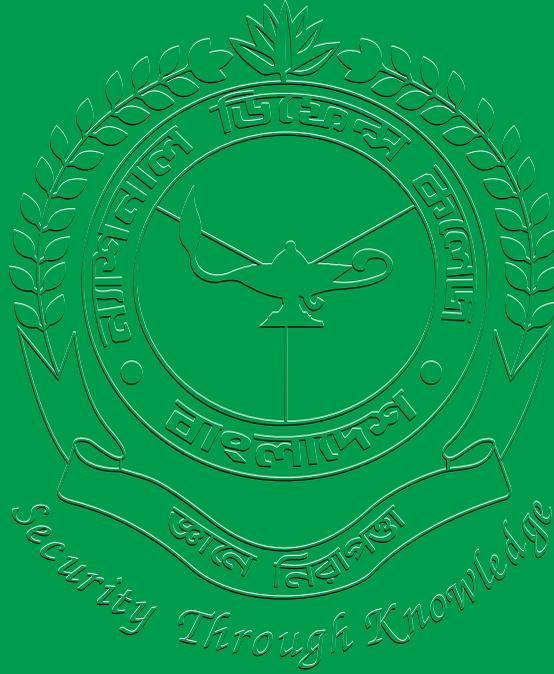


ISSN: 2521-7135

NDC SEMINAR PAPER



Proceedings

**Seminar on
Reform of Education Sector of Bangladesh
for Realization of Vision 2041**

Date: 13 March 2018

VOLUME 03

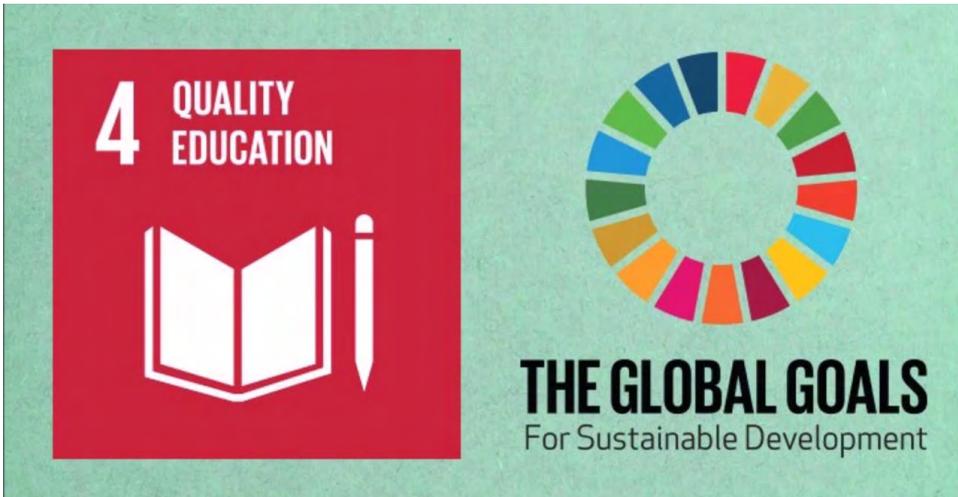
NUMBER 01

MARCH 2018

**NATIONAL DEFENCE COLLEGE
BANGLADESH**

**Seminar on
Reform of Education Sector of Bangladesh for
Realization of Vision 2041**

**Organized for
Capstone Course - 2018 -1
by National Defence College
on 13 March 2018**



**NATIONAL DEFENCE COLLEGE
BANGLADESH**

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Foreword

Education remains a matter of paramount importance in every nation's life. It deepens the understanding of the surrounding environment and world. It enriches people's minds, moral and ethical standards by broadening their experience and outlook. It strengthens people's ability to contribute to knowledge, wisdom and to productivity by acquiring skills and dexterity. The nations that placed education and human resource development on top of national agenda achieved accelerated socio-economic, politico-cultural, herito-religious, science and technological development and growth.

The education system in Bangladesh has undergone several reforms since the nation's independence in 1971. Educating the large population of the war ravaged poverty-prone nation was the massive challenge for every government. A number of education commissions have been established by the governments with a view to maintaining modern, scientific and effective education system in Bangladesh.

Higher education is one of the important parts of the education system. The key aims of higher education are to generate new knowledge, explore research works on different social and development issues, anticipate the needs of the economy and prepare highly skilled workers. In these contexts, higher education should be standard, welfare and sustainable development oriented.

I would like to take this opportunity to express my deepest appreciation for the valuable contributions made by those who worked behind this paper. We publish this hoping that it will help deepen our understanding of the topic and stimulate further discussions.



Lieutenant General Chowdhury Hasan Sarwardy, BB, SBP, BSP, ndc, psc, PhD
Commandant
National Defence College

Editorial

The Education system of Bangladesh is continually undergoing reforms in order to meet the current and future needs and challenges of the socio-economic developments of the country as well as the imperatives of a global knowledge economy.

Education plays a vital role for substantial economic development and primary education lays the foundation for it. Perhaps the greatest strength of the primary education in Bangladesh is the consistent, high level national commitment and consensus on the priority. Technical Vocational Education and Training (TVET) is provided by formal and informal means. The Ministry of Labor and Manpower (MOLM) provides skill training through its technical centers.

Higher education in Bangladesh has many strengths and advantages. Private establishment and management is an important characteristic of higher education in Bangladesh. There is no alternative to education for development of human resources. This fact is now universally recognized. More investment in education means moving ahead in development.

We are truly grateful to all the contributors for this paper despite their busy schedule of professional commitments. We would feel amply rewarded if the readers find the issue worth reading and satisfying.



Air Commodore M Mortuza Kamal, GUP, ndc, psc, GD(P)

Senior Directing Staff (Air)

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Overview of the Seminar

As part of the course curriculum, National Defence College (NDC) arranges a good number of seminars and other individual and group research works for the course members.

The seminar on **“Reform of Education Sector of Bangladesh for Realization of Vision 2041”** was held at NDC auditorium on 13 March 2018 as part of the course curriculum of Capstone Course 2018-1. Four keynote speakers presented their key note papers on different sub-themes.

The panel of presenters covered four sub-themes, namely: Reform of Primary Education, Reform of Secondary Education, Reform of Higher Education and Reform of Technical Education.

The topic of the seminar was very much effective for the present context of Bangladesh. All the keynote speakers upheld important sides of the themes and the discussion contributed a lot to fulfill the aim of the seminar. At the end of the presentation there was an interactive session where Commandant NDC, Keynote Speakers, Resource Persons, Faculty, Senior Directing Staffs, Fellows of Capstone Course 2018-1 and all Course Members of National Defence Course 2018 participated and contributed.

Session Chair



Rear Admiral Muhammad Anwarul Islam
NGP, ndc, afwc, psc, BN
Senior Directing Staff
National Defence College

Keynote Speakers



Keynote Paper-1: Reform of Primary Education for
Realization of Vision 2041
By-Rasheda K Chowdhury



Keynote Paper-2: Reform of Secondary Education for
Realization of Vision 2041
By- Md Nazrul Islam Khan



Keynote Paper-3: Reform of Higher Education for
Realization of Vision 2041
By- Professor Dr. A K Azad Chowdhury



Keynote Paper-4: Reform of Technical Education for
Realization of Vision 2041
By- Professor Dr. M Kaykobad

Executive Summary

Reform of Education Sector of Bangladesh for Realization of Vision 2041

Introduction

NDC, Bangladesh arranged a seminar on “Reform of Education Sector of Bangladesh for Realization of Vision 2041” on 13 March 2018.

Conduct of the Seminar

The seminar was conducted in two sessions. Professor Emiretus, University of Dhaka, Dr. A T M Anisuzzaman graced the occasion as the Chief Guest. At the end, there was a lively interactive session, where many from the audiences, resource persons, academicians and practitioners gave their valuable comments.

Sessions of the Seminar

Session-1

- **Keynote Paper-1: “Reform of Primary Education for Realization of Vision 2041”**, presented by Rasheda K Chowdhury
- **Keynote Paper-2: “Reform of Secondary Education for Realization of Vision 2041”** presented by Md Nazrul Islam Khan

Session-2

- **Keynote Paper-3: “Reform of Higher Education for Realization of Vision 2041”** presented by Professor Dr. A K Azad Chowdhury
- **Keynote Paper-4: “Reform of Technical Education for Realization of Vision 2041”** presented by Professor Dr. M Kaykobad

Session - 3: Interactive Session

Findings of the Seminar

During presentation the presenters touched upon the key issues in their respective themes. The major findings of the seminar are highlighted below:

- **Keynote Paper-1: Reform of Primary Education for Realization of Vision 2041**
 - The achievements in Primary Education and its necessary reforms.
 - Quality education is needed badly.
 - Importance on universal primary enrollment, soft-skill of teachers, teaching moral values, proper financing.
 - Effective governance for Primary Education Sector.
 - Need Civil and Military Orientation in our education system.
 - Need a comprehensive education act. Religious Stream, Mainstream and English Medium Stream should be handled by this act.
 - Discrimination among the students (according to their financial condition) should be avoided.
 - Each and every institution has to be registered within government regulatory framework.
- **Keynote Paper-2: Reform of Secondary Education for Realization of Vision 2041**
- **Reforms should focus on targeting**
 - Increased enrollment in schools.
 - Developing entrepreneurship rather than jobs.
 - Shifting from general education to technical education.
- **Reforms needed for providing quality education. This should focus on:**
 - Developing critical and logical thinking among the students.
 - Developing creativity among the students.

- Developing co-creation and sharing rather than individualistic approach.
 - Utilizing crowd sourcing and learning from others around.
 - Developing team spirit among the students.
 - Utilizing the potentials of ICT enabled learning.
 - Develop analytical capability of the students.
 - Develop teachers' efficiency by proper career planning and training.
- **Reforms Needed for Developing School Infrastructures**
 - Schools should be constructed holistically rather than piecemeal construction.
 - Classroom ergonomics should be taken care of. Need to develop furniture and education industries. Schools to have auditoriums, dining halls and other essential allied facilities.
 - Schools need to have Modern Laboratories co located with classrooms, rather than being far apart.
 - Schools should have proper playground and swimming facilities for allowing physical development of the students and learning swimming.
 - Schools should have proper and well maintained toilets for maintain sanitation and hygiene of the students.
 - Schools should be given with more operational Budget and increased autonomy. However, there must be adequate check and balance and accountability.
 - The education system must comprehend the effect of education on nature and sustainable development of the country. Education must not be a hindrance for sustainable development.
 - Reforms is needed to shift from Examination to Assessment mode. A system need to be developed so that a student can be continuously assessed.

- **Reforms needed for developing reading habits and facilities for the students:**
 - Establishment of community libraries may be an adoptable approach to develop reading habits of the students.
 - Government may patronize establishing book industries, class room and allied accessories industries in special economic zones.
 - All schools should be embedding ICT with education by allowing students to receive multimedia education, use of Tab/ mobile contents through specialized software made for the students only.
- Reforms needed for defect assessment of the education system. Media may identify the defects in education system and bring those in front of others, for necessary correction. When media would sensitize these issues through broadcasting, people's perception about education would change.
- We need people who may go against the flow. We need leaders, who can change our education system, can create lots of leaders and teams for affecting the reforms in education sector.
- **Keynote Paper-3: Reform of Higher Education for Realization of Vision 2041**
 - Higher education commission should be formed with sufficient fund and legal authority to completely overhaul higher education system
 - Politicization of teachers' recruitment and academic administration should be abhorred.
 - The budget of education should be raised to 4% of GDP.
 - Pay and service condition of teaches should be made lucrative so that the best brains are attracted to the profession.
 - Science, Technology and Innovation should be given priority in the curricula of higher education and curricula be regularly updated.

- Emphasis on faster transformation of certificate-based education to knowledge based education at the secondary and higher secondary levels and also in the private universities.
- Trainer development program is another area which needs reform so that we can ensure bright carrier for our teachers.
- **Keynote Paper-4: Reform of Technical Education for Realization of Vision 2041**
 - People want to do the more demanding technical jobs, which earns more money. But the focus is opposite in Bangladesh.
 - We have 10 million unskilled workers outside the country. If they could have been given them some technical skills and language training, they could have earned a lot more.
 - The illiterate and unskilled workers of the garments industries and workers in Middle East and other countries adds to GDP every year, in comparison to that of the educated segments, who go to USA or Canada and settle their.
 - Achieving Vision 2041 by the efforts of only illiterate and unskilled segment of the country is a daunting task.
 - The 10 million foreign workers earning 15 Billion USD every year as remittance. While, a few thousand people at home are taking 32000 Crores Taka out of the country. We need to compensate between these two.
 - In terms of education spending as the percentage of GDP, Bangladesh is at the bottom. Sri Lanka is behind Bangladesh, but they are highly educated nation.
 - The spending in Ethiopia is 4.7%, India 3.3%, Pakistan 2.4 %, Afghanistan 3.1%, Iraq 2.3% and Bangladesh 2.2%. How Bangladesh is giving highest priority, with this lower percentage of spending in

education sector? It indicates that we are not moving ahead. Speed is relative. If everyone is running at a speed 10 km per hour, and we are running at 5 km per hour, then we are going back.

- The advanced countries have good ranking in education system. Technical education of Japan is very famous. Ratio of engineering to science students in Japan is 6:1. In Bangladesh the ratio is almost zero. In Korea, vocational and technical education amounts 27%.
- In Germany, they conduct vocational education and training system. They conduct dual training system. The students go to educational institutes and industries at the same time. As such they become much more employable. They maintain good relation with industries and they are employed.
- ICT experts should be utilized in development and maintenance of different ICT based systems, like: core banking software and other systems.
- Many countries have provision of national service by the youths like: USA, Canada and Korea. They provide service in different manners. The youth segments conduct research at a minimum cost for the country, even if they are very meritorious. Bangladesh does not have similar service.

Recommendations

- Science, Technology and Innovation should be given priority in the curricula of higher education and curricula be regularly updated.
- Pay and service condition of teaches should be made lucrative so that the best brains are attracted to the profession.
- A comprehensive education act is needed and Religious Stream, Mainstream and English Medium Stream should be handled by this act.

- Soft-skill of teachers is very important and that's where a reform is needed.
- Universal primary enrollment is also an important issue which is badly needed for quality education.
- Organizational reform and reform of teacher recruitment practices need for maintain the quality education.
- The budget of education should be raised.
- Support for public private partnership in training is needed.
- Teacher recruitment practices and Organizational reform should be improvised.
- Support for enterprise based training and flexible training provisions depending upon industry requirement should be introduced.

Opening Address of Commandant, NDC

Lieutenant General Chowdhury Hasan Sarwardy
BB, SBP, BSP, ndc, psc, PhD

Bismillahir Rahmanir Rahim.

Respected Professor Emeritus Dr. A T M Anisuzzaman, Dhaka University,
Professor Emeritus Dr. A K Azad Chowdhury,
Former Advisor to Caretaker Govt. Rasheda K Chowdhury,
Learned Keynote Presenters, Esteemed Participants of Capstone Course
2018-1 and Course Members of NDC-2018, Distinguished Academicians,
Professionals, Senior Military Officers, Government Officials, Representatives
of Civil Society,

Assalamu Alaikum and Very Good Morning

I am honoured and privileged to welcome you in the Seminar. Bangladesh is aspiring to become a middle-income country by 2021. Very recently, the Prime Minister of the Peoples' Republic of Bangladesh declared her vision to take Bangladesh at par with the advanced countries by 2041. "Vision 2041" is now synonymous to an advanced Bangladesh. NDC, as the pioneer think tank organization broadened the thinking process of Vision-2041 by organizing number of seminars in recent years. In continuation of pursuing the thinking process of Vision-2041, this year NDC has planned to organize today's seminar on "Reform of Education Sector of Bangladesh for Realization of Vision 2041".

We express our deepest gratitude and sincere thanks to Dr. A T M Anisuzzaman for gracing this occasion as the Chief Guest. We are also grateful to Professor A K Azad Chowdhury, Rasheda K Chowdhury, Md Nazrul Islam Khan, Former Secretary, Ministry of Education and Curator, Bangabandhu Sheikh Mujibur Rahman Memorial Museum and Professor Dr. Kaykobad, Department of CSE, BUET for presenting Keynote Papers in the seminar.

Distinguished Guests, Ladies and Gentlemen

This is the month of March, the month of struggle. Our Father of the Nation Bangabandhu Sheikh Mujibur Rahman called the Nation to fight with whatever they had against the occupation force on 7th March 1971. On 26th March 1971 the declaration for war of independence was given by our Father of the Nation Bangabandhu Sheikh Mujibur Rahman. Following a long 09 months bloody war Bangladesh was liberated on 16th December 1971 under the great leadership of our great leaders. Bangabandhu Sheikh Mujibur Rahman was an epic poet, visionary leader - a philosopher, whose philosophy was Bangladesh. His dream was to see a modern Bangladesh, a “Sonar Bangla”. His able progeny Hon’ble Prime Minister Sheikh Hasina dreamt a developed Bangladesh by 2041. Hon’ble Prime Minister said “In implementing the Vision-2041, Bangladesh will be a peaceful, prosperous, happy and developed nation comparable with the developed world”. Bangladesh is now ready to assume its rightful place and lead the way by example for resource constrained, geographically vulnerable and climatically challenged least developed countries around the world towards sustainable development and long term prosperity. Inspired by Bangabandhu’s vision for a “Sonar Bangla” - a “Golden Bengal” - Prime Minister Sheikh Hasina has laid out a blueprint for a developed and prosperous Bangladesh by 2041.

Distinguished Guests

A developed country, industrialized country, or “more economically developed country”, is a sovereign state that has a highly developed economy and advanced technological infrastructure relative to other less industrialized nations. Most commonly, the criteria for evaluating the degree of economic development are gross domestic product, gross national product, the per capita income, level of industrialization, amount of widespread infrastructure and general standard of living. Which criteria are to be used and which countries can be classified as being developed are subjects of debate. Now, as Bangladesh aspires to become a developed country, Bangladesh should not be developed only in the economic sense. It must be a nation that is fully developed along with all the dimensions: economically, politically, socially, spiritually, psychologically,

culturally, educationally and administratively. We must be fully developed in terms of national unity and social-cohesion, in terms of our economy, in terms of social justice, political stability, system of government, quality of life, and social and spiritual values, national pride and confidence. In one word the state must ensure human dignity and democracy for people. I call it Dignicracy- a new concept of Democracy.

Distinguished Guests

Education renders people with certain capabilities that prepare them to contribute to the social and economic development of the nation. Such capabilities turn them into human capital which, according to development economists, raises productivity when increased. In order to become a knowledge-based society, a nation has to achieve some features that encompass such basic pillars as structural capital and human capital. The structural capital consists of infrastructure and governance, while the human capital emphasize the creation of a skilled, trained, educated and productive population and relational capital accentuates social relationships and cultural aspects of a society. As regards to forming a knowledge-based society, along with other capital, human capital plays the key role in giving these societies an edge in competence over other societies. It is therefore important to ensure quality education throughout the society that enriches society's human capital which, in turn, boasts creativity in the society and develop a knowledge economy. However, the education system in Bangladesh still remains far behind approaching toward a knowledge-based society. Perusing for GPA-5 will never bring good result. It will rather damage the education. There are both structural and functional flaws in the education system of the nation. Approaching toward a knowledge-based society requires these flaws to be addressed immediately with some reform measures that reinvigorate the education system in creating a substantial knowledge base and ample human capital in Bangladesh.

Distinguished Guests, Ladies and Gentlemen

Bangladesh has achieved an exemplary success in primary education as regards to increased enrolment rate, while the enrolment rate is not satisfactory in

secondary schooling and the tertiary education is expanding. However, the quality of education imparted at all the primary, secondary and tertiary levels is not up to the mark to create a strong human capital and reckon the prospect of knowledge-based society in the country. A number of reform measures are required to be undertaken in order to ensure quality education and create an effective knowledge base in the nation.

Importance of primary education in Bangladesh is essential. Because, primary education is the precondition of mass education. It's time to increase our child's knowledge, good thinking and to make good manners. So the importance of primary education is too much in our society. Despite many achievements during the past decade, major improvements are still needed in order for all children to receive the benefit of quality education.

Higher education sector can meet the needs of the economy. It promotes an overall development of society, for example: social, economic, technological, human resources development etc, which are highly correlated. The development of higher education plays an important role in facilitating these changes and producing adequately trained manpower. The effectiveness of higher education institutions contributes to development both internally and externally. So, higher education needs sustenance and quality with time and space.

Technical education unquestionably promotes economic status of the nation. If a country has more production of goods, it can feed its people easily. Foreign currency can be earned by selling the extra production to other countries. If a country does not own required technicians and technical experts, it has to hire them from other countries. They have to be paid more money as their salary. Through them, the money goes away. As a result, the country cannot be developed. It can be said that the development of a nation depends on technicians and technical experts also.

Distinguished Guests

Education is a crucial sector in any nation. Education plays a pivotal role in long-term productivity and growth at both micro and macro levels. As such,

the state of education in Bangladesh continues to be our national discourse at all levels. It is also important to realize that discussions on education and its reforms to make it contribute meaningfully to national development should gradually and systematically move away from a politicized to a more analytical approach for revamping our educational system. So, to be a prosperous and developed country and attain the vision 2041, the dream of our Hon'ble Prime Minister Sheikh Hasina, we should have a knowledge-based society with highly skilled and knowledgeable human resources in both education and administrative sector in the days to come. The question remains; can our existing education system support us to reach to a status of a developed nation by 2041? How can we set the momentum of development through reform of education sector for realization of vision 2041? In today's seminar, I hope the key note presenters shall answer these questions and give us guidelines to reach to Vision 2041.

Distinguished Guests, Ladies and Gentlemen

Before I conclude, I would once again thank Respected Professor A T M Anisuzzaman, Professor Emeritus, Dhaka University. The College is highly honoured by his gracious presence in this memorable event. Thank you very much. I would also like to thank the participants, our esteemed guests and media personnel for their generous presence at this momentous occasion.

Thank you Ladies and Gentlemen. Thank you all. Allah Hafeez. Bangladesh
Chiro Jibi Hok.

Address of the Chief Guest

Dr. A T M Anisuzzaman, Professor Emeritus, Dhaka University

The Commandant of the National Defence College, the moderator, Fellows of Capstone Course, staffs and other participants of National Defence Course, Ladies and Gentlemen. I would like to express my deep sense of gratitude to the Commandant and staffs of the NDC for having asked me here to chair.

I would also like to congratulate four keynote speakers before me who have presented excellent papers. As a consequence of which I have very little to add to what they have already said. It is generally agreed that, in order to realize the vision of 2041 we should have a knowledge based society. Education is believed to be the main gateway to establishing a knowledge based society. Having looked at our education system we find that we have systems instead of a system. The general scheme of education is divided into Bengali and English versions. The madrasa system is divided into the main stream and koumi madrasa system. And then there is overarching presence of English medium instruction which follow curriculum of foreign universities. Now the initial question that comes in our mind is whether the products of such varied systems of education contribute to a unified nation or they contribute to a fractured society. In order to get maximum out of education system we need to invest more than what we had been doing in the past.

The present quantum of GDP that we use in our education sector is 2.2%. Generally it is agreed that the developing nations should expend 6% of GDP for education. We don't know when we can reach that level. Now in education sector our aim should be to have first, education for all. And then a better and developed human resource. We have agreed that the primary level of education should consist of eight year instruction. But we are yet to implement this. From 1972, when the Qudrat-e-khuda education commission came into being, every education commission has recommended that we should have eight year primary education system. Because five year primary education gives no gap. Not only the enrolment in the primary school should be 100 percent, we should also see that they don't drop out. About primary and secondary education, it has been said also today that, we have somehow lost what is called joyful learning. The joy has taken lead over education and the students

tend to become examinees rather than learners because we have too many examinations and the expectations of the guardians are about the results, not about what they have learnt at the school. This has resulted to the leakage of question paper even at the primary level. Even the guardians are eager to leak questions and hand it over to their broods. Such a depravity in the society cannot be imagined. What I wanted to say is that, we should give the children back their childhood. They should learn with joy and with a purpose. After the eight year primary level stage we should have four year secondary level. And it should not divided between secondary and higher secondary. After the primary level and after the secondary level we should have scope for technical and vocational education. Because all those who go through primary and secondary level education cannot be expected to go for higher education. Higher education is meant for the more meritorious ones, and it should not be offered to all. We have technical and vocational education also in order to create self-employment.

At the primary and the secondary level we should determine the level of knowledge that they should earn and should divide the curriculum accordingly. So that, we don't give them extra burden and the whole aim of education can be swaggered. The syllabus can be swaggered. One of the major problems of school level education that is primary and also in secondary is that of language learning. We frequently learn it that they don't know English. But a little closer look will reveal that they are not learning Bengali as well. This is because we don't have efficient teachers; this is also because the system of language learning is faulty. When I was sent to abroad, they taught us language in ten months' time. But in our case, we cannot impart proper foreign language education to students who go through ten years of schooling. So, this is something that we must look at closely. I think, one of the remedy lies in the introduction of audio-visual integration of language learning. In the higher level education the quality is important. Because now with the expansion of education at primary and secondary levels more students can afford to come to tertiary level, more universities have been founded. But then the quality of education remains unsatisfactory at tertiary level. So we also should not treat the universities as a replacement of learning and teaching. Universities must emphasize on research and create new knowledge without which the universities, the centers of higher learning cannot survive. This cannot be a bigger college, it should create knowledge; so that we can give it to others. Teachers' education is very

important matter. We find that those who get out of teachers training college or the Institute of Education that the one we have in Dhaka University, they get their degrees and they go to schools for teaching and forget what they have learnt at Teachers' Education College or certain institutions. Take recourse to natures. We shall never approach by the teachers' manner. For instance, we still have physical punishment in the schools. Every student of teachers' education has learnt that should not be there. But, when they go to school they forget the learning and they go on imparting physical punishment practices. This is something that we must get away with immediately. I am not qualified enough to speak about the other systems of education such as engineering and medicine. But I would draw another aspect of education. Whether we should impart our education throughout the higher level in a foreign language. We are committed to educate our children through the medium of mother tongue. But at the higher level education, I do not know when this will come true. This is partly because we do not have proper text books written in Bengali for higher level education. We do not have proper education mixing in Bengali for higher education because we have been emphasizing on the English medium education at the school level and as a consequence it demands for text book and education in Bengali and English. So if we want to impart education through the medium of mother language we must do the following: The teachers and experts of various disciplines should be encouraged to offer text book in Bengali for those levels and there should be adequate arrangement for publication.

Today the students are encouraged to commit parts of textbook to memory and to reproduce it in the examination scripts. So we cannot examine whether they are learning properly. We are examining only how much they are able to memorize. This is not a proper assessment of education system. The examination system needs a lot to be done. So we must find alternative method and system, and to me without the present system, which encourages not only to commit learn into memory and reproduce it but also to encourage students and their guardians to leak questions or to adopt unfair means. I think if we can reform our education system and get rid of the ills we have listed it would be perhaps realize vision 2041

Keynote Paper: Reform of Primary Education of Bangladesh for Realization of Vision 2041

Rasheda K Chowdhury

Former Adviser to the Caretaker Govt and Executive Director, CAMPE

Hon'ble Chief Guest, Respected Keynote Speakers, Civil and Military Officers, Participants- very good morning to all of you.

This is the month of March. Let me pay homage to our Father of the Nation and those who sacrificed their lives for homeland. Thanks to NDC for organizing this seminar. I would be much happier if there were more female participants. As I am an activist for spreading education to all, it's a special privilege for me to be here. But today I would like to start with a basic fundamental point and that is providing basic education to each and every citizen of the country. It is also a fundamental human right.

I would like to focus some of the achievements that we have so far. I am supposed to talk about Primary Education and its necessary reforms. We have achieved so many things in Primary sector like crossing gender barrier, more female teachers in schools, free textbooks etc. But there should not be any place of complacency. We should think now that even after such achievements why reform is needed.

As Commandant, NDC already said that by 2041 we want to establish Bangladesh as a developed country- developed not in the terms of economic growth, but in terms of equity. According to our Hon'ble Prime Minister, it's our dream to make a prosperous and peaceful country by 2041.

Now I'll come to the point. Is reform really necessary? It's better to say that we are not helping our children to learn. And that's why we have to focus on this point. We learn from history. As "The Economist" pointed out and history showed - we have reached this current level in Primary education by 42 years. Even the current infra-structural bottlenecks, institutional flaws, backboneless judiciary are also important points. If these lacks are sorted out, only then education will be the key director of development. And Primary education will be the foundation on which national development is dependent.

Then come the two major issues - one is quality of education and the other is efficient and effective governance. The most alarming thing is that despite the govt. continues various efforts, 1 in 5 children can't complete the primary education cycle. A large number of students fail to achieve required competency set by NCTB and it is creating a silent syndrome of exclusion.

Increasing trend of indiscriminate commercialization of education is another syndrome of polluting the education sector. These are creating stumbling blocks to human resource developments also. These are the obstacles to realize Vision 2041.

I would like to share an experience related to admission in schools. You all know the fact that there is a lottery system in school admission in Dhaka and other areas of the country. 3 years ago, one girl with a heavy heart came to me; she was allowed for admission in a famous school and after that, in the viva-voce, when the school authority came to know that her father was a rickshaw puller and mother was housemaid, they refused the parents to admit their child in that school as they guessed that the parents would not be able to bear the expenses of her study. After that, the little girl of 6 years stated that-"I did not fail, my parents failed".

We started investigating and found that many students received such fate and many parents had to give extra money to get their children admitted in so called famous schools. After fighting one and half years, we finally returned the extra money from 67 schools to the parents. Barrister Sara Hossain helped a lot in this case.

The current scenario is saying that we have lot of achievements, but at the same time we also need some reform in primary sector. We need to see the issues from a different angle. Are we having all the needs during school? Are we having all the minority groups in school? Are we having the hardcore poor in school?

So, we need universal primary enrollment. This particular issue must be tackled if we want to step forward for Vision 2041. Then comes the equity concern. It was two months back, I was at Kulaura upazilla and it's a very remote area. I

went there in a school, and in a gathering, I was asking particularly the mothers whether they are sending all the children to school. Then one of the mothers stood up and raised her voice, “Madam, can you please ask the teachers whether they treat our children equally as they treat the son of Upazilla Chairman?”

So, soft-skill of teachers is very important. We always talk about teachers’ training, class management efficiency etc. But the most important thing is that teachers should change their moral values, attitude and behavior towards all the children. The son of Upazilla Chairman and the daughter of a landless farmer should be treated equally. But unfortunately the parents understand that there is discrimination. That’s where we need a reform.

It is said that the children of poor will go to Madrashes, Middle class will go to the Mainstream Schools and the Rich will go to English Medium Schools. We have created this inequality, we have created this trend.

Then comes the point of financing, the most important concern in this sector. Bangladesh is the country which is investing less GDP in education sector.

Because of commercialization of education, you pay more, you get more. It’s creating a vicious quality divide in our educational system. So it’s a trend now that if you pay more for education, you will get more service from schools. It’s like catching the “Shonar Horin” at any cost. May be, because of this trend, English medium schools are providing better and quality education in Bangladesh.

Teaching ethics, morals and values are major concerns in education sector. Once I went to Parbotipur with Hon’ble Minister of Education. Thousands of students were there. I asked them-“how many of you go to coaching centers?” Unfortunately each and every student raised their hands and told that their teachers asked them to go to the coaching centers where they are teaching.

I would like to share another experience. I visited Sylhet, Dr. Md. Zafor Iqbal was also there. We went to a school. He asked one of the students, “What is value?” The boy replied, “how can I learn about value when my mother is beaten by my father everyday?”

If these incidents continue, then education will be the major unequalizer instead of being the equalizer. So we must focus on that. Ethics and values are the areas on which teachers should concentrate more.

Are we really preparing our children to face the challenges for artificial intelligence, automation or ICT? Is it enough to get GPA-5? I want to give special thanks to Ministry of Primary Education and Directorate of Primary Education for introducing ASPR (Annual Student Performance Report). We should rethink that- do we really need four public examinations before entering University?

Finally, if we really want to reach Vision 2041, we need Civil and Military Orientation in our education system. We need a comprehensive education act. Religious Stream, Mainstream and English Medium Stream should be handled by this act. This assurance is needed now that each and every institution has to be registered within govt. regulatory framework. Otherwise many problems will arise in near future. We need a roadmap for reform.

We have to prepare our young generation with competency, value, skill, knowledge and so on, so that they can face challenges. And I am a strong believer of human potentials.

Thank you so much.

Keynote Paper: Reform of Secondary Education for Realization of Vision 2041

Nazrul Islam Khan

Former Secretary, Ministry of Education and Curator, Bangabandhu Sheikh Mujibur Rahman Memorial Museum

Honourable Commandant of NDC, Learned Speakers, Eminent Educationists, Civil and Military Officials, Participants from home and abroad, Media Specialist,

As Salamu Alaikum and Good Morning to all.

Introduction

What is education? Education is learning, knowledge, skill and attitude. It is the preparation for life. Education includes both knowledge, skills, attitude, behavior and many other things.

Reforms Needed for Education System

- **Reforms Needed Targeting Higher Enrollment**

The reform should be in line with every child enrolled. That should be the focus of reform in secondary education. Immediately after independence, the enrollment in Primary level was only 40% and in secondary level it was about 20%. Now, the gross enrollment in secondary level is about 74% and net enrollment is 70%. The dropout rate is 37%. In 2009, it was more than 60%. The reform should focus on 100% enrollment. In Primary level, presently we could achieve about 98% enrollment. This faster increase in enrollment is because of realization of people about the value for education.

Together with that, if the midday meal can be introduced, the enrollment would increase. The joyful teaching learning environment, if can be introduced, that also shall add to higher enrollment. Presently, this is non-existent.

Once the Prophet Muhammad (SM) mentioned that market is the worst place. If you visit a shopping mall, these are the nicest places. But if you visit a school, the scene is opposite. The floor is undulating and dirty, even for domestic animals.

- **Reform in line with Developing Entrepreneurship**

The reform should be in line with changing focus of education to 180 degrees. Now the focus of education is job market, either government or private. We cannot provide jobs more than a million every year. Every year, almost 4 million children are born and approximately 3.8 million are enrolled in the Primary level. We cannot assign jobs to everyone. However we can create entrepreneurship for everyone. Even our garments industries can accommodate 4 million workers as a whole, but can provide jobs for 2.5 Lac people every year.

The focus of reform should be to develop entrepreneurship than jobs. Teachers should work, teach and inspire the students in that direction. Some of the students may become officers of different organizations and institutions. But the major focus should be to create more entrepreneurs. But observed that parents are reluctant in that. They prefer to make their children either a doctor or engineer. Even the children also prefer to become doctors.

- **Reform in line with Technical Education**

Reform is also needed to shift from general system to technical education system. In Bangladesh the share of technical education is only 10%. While it is 65% in Singapore, 66% in Germany, 70% in Japan, more than 60% in Switzerland. We need a bigger shift in Bangladesh from general system to Technical education. We need more technical institutions, more budget and more capacity building. Unfortunately, our education ministry cannot handle more budget, even if we provide them.

More facilities needed for technical education. More institutions are needed. We need more budget, more capacity, and more training facilities for teachers of technical institutions. We have only 3 institutions for training the teachers.

This is very crucial area. But most of the people do not want to be teachers of technical institutions. It is because of the fact that more jobs awaiting in the industries. Only those who are residual, they apply as teachers in technical institutions. More students are required for technical education. The parents have a wrong perception that the Madrassas and technical institutions for the children of the poor people. The reality is that technical education is costlier than general education.

Reforms Needed for Quality Education

- **Critical thinking**

The education system should create students to think critically and logically. This is lacking in our education system.

- **Creative index**

We are low in creativity. The UN creativity index reflects the same. Our education system should focus on developing creativity among students.

- **Co - creation**

We lack co-creation. We cannot sit together and work together. We prefer to live and work alone. Our environment creates us like this. The scenario is different in Gujarat of India. A farmer cannot sink tube-well in his field, because of hard rock. But he can sink tube-well in his neighbor's field and share water with neighbors. The nature forces them to cooperate with one another. But in our case, it is different. We learn more of individualistic approach, rather than sharing. We should focus in developing co-creation, working together, sitting together in the schools.

- **Crowd Source**

We need to develop crowd sourcing. We usually decline to listen to others and share with others. This is a reality in government, industries and private offices also. We can learn from our 160 million people. We need to teach this to our students.

- **Team Spirit**

Team spirit is important. Our education system should develop team spirit among the students.

- **ICT Enabled Learning**

The education system should utilize the enormous potential of ICT for learning and delivering quality education.

Analytical capability

The education system should develop analytical capability of the students. This is very important area which is lacking.

- **Teachers' Training**

Teachers' training is a much neglected area. The teachers' training colleges are not dedicated for teachers' training. They are more interested to deliver degrees like B Ed and M Ed, rather than short training for teachers' improvement. We need dedicated teachers' training institutes.

We need reform in the field of trainers' development. Our teachers do not want to work as trainers in training institutions. We need to have career planning for the teachers. Teachers do not want to sit for career exams, which is a regular phenomenon in many countries, where teachers sit for exams in every 3-4 years. The teachers to be prepared to accept this fact that they have to appear the career exams.

Reforms Needed for Developing School Infrastructures

- **Holistic Approach in Construction**

This is a very neglected area. We generally construct a school in piece meal basis. Every year we spend huge amount of money for construction purposes, but without thinking holistically. We should focus in constructing all systems and components of the building once we plan to construct one. We should construct

in a manner that we need not to modify or retouch again in a short period. But we keep every school defective, because of the piecemeal construction. Due to the political influence in education budget implementation, it becomes difficult to execute. School compounds are not decent due to continuous construction. School environment is not comfortable and do not attract the students.

- **Classroom Ergonomics**

In Bangladesh, chairs, tables and other school accessories are different. The furniture industries have not been developed to suit the education need, nor we import form outside. Schools do not have dining hall for teachers nor students. Students have to take food in the class rooms. The schools also do not have auditorium. However, in some schools now a days they have auditoriums with 3-4 rooms using movable partitions.

- **Modern Laboratories**

Our schools do not have modern laboratories. The class rooms and laboratories are far apart. In modern countries, the laboratories and class rooms are co-located. It helps the students to comprehend better while they see the materials or chemicals while they are learning. While, in Bangladesh the scenario is different. The laboratories and class rooms are in two opposite directions.

- **Playground and Swimming Facilities**

Schools lack playground for physical exercise and development. Every year, more than hundreds students are drown. Schools do not have swimming pools. Even schools can use the nearby ponds to train the students swimming.

- **Toilets**

Most of the toilets of the schools are below the minimum standard. Even many renowned schools have their toilets in a very undesirable condition. Reform should be in mindset.

- **Increased Budget and Autonomy**

Budget has increased a lot than earlier. But most budgets are utilized for construction. School management prefers boundary wall rather than green boundary with hedges. Schools need more operational budget for buying teaching aids and accessories, so that teachers need not to bring those from home. The schools should be given more autonomy. Head Teachers have very little authority, because of over powerful management committee. There should be authority as well as accountability. The management must not misuse the autonomy. There should be check and balance.

Education vs Sustainable Development

We want everyone should be educated. But more we educate, more we consume. More we educate, more we create trash, more we diversify consumption. With education, lifestyle changes and we tend to reflect a diversified lifestyle. More we educate, more we travel, more we pollute the environment by emitting Carbon di-oxide. More we are educated, more we destroy the beauty of the natures.

Reforms needed to shift from Examination to Assessment

We need to shift our priority from examination to assessment. But we cannot stop examination completely. There are many ways to assess the students. But are we ready for such shift? We should develop a system to assess the students every day to understand their development.

Reforms Needed for Developing Reading Habits and Facilities

- **Reading Facilities**

Every school should have library. Even if there is a library, can the students make time to visit school library? During class hours students cannot visit school libraries. There may be community libraries like many other countries, to develop reading habits of the students.

- **Book Industries**

The cloths are very cheap in our country. But we do not have a developed book industries. Government may promote book industries in Special Economic Zones to print books at cheaper rate. Even in India they have developed book industries. We need to promote establishing industries for making learning equipment and accessories. The class room accessories, like black boards and other teaching aids are age old and not of modern standard.

- **Embedding ICT with Education**

All schools need to be connected with ICT. Even there are policies to connect all school with internet, the progress is very less. Schools must have multimedia to deliver quality education. Students may be allowed to access mobile contents using mobiles and Tablets, specially designed for them protecting them from filthy part of the internet. Special software need to be developed for students, allowing them to enter to certain areas only.

Reforms Needed for Defect Assessment and Role of Media

We need to appreciate the defects and deficiencies of education system. Media may identify the defects in education and bring those in front of others, for necessary correction. When media would sensitize these issues through broadcasting, people's perception about education would change.

Conclusion

Who is going to affect the reforms? The changed minded people and leaders are required to effect the reforms. It's not only the Prime Minister or the President who will bring change, but also leaders at different levels, and from among teachers, who should come forward for affecting these changes. Referring to George Bernard Shaw, "Reasonable people adjust to the world, unreasonable people try to adjust world to themselves. All progress therefore depend on unreasonable people". We need some unreasonable people. The major problem is that, people want to go with the flow of the current. We need people who may go against the flow. We need leaders, who can change our education system, can create lots of leaders and teams for affecting the reform in education sector.

Keynote Paper: Reform of Higher Education for Realization of Vision 2041

Professor Dr. A K Azad Chowdhury
Professor Emeritus, University of Dhaka

Bangladesh at a Glance

Bangladesh has been identified as the Next-11 countries with a high potential along with the BRICS (Brazil, Russia, India, Canada and South Africa) and growing economies of a steady economic growth at 6.5 to 7% GDP per annum in recent years. This become a redo for the developed world, how a least developed country with huge number of population and undue share of natural calamity like struggling against draught, flood, cyclone etcetera keeps pace of development in recent years consecutively irrespective of government. Bangladesh has achieved MDG faster than any other countries. Bangladesh achieved MDG five years ahead of scheduled time which was to redo for other to understand. Prime achievements of MDG are child and maternal mortality reduction, for which longevity increased to 72 years, whereas India's average longevity is 70 years.

Human Resource and Economic Growth

According to the estimation of 2016, population of Bangladesh is 163 million and young median age is 26.3 years. The population provides a large workforce of 73.87 million. An estimated 22 million new entrants between 2005 and 2015. They can really change the weird economy and prosperity of the nation to right direction if proper direction is there. Every year, 22-23 million people enter for new job and seek for new job. Agriculture, service and industry employ 42.76%, 36.9% and 20.5% of the workforce respectively, although their contribution to GDP is 14.77%, 56.46% and 28.77% respectively (2016 estimates). Though the agriculture is the main sector of work force, but the contribution to the GDP is less in comparison to other sectors. What is lacking here is education and technological skill.

Remittance is the real income of the country. Remittance from more than 10 million overseas workers amounts to US\$15 billion (14% of GDP in 2011), 2nd

largest foreign currency earner in South Asia compared to Philippine. Overseas employment of Philippine is about 22-23 million people but their remittance is double. Why? Because, those are skilled worker, skilled professionals, but ours, barely educated.

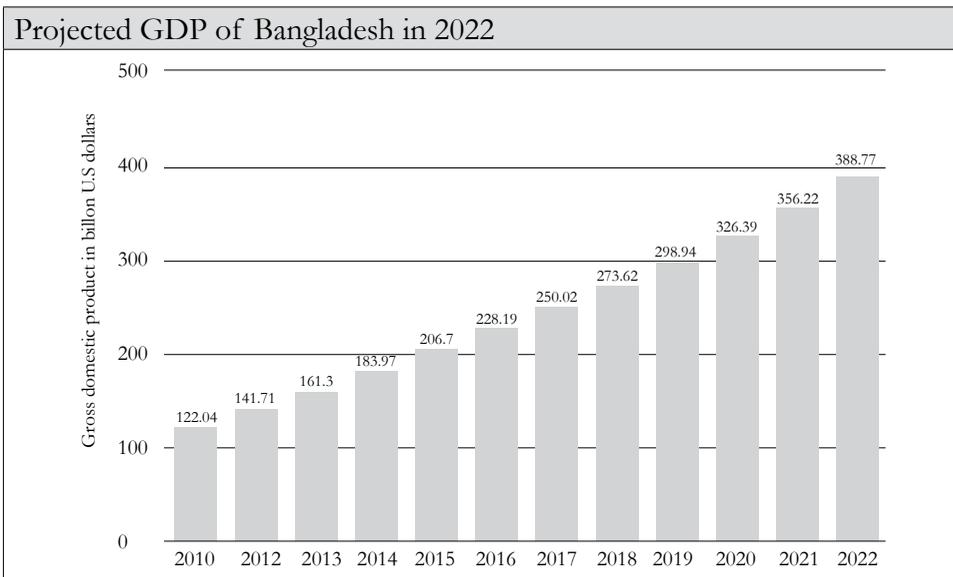
Foreign currency reserve stood over US\$ 30 billion and GDP US\$ 228 billion in 2015. By 2041, Bangladesh is targeting to achieve a goal to reach first level economy. Country with first level economy like German or Japan has GDP of US\$ 3.4 trillion which is 20 times more than Bangladesh. Achieving first level economy in Bangladesh with huge population (of course population gives demographic dividend) and undue share of natural calamity like flood, draught and cyclone which really play havoc, is difficult. Lack of skilled manpower is another problem. If these difficulties are overcome, then surely it is possible to achieve the status of advanced developed country by 2041. The Asian Development Bank, President of while visiting Bangladesh in March 2018 opined that Bangladesh's dream of becoming a developed country in 2041 is not impossible but difficult and it should have double digit GDP growth every year for many years.

Bangladesh climbed up on a few steps in human development index (health, education and life expectancy) to 0.579 in 2015. This development is faster than India, Srilanka and Nepal. Development in human resource sector are:

- Improved living standards and life expectancy (72 years, highest in the region).
- Stemming population growth.
- Achieving self-sufficiency in food production.
- Building healthcare infrastructure.
- Undergoing rapid industrialization.
- Achieving newer heights at all levels of education.

Bangladesh is an emerging economy termed by Goldman Sachs as one of the leaders in "Next Eleven". It gradually decreased its dependency on foreign grant and loan from 85% (in 1988) to only 2% (in 2010) for its annual development budget. Total export earning of budget is 41 billion in FY 2017-2018. Globally competitive industries in textiles (2nd largest RMG

exporter in the world earning US\$28.15 billion in 2017. Other sectors are leather goods, fisheries, ship building, pharmaceuticals, ICT, light engineering, heavy electrical equipment, agro-fishing industry. The Garment industry now employs more than 4 million workers, 90% of whom are women. In 2017-18 fiscal year the industry exported US\$34 billion compared to US\$ 5 billion in 2002. Foreign remittance received per year, on an average US\$15 billion (2013-2017) occupying 2nd position in South-Asia



Primary, Secondary and Tertiary Level Enrollment

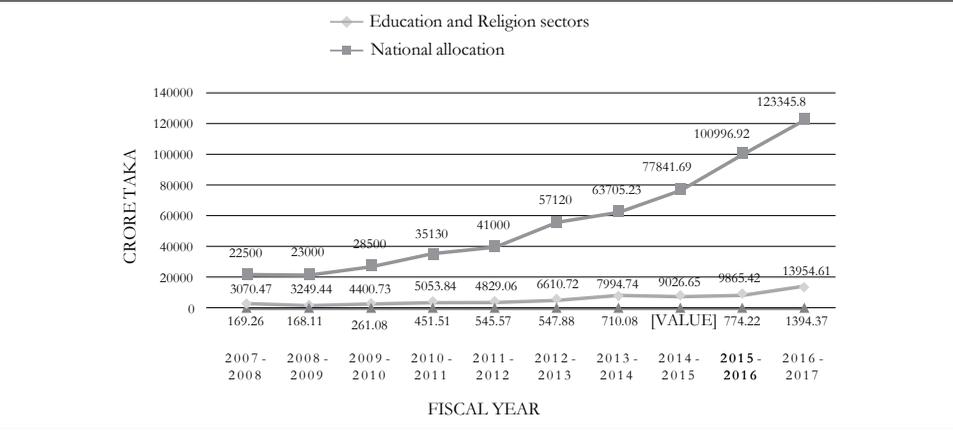
Bangladesh has a large educational system consisting of some 150,000 institutions, 34 million students and over 900,000 teachers. Teachers are in the driving seat of the society and can move, mold or create the society and can also falter. There is a huge void in the educational system, it may be considered as burden but it is also a real opportunity if this opportunity is properly utilized. About 34 million students enrolled from primary level to tertiary level. A substantial amount of the population is in the education sector who can change, can bring down the whole stage structure and create opportunity for the country.

Bangladesh has achieved nearly 100% net enrollment ratio at primary level in 2017, 44% in lower secondary education, 27% in upper secondary and only 16% completed upper secondary. The nation has achieved a success, near-100% enrollment in primary education, 20% of the primary graduates drop out at the initial stage of enrollment in secondary education. 20-23% of the whole population goes to tertiary level. In western world like, UK 50%, USA 65% and Finland 80-90% of the population goes to tertiary level. Compare to the advanced countries, Bangladesh is still lacking behind which require necessary effort to increase the enrolment at tertiary level. This is important to achieve a continuous GDP growth of above 10 % every year up to 2041 and to achieve the status of developed country. Dividend of population need to be utilized, young people educating in higher education and in technical sector will contribute more in the national development. At the same time, it should be kept in mind that the democratic norms and good governance is very important for steady development of the nation. There are about 20 million students in primary education (including madrasas and non-formal programs) and 11 million at the secondary level (including madrasas).

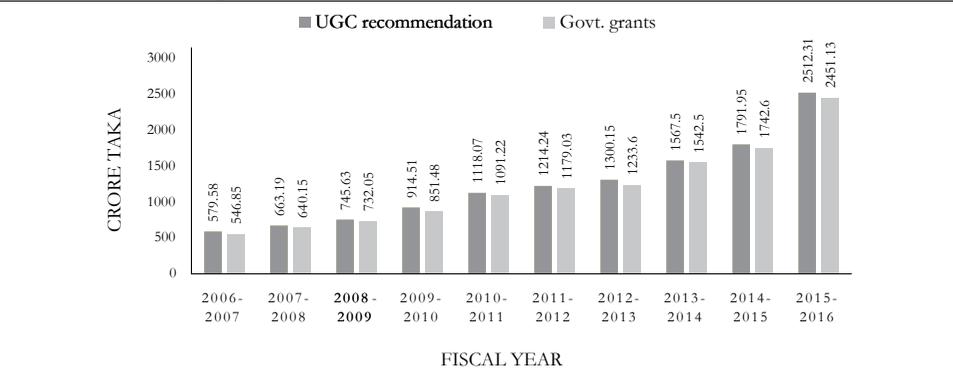
Tertiary Level Enrollment and Budget of Higher Education Sub-sector

Tertiary level enrollment rose to 3.2 million in 2016 from 1.16 million in 2008. At present, in Bangladesh there are 37 public and 90 private universities and over 2,000 National University affiliated degree colleges and institutions are imparting the education. 12% continue to tertiary education which is almost the same as that of India (12%). 1.9% GDP allocation for education and 0.2% of GDP for higher education are not very encouraging (UNESCO recommends 4.5% GDP for education). National development budget grew in last 10 years substantially, but neither the education budget nor the higher education grew at that pace. Following graphs reflects the budget allocation in the tertiary level:

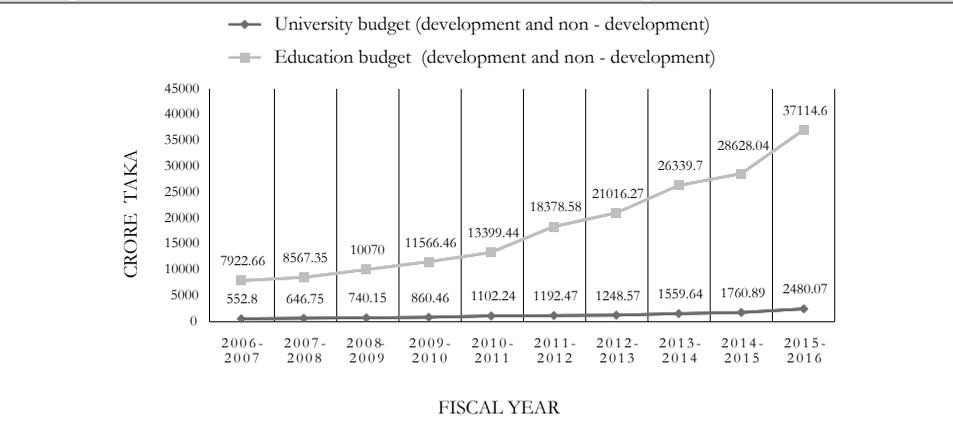
Allocation of Educational and Religion Sector and University Education Sub-sector in Comparison with in National Development for last ten years



Annual Recurring Grants of Government Universities



Comparative Illustrations of Public Universities Budget for the Past Ten Years



The education and religion budget increased substantially but the higher education (university) budget has not witnessed such increase, though it was very important to make our development sustainable. Education is a holistic affair and require every sector to prosper. Intake in the tertiary level is the product from primary and secondary. So, if the quality of the student is improved at lower level then quality student will also be available at higher level.

Higher Education in Bangladesh

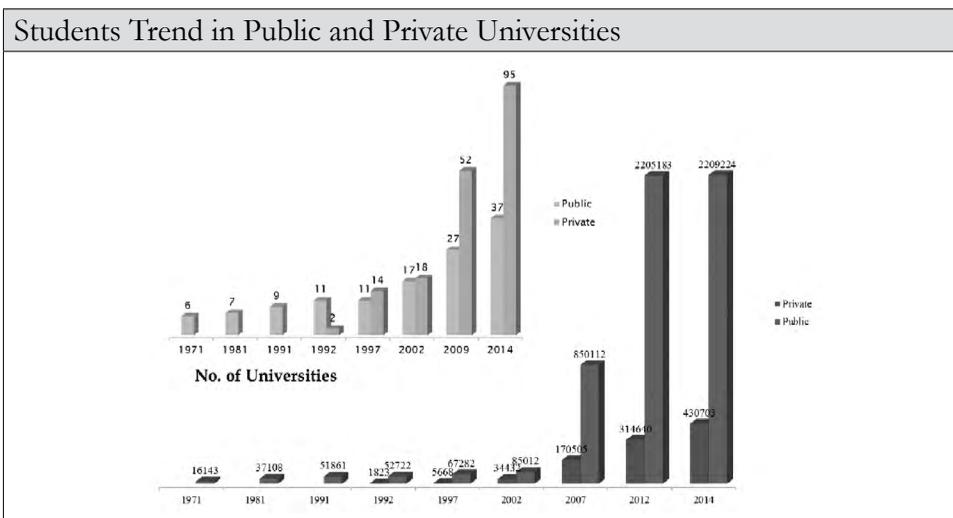
Tertiary education has a long history in East Bengal, now Bangladesh, but of elitist nature. First university of East Bengal, University of Dhaka, was established in 1921, was the citadel of learning and acted as the seed for dispersal of higher education in the country. Prior to that Calcutta University in West Bengal and its affiliated colleges all over Bengal used to cater to the needs of higher education. The students coming from affluent families had the privilege to pursue study in the University of Calcutta and its affiliated colleges spread over East and West Bengal.

At the time of independence in 1971, Bangladesh had six Universities (Dhaka, Chattogram, Rajshahi, BUET, Jahangirnagar and BAU), all in public sector and a handful of private colleges affiliated to these universities were the places to pursue higher education. This has enlarged the opportunity for higher education to the well-off section of the society in large number. Before independence, all-inclusive higher education was a far cry; even the primary education and adult literacy may not be more than single digit percentage wise. After independence the higher education witnessed an explosion, secondary and adult education also showed a tremendous growth.

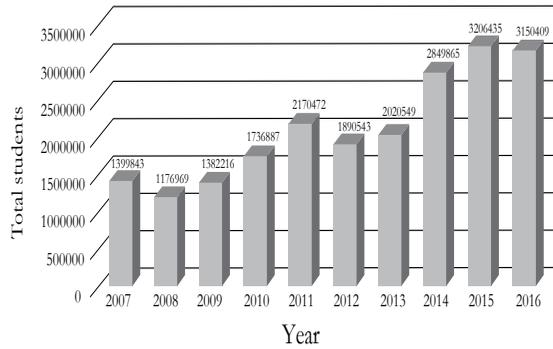
The Founding Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, nationalized the primary education and some well-established higher secondary colleges which encouraged the higher education. Demand for higher education /University level education has increased sharply. Bangabandhu's government passed the Dhaka University Act 1973 and UGC Order of 1973. This was an important step for higher education. Autonomy is foremost important for

higher education. Bangabandhu's step for DU act 1973 created real academic environment in higher education which is still valid and is good for quality development. But unfortunately, public universities act is controlled by Ministry of Education which is not the principle of higher education. Higher education should be left with the teachers, administrators and students of the universities and of course autonomy doesn't mean the lexifier and scolding the fund. Autonomy is the pressing need for tertiary education.

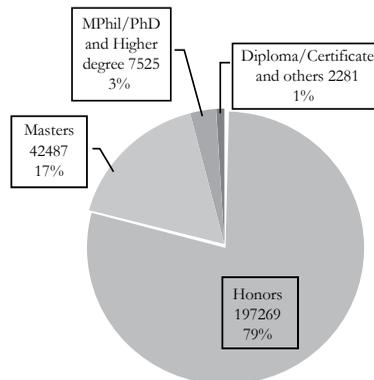
In 1992, realizing the increased demand for places for pursuing higher education, the government enacted a law, the Private University Act of 1992. Many students were going outside for higher education in India, Malaysia, and some other countries. This act has opened up a new class of higher education institution in private sector, but the rules and regulation for administration and management, the quality of education was not sufficient. In 1998, the government brought further improvement in quality of education, enacted guidelines in the law, so that private universities do not become a commodity of business like merchandise. In 2010 Parliament enacted 'Private University Act 2b and competing 010' to stream line the private universities to ensure quality of education. Following graphs shows different state in tertiary level:



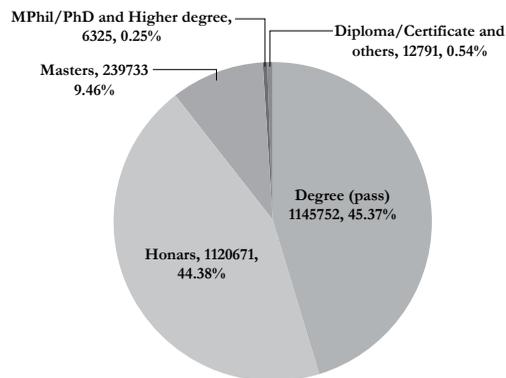
Comparison of Number of Students in Public Universities in the last ten-years (2007 to 2016)



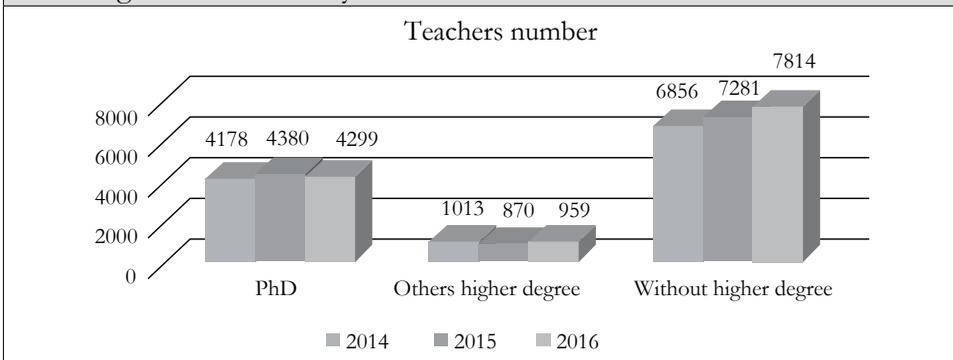
Number of Degree-based Students of 34 Government Universities Excluding Affiliated and Assimilated Colleges/Madrassa Students



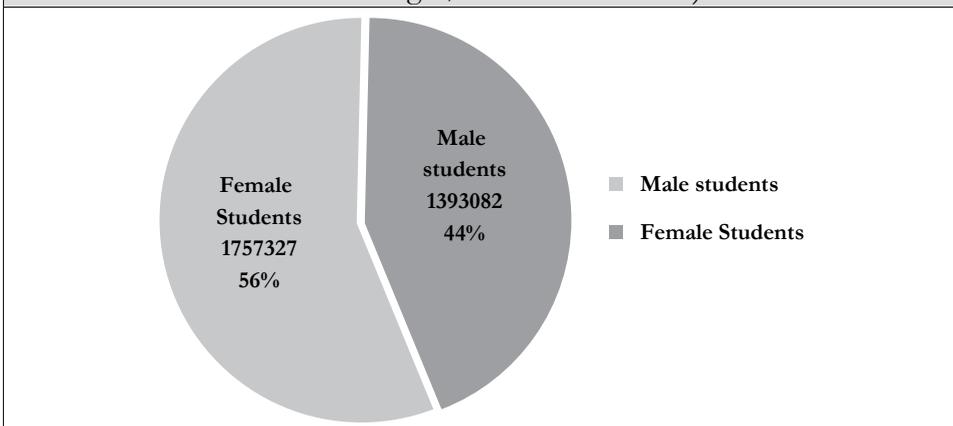
Number of Students Based on Different Degrees from Public Universities (Except 12 Affiliated and Assimilated Colleges/Madrassa Students)



A Picture of Categorization of Teachers of Public Universities based on their Degrees in last three years



Number of Female & Male Students of 37 Public Universities (With Affiliated and Assimilated Colleges/Madrassa Students)



Existing Challenges to Higher Education

Making higher education accessible to more students, inclusive higher education is a great challenge. At the same time, ensuring quality of education is a must for faster GDP growth. Few of the challenges to higher education are given below:

- Financial resources is scarce in both public and private universities.
- Research and innovation is none existent in private universities and poor in public universities.

- Getting qualified faculty resources.
- Language of instruction/learning.
- Having a proper Campus for Private Universities.
- Inadequate administrative support and leadership.
- Insufficient technology support in the class.
- Faculty feedback.
- Insufficient instruction time.
- Shortage of well-designed curriculum.
- Politicization of learning environment.

Challenges of Higher Education and Global Crisis

- Globalization and internationalization, cross border trades of goods and services, student mobility, increased competition.
- Development of knowledge-based economy, knowledge capital replacing physical capital as main source of wealth, survival of the fittest.
- Rapid development and increasing use of ICT, bridging geographical and quality divide.
- Rapid change in labor market, higher education becoming more important and in greater demand.
- Life-long learning and education, learning new skills and knowledge, learning to improve the quality of life.
- Global Crisis-Global financial/economic crunch, Global climate changes, Food crisis, Energy crisis, Global injustice, terrorism, wars and instability.

Financing Higher Education in Bangladesh

Higher Education in Public Universities in Bangladesh are solely funded by the Government. Monthly tuition fees per student is few cents only (BDT 20) which is not enough to meet the expense used to realize the money from the

students. Hon'ble Prime Minister has taken an innovative initiative through formation of "Prime Minister Education Trust Fund" contributing BDT 1000 core (US\$ 385 million, PPP) one time for awarding scholarships to HE students from the interest of capital fund. Encourage corporate sector to make endowment to the educational institution through tax waiver incentive.

Alternative Financing, Higher Education

- Introducing student loans like USA, Australia, North American and European countries; but it may not be feasible in a developing country for various reasons.
- Creating university endowments, donations and charities have always been a source of funding higher education in the past in our part of the world, but not anymore.
- Raising funds from alumni's contribution.
- Forging partnership with industries and the private sector.
- Providing consultancy services to the Government and corporate houses by the faculties and realizing certain % from them (BUET is providing the service).
- Govt. may consider introducing tuition fees for the students whose parents have taxable income.

Promises in Higher Education in Bangladesh

- Modern and Scientific Education Policy of Bangladesh was enacted in 2010.
- Accreditation Council act has been passed, but effect has not been given yet.
- Cross border higher education frame work developed.
- Increased number of students in tertiary level of education (3.2 million 2017).
- Public (37) and private (95) universities have increased in last few years.
- Faculty development scheme undertaken through offering overseas

scholarships to young faculty members (though very limited).

- Higher Education Quality Enhancement Project with the GOB and IDA credit undergoing implementation.

UGC and Higher Education Quality Enhancement Program

To meet the globalization challenges by raising higher education quality, Bangladesh Govt. has taken initiatives to improve the quality of tertiary education. The Ministry of Education (MoE) with the assistance of the World Bank, has undertaken a Higher Education Quality Enhancement Project (HEQEP) amounting US\$ 90 million in 1st phase and 2nd phase with US\$ 120 million and implementation going on. To meet the challenge, the government has agreed to support additional finance with IDA credit of US\$ 125 million to HEQEP (3rd phase). The project aims at improving the quality of teaching-learning and research capabilities of the tertiary education.

- Higher Education Quality Enhancement Project (HEQEP) has improved:
 - Research capabilities of the universities through utilization of Academic Innovation Fund (AIF).
 - Networking capability of the universities and access to global pool of knowledge through Bangladesh Research Education Network (BdREN) (38 universities accessing to global pool).
 - Access to knowledge pool by University Grants Commission Digital Library (UDL) (7000 e-journals & 15000 e-books).
 - Access to Higher Education Management Information System (HEMIS).
 - Quality assurance has been strengthened by quality assistance (IQAU).
- Academic Innovation Fund
 - A good number of universities have completed library automation for the first time in Bangladesh; many research projects in the universities have been funded.

- Many universities have established virtual classrooms connected to universities within the country and with the Asia-Pacific countries.
- Few universities have established digital archives on research and publications.
- 15000 e-books have been procured and 3000 e-journals have been subscribed through UGC Digital Library (UDL).

Reform of Higher Education for Realization of Vision 2041

- Higher education commission be formed with sufficient fund and legal authority to completely overhaul higher education system (UGC is not fully equipped to do the job).
- The budget of education should be raised to 4% of GDP (ear marking 1.2% GDP for higher education).
- Science, technology and innovation should be given priority in the curricula of higher education and curricula be regularly updated.
- Faster transformation of certificate-based education at the secondary and higher secondary levels and also in the private universities to knowledge base education.
- Education system should be viewed holistically - from primary, secondary to tertiary level.
- Pay and service condition of teachers should be made lucrative so that the best brains are attracted to the profession.
- The teachers' recruitment should be made on the basis of merit alone. Politicization of teachers recruitment and academic administration should be abhorred.
- One international language, preferable english, and computer literacy should be a must for graduate of any discipline.
- The private universities should be encouraged to employ highly qualified teachers and there should be a regulation to keep the teachers in the private university job.

Keynote Paper: Reform of Technical Education for Realization of Vision 2041

Professor Dr. M Kaykobad
Department of CSE, BUET

Introduction

Let me start my speech with a story. I got my higher education in Australia. Once I went back to Australia after 25 years, I came to learn that once the students join schools, the students ask one another about their fathers' profession. Surprisingly, being children of doctor or engineer is not as lucrative as being children of plumbers. Because, plumbers earn more money than doctors and engineers. The job of a plumber is valued more than that of a doctor and engineer in Australia. So the students prefer to become plumbers rather than doctors or engineers in Australia.

People want to do the more demanding jobs. The technical jobs are more demanding in the job market. We are sending about 10 million people from Bangladesh to work outside the country. Most of them are unskilled and get much lesser money than that of workers of other countries. They do not have language skill also. If they could have been given with some technical skills and language training, they could have earned a lot more.

Contribution of Workers in National Economy

The GDP of Bangladesh is increasing by 6.5-7.0 % every year. This is because of the illiterate and unskilled workers of the garments industries and workers in Middle East and other countries. The educated sections are not contributing to the GDP significantly. Most of the educated segments, who go to USA or Canada, they sell their property at home and settle their. They do not bring back anything to the country. The illiterate people going outside, selling all property at home and sending money from abroad, even compromising their food. The literate section is not contributing as compared to the illiterate section of the country. The literate segments are consuming on the income

of illiterate segment of the country. It indicates that there must be something very wrong with our education system.

Remittance vs Draining out of Money

Vision 2041 says that we shall be one of the advanced country by 2041. It's a daunting task indeed. Only illiterate people cannot accomplish it. The 10 million foreign workers earning 15 Billion USD every year as remittance. While, a few thousand people at home are taking money out of the country. Every year 32000 Crore Taka is going out of the country. We need to compensate between these two. We need to be more educated than now.

Reality of Education Standard

Once upon a time, Koreans and Malaysian students used to come to Bangladesh for higher education. Now the matter has been reversed. Now, our students are going to those countries. In spite of all governments saying that education sector has been given higher priority, but the reality is different.

In terms of education spending as the percentage of GDP, Bangladesh is at the bottom. Sri Lanka is behind Bangladesh, but they are highly educated nation. The spending in Ethiopia is 4.7%, India 3.3%, Pakistan 2.4 %, Afghanistan 3.1%, Iraq 2.3% and Bangladesh 2.2%. How Bangladesh is giving highest priority, with this lower percentage of spending in education sector? It indicates that we are not moving ahead. Speed is relative. If everyone is running at a speed 10 km per hour, and we are running at 5 km per hour, then we are going back.

In 2010, the Education Policy was formulated to reform Primary level from class 1 to 8, Secondary level from class 9-10, Higher secondary level from class 11-12. But we do not see any progress in implementing the same, even with the same government.

Every year, we have 0.9-1.0 million admission seekers in universities. We have 40 public universities (including science and technology and medical institutions), 95 private universities (including 17 science and technology universities).

The budget allocation in education is not increasing significantly. The number of technical institutions are increasing. The enrolment of teachers in technical institutions, though increasing, but the standard of graduates we are getting, is not up to the standard. They are mostly unemployable.

Comparison of Technical Education of Other Countries with Bangladesh

The advanced countries have good ranking in education system. Technical education of Japan is very famous. Ratio of engineering to science students in Japan is 6:1. In Bangladesh the ratio is almost zero. In Korea, vocational and technical education amounts 27%. In Germany, they conduct vocational education and general education on training system. They conduct dual training system. The students go to educational institutes and industries at the same time. As such they become much more employable. They maintain good relation with industries and they are employed.

Present State of Technical Education

In Bangladesh, we have short courses, diploma courses at SSC and HSC level and lower classes. Every year, 50,000 students are enrolled in formal TVET Program. The problems are:

- There is no plan to analyze for financial implementation and feasibility.
- There is a lack in investment plan.
- The National Skill Development Council meets infrequently.
- Public training institutions has minimum administrative authority for training programs and development spending.
- Inadequate financing.
- Inadequate internal efficiency for TVET Program.

Directives for Reform of Education

We have many directives for reform of education sector. Those are included in followings:

- Vision 2021 strategy.

- Poverty Reduction Strategy Program.
- Education Policy 2010.
- National Curricula and Textbook Boards.
- National Skill Development Policy.
- 6th Five Year Plan.
- Some externally assisted programs.

Recommendations

To effect reform in technical education sector, followings are recommended:

- Preparation of subsector development program.
- Organizational reform is needed.
- Reform of teacher recruitment practices.
- Support for flexible training provisions depending upon industry requirement.
- Support for enterprise based training .
- Raising skills for informal sectors.
- Support for public private partnership in training.

Weaknesses to Overcome

In making the technical education effective, we have to overcome the existing weaknesses:

- No participation of employers in setting training policies and contents.
- Public training institutions lack the initiative to consult employers in preparing and updating the standards.
- Non-existence of regulatory mechanism for labour market analysis.
- Foreign exchange going out of country due to lack of skills.

- Prevailing perception that any one holding Bangladeshi passport, possibly cannot do the job. We do not want to honour the Bangladeshi passport holders. Frequently we invite people from outside for work, keeping our own people away. We pay them a lot more, though they do not contribute significantly.
- SME should be strengthened.
- ICT expertise of local youths should be utilized in development and maintenance of different ICT based systems, like: core banking software and other systems.

Looking ahead for the Bright Future

In 1998, at IIT Kanpur in a regional level IT contest, BUET became champion and Dhaka University became runners up making every one surprised. In 2017, during Math Olympiad in Brazil, Bangladesh occupied 26th position, while India occupied 52nd position, even though our secondary education is not as good as India. In 2017, at Tehran Information Olympiad, Bangladeshi students did not do well; still they got 4 Bronze medals, while India got 3 medals. In spite of all these, India earns 100 billion USD from software exports, including a significant portion from Bangladesh, as well. But our kids beating them in every now and then in programming contest, being more talented and skilled. But we are not earning more.

20 years back, I visited India for buying a software for Bangladeshi organization. Though I insisted to make it at home. However, once I visited, I looked at the programmers, but I was not impressed at all. Once returned, I came to know that the company asked for 9 crore for the Indian software. As I informed that our programmers can make the same software, I was told whether we can make it by 2 crore Tk. It indicates, that we are ready to pay 9 crore Taka to Indians, but only 2 crore to Bangladeshi programmers. We must shrug off the inferiority complex. Our young people are not inferior, they are very good.

Value the Bangladeshi Experts

During colonial era, if you name 10 scientists from sub-continent, 5 of them are from Bengal. After independence we should have moved forward with higher speed. Have we been able to give birth to the geniuses like before? Could we make genius like Shatten Bose or Meghnath Shaha? We could not, because we did not give priority to education in Bangladesh. You can be hero if you are a sportsman or anybody else. “Truck drivers association” is more powerful here than “teachers association”, because the later one is harmless. So long we realize that teachers or education is significant, we will not move forward. If we want to move forward, education should be given priority. We do not realize or believe, “Education is the back bone of the nation”. We have to prove that we are Bengali nation.

Compensating the Lacking in Education System

Fortunately, BD is progressing economically due to the illiterate segments of the country. The contribution of the literate segment of the country is negative in average. So, we have a great lacking in our education system. Many countries have provision of national service by the youths like: USA, Canada, Korea. They provide service in different manners. The youth segments conduct research at a minimum cost for the country, even if they are very meritorious. Bangladesh do not have similar service. We have to instill love for the country, initiate patriotism among the people. They have different initiative for this. But not in Bangladesh. If you do not get what you are supposed to get, you do not have love for the country.

Education for Sustainable Development

We must ensure significant reforms in our education system. We have problems in question leaking. We do not have good text books. Our text books are full of errors. We print 35 crores new text books every year and force the students to through away the old ones. Is it befitting with our economy? Does it go with our economy? Text books should be able to last for 10-15 years. We should not waste our resources in a country with lesser resources. We are small country

with 24 times more population density than world standard, i.e. we have 24 times lesser resources to raise a child in to human being. We should not waste our resources, and take care of our resources.

Conclusion

Prime Minister has shown us the dream of “Digital Bangladesh”. We cannot do it, if we are not focused. We have lesser focus everywhere. According to ITU ranking of countries in terms of performance in ICT, we are not in mentionable position. We are almost at the bottom. We should have good focus, not to have too many initiatives. Once we take initiative, we must reach the goal and be successful.

Summary of Interactive Session

General

A seminar on “Reform of Education Sector of Bangladesh for realization of Vision 2041” was held at National Defence Collage (NDC) on 13 March 2018. The subject is timely and pertinent which demands thorough study and discussion for adopting appropriate reform of education sector of Bangladesh. The objective of the Seminar was to recommend government in its strategic planning, coherent policy development and result-oriented implementation related to education sector for realization of vision 2041. The discussion noted the role of different stake holders of education sector to provide a better quality of education for a population that has an immense potentiality to contribute in national development.

During the interactive session, few important questions as well as comments came up to the panel of key note speakers which are appended below:

Comments from Professor Dr. Syed Anwar Hossain

Professor Anwar congratulated and thanked all the keynote speakers for enlightening and enriching the house with the understanding on education. He mentioned a few perspectives of education of Bangladesh:

- Education system contradicts article seventeen of the constitution. It clearly said, there has to be a unified education system. But ground reality is not the same as the constitution mentioned. Either constitution has to be amended or education system has to brought in conformity with the constitution. Until and unless these two things are done, there will be prevailing a major problem relating to the education of Bangladesh.
- Education system from primary to tertiary level is marked with a lack of emphasis on English. All the English medium schools don't teach English properly. That's also a significant problem in the education system.
- A formal appraisal examination system prevails in our education system. We simply terrorize our students with too many examinations.

- Expense in education has increased. Over the years we do mismatch with qualitative construction. The difference between education and skill training is blurred in the education system.
- Education and skill training are not the same. Like any other sector in Bangladesh, education sector suffers from total mismanagement. Management is the key to get desired result from education system.
- Rabindranath Tagore wrote extensively and intensively on education. We need to understand all of those essence and meaning of education.

Questions to the Panelist

Question 1 (Air Commodore Shahjahan): Professor Kaykobad appreciated that lot of Bangladeshi students are talented in comparison to the neighboring countries. Again Commandant, NDC has mentioned that in the RMG sectors, out of 4 million workers 90% are women who work very hard full day and are very dedicated. But reality is that, two third revenue are earned by mid-level and top-level management in RMG sector, who all are from neighbouring countries, whereas our students are genius, very intelligent. Therefore, where we lacks? Is there any education factor or grading factor to stop draining this hard-earned money of the country?

Response of Professor Kaykobad: Professor Kaykobad highlighted that India is earning 100 billion USD using a small manpower whereas in Bangladesh using about 5 million manpower are earning only 28 billion USD. In Bangladesh the penetration of internet in primary school, high school or the upper level school is much higher than India. The data shows that last year the internet users of the Banglalink, Robi and other operator are almost 60%. So internet users are growing very fast. The mobile taxation of neighboring country is only 5% to 7%, but in Bangladesh it is 32%. It is contradictory to our education system. So the point is, can we provide our students mobile and tab at cheaper price with special software for the betterment of our country?

Question 2 (Joint Secretary Hasan, Ministry of Public Administration)
My daughter was born in 2001, in Australia when I was doing my Masters in Australia. I had ample of opportunity to settle there. But I left that country and

came back to Bangladesh. This year she sat for SSC examination. Every day she is listening about question leaking. How can we get rid of this situation?

Response of Panelist

Response of Rasheda K Chowdhury: Rasheda K Chowdhury thanked Professor Syed Anwar for his detailed comments, suggestions and guidance to the whole initiatives. She mentioned about the unified education system. The responsibility of the state to consider education as the right of the citizen. That's why the demand for a comprehensive education system is on. It has been drafted already which will probably cover the fact. Fact is that, it's a global phenomenon. It spreads about choice, pluralism which we are talking about different stream. But there is a question of regulating the stream. Unregulated different types of stream creating more inequality than what education supposed to be equalizing. Whether we like it or not. Now a days even the mainstream is having the English version. So, we are creating here a division. Unified education system is not properly conceptualized and properly practiced. It is freedom of choice of going to Madrasha or English Medium School. It is a global phenomenon. May be a comprehensive education act may guide us.

Response of Professor Kaykobad: Professor Kaykobad highlighted that in Bangladesh there are many banks that are using Bangladeshi software and possibly found an effective one. Otherwise bank should not use it. At the same time there are many foreign softwares and about Tk 500 crore every year is being drained out of the county. There is lack of patriotism. Our students are brilliant. We must give them opportunity to develop software and utilize their skill to the national interest.

Response of Mr Nazrul Islam Khan: Mr N I Khan addressed the issue of question paper leaking in the SSC and HSC examinations. Referring to Nelson Mandela he said, everything seems impossible until it is done. It is very much possible. Mr N I Khan highlighted his previous experience of an exercise to stop the leaking of question paper. He mentioned four module of the exercise:

- **1st Module:** Preparation of question bank which was already exercised and created in Jashore. We have problems in other boards because they did not support.

- **2nd Module:** The examination center management system with questions printed in the centers. Questions could be encrypted. It will be printed just one hour before the exam at the exam centre.
- **3rd Module:** The question will be displayed through the multimedia projector at exam hall.
- **4th Module:** This is device based system. We can develop a system when result is counting out, we should have option to publish admission result at a time.

It takes six months or one year only to implement. Mr. Khan mentioned that along with Professor Kaykobad he wants to take an endeavour to solve the problem of question leaking.

Question 3 (Shamsul Haque, MP, Fellow of Capstone Course 2018-1) :

Some of the higher education institutions and private universities are trading and selling certificates. Do you think that private university management are taking shelter of Dhaka University (DU) and BUET teachers? Through and using their names, they invite the students. The private universities are giving nothing but using names and fames of them. What is the point of involvement of DU and BUET teachers in private universities? 2nd question, we realize that most of the time our secretary remained busy with administrative works. He does not have enough time and leisure for plan and service to the people. Do you think that administrative wing should be separated? Do you think, there should be another wing called Research and Development Wing in the Ministry of Education?

Question 4 (Mrs. Anwara Begum, BIDS):

Panelists have addressed the challenge of implementing education and development. Education is not confined to only people who are in life long education. We have to understand that people need to earn. This is extremely important. Teacher's ethics is very important. Teachers of different universities are not looking at the students need. Have we looked at those people who will become old by 2041?

Question 5 (Brigadier General Fazal, Course Member NDC 2018):

My question is about the hollowness of our certificates. In the other word the certificate based education. If this hollo certificate is not selling in the society

why could they be demanding for it? Why should we try for it? If they go to private or public university, if they don't have opportunity to be employed, then perhaps such trend would stop.

Question 6 (Abida Ali, Fellow of Capstone Course 2018-1): I am a mother. My daughter goes to English Medium School. I am not concerned about education or not for inclusion, but I am concerned about influence on our society. In media or TV, our children are getting negative influence on ethics. This is a big challenge for our education system. One foreigner asked me why do you always mix Bangla with other language in media? Another problem is with all educational institutions including school, universities, there is a business with books and stationeries. Children from very beginning know what is business? Beyond text books, they know that they have to buy books, pencil and stationeries, because it is business of their school.

Question 7 (Lieutenant General (ret'd) A T M Zahirul Alam): Civil service is dominated by civil servants. Chief Engineer's work depends on their boss, who is a Secretary that not an engineer at the Ministry level. Vocational Education in Bangladesh is totally undermined. If we look at EU countries, two streams-vocational and non-vocational education. And, vocational system is more popular because they can be better paid, graduate easily and they have scope to go to university. If you have under graduate diploma degree and if you serve for five years, we have to make policy that 40% of top positions will be reserved for science background.

Response of the Panelists

Professor Dr. M Kaykobad: In our country, many holding the post of Medical Officer or Asst. Medical Officer, who are paid low. Doctors are very brilliant students in our country. They know not only science but they are also good at Bangla, English and other things. They are left out and given lower positions. There might be something serious wrong in our education system. In BUET, I know how brilliant my students are and why they find themselves left out in the country. They go abroad and they earn sizable amount of money. They are very respected there and they are big scientists. But at home, they can't work. So there is serious wrong.

Professor Dr. A K Azad Chowdhury: I must say, nobody is ignored, nobody is glorified. Everybody has a role to play. We have to change our national policy in line with the developed countries. In America, or Britain, even an engineer who has no administrative capacity, but he is an excellent engineer. He will fall on a fast chair as more than a secretary there. So it is individual performance to be rated not the profession. But the profession of engineer and technocrat are a bit off track. We should not continue for long. Having said so we should not ignore the administrative role they are playing.

Rasheda K Chowdhury: The main issue is what we mean by inclusion? May be we focus on exclusion rather than inclusion. Whether the glass is half full or half empty. That is the question, because when we focus on inclusiveness then our education practitioners and education administrators, think inclusion is something which includes disability, special child etc. We keep on excluding hardcore poor particularly the deprived women and girl children. That inclusive framework is not enough. Inclusive practice particularly training program for teachers. We need to have that so that our teachers and education administrators know what we mean by inclusive framework: gender needs, special child need, hardcore poor, commercial sex work etc. So we need to conceptualize and practice these issue.

Professor Dr. A K Azad Chowdhury: Many of the private universities selling certificates. But there are the private universities numbering 10, 20 or 50, they are doing good. Their teachers are good and they render certificates to the people who deserve it. What about the SSC, HSC exam where you can get GPA 5 out of five. Fifty thousand get GPA 5.0. How can you justify that? Is it not certificate selling? Is it not throughing away a certificate, bestowed in the certificate to a person who has not achieved that? That should not be done. IT experts say they can solve the question paper leaking problem. Proper attention should be given. Its basic question, whether I could test knowledge or whether I could test what they are memorizing. In the name of creative questions, something which is not creative but limiting the other things. We should examine what they are learning. We should not examine what they have not learnt. And we should not examine whether they could memorize or not.

Mr Nazrul Islam Khan: It is very difficult to go beyond culture. We are transforming, no doubt. Our constitution speaks about the uniformity

of education. I think, Science, Arts, Commerce, all should merge before intermediate to the single channel. After intermediate they should be divided. 2nd point is that I never believe that best students will always deliver best service and they will be non-corrupt.

Question 8 (Brigadier Imran, Pakistan, Course Member NDC 2018):

After climbing up the education level, students are planning to leave the country. There are serious brain drain in Bangladesh and in fact there is serious disqualification and mismatch that exists at the tertiary level and post tertiary level education. Basic problem is mismatching. So how can we get rid of this mismatch?

Question 9 (Professor Abul Kashem Mozumder, BUP): We have to think about our education system, our recruitment system. We have to also think about our school and college management committee.

Response of Panelist

Professor Dr. A K Azad Chowdhury: Brain drain is a serious problem but it is profitable. If you see in term of money you earn, you are sending 10 million people and you are getting 15 billion dollar. What he earns, he sends it back to home. But what about the garments traders? They do under invoicing or over invoicing. It is a serious problem. It is the liquidity crisis and people say lots of money are siphoned in the name of laundering, siphoning over invoice, under invoice and so on. What about those people who are really doing hard work and sending money back? Global trafficking is called manpower export. Previously it was talked and now the concept is changed. World considers university education is the touring out of the global workforce not for the one country. One thousand pharmacists are working at America, Canada, Europe and they are sending huge amount of money. But I must admit that priority of our country is the first. So we have to develop a conducive conditions and attractive conditions so that they don't go to out of the country.

Mr Nazrul Islam Khan: I think it is not brain drain but it is brain gain, because everybody is asking our education system is not good, when they somehow go outside the country or any other country, they are earning something. So it is brain gain but we should try to bring them back. Why? Because then we can circulate this in our system.

Reform of Education Sector of Bangladesh for Realization of Vision 2041

Rapporteurs



Deputy Secretary Mohammad Ismail Hossain
Research Coordinator



Lecturer Farhana Binte Aziz
Research Fellow



Md Nazrul Islam
Assistant Director (Library)

NDC Participants (Faculty and Staff)

Ser	Rank and Name	Appointment
1	Lieutenant General Chowdhury Hasan Sarwardy, BB, SBP, BSP, ndc, psc, PhD	Commandant
2	Rear Admiral Muhammad Anwarul Islam, NGP, ndc, afwc, psc, BN	Senior Directing Staff (Navy)
3	Major General S M Shafuiddin Ahmed, ndu, psc	Senior Directing Staff (Army)
4	Major General Mizanur Rahman Khan, ndc, afwc, psc	College Secretary
5	Brigadier General Abu Taher Muhammad Ibrahim, ndc	Senior Directing Staff (Army)
6	Air Commodore M Mortuza Kamal, GUP, ndc, psc, GD(P)	Senior Directing Staff (Air)
7	Additional Secretary Shahid Hasan, ndc	Senior Directing Staff (Civil)
8	Director General Shah Ahmed Shafi, ndc	Senior Directing Staff (FA)
9	Brigadier General Mohammad Mahbubul Haq, PBGM, ndc, afwc, psc	Chief Instructor
10	Brigadier General Md Mahbubul Haque, ndc, afwc, psc	Directing Staff (Army)
11	Brigadier General Md Rafiqul Islam, ndc, afwc, psc,	Directing Staff (Army)
12	Colonel Md Nishatul Islam Khan, afwc, psc	Directing Staff (Army)
13	Colonel Muhammad Ali Talukder, afwc, psc	Directing Staff (Army)
14	Commodore Khondkar Misbah-Ul-Azim, (TAS), afwc, psc, BN	Directing Staff (Navy)
15	Air Commodore Javed Tanveer Khan, afwc, psc, GD (P)	Directing Staff (Air)
16	Colonel Salahuddin Khaled	Colonel Administration

17	Colonel (Now Brigadier General) A K M Fazlur Rahman, afwc, psc	Director (Research & Academic)
18	Lieutenant Colonel S M Merazul Islam, afwc, psc, Engr	Senior Research Fellow
19	Lieutenant Colonel Syed Jamil Ahsan, afwc, psc	General Staff Officer-1 (Training)
20	Lieutenant Colonel Md Anwar Hossain Bhuiyan, psc, Arty	General Staff Officer-1 (Administration)
21	Lieutenant Colonel A S M Badiul Alam, afwc, psc, G+, Arty	Senior Research Fellow
22	Major Md Saiful Islam, psc, ASC	Mechanical Transport Officer
23	Major Md Masud Amin, Inf	General Staff Officer-2 (Administration)
24	Major Mohammad Tanvir Hasan Chowdhury, AEC	General Staff Officer-2 (Staff Duty)
25	Major Md Monowarul Karim, GL, Inf	General Staff Officer-2 (Accounts)
26	Major A S M Khairul Hasan, psc, Arty	General Staff Officer-2 (Planning & Coordination)
27	Major Humaon Kabir, Inf	General Staff Officer-2 (Coordination)
28	Major Tahmina Haque Munia, Sigs	General Staff Officer-2 (Network Administration)
29	Major Lasker Jewel Rana, Inf	General Staff Officer-2 (Coordination), AFWC Wing
30	Major Saquib Ibne Rashid, AC	Quarter Master
31	Lieutenant Commander Israth Zahan, (ND), BN	General Staff Officer-2 (Training Support)
32	Squadron Leader Mohammad Iqram Hossain, Edn, BAF	General Staff Officer-2 (Protocol)
33	Deputy Secretary Md Ismail Hossain	Research Coordinator

34	Flying Officer Rafat Zahin Ahmed, Admin	General Staff Officer-3 (AFWC Wing)
35	Lecturer (English) Farhana Binte Aziz	Research Fellow (BCS Education)
36	Md Nazrul Islam	Assistant Director (Library)

NDC Participants (Fellows of Capstone Course 2018-1)

Ser	Names	Name of Organization
1.	Dr. Mohammed Shamsul Hoque Bhuyan	Member of Parliament (Chadpur-4)
2.	Md. Sanowar Hossain	Member of Parliament (Tangail-5)
3.	Md Shafiqul Islam Shimul	Member of Parliament (Natore-2)
4.	Jewel Areng	Member of Parliament (Mymensingh-1)
5.	Mohammed Amir Hossain	Member of Parliament (Comilla-2)
6.	Mahjabeen Khaled	Member of Parliament (Seat-18)
7.	Dilara Begum	Member of Parliament (Seat- 20)
8.	Selina Akhter Banu	Member of Parliament (Seat-7)
9.	Ummey Razia Kajol	Member of Parliament (Seat-43)
10.	Major General Md Abu Sayed Siddique, SPP, afwc, psc, PhD	MGO, Army Headquarters
11.	Rear Admiral M Khaled Iqbal, BSP, ndc, psc	Vice Chancellor, BSMRMU
12.	Air Cdre Muhammad Kamrul Islam, GUP, nswc, afwc, psc	Director, Flight Safety, Air HQ

13.	Md Rakib Hossain, ndc	Additional Secretary
14.	Md Zahirul Islam	Additional Secretary
15.	Md Sirajul Haider, ndc	Additional Secretary
16.	Roohi Rahman	Additional Secretary
17.	Mohammad Nazibur Rahman, ndc	Additional Inspector General of Police
18.	Professor Dr. M. Abul Kashem Mozumder	Pro Vice-Chancellor, BUP
19.	Professor Dr. Md. Anowarul Islam	Pro Vice-Chancellor, Pabna University of Science and Technology
20.	Md Ismail Hossain	Deputy Managing Director, Janata Bank
21.	Professor Humaira Naushaba	Vice Principal Sir Salimullah Medical College, Dhaka
22.	Salahuddin Alamgir	Director, FBCCI
23.	Ms. Farkhunda Jabeen Khan	Director and Treasurer, BWCCI
24.	Ms Abida Ali	Director, BWCCI
25.	Ms. Lipi Khandker	Director, BWCC
26.	Md. Shafiqul Islam Vorosha	Director, FBCCI
27.	Mr Rakim Reza Rousseau	Deputy Managing Director, Reza Group
28.	Prabir Kumar Saha	Director, FBCCI
29.	Dr. Syeda Tasmina Ahmed	Chief News Editor, BTV
30.	Goni Adam	Joint News Editor, ATN News
31.	Khondoker Shahidul Islam (Shakhor)	Managing Director, Rapid PR
32.	S M Mujibur Rahman	Executive Director, PEP
33.	Mr. Syed Farhad Ahmed	Honorary Consul of Estonia to Bangladesh
34.	Shishir Shil	Secretary General, APPG

NDC Participants (Course Members of National Defence Course-2018)

Ser	Rank	Name	Country
Allied Course Members			
1	Brigadier	Bassem Mohamed Fattallah	Egypt
2	Brigadier	Sanjiv Singh Slaria	India
3	Air Commodore	IS Walia, F (P)	India
4	Commodore	Rituraj Sahu	India
5	Colonel	Marine Jasiman Purba NRP	Indonesia
6	Staff Colonel	Sattam Bin Abdulaziz Ghaeb bin Ghaeb	KSA
7	Staff Colonel	Sultan Bin Hamad Al-Mohaimed	KSA
8	Brigadier General	Noor Mohamad Akmar bin Mohd Dom	Malaysia
9	Colonel	Homnath Dawadi	Nepal
10	Colonel	Boubacar Bako	Niger
11	Colonel	EC Obi-Osang	Nigeria
12	Colonel	UM Aliyu	Nigeria
13	Colonel	ASM Wase	Nigeria
14	Colonel	MD Danja	Nigeria
15	Group Captain	M Abdulraheem	Nigeria
16	Colonel	Saud Sulaiman Abdullah Al-Riyami	Oman
17	Colonel	Khalfan Al Rawahi	Oman
18	Colonel	Saif Al Rahbi	Oman
19	Brigadier	Syed Imran Raza Naqvi	Pakistan
20	Brigadier	P J P Gamage RWP RSP	Sri Lanka
21	Commodore	N P W Amaradasa RSP, psc	Sri Lanka
22	Air Vice Marshal	WLRP Rodrigo	Sri Lanka
23	Colonel	HH Makanza, psc, hcds	Tanzania

Ser	Rank	Name
Bangladesh Army		
24	Brigadier General	Muhammad Ehteshamul Haque, afwc, psc
25	Brigadier General	Mohammad Omar Zahid, psc
26	Brigadier General	Hasan Md Shamsuddin, afwc, psc
27	Brigadier General	Mirza Md Enamul Haque
28	Brigadier General	Md Wahid-Uz-Zaman, psc, te
29	Brigadier General	Abul Fazal Md Sanaullah, SUP, hdmc, psc
30	Brigadier General	Kazi Taufiqul Islam, psc
31	Brigadier General	Sharif Ahsan, afwc, psc
32	Brigadier General	Abu Nur Md Shariful Alam, SUP, psc, lsc
33	Brigadier General	Abdullah Al Yusuf, BSP, psc, G
34	Brigadier General	A K M Saiful Islam, psc
35	Brigadier General	Md Wahidul Islam, psc
36	Brigadier General	A K M Iqbal Azim, psc, G+, PhD
37	Brigadier General	S. M. Kamrul Hassan, hdmc, psc
38	Brigadier General	Sajjad Hossain, psc
39	Brigadier General	Md Zamal Mahmood Siddiq, psc
40	Brigadier General	Md Habibur Rahman
41	Brigadier General	Mashiur Rahman, psc
42	Brigadier General	Omar Sadi, psc
43	Brigadier General	Abul Kashem Md Fazlul Kader, psc
44	Brigadier General	Md Muniruzzaman, psc
45	Brigadier General	A B M Shefaul Kabir, afwc, psc
46	Brigadier General	Md Abul Kalam Azad, afwc, psc, G+
47	Brigadier General	Md Main Uddin, psc, G
48	Brigadier General	Kazi Shameem Farhad, psc
49	Brigadier General	Md Mostagousur Rahman Khan, SGP, afwc, psc
50	Brigadier General	Md Rashed Iqbal, psc, G
51	Brigadier General	Khaled Shams, psc
52	Brigadier General	Md Mizanur Rahman

Bangladesh Navy		
53	Commodore	Mahmud Hossain, (ND), NPP, BCGMS, psc, BN
54	Commodore	M Zakirul Islam, (E), psc, BN
55	Captain	M Sharif Uddin Bhuiyan, (S), NGP, afwc, psc, BN
56	Captain	M Nayeem Golam Muktadir, (H), psc, BN
57	Captain	M Ali Chowdhury, (C), afwc, psc, BN
Bangladesh Air Force		
58	Air Commodore	M A Awal Hossain, GUP, awc, psc, GD (P)
59	Air Commodore	Md Shaharul Huda, psc, GD (P)
60	Group Captain	Md Zahidul Sayeed, psc, Engg
61	Group Captain	Mirza Sarwar Jahan, Engg
62	Group Captain	Md Towhidul Islam, BPP, psc, Engg
Bangladesh Civil Service		
63	Joint Secretary	Dr. Shahnaz Arefin
64	Joint Secretary	Rukhsana Hasin
65	Joint Secretary	Kazi Enamul Hassan
66	Joint Secretary	Md. Shahidul Hoque Bhuia
67	Joint Secretary	Maqsura Noor
68	Joint Secretary	Md Shahidul Alam
69	Joint Secretary	Munira Sultana
70	Joint Secretary	Md Rejaul Karim
71	Joint Secretary	Biswajit Bhattacharya Khokon
72	Joint Secretary	Md. Ismiel Hossain
73	Joint Secretary	Md Abdul Majid
74	Joint Secretary	Rashida Ferdouse
75	Director General	Masudur Rahman
76	Deputy Inspector General	Mohammad Abdullahel Baki, PPM

NDC Participants (Course Members of Armed Forces War Course-2018)

Ser	Rank	Name
Bangladesh Army		
1	Lieutenant Colonel	Kazi Anisuzzaman, psc, Inf
2	Lieutenant Colonel	Mohammad Ali Reza, SGP, psc, Inf
3	Lieutenant Colonel	Azaher Uddin Ahmmed, psc, Inf
4	Lieutenant Colonel	Ahmed Sharrif Manee, BSP, psc, Engrs
5	Lieutenant Colonel	Mohammad Humayun Kabir, psc, G, Arty
6	Lieutenant Colonel	Md Sufi Mohammad Moinuddin, SUP, psc, Sigs
7	Lieutenant Colonel	Md Rashidul Islam, psc, Inf
8	Lieutenant Colonel	Muhammad Azharul Islam, psc , Ord
9	Lieutenant Colonel	Shahzad Pervez Mohiuddin, psc, Sigs
10	Lieutenant Colonel	Md Anwarul Kabir, psc, Arty
11	Lieutenant Colonel	Kazi Shazzad Hossain, psc , ASC
12	Lieutenant Colonel	Mostofa Zaman Khan, psc, Inf
13	Lieutenant Colonel	Mahmud Hasan, BSP, psc, Arty
14	Lieutenant Colonel	Malique Shams Uddin Muhammed Moin, SGP, psc, Inf
15	Lieutenant Colonel	Mohammad Asaduzzaman, psc, AC
16	Lieutenant Colonel	Abul Hasnat Mohammad Mahmud Azam, psc, Arty
17	Lieutenant Colonel	Mohammad Sultan Mahmud Shamol, psc, Engrs
18	Lieutenant Colonel	Mohammad Abdul Aziz, SUP, psc, AC
19	Lieutenant Colonel	Ariful Islam Khan, psc, Engrs
20	Lieutenant Colonel	Mohammad Kamrul Hassan, psc, Inf
21	Lieutenant Colonel	Mohammad Arman Mallick, psc, G+, Arty
22	Lieutenant Colonel	Nizam Uddin Ahmed, psc, Engrs
23	Lieutenant Colonel	Mohammad Mahmudul Hasan, psc, Inf
24	Lieutenant Colonel	Mohammad Harun-Ur-Rashid, psc, Inf
25	Lieutenant Colonel	Mohammad Tariq Hossain, psc, Inf

Bangladesh Navy		
26	Captain	Arif Ahmed Mustafa, (G), psc, BN
27	Commander	Faisal Muzaffer Mahmud, (S), psc, BN
28	Commander	Al Faroque Mahmud Hossain, (N), psc, BN
29	Commander	M Jamal Uddin Chowdhury, (ND), psc, BN
30	Commander	Khan Mohammad Emon Rashid, (ND), psc, BN
Bangladesh Air Force		
31	Group Captain	Md Mostafa Mahmood Siddiq, psc, GD (P)
32	Group Captain	Md Mahfuzur Rahman, GUP, psc
33	Group Captain	Md Asif Iqbal, psc, GD(P)
34	Wing Commander	Md Aminur Reza Ibne Abedin, psc, ADWC
35	Wing Commander	Md Abdul Hafiz Sarker, psc, Log

Outside Participants

Ser	Name and Rank	Designation	Organization
1.	Professor Dr. A T M Anisuzzaman	Emeritus Professor	Dhaka University
2.	Rasheda K Chowdhury	Former Adviser to the Caretaker Government and Executive Director	Campaign for Popular Education
3.	Professor Dr. A K Azad Chowdhury	Emeritus Professor	Dhaka University
4.	Md. Nazrul Islam Khan	Former Education Secretary and Curator	Bangabandhu Sheikh Mujibur Rahman Memorial Museum
5.	Professor Dr. M Kaykobad	Professor, Department of Computer Science and Engineering	Bangladesh University of Engineering and Technology
6.	Air Commodore Muhammad Nazrul Islam, afwc, psc	Director General	Training Directorate, Armed Forces Division (AFD)

Ser	Name and Rank	Designation	Organization
7.	Colonel A K M Sazedul Islam, afwc, psc	Colonel Staff	CMR Directorate, AFD
8.	Brigadier General Rakib Uddin Ahmed	Director	Budget Directorate, Army Headquarters
9.	Brigadier General Md. Abdul Mannan Bhuiyan, SUP	Director	Education Directorate, Army Headquarters
10.	Captain A S M Akhter Hassan, BN	Director	Education Directorate, Naval Headquarters
11.	Captain S M Reazur Rashid, BN	Director	Pay, Pension and Accounts Directorate, Naval Headquarters
12.	Kazi Abdul Moyen	Director	Education Directorate, Air Headquarters
13.	Brigadier General Md Mefta Ul Karim, ndc, psc	Commander	6 Independent Air Defence Artillery Brigade
14.	Brigadier General Md Sayeed Siddiki	Commander	46 Independent Infantry Brigade
15.	Colonel Mohammad Wahidur Rahman, afwc, psc	Principal	Shaheed Bir Uttam Lt Anwar Girls College
16.	Lieutenant Colonel Rashidul Hasan, psc	Director	ISPR Directorate
17.	Commodore Bashir Uddin Ahmed, ndc, psc, BN	Commandant	Coast Guard Base, Agrajatra, Patuakhali
18.	Captain Faisal Mohammad Arifur Rahman, BN		Admin Authority, Dhaka Cantt.

Ser	Name and Rank	Designation	Organization
19.	Air Commodore Md Shahjahan		BAF Base Bangabandhu
20.	Commodore M Anamul Haque,(C), psc, BN	Director, RDB	Headquarter Directorate General of Forces Intelligence (DGFI)
21.	Colonel Md. Shazedur Rahman		Headquarter DGFI
22.	Md. Humayun Kabir Lasker	Additional Secretary	Ministry of Science and Technology
23.	Rowshan Ara Begum	Additional Secretary	Ministry of Science and Technology
24.	Chiranjib Sarker	Director General	Ministry of Foreign Affairs
25.	Farhina Ahmed	Joint Secretary, Finance Division	Ministry of Finance
26.	A K M Zakir Hossain Bhuiyan	Additional Secretary	Ministry of Education
27.	Goutom Kumar	Joint Secretary	Ministry of Health and Family Welfare
28.	S.M Rejoan Hossain	Additional Secretary	Ministry of Commerce
29.	Sharifa Khan	Additional Secretary	Ministry of Commerce
30.	Md. Hafizur Rahman	Joint Secretary	Ministry of Commerce
31.	A.H.M. Shafiquzzaman	Joint Secretary	Ministry of Commerce
32.	Brigadier General Md. Siddiqui Alam Sikder, ndc, psc	Dean, FSSS	Bangladesh University of Professional BUP)
33.	Air Commodore M. Aminul Islam, afwc, psc		BUP

Ser	Name and Rank	Designation	Organization
34.	Md. Aktar Kamal	Assistant Professor, Dept. of Management Studies	BUP
35.	Khadiza Khatun	Lecturer, IR	BUP
36.	Md. Sohel Rana	Lecturer	BUP
37.	Zarin Tasnim	Lecturer	BUP
38.	Saiful Islam	Lecturer (ICT)	BUP
39.	Mahammad Nurul Islam	Lecturer (English)	BUP
40.	M Zafrul Hossain	Student	BUP
41.	Monia Khan Agroni	Student	BUP
42.	Md. Jaber Al Nahian	Student, ICT	BUP
43.	Md. Hasan Al Banna	Student	BUP
44.	Commodore Sheikh Mahamudul Hassan		Bangabandhu Sheikh Mujibur Rahman (BSMR) Maritime University
45.	Dr. Md. Forhad Ahmmed	Assistant Registrar	BSMR Maritime University
46.	Dr. Md. Mostafizur Rahman	Assistant Professor	BSMR Maritime University
47.	Dr. Mohammad Tanzil Hasan	Assistant Professor	BSMR Maritime University
48.	Ahnaf Rahman	Lecturer	BSMR Maritime University
49.	Ayesha Siqqiua	Lecturer	BSMR Maritime University
50.	Major General A K M Abdullahil Baquee, ndu, psc	Commandant	Defence Services Command & Staff College (DSCSC)
51.	Commodore M Rashed Ali, BN	Deputy Commandant	DSCSC

Ser	Name and Rank	Designation	Organization
52.	Captain M Joynal Abedin, afwc, psc, BN	Colonel General Staff	DSCSC
53.	Group Captain A K M Shafiu Azam	Senior Instructor (Academic)	DSCSC
54.	Major Md. Arefin Kabir		DSCSC
55.	Major General Md Abul Khair, ndc	Commandant	Military Institute of Science and Technology (MIST)
56.	Brigadier General Md Shahidul Alam		MIST
57.	Captain Md Ziaul Ahsan, BN		MIST
58.	Ambassador Suhrab Hossain	Adviser	Bangladesh Enterprise Institute
59.	Dr. Mohammad Harunur Rashid Bhuyan	Research Fellow	Bangladesh Institute of Development Studies (BIDS)
60.	Dr. Anwara Begum, PhD	Senior Research Fellow	BIDS
61.	Dr. Zaidi Sattar	Chairman	Policy Research Institute
62.	Professor. Md. Moshihuzzaman	Member (Curriculum)	National Curriculum and Textbook Board (NCTB)
63.	Md. Shahjahan Ali	Joint Secretary and Member (Finance)	NCTB
64.	Professor Dr. Md. Lokman Hossain	Director (Research)	National Academy for Education and Management (NAEM)
65.	A. F. M Shafiqur Rahman	Director (Training & Implementation)	NAEM

Ser	Name and Rank	Designation	Organization
66.	Brigadier General Md Latiful Haider, ndc, psc (Retd)	Former Faculty Member	NDC
67.	Tahmina Sultana	Lecturer	Dhaka University
68.	G.M Mehedi Hasan Faruki	Student	Dhaka University
69.	Sadia Akter Rima	Student	Dhaka University
70.	Sumaeta Marjan	Student	Dhaka University
71.	Masrur Mahmud Khan	Student	Dhaka University
72.	Samina Islam	Student	Dhaka University

Moderator/Coordinators

1.	Rear Admiral Muhammad Anwarul Islam, NGP, ndc, afwc, psc	Senior Directing Staff (Navy)	Moderator
2.	Major General Mizanur Rahman Khan, ndc, afwc, psc	College Secretary, NDC	Sponsor Directing Staff for the Seminar
3.	Colonel (Now Brigadier General) A K M Fazlur Rahman, afwc, psc	Director, Research and Academic	Coordinator
4.	Lieutenant Colonel A S M Badiul Alam, afwc, psc, G+, Arty	Senior Research Fellow	Associate Coordinator
5.	Lecturer Farhana Binte Aziz	Research Fellow	Assistant Coordinator
6.	Md Nazrul Islam	Assistant Director (Library)	Assistant Coordinator



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