Seminar on

Application on Carbon Financing: Challenges and Policy Options for Bangladesh

Thursday 16 May 2024

Organised by

Bangladesh Institute of International and Strategic Studies (BIISS)

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APPLICATION ON CARBON FINANCING: CHALLENGES AND POLICY OPTIONS FOR BANGLADESH

Bangladesh Institute of International and Strategic Studies (BIISS) organised a seminar on **"Application on Carbon Financing: Challenges and Policy Options for Bangladesh"** on 16 May 2024 at the BIISS Auditorium. **Ms Waseqa Ayesha Khan, MP**, Honourable State Minister, Ministry of Finance, Government of the People's Republic of Bangladesh graced the occasion as the Chief Guest. **Ambassador AFM Gousal Azam Sarker**, Chairman, BIISS, moderated the seminar. **Major General Md Abu Bakar Siddique Khan, ndc, afwc, psc, G+,** Director General, BIISS, delivered the Welcome Address. **Dr Mahfuz Kabir**, Research Director, BIISS, delivered his Keynote Presentation titled "Pathways of Carbon Financing: Imperatives for Bangladesh"**.**

Following the Keynote Presentation, five distinguished panelists delivered their talks on **"Reflections from the Policy and Practices"** in the seminar. **Eun Joo Allison Yi**, Senior Environment Specialist, World Bank, made a presentation on **"Alternative Trading Arrangements: Options, Opportunities, and Challenges for Bangladesh".** Following that, **Arif M Faisa**l, Programme Specialist (Nature, Climate & Energy), United Nations Development Programme (UNDP), Bangladesh, **Alamgir Morshed**, Executive Director & CEO, Infrastructure Development Company Limited (IDCOL), **Shams Mahmud**, Managing Director, Shasha Denims Ltd and Director, Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and **Dr Md Nazrul Islam**, Additional Foreign Secretary (Bilateral-East and West), Ministry of Foreign Affairs (MoFA), Government of the People's Republic of Bangladesh, had a comprehensive discussion on this subject matter. A selected group of distinguished participants shared their expert opinions in the seminar.

WELCOME ADDRESS

Major General Md Abu Bakar Siddique Khan, ndc, afwc, psc, G+
Director General, Bangladesh Institute of International and Strategic Studies (BIISS)

On behalf of the Institute, **Major General Md Abu Bakar Siddique Khan** welcomed all to the seminar. He paid his solemn reverence to the memory of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman, the main architect of the country's independence. He also paid tribute to all the martyrs and freedom fighters who made their supreme sacrifices for the liberation of Bangladesh.

The Director General expressed his view that in recent years, the global community has increasingly recognised the urgent need to address climate change and its impacts on the planet. Bangladesh, with its vulnerability to climate-related disasters, stands at the forefront of this challenge. As the country navigates through the challenges of mitigating climate change, the application of carbon financing emerges as a significant tool for the process. Carbon financing, in his view, involves the monetisation of carbon credits earned through the reduction of greenhouse gas (GHG) emissions. However, the road to realising its full potential is filled with challenges for a developing nation like Bangladesh. One of the foremost challenges lies in the implementation of viable carbon offset projects. Balancing economic growth with environmental preservation requires creative approaches and strategic investments. Additionally, the lack of institutional frameworks and capacity poses significant hurdles in carbon financing management. Strengthening regulations, technical expertise and fostering partnerships are essential steps towards overcoming these challenges.

According to the Director General, it is equally essential to explore policy options best fitted to the context of Bangladesh. Adopting a comprehensive approach that integrates climate change considerations into national development strategies is paramount. This requires collaboration between government agencies, private sector entities, civil society organisations, and international stakeholders. Promoting public awareness and participation is pivotal in generating grassroots support for carbon financing initiatives. Empowering local communities to actively engage in climate resilience efforts is necessary for fostering sustainable development.

In conclusion, the Director General stated that the journey toward achieving the full potential of carbon financing in Bangladesh is undeniably challenging. This comes with opportunities for innovation and collaboration. By addressing the challenges and embracing inclusive policy measures, Bangladesh can pave the way for a more sustainable and resilient future for generations to come.

KEYNOTE PRESENTATION

Dr Mahfuz Kabir
Research Director, Bangladesh Institute of International and Strategic Studies (BIISS)

Dr Mahfuz Kabir delivered a presentation titled: "Pathways of Carbon Financing: Imperatives for Bangladesh". He started his presentation by presenting the scenario of global greenhouse gas emissions. From the latest European Commission Report, Dr Kabir noted that from the year 1970 to 2022, global greenhouse gas emissions were more than doubled and the majority of which comes from direct carbon dioxide (CO2) emissions and it is approximately 39 gigatons. He opined that if someone looks into the sectors, it can be observed that the power industry is the biggest GHG emitter which emits 28 per cent. But, if it is considered only carbon then it will be 38 per cent following the transport and agricultural sectors.

Following this discussion, Dr Kabir focused on emissions contributed by numerous countries. Of the total emissions, China emerged as the largest emitter that accounting for about 16 gigatons followed by the United States of America (USA) at six gigatons. In this ranking, India is in third position and afterward, the EU and Russia secure their positions. As a result, the combined emissions of the top ten countries surpass more than two-thirds of the total emissions. Dr Kabir then shared his observation that if anyone sees a one-to-one correspondence between the total emission and per capita emission, there appears a surprising reality. Even though China is the highest emitter in total volume, it emits only 11 tons of per capita carbon dioxide equivalent annually. In sharp contrast, the US emits 18 tons per year while India emits less than three tons.

According to Dr Kabir, there is a global target of net zero by 2050 and if someone sees the baseline such as the year 2022, the global CO2 was about 39 gigatons. Since Bangladesh has a net zero target by 2050, it has to reduce carbon emissions significantly. However, he informed that the country has a net positive at present. Considering the business-as-usual scenario, it can be argued that even though there are lots of adaptation measures and renewable energy projects across the world, still the rate is not that significant and by the year 2050, there will be 22.2 gigatons of carbons which should be closed by 2050. Afterward, from the year 2050 to 2100 or at the end of this century, Bangladesh has to have 3,000 gigatons of CO2 close to the net negative emission. So, Bangladesh has a target or global commitment under the United Nations Framework Convention on Climate Change (UNFCCC) that needs to be achieved. The country needs to restrict the global temperature rise by 1.5 degrees as per the Paris Agreement and for this, Bangladesh needs lots of financing. To the estimates, if the country sees the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), from 2022 to 2030, the annual requirement will be US$4.5 trillion. In fact, there are other studies that also have done the estimates and according to those reports, from 2021 to 2050, the total requirement will be US$275 trillion. This means, that every year the amount will be US$9.2 trillion.

However, Dr Kabir shared another study from Stern and Bhattacharya and noted that for emerging markets and developing economies except China, the requirement is US$1 trillion per year by the year 2025. It is estimated that by 2030, it will be roughly US$2.4 trillion. If Bangladesh considers the latest estimate by the World Meteorological Organization in 2024, the average requirement will be US$8.9 trillion in 2030 and by 2050 it will be more than US$10 trillion. Then he raises the point that what will be the sources is a big question. He opined that one of the sources may be the 'Green Climate Fund' but the global community of experts and policymakers think that carbon financing would be one of the most viable sources. In fact, it would be an innovative financing tool for achieving a net zero by 2050. Thus, carbon financing places financial value on the carbon emissions and it allows the companies to buy carbon credit to offset their own emissions. By and large, the companies are distributed in Bangladesh and other developing countries like fast-growing Indian companies and also the big multinationals emit carbon and buy carbon credits. It also brings the question of sustainable energy solutions to developing countries as well. Carbon credits were introduced in 1997 under the Kyoto Protocol and the first international institution to cut carbon emissions globally. There is a Clean Development Mechanism (CDM) that allows industrial countries to fulfill their greenhouse gas emission reduction commitments. So, approved CDM projects produce certified emission reductions (CER) known as 'carbon credit' and it can be traded with businesses, industries and countries.

Dr Kabir also addressed the audience regarding the two primary forms of carbon financing: one is carbon tax which has been in effect in Bangladesh since the second half of the 2023 fiscal year and the second one is the Emissions Trading System (ETS) which is not used globally, rather, the EU and some other countries like USA and Canada primarily adopted it and some other countries like Japan, Australia, New Zealand and South Korea and more recently China have started the ETS in 2021. In terms of pricing, Dr Kabir referenced the International Monetary Fund (IMF) which suggested an optimal carbon tax price of $US75 per ton of CO2. However, he emphasised on the variability in carbon credit pricing across different markets. Because prices vary significantly across the market. For example, the prices are notably higher in the EU market, compared to markets in China, South Korea, Australia, and New Zealand. Moreover, he noted that prices can fluctuate significantly in stock markets where carbon credits are traded.

Dr Kabir then proceeded to outline the carbon trading system, detailing a structured process for carbon credit sales. Initially, he focused on the beginning of emission reduction strategies, emphasising renewable energy projects as pivotal contributors to emission mitigation. In addition, enhancements in energy efficiency across various sectors, including production and transportation, play a pivotal role in this aspect. Furthermore, he highlighted the importance of forest protection through afforestation as a primary avenue for emission reduction projects. Secondly, Dr Kabir discussed the verification phase, managed by entities like the IDCOL, which are accredited by the UNFCCC. He noted that projects under the CDM undergo rigorous verification processes. He also acknowledged the presence of verifiers in the voluntary market, such as the Verified Carbon Standard (VCS), Gold Standard, Climate Action Reserve, and American Carbon Registry, which oversee various aspects of carbon credit registries. The third aspect addressed was issuance, typically managed by national governments following the registration of carbon credits. Dr. Kabir highlighted the importance of documenting the history of carbon credit sales, utilisation, and ownership, crucial for transparency in carbon trading activities. Fourthly, he detailed the carbon credit sales process, involving transactions among companies, organisations, and countries interested in purchasing carbon credits. Finally, Dr Kabir summarised the carbon trading process as a cycle where carbon credits are utilised after purchase, thereby completing the transaction loop.

Dr Kabir further illuminated that the buyers are mainly all the big multinationals, such as Microsoft, Shell, British Petroleum, Nestle, Google, Amazon, Delta Airlines, United Airlines, JP Morgan, Goldman Sachs and Coca-Cola. North American countries like Canada, the USA, China, South Korea, Australia, New Zealand, the United Kingdom (UK) and EU countries usually purchase carbon credits. Besides these, Kazakhstan is another promising market. Dr Kabir then mentioned the potential buyers of carbon credits in Bangladesh. He noted that readymade garment (RMG) exporters of the country can be important buyers of carbon credit. He highlighted that the ETS offers the highest prices for carbon credits, with New Zealand following suit. Nonetheless, he reiterated that prices in the market are subject to fluctuations driven by the dynamics of demand and supply. Dr Kabir characterised the ETS as an involuntary compliance market run by stringent regulatory frameworks and substantial transaction costs. These factors, nonetheless, contribute to the operational landscape of carbon trading within the ETS, influencing both pricing and market dynamics.

Dr Kabir then mentioned the trading dynamics of carbon prices by presenting the data for 10 May 2024. He found a significant fluctuation in carbon pricing between the voluntary and compliance markets. Within the compliance market, he highlighted the EU offering US$73.62 per ton, the UK at £38 per ton, and notable participation from the USA, Australia, New Zealand, and South Korea as important markets. Then Dr Kabir presented a map of the global distribution of carbon taxes and ETS and explained the point that many countries and regions have either implemented or

scheduled both ETS and carbon tax mechanisms. Notably, the EU countries, along with parts of Canada, Mexico, and South America (including Uruguay and French Guyana), offer favorable prices and have established both ETS and carbon tax frameworks. In contrast, regions like China, Australia, parts of Canada, and the USA have either implemented or are planning ETS frameworks. Other regions, including parts of Latin America like Chile, and Argentina, have either implemented or are considering carbon tax mechanisms. Dr Kabir emphasised that some regions yet to decide on ETS or carbon tax exhibit varied pricing levels. the EU offers the highest carbon prices, followed by regions like French Guyana and Uruguay, while prices elsewhere around the globe vary significantly based on regional policies and market dynamics.

Dr Kabir elaborated on the implementation of carbon taxing in Bangladesh, which began with levies on owning additional cars based on their cylinder capacity. The tax ranges from BDT 25,000 to BDT 35,000, with an additional environmental protection tax of BDT 75,000 applicable to cars, jeeps, and microbuses with engine capacities ranging from 2001 Cylinder Capacity (CC) to 2500 CC. Furthermore, the government has significantly increased import duties on cars, which Dr Kabir considers akin to a form of carbon tax, albeit primarily targeting traffic congestion. He further informed that in Bangladesh, IDCOL is authorised by the UNFCCC to manage and sell carbon credits. IDCOL commenced carbon credit sales in 2006, and as of May 2023, it has sold carbon credits totaling US$2.53 million, generating earnings of approximately US$16.25 million. However, considering the price-to-credit ratio, Dr. Kabir noted an average of about US$6 per credit.

Dr Kabir then highlighted that that IDCOL's role in carbon credit sales indicates Bangladesh's participation in global efforts to mitigate carbon emissions, despite challenges posed by varying tax structures and their primary focus on addressing traffic congestion within the country. Dr Kabir anticipated that those credits are not sold in the EU rather in other countries. He then highlighted the challenges of selling carbon credits. Lack of awareness and capacity among the stakeholders are among the major challenges. Very often demand side of the carbon credits like the big businesses cannot access full and accurate information on the carbon credit in the domestic market. In addition, insufficient funding is a big constraint in the realm of carbon financing. For example, if someone wants to invite an international calculator or entities it requires substantial financial resources.

In addition to that, the local calculation, baseline or end-line also requires considerable funding. Shortage of skilled manpower is another challenge because it requires advertisement and full knowledge of carbon emission, adaptation technology and low-emitting technology. In this particular field, Bangladesh does not have skilled manpower. Bangladeshi RMG exporters are constrained by incomplete information. Thus, in Bangladesh, there is a sales procedure where IDCOL leads, but there are other organisations who promote solar and other renewable technologies but they do not have a linkage with the international market. Lack of strategic investment is also a challenge, even though Bangladesh is a pioneer in many fields of environmental protection and climate change as the country has the 8th Five Year Plan, the 2nd Perspective Plan, the National Adaptation Plan, the Mujib Climate Prosperity Plan and Bangladesh Delta Plan 2100. In all the plans, the country has a strong commitment towards the climate adaptation, mitigation and resilience. Still, the field of carbon financing is not much highlighted. He hoped that in the ninth Five-Year Plan this issue will be adequately covered.

In the last part of the presentation, Dr Kabir mentioned that Bangladesh needs to streamline the CVM within the country's policy and financial instruments. meanwhile, the Bangladesh Bank prepared a report in 2015 that identified the areas of intervention. Also, there are financial instruments like the instrument for green financing channeled by the private banks of Bangladesh. Unfortunately, this particular issue of carbon financing is not specified in the financial policies of the country.

Certainly, as said by Dr Kabir, Bangladesh faces a critical need for financial instruments and the reduction of transaction costs, particularly given the substantial financial requirements for project calculations and related activities, as previously highlighted. Numerous small-scale projects are being implemented by the IDCOL and various other parties across the country. Accounting for each of these projects individually could result in prohibitively high transaction costs. To address this challenge, consolidating these small projects into bundled initiatives could significantly reduce transaction costs. Moreover, ensuring conducive conditions for off-grid solar systems, especially home systems, is crucial. These systems are prevalent in rural areas like char, haor, and coastal regions, yet they often lack proper accounting and integration into potential carbon credit programmes, despite IDCOL's involvement. Efforts to integrate and streamline these diverse projects into cohesive carbon credit earners remain essential for maximising their impact and efficiency within Bangladesh's carbon financing landscape. This integration could not only lower transaction costs but also enhance the country's ability to leverage its renewable energy initiatives effectively in the global carbon market.

As said by Dr Kabir, it is imperative for Bangladesh to create opportunities for small-scale projects by establishing appropriate financial instruments and incentives. These measures are essential to encourage investment from small companies in renewable energy and other low-emission initiatives. Additionally, it is crucial for the country to ensure that carbon credits are genuinely purchased, accounted for, and verified by recognised standard entities. This adherence to rigorous verification processes is pivotal for upholding Bangladesh's reputation as a pioneer in solar energy and other mitigation technologies. Despite Bangladesh's leadership in adopting solar energy and similar advancements, there remains a need to effectively communicate and showcase these achievements on the global stage. Enhancing the visibility and credibility of its carbon credit programmes will not only bolster Bangladesh's image but also attract more investment and partnerships in sustainable development efforts. Thus, emphasising transparency and adherence to international standards are paramount in positioning Bangladesh as a credible player in the global climate action arena.

Dr Kabir opined that Bangladesh could significantly enhance its international standing by engaging with five recognised entities to promote its initiatives on a global scale. He stressed the importance of government initiatives to facilitate the sale of carbon credits, noting concerns about current pricing which could be clarified by IDCOL. According to him, Bangladesh should aim to secure higher prices aligned with those available in international markets like the EU, necessitating negotiations with relevant stakeholders. Furthermore, Dr Kabir highlighted the need for Bangladesh to focus on generating high-quality carbon credits. While the country is actively producing carbon credits, ensuring their quality through rigorous evaluation, project auditing, and verification processes is essential for international market acceptance. He pointed to ongoing initiatives, such as those managed by the Palli Karma-Sahayak Foundation (PKSF) and funded by the World Bank, as examples of where proper auditing and verification can facilitate carbon credit generation for international trade. Dr Kabir recommended that Bangladesh should develop policies to incentivise both local and foreign direct investment (FDI) in climate-friendly projects. These policies, coupled with robust auditing and verification frameworks, are crucial steps towards positioning Bangladesh as a credible and competitive player in the global carbon market.

According to Dr Kabir, if Bangladesh has the proper policy and financial incentives, or if some projects are registered in the stock market, then the country can be able to benefit a lot from this. This is also important to establish a voluntary market as the first step. If Bangladesh can start this market, then step by step it can go for the compliance market. Bangladesh needs to make aware its businesses of their carbon footprints and encourage them to purchase their necessary carbon credits. Hence, the business communities are invited to discuss and raise their issues regarding the carbon market. He highlighted the necessity for thorough preparations, particularly in light of instruments like the European Carbon Border Management, for which Bangladesh must be well-prepared. Dr Kabir specifically called upon the business community, especially the RMG manufacturers, to ready themselves for addressing intricate details related to carbon markets. Finally, he emphasises the issue that Bangladesh requires a well-established carbon market supported by a robust mechanism for the buying and selling of carbon credits. This infrastructure is pertinent for strengthening the country's efforts in carbon mitigation and ensuring its active participation in the global climate action arena.

Eun Joo Allison Yi
Senior Environment Specialist, World Bank

At the outset, **Ms Eun Joo Allison Yi** shared her extensive experience in carbon finance, spanning over 20 years, emphasising her keen interest in market mechanisms related to environmental finance. She introduced the topic of green growth for Bangladesh and the role of ecological market mechanisms. Ms Yi explained various ways to commoditise pollution, with carbon being one core example. She discussed different tools and incentives that include the issues of taxes, charges, pollution levies, and their roles in managing the costs of pollution abatement for private and public sectors. In that context, she cited Vietnam and South Korea as examples that successfully implementing environmental market mechanisms. She highlighted the detailed works with the Vietnamese government to create a carbon market that allowed the private sector to access low-cost loans for modern energy systems. Similarly, Ms Yi mentioned South Korea's use of various fiscal instruments, including a Greenhouse Gas Emissions Trading System. She also emphasised the need for Bangladesh to leverage these mechanisms for modernisation and achieve middle-income status. Ms Yi underscored the importance of understanding the environmental impacts and associated costs at both macro and micro levels. Ms Yi stressed the importance of equity, ensuring that the poor are not disproportionately burdened by environmental taxes. She also discussed the potential for significant revenue generation through carbon finance, highlighting the need for robust compliance and enforcement structures to attract private sector investment.

Ms Yi then emphasised the need for a central entity or control tower, typically the Ministry of Finance and the Ministry of Environment, to coordinate and implement environmental financial mechanisms. Ms Yi called for improved measurement, reporting, and verification (MRV) systems to ensure accurate and reliable data for carbon finance. She proposed a green growth framework for Bangladesh which she has already developed while working with the World Bank. This framework includes nine policy directions focused on strengthening environmental governance, creating new growth engines, enabling green consumption, and a host of others. She likened the implementation of these policies to an orchestra, requiring synchronised efforts across various sectors. Ms Yi outlined the roles of government regulatory items, industry production, and consumption in achieving green growth. Finally, she concluded by emphasising the potential for Bangladesh to become a leader in environmental finance and green growth. In order to accomplish this, she called for coordinated efforts, investment in knowledge and curriculum, and the creation of jobs in the environmental sector.

Arif M Faisal
Programme Specialist (Nature, Climate & Energy), United Nations Development Programme (UNDP), Bangladesh

Mr Arif M Faisal discussed two primary issues: Improving access to the international carbon market and the role of development partners in accelerating this market. Primarily, he addressed the need for policy reform to access the carbon market effectively, noting that carbon trading is still in its early stages. Notably, the Nationally Determined Contribution (NDC), updated in 2021, is a fine policy document that needs clear regulations and incentives to promote green industries, afforestation, and sustainable transport, such as electric mobility. He emphasised the need to attract investors and establish a domestic carbon market, highlighting that Bangladesh is a pioneer in promoting green industries, with many green-certified buildings and projects such as solar irrigation and metro projects.

Mr Faisal noted the significant potential in transforming urban rooftops for solar energy and exploring mass transport and railways for carbon credits. He mentioned the Enhanced Transparency Framework (ETF) under the Paris Agreement, which supports the government in preparing robust transparency measures for tracking adaptation, mitigation, and climate finance. Capacity building is crucial, according to Mr Faisal, particularly for industries to measure and negotiate carbon credits with international companies. He stressed the importance of demonstration projects to showcase the effectiveness of carbon emission reduction efforts, which can attract international investment. Additionally, standardisation and certification, similar to energy labeling for appliances, are necessary to improve emission standards in the energy sector. Mr Faisal also highlighted the need for technology adaptation, including renewable energy systems, energy efficiency, and carbon capture and storage technologies. Financial assistance, such as subsidies, tax rebates, and concessional finances, is vital to encourage new entrepreneurs in the carbon market. On the role of development partners, he emphasised the importance of technical assistance, particularly in building capacity and adopting international best practices for carbon accounting and emission verification.

According to Mr Faisal, financial assistance for market infrastructure and regulatory frameworks, similar to platforms in Korea and China, is also needed. He stressed the need for supporting market access and project certification, mentioning mechanisms like the Joint Crediting Mechanism (JCM) by the Asian Development Bank (ADB). Research and innovation investments are also crucial for advancing low-carbon technologies and enhancing carbon market interventions. He then discussed the importance of monitoring and evaluating the effectiveness of carbon markets under the ETF. He highlighted the volatility of the carbon market and the challenges it poses for small entrepreneurs with limited resources. Financing mechanisms such as green bonds and public-private partnerships could support emission reduction projects. In the end, he called for development partners like the World Bank and ADB to support entrepreneurs in overcoming barriers to project development, suggesting the bundling of small projects for programmatic carbon trading and humbly thanked the audience for their attention.

Alamgir Morshed

Executive Director & CEO, Infrastructure Development Company Limited (IDCOL)

In his deliberation, **Mr Alamgir Morshed** focused on Bangladesh's significant involvement in carbon emission reduction certificate encashment, noting an order placement totaling US$60 million equivalent to carbon dioxide emission reduction (CR) encashment and voluntary market transactions. He added that only the amount of US$10 million has been received so far. He then highlighted the challenges regarding the carbon credit concept and described it as a relatively new and progressing concept worldwide. In his view, this is a very complex financial tool and a derivative product.

Mr Morshed, while pointing out the lack of liquidity in the international market, informed the audience that the country cannot just buy or sell carbon credit. Additionally, a common marketplace for carbon credit trading is also absent. He then underscored the importance of a framework for Bangladesh. He illustrated that Bangladesh needs a framework, particularly with the phase-out of the CDM and the transition to implementing the Article 6 framework. He remarked that without such a framework, projects eligible for carbon credits cannot be registered.

Going a bit further, Mr Morshed discussed the Clean Cooking Project and how the tools used in the project generate CRs. He further added that one CR is equal to one ton of carbon dioxide emission reduction. Such improved cooking stoves generated the highest amount of CR than many other projects that he did. However, the project has now phased out due to the lack of support from the development partner, the World Bank. He then explained that despite the installation of around four billion cooking stoves, the termination of carbon credit generation is taking place due to the depletion of funds obstructing further implementation. Mr Morshed then emphasised the importance of having such projects for carbon credit generation and indicated the challenges of acquiring finance for these projects, giving the example of the solar irrigation pump (SIP) programme, comprising blended finance of 50 per cent rent, 35 per cent debt, and 15 per cent equity. He then said that due to other priorities, many of the development partners do not want to support SIPs. And the biggest challenge upfront is that, without these carbon or energy-efficient projects, the way forward might be strenuous.

Voicing his support for industrial solar rooftops, Mr Morshad expressed his ambition to install at least 300 megawatts (MW) of solar rooftops in the next two years whereas currently, only around 100 MW is installed. Thus, he opined that there is a necessity for accessing low-cost finance and substantial funding at around 5 to 5.5 per cent interest rates rather than the usual 12 per cent. He then highlighted the point that these projects require a long-term funding source which is a matter of concern. However, in his view, capacity building is essential for integrating with the carbon credit market. He then expressed the necessity of trained personnel for project assessment and proper auditing. Additionally, price discovery is a huge subject in carbon credit as the pricing for projects is often dictated by counterparties which limits the negotiation options. Furthermore, he stressed the fact that the European and American markets are very disintegrated and that is why the price should be negotiated keeping the condition of the market in mind. In this aspect, he suggested that international climate diplomacy could play a pivotal role in the negotiation of prices.

Mr Morshed continued his speech by expressing the necessity for access to finance to achieve Bangladesh's commitment of achieving 40 per cent clean energy by 2041. Although technologies are available, it is crucial to secure long-term funding. Concerning Bangladesh, he informed that the country needs around US$5 billion a year to meet its targets of NDC and renewable energy goals. He further added that institutions such as commercial banks and the financial sectors have to come forward to meet such difficult targets. He, on the one hand, recognised carbon credits as a probable funding source and on the other hand, warned that it alone might not be enough to meet the funding requirements. Carbon credits could build up the viability of energy-saving projects such as solar rooftops by supplementing savings with additional revenue.

Finally, after highlighting a number of challenges, Mr Morshed addressed the core concern which is centered around finance. He conversed about the potential of green bonds and the increased difficulty of seeking funding in local currency for extended periods like 15 years. In his veiw, dollar sourcing cannot be an option due to higher interest rates. Despite mentioning so many obstacles, Mr. Morshed expressed optimism about the growing economic viability of renewable energy projects, praising the progress made in just two years. Drawing from his banking experience, he informed that in the near future, banks can come forward to participate in the renewable energy journey and consequently, it would help a lot to solve the problem. He then emphasised the importance of carbon credits and highlighted Bangladesh's collaboration with the Department of Environment (DoE) to establish a framework for carbon credit trading. By taking inspiration from the strategies implemented by countries, such as Mauritius, Cambodia and Vietnam, Bangladesh can market itself as a hub for carbon credit trading. In the last phases of his speech, Mr Morshed highlighted Bangladesh as a noteworthy exporter of carbon credits due to its relatively low greenhouse gas emissions. As a closing remark, Mr Morshed expressed gratitude and reaffirmed his commitment to advancing the cause of carbon credit trading in Bangladesh.

Shams Mahmud

Managing Director, Shasha Denims Ltd and Director, Bangladesh Garment Manufacturers and Exporters Association (BGMEA)

Thanking the honorable chairman of BIISS and extending the greetings to all attendees, including the respected Chief Guest and colleagues, **Mr Shams Mahmud** commenced his speech on decarbonisation from the point of view of private sectors. Additionally, he mentioned the importance of decarbonisation over concerns of the Least Developed Country (LDC) gradation related to the renewable natural gas (RNG) sector. Even after strict regulations and 50 per cent cut in gas supply to their factory, Mr Mahmud is mostly worried about decarbonisation which is vital for industries that are aiming to export to the EU after graduation from the LDCs. He explained that there is a need for a proper framework. At present, there are numerous policies but without effective implementation there appears a prevailing disconnection. According to him, the prime concern is the current energy policy and ongoing discussions regarding a variable power purchase agreement for offsite solar farms. However, the benefits of such agreements allow factories to offset energy usage through renewable sources. Then, mentioning the recent circular issued by Bangladesh Bank, he shed light on the problems of new industries not being able to set up outside of economic zones or Bangladesh Export Processing Zones Authority (BEPZA). Existing agreements between BEPZA and private power plants reliant on fossil fuels, hinder the desired energy trading for decarbonisation efforts. Also, because of the persistent engagement of Bangladesh's development partners, decarbonisation has become a topic that is hardly talked about and also, there is a prevalent fear of greenwashing.

Mr Mahmud expressed his skepticism regarding the importance placed on decarbonisation. Because, the main problem is, action is only taken when compelled by buyers. Despite boasting over 217 operational green factories and 500 in the pipeline, alongside 500 registered certified green commercial buildings, only 60 companies voluntarily submit the Global Reporting Initiative (GRI) reports due to the government's lack of enforcement. Hence, putting emphasis on the need for serious collaboration between private and government sectors, he suggested that private sectors can not always blame the government. Furthermore, he raised the issue of Bangladesh's minimal contribution to global emissions, accounting for only 0.056 per cent and stated that there should be a special consideration for Bangladesh regarding renewable energy initiatives, such as solar farms.

However, according to Mr Mahmud, there are several limitations: the number one being the limited land size of Bangladesh, which requires careful consideration in implementing large-scale projects. With the example of an incident that occurred in Southern Bengal where disposed batteries from solar systems led to environmental contamination and health issues, he pointed out the lack of infrastructure for battery recycling. Mr Mahmud further highlighted India's aspiring plan to achieve net neutrality by 2070 and said that Bangladesh has yet to come up with such a strategy. He further added that the cost of India's transition is estimated to be around US$10.1 trillion. He then discussed Bangladesh's unfamiliarity with bond instruments in the capital market, constricting private sector investment in sustainability initiatives. Despite their factory having implemented a CO2 recovery system and being one of the highest-rated factories in Asia with over 96 per cent recovery rate, they still cannot use credits due to existing mechanisms. He then went on to state the fact that the RMG sector is the major source of revenue for the Bangladesh government and raised doubts about the practicality of transitioning certain industries such as garments and fabric to green energy due to infrastructure limitations. He criticised the biomass boilers and the buyers for turning a blind eye to the emissions caused by the boilers. Mr Mahmud advocated for the recognition of newer and cleaner technologies like critical coal boilers and praised them for being cleaner than a lot of existing technologies. He also talked about the prevailing negative perception of coal, which often overlooks advancements in clean coal technologies. Stressing the importance of building national policies with the country's needs and resources, he pointed to the need for sustainable financing options tailored to the scale of projects in Bangladesh. Mr Mahmud expressed his frustrations about the available financing options and the actual funding

requirements and pointed out that there are overlapping responsibilities between the Ministry of Environment, Forest and Climate Change (MoEFCC) and the Ministry of Power, Energy and Mineral Resources (MoPEMR) regarding who will be the main point of contact about environmental and energy matters. Mr Mahmud then proposed to rationalise financing systems, suggesting channels such as central banks or specialised agencies to well organise the funding process and fulfill the needs of local initiatives. He urged for the critical need for policy change in Bangladesh and expressed frustrations for not being able to buy credits due to his factory being in the Export Processing Zone (EPZ). He concluded his speech by expressing concern over the prioritisation of mitigation projects over adaptation measures in government policies and stated that the private and government sector share a symbiotic relationship and hoped to see the government taking adaptive measures to ensure a conducive environment for sustainable development, benefitting all stakeholders.

Dr Md Nazrul Islam

Additional Foreign Secretary (Bilateral-East and West), Ministry of Foreign Affairs, Government of the Peoples Republic of Bangladesh

Dr Md Nazrul Islam began his deliberation by mentioning that climate financing is a relatively new issue for Bangladesh and there are a lot of challenges ahead. At the same time, Bangladesh looks forward to mitigating these challenges with carbon trading schemes. Mentioning the remarks of the World Bank representative Ms Yi, he said that there are many scopes and opportunities like green growth technology that Bangladesh can focus on. He pointed out that in the MoFA, there is a division that looks after climate issues in coordination with the MoEFCC, and certainly with other stakeholders related to climate issues. He Highlighted that there is a dearth of knowledge about how to do carbon trading and perhaps with the UNFCCC. He said that, if there is a coordination mechanism between Bangladesh through the MoFA and MoEFCC, Bangladesh can get their support for standardising carbon trading schemes. He mentioned that countries like Vietnam, Mauritius, Maldives have developed some new mechanisms, therefore, Bangladesh can learn from their experiences. He said that framework and regulation formulation with technology and innovation would be the first priority. The second one would be the identification of what are the sectors and where can government focus on carbon trading schemes.

Dr Islam mentioned that RMG sector could be one of the potential sectors apart from many more. He talked about the potential of energy sector and considered it as one of the important sectors where carbon trading scheme could be utilised. He mentioned that Bangladesh also moving to the path of renewable energy and green growth technology. He said that visionary plans like Mujib Climate Prosperity Plan and Bangladesh Delta Plan 2100 have discussed carbon financing under the energy sectors. He also emphasised on some industrial sectors apart from RMG. He mentioned about heavy industries like automobiles, steel, etc., in these schemes. Dr Islam proposed to have a robust policy and regulation framework as well as capacity building and identifying various sectors for introducing carbon trading schemes. Dr Islam mentioned that international cooperation on this issue is crucial. States who are actually advanced in carbon trading scheme, notably Australia, USA, the EU, etc. can help Bangladesh develop these policies and schemes and Bangladesh has excellent ties with those countries. For example, Prime Minister Sheikh Hasina launched a partnership and cooperation agreement with the EU. Under the framework agreement, both parties have already started negotiation and a draft is yet to be given the EU. In this aspect, the government can talk about this carbon trading issues under that framework agreement and have collaboration from the EU. Capacity building and knowledge sharing would be another important area where certainly Bangladesh can focus on. He concluded his remarks by hoping that people with technical expertise will come forward and all can work together between different domestic sectors and also international players. For coordination, MoEFCC and Ministry of Finance with MoFA can help develop carbon trading mechanism.

Ms Waseqa Ayesha Khan, MP

Honourable State Minister, Ministry of Finance, Government of the People's Republic of Bangladesh

The Chief Guest, **Ms Waseqa Ayesha Khan, MP**, Honourable State Minister, Ministry of Finance, commenced her speech by mentioning that the keynote presentation and the panel discussions covered much ground on the pathways of carbon financing in Bangladesh. However, she felt that "the elephant in the room" was not addressed, which is that Bangladesh needs to cut down on the subsidies for fossil fuel-driven energies to encourage the usage of renewable and clean energy. She reminded the audience of a missing step as the discussion of carbon financing and credits should come only after using renewable energy. Then, she paid her most profound respect to the memory of the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman and all the members of his family who lost their lives on 15th August 1975. She also paid her homage to the memory of the martyrs and freedom fighters of the 1971 Liberation War. After the independence of Bangladesh, Bangabandhu made disaster management one of its priorities. For his administration, Bangabandhu initiated the landmark Cyclone Preparedness programme. In 1973, Bangladesh became quite aware that it was one of the most climate-vulnerable countries in the world. Following the footsteps of the Father of the Nation, Honourable Prime Minister Sheikh Hasina has made remarkable progress in Bangladesh's socio-economic development and disaster management. She is taking Bangladesh's voice to the international level about the climate crisis and the climate-vulnerable countries as she has been chairing that forum. Bangladesh has demonstrated remarkable growth and development despite multiple obstacles and challenges. One of the main challenges has been Bangladesh being severely impacted by the adversities of the climate crisis.

The honourable Chief Guest believes that when the discussion on emissions, carbon markets, and carbon credits takes place, conversations about adaptation, mitigation, and moving away from fossil fuels must also be raised. Another critical area to focus on is incentivising the usage of renewable energy. She acknowledged that although the Ministry of Power put the net metering system in place, however, it has not been applicable for BEPZA as they have a separate system. She cited the panelists to mention various policies in place, such as climate change strategy and action plan, national adaptation programme, Mujib Climate Prosperity Plan, National Plan for Disaster Management, etc. She mentioned that developed countries already have policies regarding carbon financing and the carbon credit system. In this regard, Bangladesh will not try to invent new policies; instead, it will follow solutions that have already worked.

In this regard, the Chief Guest mentioned a quote from Honourable Prime Minister Sheikh Hasina in which she said, "…Bangladesh is now considered a living laboratory of locally led climate adaptation. My first realisation about resource constraints for climate action was at COP-15 in 2009. I set up Bangladesh Climate Trust Fund to undertake a homegrown adaptation process after returning home from COP-15." Bangladesh has so far implemented nearly 800 projects at US$480 million from its own resources. Even today, 300 new projects were approved at the National Economic Council (NEC) meeting on the annual development programmes.

Honourable State Minister informed the audience that Bangladesh requires US$7 to US$8 billion annually to implement its national adaptation plan, but she felt this was inadequate. Bangladesh has the enormous potential to earn carbon credits, and the two programmes that earned Bangladesh the most credits, the solar home system and the improved cooking stove, are no longer in operation. Although Bangladesh used to have more than 6 million solar home systems, how many of those solar home systems are in operation cannot be said with certainty due to a data gap. The government has taken specific steps and acquired super-critical coal plants, which are relatively clean, like the one in Matarbari. The Sundarbans has the capacity to store 56 million tons of carbon. There are various trees which are the best at storing carbon. Many textile manufacturers and RMG exporters have opted for rooftop solar on their own and IDCOL has also financed some of them. There is a fear that when Bangladesh opts for a specific type of renewable energy source, there is a chance of greenwashing, stranded assets and a limited supply of critical minerals for which Bangladesh might have to depend on specific countries.

According to honourable Chief Guest, a balanced energy mix should be the way forward, as the Honourable Prime Minister has reiterated Bangladesh's aspirational goal to obtain 40 per cent of its energy demand from clean energy by 2041. Before delving into discussions on carbon markets in Bangladesh and carbon credits, awareness campaigns must be conducted to make people understand that even though renewable or cleaner energy may seem slightly more expensive than fossil fuel, the price of renewable energy is decreasing every day. The price of fossil fuel is at its current state due to heavy subsidies that the government pays to supply cheap electricity to consumers. Therefore, the Chief Guest believes renewable energy sources will become a more attractive option with time, and the domestic carbon market will become more important. Thereafter, Ms Khan further opined that Bangladesh should learn to negotiate in the international market and understand the nitty-gritty of negotiation and the policies required to be put in place. There should be a coordinated effort because if each ministry does it in isolation, it will not work. The crucial factor is to provide high-quality carbon credits supported by baseline assessment, project, auditing and verification and approvals from reputable organisations. She expressed her firm belief that Bangladesh has the potential to emerge as a significant player in the international carbon credit market through effective policies and investments, as Bangladeshis are resilient and can adapt very well to technology. In the same vein of digitalisation, she thinks Bangladeshi businesses will adopt it quicker. Tax cuts and other incentives for encouraging businesses to use renewable energy will play a significant role which will help Bangladesh in lowering the nation's overall carbon footprint. In that regard, the government has already taken several initiatives. On that note, she thanked BIISS for this seminar, which would help to understand how Bangladesh can overcome the challenges associated with carbon financing and how the country can take advantage of new sources for generating carbon credit and to use more of cleaner energy.

OPEN DISCUSSION

Commodore Syed Misbah Uddin Ahmad, (C), NUP, ndc, afwc, psc, BN (retd)

Director, Bangladesh Institute for Maritime Research and Development (BIMRAD)

Commodore Syed Misbah Uddin Ahmad mentioned that everyone talks about the issue of greenhouse gases and carbon emissions and people nowadays are much more aware than before. He noted that the shipping industry is the backbone of the country's international trade and the RMG sector for which everyone is proud of. Mainly, RMG products are transported through shipping. However, the shipping industry is also very carbon-intensive. In this regard, experts opine that three per cent of global carbon emissions occur in the shipping industry which is much higher than that of the aviation industry. In this aspect, Commodore Ahmad expressed his desire to extend BIMRAD's support to BIISS in any future endeavours regarding carbon financing in the shipping sector, particularly, the government and non-government shipbuilding industry.

Professor Dr Ainun Nishat

Former Vice Chancellor BRAC University, Dhaka, Former Delegate, UN Climate Change Conference 2009

Dr Ainun Nishat began his deliberation by expressing uncertainty about taking the floor, noting that he often leaves such workshops feeling confused. He attends these events to enhance his knowledge base and develop his network, acknowledging the gain of having friends on either side of him.

Dr Nishat expressed his doubt about the operationalisation of Article VI of the Paris Agreement, specifically the finalisation of Articles 6.2, 6.4, and 6.8. He evaluated in a way that the recent COP-28 in Dubai was a total failure. The conference aimed to finalise these articles and establish a global stock-taking mechanism, but instead, the Ruler and Minister, Sultan Al Jaber, distracted attendees with a US$100 million announcement, which led to a lack of substantial progress. Regarding the market mechanisms based on the Kyoto Protocol, Dr Nishat mentioned Bangladesh's commitments outlined in its NDC. Bangladesh has pledged to reduce greenhouse gas emissions by approximately 6 per cent independently and an additional 16-17 per cent with external financial and technological support. MoEFCC, with the assistance United Nations Development Programme (UNDP), is developing roadmaps to implement the NDC, the National Adaptation Plan (NAP), and the ambitious Mujib Climate Prosperity Plan. However, Dr Nishat expressed skepticism about the feasibility of achieving carbon neutrality by 2040, given the country's developing status and energy needs. He pointed out the significant gap between carbon emission reduction goals and the necessary financial resources. From the data shown in the seminar, he noted the gap between the demand amount for meeting the global commitment which was 100 billion dollars from the Green Climate Fund for Bangladesh. However, from 2015 to 2023, only US$70 billion has been mobilised. This was a figure disputed by civil society organisations like Oxfam, which estimated it at US$10-15 billion. Dr Nishat detailed Bangladesh's institutional mechanisms, such as the Secretary of Economic Relations Division (ERD) as the Nationally Designated Authority (NDA) and two National Implementing Entities (NIEs): IDCOL and PKSF. He stressed the need for more organisations and support for institutions like BIISS to engage in these aspects.

Dr Nishat mentioned the importance of following the Theory of Change for Measurement, Reporting, and Verification (MRV) under the Paris Agreement. It is a concept that is not widely famous or implemented. Reflecting on his experience with the Enforcement Branch under the Kyoto Protocol, he emphasised the necessity of careful data collection and compliance. He thanked BIISS for organising the workshop and highlighted the importance of preparing to access funds. He noted that IDCOL recently collected US$320 million for private sector green projects, to be distributed through four private banks. He identified key authorities involved in this process: the Secretary of the ERD, the Chief of IDCOL, the Chief of PKSF, and the DG of the DoE. He stressed the need for technology and the challenges of applying for global funds, humorously remarking that the country struggles with writing effective applications. He concluded by suggesting the need for substantial work in this area.

Dr Mohammad Abu Yusuf

Director General (Additional Secretary), Monitoring Cell, Ministry of Finance, Government of Bangladesh

Dr Mohammad Abu Yusuf started his speech by showing his gratitude towards BIISS for organising the workshop on the issues of carbon financing. While he admits that it might be early for Bangladesh, as also mentioned by Dr Nishat, Dr Yusuf acknowledges the importance of NDC 2021 and the national adaptation plan in place. Additionally, with the Mujib Climate Prosperity Plan, he thinks that, to implement a national adaptation plan, there is a requirement of around US$200 to US$230 billion from 2022 to 2050 annually, amounting to US$8 billion per year. However, he points out the disparity in carbon financing received from international sources, which remains significantly low. After consulting with his colleague responsible for managing projects, such as the Green Climate Fund (GCF) and others, Dr Yusuf was enlightened that, to date, GCF funding has only implemented nine projects and the total commitment has not reached its desired potential due to various conditions, amongst which one condition specified that the interest rate should not transcend five per cent. Due to this rise in international interest rates, the standard interest rate now hovers around 9 to 10 per cent.

Based on the research findings, Dr Yusuf was supposed to materialise the international commitment to achieving a balance between mitigation and adaptation but now there seems to be an inordinate focus on mitigation activities by international fund providers. According to him, Bangladesh being amongst the most affected by climate change still receives a deficient amount of adaptation funds. Dr Yusuf then added that the honorable Prime Minister Sheikh Hasina has also called upon the international community to focus more on adaptation but the plea seems to go unheeded. According to proper statistics, Bangladesh contributes less than 0.5 per cent of the total global emissions, making it evident that the country should be at the receiving end. Nevertheless, the statistics suggest that the funds that Bangladesh is receiving mostly in loan forms with a notable portion being non-concessional. He further explains that around 25 per cent of funds disbursed by the GCF are for mitigation projects, while a similar 25 per cent is for adaptation purposes. He then questions why international communities are so much interested in mitigation when adaptation is the country's pressing need. Following that, Dr Yusuf urges BIISS to conduct a study on the challenges and constraints in accessing international climate funds, including those from multilateral development banks. He then goes on to explain how such a study could inform policy actions to improve fund accessibility. Additionally, implementing a carbon financing infrastructure which includes reducing emissions and creating carbon credits are acceptable in the international market and this is essential for the future. He believes that Bangladesh lacks the required infrastructure to issue carbon credits or pursue carbon financing initiatives effectively at present. In his discussions with the MoEFCC, he has found out that there is a noteworthy shortage of funds for adaptation efforts thus making adaptation as the first and foremost priority of Bangladesh. He acknowledges that carbon credits might be a viable source of revenue in the medium term, perhaps in 10 to 20 years but for now, adaptation is mostly significant. Finally, Dr Yusuf concludes his speech by thanking everyone, especially the State Minister of Finance, Waseqa Ayesha Khan MP, for her presence at this wonderful session and urges BIISS to help them understand how blended financing can be utilised to attract private sector involvement in adaptation projects.

Professor Dr Helal Ahammad

Dean, School of Business & Economics, North South University

At the beginning of his discussion, **Professor Dr Helal Ahammad** dreferred to his role in drafting Australia's Climate Change Policy between 2001 and 2013. He agreed that the debate focusing on carbon credits and financing is a good head start considering Bangladesh's plan for green growth and the roadmap to achieve that by 2050. In his opinion, Bangladesh has no carbon market, as the carbon reduction through policy changes and the creation of carbon credits are not equal. To create carbon credit, Bangladesh has to follow some standard methodology and measurement verification and auditing. He believes that under the CDM, Bangladesh has established some capacity in that regard. As the World Bank is the trustee of the Global Green Fund, Dr Ahammad asked the World Bank representative Ms Yi to what extent Bangladesh can draw on that fund to refine its capacity. He opined that whatever target has been set out under the Paris Agreement is achievable because Bangladesh has a humble ambition. However, to create marketable carbon credits, he asked what the World Bank and the development partners can contribute by using some of the global finance they are trustees of.

Eun Joo Allison Yi

Senior Environment Specialist, World Bank

During the interactive session, **Ms Eun Joo Allison Yi** conveyed that the World Bank remains steadfast in its support for Bangladesh, highlighting the existence of numerous documents and frameworks aimed at bolstering this support. She emphasised that the MoEFCC and Finance Division play pivotal roles in structuring and advancing these initiatives. She then raised two fundamental issues: firstly, Bangladesh's proactive stance in independently implementing measures to mitigate climate change. Despite the global framework provided by events like COP, Ms Yi suggested Bangladesh focus on its unique trajectory, citing opportunities to influence modalities. Although specific articles are still being finalised, she noted ongoing discussions and mechanisms through which Bangladesh can play a leading role, particularly in areas such as climate finance, carbon finance, and CDM.

Drawing from her 20 years of experience, Ms Yi stressed on the critical importance that early movers will have in shaping outcomes and ruling the game. She suggested that amidst current uncertainties, Bangladesh has an opportunity to forge its own path decisively. She noted the presence of other global actors with whom Bangladesh can collaborate effectively. The second point she highlighted related to the government's involvement in certain ventures. Ms Yi stressed the necessity for coordination and transparency within Bangladesh's administrative framework, especially concerning loans and the activities of industries and ministries. She emphasised the importance of synchronsation due to the increasing regulatory landscape.

CONCLUDING REMARKS BY THE CHAIR

Ambassador AFM Gousal Azam Sarker
Chairman, Bangladesh Institute of International and Strategic Studies (BIISS)

Ambassador AFM Gousal Azam Sarker concluded the discussion by noting that the discourse among experts on carbon finance has only just begun, marking it as a nascent development in climate action. He underscored that BIISS stands prepared to initiate this process, with the Director General and research team expressing keen interest in conducting a focused study on this specific matter, with due consideration to practical implications and national needs. He articulated BIISS's commitment to actively engaging all relevant stakeholders in these endeavors. Since this topic involves knowledge and expertise on procedure and methodologies, he informed the audience that BIISS has a plan to hold a workshop as the second installment of the discussion which has been started through this seminar, sometime in the second half of the year.

According to Ambassador Sarker, Bangladesh is one of the most affected countries in terms of climate change. It is in dire need of climate financing and compensation under various carbon financing international arrangements for its significant carbon reduction initiative and efforts at national, private, public and individual levels. Despite contributing insignificantly to global CO2 emissions, Bangladesh has to bear the blame disproportionately in its shoulders. He asserted Bangladesh's rightful claim to carbon finance and other related benefits, expressing concern over the disparity where nations with higher emissions receive greater international financial support. He anticipated forthcoming support from international organisations and other funding sources in addressing this imbalance. He highlighted Prime Minister Sheikh Hasina' s steadfast commitment, noting her prominent role in global climate politics, especially since COP-15 in Montreal, Canada. Ambassador Sarker acknowledged her substantial contributions towards prompt and effective climate action, particularly evident in the success achieved at the Paris Agreement. He stressed Prime Minister Sheikh Hasina's unwavering dedication to this cause and relentless support for continuous efforts towards achieving positive outcomes. And, her role in championing climate actions has been recognised globally.

Ambassador Sarker expressed his gratitude to the panelists for their insightful recommendations and suggestions, particularly highlighting the World Bank's proposal on green growth, which holds significant value for generating carbon credits and establishing a robust mechanism. Despite Bangladesh joining the efforts relatively late, he emphasised the country's determination to forge ahead and collaborate closely with relevant stakeholders. He pointed out Bangladesh's commitment to partnering with relevant stakeholders dedicated to reducing carbon emissions, highlighting the importance of transitioning within a substantial sector. Ambassador Sarker also focused on Bangladesh's willingness to prioritise this aspect while also exploring additional fields to leverage carbon financing and support.

Ambassador Sarker articulated that the forthcoming study by BIISS is currently in the planning stages, with the Institute set to convene relevant stakeholders to advance its objectives. He further elaborated that this initiative marks the initial phase, with BIISS intending to organise additional events for the exchange and dissemination of knowledge. Highlighting climate change as an imminent existential threat, Ambassador Sarker stressed the critical need for Bangladesh to take decisive action to realise Bangabandhu's vision of 'Sonar Bangla', cautioning that failure to do so could jeopardise the nation's entire development trajectory. Ambassador Sarker expressed his hope to resolve these challenges and, in his concluding remarks, he extended his gratitude to the Chief Guest, Ms Waseqa Ayesha Khan, MP, Honourable State Minister, Ministry of Finance, Government of the People's Republic of Bangladesh, for her profound insights and to the panelists for their wholehearted support. He expressed a keen interest in maintaining ongoing engagement with key stakeholders in this nascent discourse. He informed that for this, BIISS would disseminate the proceedings of this seminar among relevant stakeholders to apprise them and assist in their policymaking. He is hopeful that the collective effort of all will help all in sustainably addressing the pressing challenge of climate change. Lastly, Ambassador Sarker said that the discussion of the seminar has shown many pathways and it can be adopted for better implementation of carbon financing mechanisms.

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