2006). Indeed, Lambert (2006) suggested that marine science as an integrated science course, a course that teaches concepts from biology, chemistry, physics, and earth science all in a 'common context', can help students achieve better scientific literacy. Guest et al (2015) suggested that it may be good to use the biological aspects, such as marine life of marine science as a lens into the different sciences such as chemistry, physics, as well as biology itself.

National Curriculums of Bay of Bengal Member States:

Outlined below will be select briefs of national curriculums and efforts with regards to the sciences, environmental sciences or marine sciences for all seven Bay of Bengal member states. There is an apparent lack of mention of keywords such as 'ocean', 'sea', 'marine' in the curriculum documents that were looked into, but this means a great opportunity to include marine science into the national curriculums of the coastal countries.

It has to be noted that Bhutan and Nepal are landlocked and have no direct access to the seas. This puts them in a different category in international field studies. And if they want to do it, that would be highly costly and in many circumstances not a feasible option. Marine science may not be an option to add as an elective course, but should definitely be covered in related classes, and 'digital field trips' can be utilized to allow students a glimpse into the oceans and all its wonder. Nepali and Bhutanese students may take advantage in opportunities such as exchange programs where students from Bhutan and Nepal get a chance to do research on marine environments.

Bangladesh

In Bangladesh, the National Curriculum and Textbook Board (NCTB) is the official body in charge of providing the curriculum. A list of classes being offered at public school levels can be viewed from a drop-down menu on its official website. The curriculums are divided into Pre-Primary, Primary (I-V), Secondary (VI-X), and Higher Secondary (XI-XII) student groups (National Curriculum and Textbook Board, 2014).

The Secondary (VI-X) class options contain 15 subjects, five of which are related to sciences: mathematics, science, agriculture, home science, and ICT, Career & Work and Life Oriented Education.

The Higher Secondary (XI-XII) class options contain 32 subjects, a higher diversity in the number of options. There are 11 subjects related to sciences: agriculture, biology, chemistry, food and nutrition, geography, higher math, home science, ICT, physics, soil science, and statistics.

The South Asia Environment Outlook (SAEO), produced by the United Nations Environment Programme (UNEP) in 2014, identified a few initiatives within the country that support environmental education. Firstly, 400 science clubs have been established across the country. Secondly, grades three-five students have courses in environment studies that look into two lenses of society as well as science. Thirdly, the National Environment Policy and National Plans of Bangladesh highlight the importance of environmental education (UNEP, 2014).

Bhutan

In Bhutanese secondary education, the curriculum is noted as 'broad-based' to attain 'holistic learning'. In higher secondary education, Bhutanese students are allowed to choose between general and vocational education tracks. There is the mention of 'environmental issues' as a common foundation skill (The School Education and Research Unit, 2012).

A section supporting integrated learning is titled 'Interdisciplinary Linkages and Cross-Curricular Studies'. 'Science' under the abovementioned section is quoted as follows: 'In the early primary stages, science is studied, along with social science through the

broader learning area of Environmental Studies. The students learn to appreciate the living and non-living environment around them and develop an awareness and curiosity of the same' (The School Education and Research Unit, 2012).

Efforts by Bhutan to improve environmental education are as follows. Firstly, in Bhutan, courses in physical education, health and arts also include environmental themes. Secondly, informal nature groups have been created to exchange ideas and educate local villagers on the importance of the environment. Thirdly, the Royal Society for Protection has constituted nature clubs in every school in Bhutan (UNEP, 2014).

India

At the primary level, from grades three-five, it is stated in the national curriculum framework that 'science and social science should be integrated into 'environmental studies', with health as an important component.' At the secondary level of education, it is all about laying the foundations through working with tools and systemic experimentation, and working on projects that have significant local impacts through science and technology. The higher secondary education level sees science being offered as separate disciplines, and highlights experiments, technology and problem solving. It is mentioned that superficial coverage of a large number of topics within a discipline is to be avoided (National Council of Educational Research and Training, 2005).

India promotes environmental education, awareness and training schemes through National Environment Awareness Campaigns (NEAC), eco clubs, National Green Corps (NGC), Global Learning and Observations to Benefit the Environment (GLOBE), Environmental Information System (ENVIS), as well as the establishment of Center of Excellence for environmental education (UNEP, 2014).

Myanmar

Myanmar divides secondary education into Lower Secondary and Upper Secondary. Classes that revolve around the sciences in Lower Secondary include mathematics, geography, and general science. In the Upper Secondary, classes related to the sciences

include mathematics, chemistry, physics, biology and geography. Agriculture at the secondary level is a part of vocational class.

At the Upper Secondary level, students can select three subjects to take from several courses. For example, a student can select geography, biology and economics, or history, biology and chemistry (Sugiyama, 2013).

Nepal

In Nepal, the secondary level of education is from grades nine-twelve. A student can follow the general education track, or the vocational education track. Science is a core learning area, and pupils get to select electives from four different elective groups. Electives that are related to sciences are as follows: extra maths, food science, agriculture education, horticulture, environment and population studies, home science, geography, mountaineering, community health. In the vocational track, study areas can include agriculture, forestry, engineering, and medicine (Ministry of Education and Sports, 2007).

Sri Lanka

In Sri Lanka, students take science as a core subject, and are allowed to choose one elective each from three different groups. Electives related to sciences include agriculture and food technology and fisheries and food technology (National Education Commission, 2014). The website of the National Institute of Education in Sri Lanka displays downloadable syllabi of courses. Related science classes in grades 10-13 include agriculture, geography, physics and biology (National Institute of Education, 2016). Environmental studies are offered at the primary level, with science, social studies and health at the secondary level, followed by zoology, botany and geography at the higher secondary level. Environmental brigades and clubs are established in schools, and field study centers have been established across the country (UNEP, 2014).

Thailand

In the Thai curriculum, a strand in the science section is dedicated to the theme of 'Life and the Environment', focusing on the importance of our link with the natural world, as well

as the understanding of the importance of natural resources and proper utilization of said resources. Grade 12 graduates are expected to 1) explain equilibrium of the ecosystem, 2) explain processes of change and replacement of living things, 3) explain importance of biodiversity and propose solutions, 4) analyze causes and problems of environment and natural resources at local, national and international levels, 5) discuss and propose solutions to combat issues, and 6) plan and observe, and preserve the development of nature and its resources (The Ministry of Education, Thailand, 2008).

Ocean Literacy

In the US, the Ocean Literacy campaign aims to use the teaching of the oceans to fulfill their National Science Education Standards. Ocean Literacy has a concept punch line as follows: 'Ocean literacy is the understanding of the ocean's influence on you and your influence on the ocean'. The campaign advocates for the public to know seven essential principles and 44 fundamental concepts to achieve ocean literacy (Cava et al, 2005).

There is generally a concern for the environment and the oceans, but insufficient knowledge renders the public unable to connect their actions to the consequences that they have toward the oceans (Nelson, 2014). In the US, Steele et al (2005) conducted a survey of coastal and non-coastal citizens on their ocean knowledge, and results suggested that both groups had difficulty in identifying important marine terms and concepts. A survey on ocean acidification by Ocean Project revealed people's concerns toward the issue. One group was briefed about the subject matter prior to distribution of questionnaires while another was not. The results saw increases in concerns over ocean acidification in the group that was briefed in contrast to the group that was not briefed (Nelson, 2014). This means what may be inhibiting the public from taking action may be a lack of knowledge and not a lack of passion.

On the flipside, there is also argument for knowledge not being enough to take action. Stepath (2004) argues an 'almost zero to moderate relationship between awareness, attitudes, and participatory action'. Kim (2014) observed primary students visiting an aquarium for a five-day camp, and even though survey

results showed that students' knowledge levels of the ocean have increased, few connections were made to individually link each student to the ocean. This is an important observation because a disconnection between an individual and the ocean may lead to 'negativistic orientations' toward the ocean. The same study noted two different students demonstrating different attitudes toward the ocean. One showed a 'utilitarian and negativistic orientation', while another student showed 'natural and aesthetic orientation' toward the ocean. Kim (2014) argues that metacognitive knowledge, or the ability to reflect one's own cognition, is necessary for a competent level of ocean literacy, because then on they will be able to relate their actions and what that would do to the oceans. However, Guest et al (2015) conducted a survey of 723 students from 11 public schools aged 12-18 (grades 7-12) to 'assess the level of ocean valuation, knowledge, interaction, and interest' in Nova Scotia, Canada, based on Ocean Literacy principles from the US. The results showed that most students valued the ocean moderately to highly, in particular biological aspects. There is also a correlation between higher knowledge and interest toward the ocean and careers in the field.

The two conclusions of the same premise are not mutually exclusive of one another. Having knowledge can lead to action for some, and having knowledge does not necessarily lead to action for others. This distinction is likely to be a result of fundamental levels of impact and connection that person has with the ocean. The more connected an individual is in relation to the environment, the higher the chance of pro-environmental behaviors (Davis et al, 2009). A passive approach with the aim of just getting knowledge in students' heads, and not executing the lessons in a context where students can appreciate, relate, and develop a sense of care and urgency for the environment, could spell the difference between people who are factually ocean literate, and people who are fully ocean literate, and follow through with actions in their daily lives.

Interactive Classes

'Flipped classrooms' turn the traditional teacher-led classroom styles with directions and follow-up homework to receiving instructions at home first, doing the research, and using class time

to apply knowledge and discussion in groups. This means more time for feedback, and gives more responsibilities to students to study materials before class (Gillan and Smith, 2014).

Field trips should be an important component of the marine science class. The benefits of field trips and experiential education are well documented. Field trips provide students with a level of intimacy with their subject through getting students out of the classroom, demonstrating connections of classroom concepts and the real world, putting students on the spot, and allowing for a more holistic and first-hand learning through hands on activities (Haigler, 2015; Behrendt and Franklin, 2014). Marine science field trips could prove a useful and important tool to make that fundamental connection with the ocean, especially to students that are from provinces far from the coast, and it is their first time by the sea.

In thematic tune with experiential education, the potential of 'citizen science' can help in the continuous monitoring of coastal and marine resources. In marine tourist destinations and marine protected areas, having tourists and volunteers partake in monitoring programs such as fish or coral reef monitoring can be an engaging way for tourists to learn about and develop their own connections with the natural world. It also means that when performing 'citizen science', the public goes through a similar thought process that scientists go through, and thus reinforcing this concept of scientific application in their daily lives (Ghilardi-Lopes, 2015). In Florida, the ORCA's Save the Water Babies project turned high school students into citizen scientists. Students determined sources of pollution and where it ends up in the Indian River Lagoon. They used their newfound knowledge to influence the local community to prevent the deaths of first born dolphins (Widder et al, 2014). If the general public is more informed and aware of these marine issues, there is definitely a higher chance of participating in 'citizen science' for them, and contributing to environmental and marine conservation efforts of the country.

Conclusion

The Bay of Bengal has significantly large amount of marine resources that ought to be protected and utilized in a caring manner. Inclusion of marine science in a national curriculum, and if this is delivered correctly, would increase exposure of the topic to more youths of member states. It would bring about legitimacy and a sense of urgency into the matter of protecting our oceans, and would also synergize well with other marine-related efforts by the government. Bay of Bengal's member states can assist each other in a number of ways: collaborating on the contents of the national curriculums, cooperating to fund marine education field trips for students who are not from the coast, and establishing joint scholarship and research opportunities that primarily focus on the Bay of Bengal. Regional cooperation with regard to environmental education exists already, from UNESCO-UNEP Environmental Education Program from 1975-1995, to the United Nations Decade of Education for Sustainable Development (2005-2014) (Sauve et al, 2007). The ASEAN Environmental Education Action Plan (2014-2018) is a framework for ASEAN member states (Myanmar and Thailand are part of ASEAN) to incorporate environmental education and education for sustainable development into target areas of member states (ASEAN Environmental Division, 2014). Other examples include South Asia Co-operative Environment Program's Strategy and Programme I & II, and Network for Environmental Training at Tertiary Level in Asia and Pacific (NETTLAP) (UNEP, 2014). The guidelines and lessons from these regional cooperation efforts can serve as a template for a similar effort in the Bay of Bengal region.

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