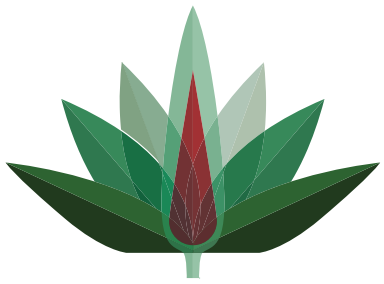


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\_SUSTAINABLE\_  
**APPAREL FORUM**

# *POST SHOW REPORT*

**17<sup>TH</sup> May 2017**





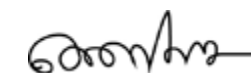
*SEE YOU  
AGAIN !*

SUSTAINABILITY HAS BEEN INCREASINGLY BECOMING AN INTEGRAL PART OF BUSINESSES THAT WANT TO SUSTAIN IN TODAY'S COMPETITIVE WORLD AND ALSO IN THE DAYS COMING. KEEPING PACE WITH THE DEMAND OF TIME AND PLANET, THE APPAREL AND TEXTILE INDUSTRY OF BANGLADESH HAS ALSO SET ITS FEET ON THE PATH TOWARDS SUSTAINABILITY TO GET AN ENDURING FOOTING IN THE GLOBAL MARKET. THE FIRST EDITION OF SUSTAINABLE APPAREL FORUM (SAF) WAS ORGANIZED BY BANGLADESH APPAREL EXCHANGE (BAE) TO BRING TOGETHER LIKE-MINDED STAKEHOLDERS WHO HAVE STRONG DESIRE TO TAKE OUR INDUSTRY TO THE NEXT LEVEL IN A SUSTAINABLE MANNER.

ENORMOUS RESPONSES FROM ALL THE PARTICIPANTS, ESPECIALLY SPEAKERS, ENTREPRENEURS, AND PROFESSIONALS, HAVE TURNED OUR BELIEF INTO REALITY BY MAKING THE EVENT MEANINGFUL AND SUCCESSFUL. BIG THANKS FROM THE BOTTOM OF MY HEART TO ALL THE PARTICIPANTS AND AUDIENCE OF THE SAF THOUGH WORDS SEEM INSUFFICIENT TO EXPRESS MY GRATITUDE TO YOU. WE ARE ALSO THANKFUL TO OUR PARTNERS AND SPONSORS FOR THEIR VALUABLE SUPPORT AND COOPERATION WITHOUT WHICH ORGANIZING SUCH A BIG EVENT WOULD HAVE BEEN DIFFICULT.

SUSTAINABLE APPAREL FORUM IS AN INITIATIVE OF BANGLADESH APPAREL EXCHANGE BUT ITS OBJECTIVE IS SHARED BY ALL OF US WHO ENVISION A GARMENT AND TEXTILE INDUSTRY THAT GROWS IN A SUSTAINABLE WAY AND DRIVES OUR ECONOMY FORWARD STEADILY. WE ARE DETERMINED TO ACCOMPLISH WHAT WE HAVE DESIRED. VERY MUCH EAGER TO SEE ALL OF YOU AGAIN IN THE 2ND EDITION OF SUSTAINABLE APPAREL FORUM ON 12TH JULY 2018 WITH NEW IDEAS AND EXPERIENCE TO FACILITATE THE INDUSTRY'S JOURNEY TOWARDS SUSTAINABILITY!

WITH THANKS AND BEST REGARDS,



**MOSTAFIZ UDDIN**

FOUNDER & CEO

BANGLADESH APPAREL EXCHANGE (BAE)



*THANK  
YOU !*



WE ARE IMMENSELY HAPPY TO SEE THE SPONTANEOUS AND PROACTIVE PARTICIPATION OF APPAREL INDUSTRY STAKEHOLDERS IN THE FIRST-EVER SUSTAINABLE APPAREL FORUM 2017, WHICH SIGNIFIES OUR COLLECTIVE SPRIT OF DRIVING THE SECTOR FORWARD IN A SUSTAINABLE WAY. AFTER WITNESSING THE TREMENDOUS ENTHUSIASM AMONG ALL THE PARTICIPANTS AND AUDIENCE IN THE EVENT, WE HAVE NOW EVERY REASON TO BELIEVE THAT THE SAF HAS BEEN ABLE TO PROVE ITSELF AS AN EFFECTIVE PLATFORM FOR FACILITATING SUSTAINABILITY MOVEMENT IN BANGLADESH'S APPAREL INDUSTRY.

MY HEARTFELT THANKS TO OUR SPEAKERS, ENTREPRENEURS, PROFESSIONALS AND OF COURSE THE AUDIENCE FOR NOT ONLY MAKING THE EVENT SUCCESSFUL BUT ALSO FOR YOUR WHOLE-HEARTED INVOLVEMENT IN AND SUPPORT FOR OUR ENDEAVOR TO MAKE SUSTAINABILITY EASIER IN THE INDUSTRY THROUGH MEANINGFUL EXCHANGE OF KNOWLEDGE AND EXPERIENCE. WE ALSO THANK OUR PARTNERS AND SPONSORS FOR EXTENDING THEIR COOPERATION IN ORGANIZING THE FIRST EDITION OF THE SUSTAINABLE APPAREL FORUM 2017. WE ARE GRATEFUL TO ALL OF YOU, ESPECIALLY OUR FOREIGN FRIENDS WHO FLEW THOUSANDS MILES TO ATTEND THE EVENT MEANINGFUL AND SUCCESSFUL.

MAKING APPAREL BUSINESS SUSTAINABLE IS A LONG JOURNEY WE HAVE ALREADY EMBARKED ON. SUSTAINABLE APPAREL FORUM AIMS TO MAKE THE PATH CLEAR AND SMOTHER SO THAT WE CAN ALL WALK TOGETHER TO REACH OUR COMMON GOAL – A GARMENT INDUSTRY WHICH IS SUSTAINABLE BY ALL MEANS. SURELY, YOUR SUPPORT AND COOPERATION WILL SERVE AS A GREAT SOURCE INSPIRATION TO ORGANIZE THE NEXT EDITION OF SAF IN A MORE INCLUSIVE MANNER. HOPE TO SEE YOU AGAIN NEXT TIME ON 12TH JUNE 2018.

WITH THANKS AND BEST WISHES,



**MD. MOHIUDDIN RUBEL**  
MANAGING DIRECTOR  
BANGLADESH APPAREL EXCHANGE (BAE).





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*YOUR  
APPRECIATION  
IS OUR  
INSPIRATION*

**B**ANGLADESH IS NOT ONLY THE SECOND LARGEST READY-MADE GARMENT EXPORTER IN THE GLOBE BUT ALSO HOME TO WORLD'S TOP-RATED CERTIFIED GREEN APPAREL AND TEXTILE FACTORIES. WHILE THIS ACHIEVEMENT MAKES US PROUD, IT BOTH NECESSITATES AND INSPIRES US TO KEEP THE MOMENTUM OF GREEN REVOLUTION IN OUR INDUSTRY. OUT OF THIS REALIZATION BANGLADESH APPAREL EXCHANGE (BAE) ORGANIZED THE SUSTAINABLE APPAREL FORUM (SAF) TO CREATE A PLATFORM FOR STAKEHOLDERS IN THE INDUSTRY FOR SHARING KNOWLEDGE AND EXPERIENCE IN THE AREA OF SUSTAINABILITY.

IMMEDIATELY AFTER ANNOUNCEMENT OF THE EVENT, WE STARTED RECEIVING RESPONSES AND APPRECIATION FROM DIFFERENT CORNERS WHICH BOOSTED OUR CONFIDENCE THAT SAF BEARS SIGNIFICANCE TO OUR INDUSTRY IN TERMS OF FACILITATING SUSTAINABILITY IN THE SECTOR. WE MUST THANK THE PARTICIPANTS FROM OUR GARMENT AND APPAREL FACTORIES FOR THEIR EAGERNESS TO GATHER PRAGMATIC KNOWLEDGE OF SUSTAINABLE PRACTICES TO MAKE MANUFACTURING UNITS MORE SUSTAINABLE. THE SPEAKERS OF SAF DESERVED OUR SPECIAL THANKS FOR ALLOCATING THEIR VALUABLE TIME TO JOIN US AND SHARE THEIR EXPERTISE AND EXPERIENCE WITH THE PARTICIPANTS. PROGRAM LIKE THIS MAGNITUDE IS VERY DIFFICULT TO ORGANIZE WITHOUT SUPPORT AND WE ARE FORTUNATE ENOUGH TO GET IT FROM OUR PARTNERS AND SPONSORS. WE ARE REALLY THANKFUL FOR THAT.

THE APPRECIATION, ENTHUSIASM AND SUPPORT WE RECEIVED FROM ALL OF YOU WILL SURELY INSPIRE THE BAE TO CONTINUE ITS EFFORTS IN ORGANIZING THE EVENT.

WITH THANKS AND BEST WISHES,



**MEZBA UDDIN**  
DIRECTOR  
BANGLADESH APPAREL EXCHANGE.





# OVERVIEW OF SUSTAINABLE APPAREL FORUM 2017

**W**ith the theme of 'Making Sustainability Easier' the Sustainable Apparel Forum (SAF) was held at International Convention City Bashundhara (ICCB), Dhaka on 17 May 2017. The Bangladesh Apparel Exchange (BAE) presented the platform to herald 'sustainability agendas' within the textile and apparel industry of Bangladesh. The objective of the Forum is to facilitate meaningful exchange of knowledge to make sustainability easier to be exercised by factories and individuals.

The apparel industry being the engine of Bangladesh's economic growth is now geared up to take the next generation challenges. The industry has already made commendable strides in the area of sustainability. Presence of already 67 LEED certified green garment factories in the country while 222 more are in the offing is the telltale evidence the sector's steady move towards sustainability. The SAF aimed to take Bangladesh a step forward as a responsible sourcing destination in the global map by accelerating the momentum within the industry through education, awareness and reducing the knowledge gap.

**30+** SPEAKERS

**1000+** PARTICIPANTS

AN INITIATIVE OF

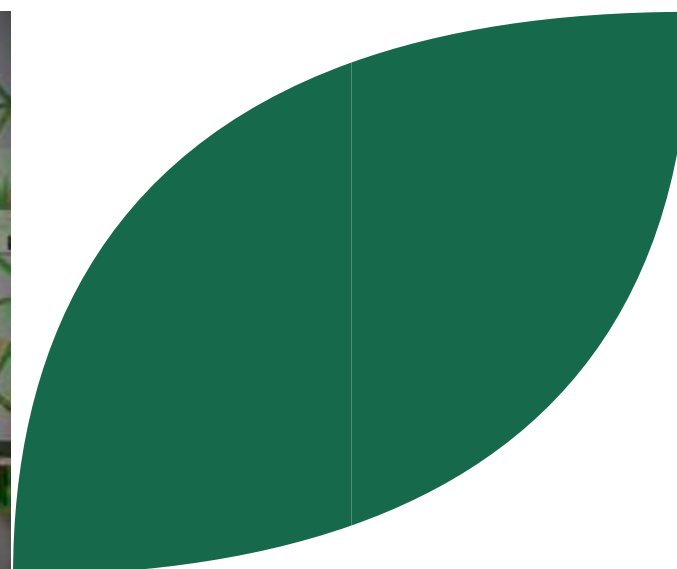
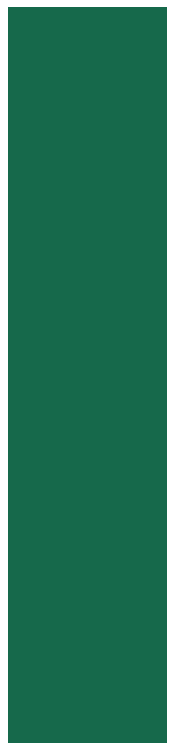




# First Ever Apparel Sustainability Knowledge Event in Bangladesh



















## INAUGURAL PROGRAM & PANEL DISCUSSION

Making Sustainability Easier

**CHIEF GUEST:** MR. TOFAR, KHMER AP  
**GUEST OF HONOR:** DR. TUNTA-E-ELAH CHOWDHURY, DR. PhD  
**SPECIAL GUESTS:** MR. MD. SHOUQUAN AHMAD, MR. MD. SHAFIQ ISLAM (MODERATOR), H.E. MR. LEON CHENIERE, H.E. DR. THOMAS PRINZ, MR. MD. MOHIDDIN RUSSEL, MR. FRANCIS DE MARCOURT  
**MODERATOR:** MR. TOFAR, KHMER AP

## Sessions

- Opening Session : Making Sustainability Easier
- Plenary Session : Understanding Sustainability & Its Importance
- Knowledge Session-1 : Saving Water, Resources & Cost – The 'Must Knows' for our Factories
- Knowledge Session-2 : Energy Efficiency – How to Optimize Energy Consumption & Reduce Cost
- Knowledge Session-3 : Green Factories
- Knowledge Session-4 : Sustainable Financing



# Opening Session



## WELCOME REMARKS BY

**MR. MOSTAFIZ UDDIN**, Founder & CEO, Bangladesh Apparel Exchange (BAE).

## CHIEF GUEST:

**MR. TOFAIL AHMED, MP**, Honorable Commerce Minister, Government of the People's Republic of Bangladesh.

## MODERATOR

**MRS. RUBANA HUQ**, Managing Director, Mohammadi Group.

## SPEAKERS

**MR. MD. ABUL KALAM AZAD**, Principal Coordinator (SDGs), Prime Minister's Office of Bangladesh.

**H.E. DR. THOMAS PRINZ**, Ambassador, Embassy of the Federal Republic of Germany to Bangladesh.

**H.E. MRS. LEONI CUELENAERE**, Ambassador, Embassy of the Kingdom of the Netherlands to Bangladesh.

**H.E. MRS SOPHIE AUBERT**, Ambassador, Embassy of France to Bangladesh.

**MR. MD. SHAFIUL ISLAM (MOHIUDDIN)**, President, Federation of Bangladesh Chambers of Commerce and Industry (FBCCI).

**MR. MD. ATIQUUL ISLAM**, Immediate Past President of Bangladesh Garment Manufacturers & Exporters Association (BGMEA) and President, Center of Excellence for Bangladesh Apparel Industries (CEBAI).

**MR. GUSTAF ASP**, Country Director Bangladesh & Pakistan, H&M Group.

**MR. FRANCOIS DE MARICOURT**, Chief Executive Officer, HSBC Bangladesh.

**MR. MOHIUDDIN RUBEL**, Managing Director, Bangladesh Apparel Exchange.



## MR. MOSTAFIZ UDDIN

"Thanks and gratitude to all for your continuous support, inspiration, contribution as it is a great inspiration to Bangladesh Apparel Exchange. BAE is an organization that was established to promote apparel sector. It has a very clear cut objective and its mission and vision is very simple. We want to make a platform where knowledge can be exchanged and anybody can be a part of that platform. He states that they started the journey by doing Bangladesh Denim Expo in 2014 with 2083 visitors from 14 countries, today we have 2215 visitors from 17 countries. The apparel industry of Bangladesh has already made significant progress. Bangladesh has now 67 green factories and 228 more in the pipeline. The SAF is aimed to take this momentum going forward."

## MR. TOFAIL AHMED, MP

"After the collapse of Rana Plaza, we had to do a lot of things for compliance of our industry, and many industries have already been converted into green factories. The United States Green Building Council (USGBC) selected 10 industries all over the world, where 7 belong to Bangladesh. I would recommend our garment factories to increase the productivity; we shall have to produce such goods which will be attractive to the buyers. As well as, the buyers and brands should also pay the real price of the product. And in that case we will be able to increase the salary of the workers; our investors will also get some benefit as a result of which our export will also increase."



## Mr. Md. Abul Kalam Azad



"The public and private sector of Bangladesh are working together to attain this sustainable development goal. Specifically in the apparel sector, so many developments are going on yet at the same time backward linkage in this sector has done very well. In terms of supporting this industry, government needs to step up having one hundred economic zones. He states that Bangladesh is a land of scarcity. In some places some development is being going on unplanned but these hundred economic zones are in a well-planned fashion providing all sorts of government support in terms of communication and energy. We could identify more than 70 economic zones and they occupy a good amount of uncultivable land, which can be used best for the industrial development, especially this sector. If private sector and public sector work together solving the issues then obviously it is not too far to be a higher income country by 2021. The government's target is to become middle income country by 2021 and we also have the plan of 2030 sustainable development goals."

## MR. MD. SHAFIUL ISLAM (MOHIUDDIN)

"In Bangladesh more than 67 factories already become green and more than 22 hundred factories already registered in the United States Green Building Council (USGBC) for going green. If we don't practice sustainability, in 2050 in the sea there will be more plastic particles than the fish. Bangladesh is still one of the less carbon emitting countries in the world. Our Prime Minister is always fighting for it and demanding that we all should come together and we must especially obey or comply with the Paris Declaration. We cannot achieve sustainable growth and sustainability as a whole, if we don't comply and follow this."






**MR. MD. ATIQUL ISLAM**

"After the Rana Plaza accident, our government has amended the Labor Laws within 76 days. Whereas in 1921 after the accident of Triangle shirt factory in New York, it took 26 years for the USA to change their labor laws. Our government has also amended another paragraph where it is said that minimum 5% salary must be increased each year for the workers. Our government has created a labor welfare fund from our export and the fund already generated 10 million US dollar. There are also two mandatory festive bonuses for the workers. So, now we have to work together without blaming each other."

**H.E. Dr. Thomas Prinz**

"The foreign government has only limited possibilities; the push regarding environment and labor rights has to come from the Bangladesh side. Unfortunately, Bangladesh is not very good at branding its own nation. After the Rana Plaza, Bangladesh could share a success story of development but it was marred by the incident in Ashulia strikes. There should be trade unions in the factories to have somebody to talk to when a problem arises. There are also quite a lot of steps which should be introduced by the Bangladeshi government to convince investors to come to Bangladesh."


**H.E. MRS. LEONI CUELENAERE**

"True sustainable garments value chains can only be achieved if sustainability is in the sourcing process. So there is a growing need for long term partnerships, because if you talk about sustainability in the sourcing process you also have to think about the different relations between buyers and suppliers and so far the relationship is only cost based. It's simply impossible to reach higher compliance standards without making substantial investments and of course we can look at factory owners, but factory owners will be more inclined to do so if they have a better relationship with the buyers. If we can look forward to longer term partnerships then of course the factory owners will be more inclined to do something about it."


**H.E. MRS SOPHIE AUBERT**

"In 2015 Paris Agreement all the countries mobilized in temperature increase issue and it is globally understood that the entire industry has to be aware of the very important change which have to be considered so that we create a more sustainable world for the new generations. For Bangladesh the situation is very vital because you have a very small land and it is an over-populated country, which means you have competition for land between agriculture and industry, competition in energy, water. So you really need to anticipate and find a new model which will be low carbon model, which will integrate how to respect the environment. Bangladesh has to integrate the innovations in order to be able to face its challenges and to develop a new economic model."


**MR. GUSTAF ASP**

"Bangladesh has been very successful while expanding into relatively basic product categories. In the next phase of Bangladesh there is an opportunity to move up the value chain and thereby providing customers something of higher value. Studies show that customers for basic products want to pay less, at the same time, we see that for products that are further up the value chain, they are actually ready to pay more. So Bangladesh needs to review their product positioning and as a brand, as an industry, we can help Bangladesh to find out what that positioning could be, how to diversify into new product, how to diversify into new product categories."

**Mr. Francois de Maricourt**

"When it comes to sustainability in financing and how we do business, already the central bank of Bangladesh, Bangladesh Bank has issued guidelines to support refinancing of green initiative. Quite a lot of ETPs can be financed by banks in Bangladesh in lower rate, thanks to the central bank directives. Also there are comprehensive guidelines around CSR (Corporate Social Responsibility) by the central bank to really encourage the banks to support sustainability initiatives. The HSBC has financed more than 700 projects with around 70 billion dollar under the equator principles."


**Mr. Mohiuddin Rubel**

"There is a gap of knowledge about sustainability, about sustainable business practice and about sustainable production. That's why the BAE took the initiative of organizing the Sustainable Apparel Forum. Bangladesh Apparel exchange is not a profit driven organization. We are promoting apparel sector through this organization. We should encourage this kind of initiatives and arrange such knowledge sessions more frequently for promoting the knowledge, interacting with experts, creating awareness, sharing our ideas and making sustainability easier."





# Plenary Session

## UNDERSTANDING SUSTAINABILITY & ITS IMPORTANCE

### SPEAKER

**MR. IFTY ISLAM**, Group Chairman, Asian Tiger Capital Partners

### MR. IFTY ISLAM



Bangladesh is the largest MVC (Most Vulnerable Country) to climate change because by 2050 Bangladesh's population is going to increase to 200 million by 2015. At the same time, Bangladesh's land area is going to decline by 15% due to global warming and rising sea levels. Thus the issue of sustainable production is one of the most important policy priorities. RMG sector needs to move away from being defensive about the safety issues of Rana Plaza or work issues with unions. Bangladesh government sector has the opportunity to become an innovation leader in Global Green Technologies and green production and can help drive the Global agenda.

Bangladesh should not be asking constantly to buyers to pay more in order to produce sustainably. Sustainable production has to be commercially attractive. We need to think how we can move up the value chain in terms of brand communication, sustainable production and green initiatives so that the consumers in Europe, the US or the developed countries appreciate and are willing to pay a premium for higher quality goods that can be produced sustainably. He believes that store branding is very important and we can work with some of the global brands like H&M and others to think about green branding and certification for factories that produce products meeting certain standards in the same way who have fair trade certification. People in developed countries are paying a premium for the fair trade products. On the supply side, again environmental sustainability should be more profitable. This is not a CSR initiative, we should think about how using less electricity, less water, being more efficient. It will reduce the cost and if we can reduce cost, profit score goes up.

The world is become so interconnected and knowledge move so fast that Bangladesh has a lot of opportunities to move up the value chain in a sustainable manner. Bangladesh started a new Green Climate Fund, a 250 million fund, there were changes in some regulations to ensure reduced discharge of hazardous chemicals, changes in tax, encourage cleaner production, machinery. So the stakes were greater regulations and incentives were lower cost financing, lower taxation for clean products. We have to think about how to bring the key stakeholders together and come up with some other initiatives beyond water efficiency to move towards a green production.

# Knowledge Session 1

## SAVING WATER, RESOURCES & COST - THE 'MUST KNOWS' FOR OUR FACTORIES



### MODERATOR

**MR. SYED M TANVIR**, Director of Bangladesh Garment Manufacturers & Exporters Association (BGMEA) & Director, Pacific Jeans Ltd.

### SPEAKERS:

**MS. ADIBA MEHNAZ AHMED**, Consultant, PaCT, International Finance Corporation (IFC)

**MR. SYED AREFIN**, Director, Sales & Marketing, American & Efird Bangladesh

**MR. MARCO DELFINO**, Sales Director, Panta Rei – Water Solutions

**DR. JUERGEN HANNAK**, Head of Promotion of Social and Environment Standards (PSES) Programme, GIZ

**MR. SHARIFUL HOQUE**, Environmental Sustainability Manager, H&M Plus Trading Far East Ltd, Bangladesh Liaison Office

**MR. MATTEO URBINI**, Managing Director, SOKO





### MS. ADIBA MEHNAZ AHMED

“The major focus of PaCT is the wet processing units and the idea is to promote environmental sustainability with a clear focus on water sustainability within the waste processing sector. PaCT factories are able to get involved in cleaner production assessment, to understand the areas of improvement in terms of water efficiency, as well as energy efficiency. The PaCT project started back in 2013 and it is now transitioning into PaCT 2. It is scaling up to rest of the value chain of this important sector. It's needless to say that we know this sector, particularly the wet processing sector is extremely water intensive. Prior to the PaCT, it was found through a study that to process one kilogram of fabric, around 200 to 250 liters of water is being consumed. That is alarmingly high considering the international benchmark where best practice is usually 60 to 80 liters. These 200 to 250 liters of water per kilogram is equivalent to the daily water use of 2 people in Dhaka. So this massive use of groundwater is leading to the depletion of our water table by 2.5 meters per year and the impacts are clearly felt through seasonal water shortages during the dry season. We can also see that WASA is increasingly unable to treat surface water to notable standards. And the depleting groundwater stands the growing risk of contamination also from surface waters. We have done this study and found out that Bangladesh will have water supply deficit of 26% during the dry season by 2030. If there is water shortage, it impacts business operations and that is the business case to invest in efficient processes, invest in efficient technologies and create a total general awareness across the board about resource efficiency. That is why strategic water planning for industrial sectors is very important, she persists. So, we need to focus on alternate water sources such as wastewater reuse, adoption of rainwater harvesting with the linkage to aqua fire recharge etc. In the industrial clusters, we need to assess the possible locations that are available for setting up central effluent treatment plants and surface water treatment plants. It will also leverage financing options like PPPs where public and private jointly invest in such infrastructure to address this water sustainability issues in the long run.”

### MR. SYED AREFIN



“American and Efir, which is the second largest thread manufacturer company in the world. We are the first company in the world to produce industrial sewing thread from recycled pet bottle. We have three different types of eco-driven products, two is from pet bottle recycle and other is from organic cotton. Since 2013, A&E has saved nearly 1 billion liters water by wastewater treatment, recycle and reuse. We reduced 41% water consumption in dyeing process since 2003. Globally 13 of our office factories have achieved zero waste landfill. In Bangladesh also, they are aiming to go into the zero liquid discharge. In Bangladesh, last 5 years, we have invested more than 3 million dollar in ETP. We are the first Bangladeshi company in the textile for the sewing thread that installed MBR Technology based ETP. By doing that last year we saved 23% of the water to dye 1 kilo of the sewing thread. As a result 65 million liters of water was saved last year, only from Bangladesh plant.”

### MR. MARCO DELFINO



“Textile sector, according to some environmental studies made in USA, is the second largest polluter in the world. In last few years, Pante Rei has contributed through it's more 50 ETP's to help its clients to face the pollution problem in order to reduce it. Their intention is to continue to do so in the future as well. Panta Rei cannot stop avoid thinking about all the aspects of environmental issues. They want to implement in Bangladesh state of the art technologies as prior recovery system and water recovering. According to their opinion zero liquid discharge will not be the best approach in Bangladesh now, considering that it requires big amounts of energy and a big capital investment. There is a kind of comparison here between the water recovery and zero discharge. Zero discharge not only requires a big capital investment and it's running cost is very high. They also consider the waste generated from this solution which must be evaporated, because it's a kind of pollutant product. This may increase the cost for correct disposal. On the contrary, in water recovery solution, if we consider recovering between 30% and 40% of the water coming from an ETP will be investment convenient. The water recovery does not produce any pollutant products. They have developed the inbuilt pilot plant for the water recovery which will be reaching Bangladesh shortly. The idea is to install pilot plant to some existing facilities which have already functional ETP, just to have a kind of attempt demonstration of the result that can be achieved with this solution, not only intense environment but also in terms of economic investment. Regarding zero liquid discharge, this solution will work in the future.”



### DR. JUERGEN HANNAK

In GIZ's Promotion of Social and Environment Standards (PSES) Programme in Bangladesh in textile and apparel sector there has some issues. Firstly, the question of efficient wastewater treatment. Second is the question how we can actually use water which is being discharged for the wastewater. And the third aspect is sludge disposal. There are also three key questions regarding the future industry: 1. In 10 years from now, where will the water be coming from which we need for the production? 2. How efficiently are we going to use the water in the production? 3. Where is the water going in the end once we have used it? If you are an industrialist in the European Union region, you will have to get an environmental clearance and observe a document called Bref. It is a combination of best available technology, dealing with all the aspects of how we can use water efficiently, what kind of processor technology are out there and such other things. The interesting thing with this Bref document in the European Union is that we have a kind of joint Research Centre established as a kind of systematized institutional mechanism under the European Commission. On a regular basis representatives of environmental agencies of the member countries, industrial representative as well, civil society representatives on the environmental side come together and review this best available technology, but not in terms of adding new but deciding after 4 years period which of those best available Technologies should become obligatory reference points. Then when company is going forward for an environmental clearance process they have to prove to the equivalent of the department requirement any clearance that they have taken plans to implement this specific measures as best available technology in the framework. To consider how we will process water in this industry, the following questions are there:

- Can we basically raise the associations beyond the level of individual associations and come up with some kind of benchmark document made in Bangladesh?
- What are the best available technologies ready to use somewhere else in the world?
- How can we adopt them and select those?
- Which of these best available technologies are also affordable?

Traditionally, we have to have an effluent treatment plant, maybe in form of a common effluent treatment to join effluent treatment plant. Treatment technology we have today can treat any kind of water or remove any kind of pollutant from the wastewater, but the trickiest part is removal of solid. A contradicting fact is that if we start reducing water the concentration of wastewater goes up, which means contributing to saving water may not comply with environmental standard. Some capital investment cost and operating costs we faced with zero liquid discharge based on the studies of the four companies. The range of capital investment required if you go from full fledge zero liquid discharge, 99% to 100% recovery of water would be in the range of 0.8 to 1.8 lakh Taka per cubic meter of water. Operating costs of full fledge zero liquid discharge system will run up cost of 120 to 200 taka per cubic meter. Now if you look at the quantities of water very impressively we see 9 million cubic meters a day and although this water have to be treated using this kind of technology, would be rather on the expensive side, apart from some technical issues. Because space is limited and secondly running such a system will require a tremendous high level quality of our wastewater operators in the effluent treatment plants and secondly its membrane needs to be changed all the time and we need to have very good backup system for the purposes as well. Third aspect is limited space. Putting up a zero liquid discharge system requires a lot of space and if we look at some of the classical industry places like in Tangi, Narayanganj or Gazipur, how compact they already are and there's hardly any space to find.

It's not a point to discharge zero liquid discharge as an option, it would require some paradigm shift and how we look at the waste water. Right now the typical thing is when you go in a factory and you will see an effluent treatment plant in a corner and when you meet people, you will meet the production manager, you will meet the manager but you will hardly meet the operator of the treatment plant. And the people working at the ETP's, have less priority. We do not look at the wastewater treatment plant as more as a treatment plant system but as a water recovery cycling system. The way forward would be not to say we have a full-fledged ETP where we produce one thousand or two thousand cubic meter of wastewater and we have to pass all those through the zero liquid discharge system, but it's a much more differentiated outlook, he argues. We are going to work together with the industry, with the sectors, with the partners and one of the key areas we would like to include in our corporation with the industry in next year is the development of a sustainability road map for the whole sector. Looking in how such kind of best available technology documents and concepts can also be integrated. In 10 or 15 years, when all come together and look at how our vision looks like, one of the things we would like to see is that the associations have taken the lead setting up some kind of best available documents reference benchmark for the industry, not waiting for the buyers to give them what they need to do but be on the proactive side on the driver side seat.”





## MR. SHARIFUL HOQUE

"In the last few decades, wastewater has filled up our rivers in Dhaka, where four major rivers (Shitalakkha, Balur, Buriganga and Turag) are on the verge of death because of pollutions. Research shows that one of the major pollutants of this is textile. If we focus on the main production of textile in Gazipur, Tongi and Savar area, we can see that the groundwater level is reclining on an alarming level. We are not getting enough water to maintain the water flow in the middle of Bangladesh because of our more convergence on textile production in around Dhaka. We do have rain water, which replenishes the ground water but still the water level is declining at an alarming rate. By 2030 we will need 9436 million liter of water per day which is more than 50% of today. At this rate we will cross our supply limit and we won't be able to reach our goal. 500 Washing-dyeing facilities are in Dhaka and 70% of them are in greater Dhaka, which is consuming most of the water. Regarding our performance in water usage, we are consuming more water than that is actually needed. Comparing to the benchmark of India and Turkey, we are using 200% of water. The global benchmark is less than 50 liter per kg.

From the professional perspective, brands like H&M, can focus on three areas of water: water quantity, water quality and water circularity. Regarding contribution of their engagement in this industry we have created public disclosure when it comes to water and are also encouraging rainwater harvesting within their supply chain and have set their business KPI (Key Performance Indicator) on water, on which our supplier will be rewarded on their business. H&M is financing technical innovations and general awareness in their staff and other supply chain staff as well. We are working with various partners to create the incentive scheme for water and explore other sources of surface water. It is not possible to be a clean fish in a dirty pond. So, we have collectively acted upon with many of our partners; PaCT, WWF (World Wildlife Fund for nature), WRG (Water Resources Group) in Bangladesh. H&M has launched two reports on water governance regulations and economic risk analysis for water governance."

## MR. MATTEO URBINI



"SOKO is a chemical company based in Italy with a long history focusing only on the textile. Now things have changed from the last generations. As a chemical supplier we are part of the train, and can do something especially for the garment industry. Garments industry means washing of the garments and as a chemical supplier, we have three main targets-environment, consumers and water. First of all, we have to reduce all the hazardous substances that should not be used anymore or should not be released from the chemicals. This will protect the water and the consumers regarding the environment. As a chemical supplier more can be done than just products. We can also make concept, create treatments, and also give idea to our customers and the users how to be more environment friendly.

Here in Bangladesh there are a lot of washing plants and so our solution is to reduce the water consumption and to change the way to apply the products. The advantage that we got is that we are able to save water and this is just an idea in the traditional stone wash.

How it works -- The raw garments, after laser, hand scraping or any dry process, are put in a tumbling machine and inside the tumbler they are sprayed with an

enzyme and this enzyme is what makes the stone wash, however there is no bath of water.

Nowadays the machines in the laundry have changed and improved. There are some tools like this spray systems that can be connected to a certain tumbling machine that can help in this special application. Years ago, these machines were considered only for softener application or to make an even effect like bleaching and so on. That's why some years ago we understand that this machine can be used for a different application and then there was the stone wash. The garments then will spend a certain time rotating inside the machine, this is the activation time. It is just the stone wash but this was the target to replace the traditional stone wash with a new concept to save water. The product that we are using are enzymes, so they are more eco-friendly, as they are giving less pollution considering the laundry sector. And the advantages that we are getting are minus 96% usage of water, minus 85% usage of energy. The outlook is a perfect stonewash- natural and having the abrasion that is expected from the stone wash. We do not use the stones because there is no bath of water. This is a treatment that must be used with the right equipment and the right chemicals, because we also have to consider the safety for the waters. Our first partner was Pacific Jeans in Bangladesh, but we will provide this treatment only to the users who they consider to have the right equipment.

However, now we have a different idea, which is one more concept that last year they have presented to the market. This is a treatment to eliminate the stones. Stones are not at all friendly for the environment. Whenever you are going to use the stones, the water treatment will also be affected. You need more water if you use the stones and your water treatment will have a lot of residuals and it's hard to control. So the bio clean is an abrasion booster, it is a product that we consider to be the new stone because this product is going to have many advantages. First of all, because the booster is reducing the process time of the stone wash. You can also avoid the use of permanganate which will save a lot of water because permanganate means that after application you have to neutralize rinse at least twice, so more water would be used. Advantages are: reducing process time that especially in Bangladesh is quite important; eliminate the stones in the 20-30% of the styles. Whenever stones are eliminated from the batch from the process, we have calculated that in Bangladesh, from operating machine, roughly 500 Taka can be saved. So in terms of treatment costs, it's also giving advantages. It is giving a perfect cleaning and you can also replace ozone."

# Knowledge Session 2

## ENERGY EFFICIENCY - HOW TO OPTIMIZE ENERGY CONSUMPTION & REDUCE COST



### MODERATOR

**MR. ASIF ASHRAF**, Managing Director, Urmi Group

### SPEAKERS

**MR. STEPHAN SKARE ENEVOLDSEN**, Senior Adviser for Energy Efficiency Engagement, DANIDA

**MR. S.M. MAHMUD HASSAN**, Chief of Party, USAID-CCEB

**MR. MUNAWAR MISBAH MOIN**, Managing Director, Rahimafrooz Renewable Energy Limited

**MR. SIDDIQUE ZOBAIR**, Joint Secretary, Sustainable and Renewable Energy Development Authority (SREDA), Bangladesh





### MR. STEPHAN SKARE ENEVOLDSEN

“There is great potential for energy efficiency in Bangladesh. I represent energy efficiency engagement funded by DANIDA and is being implemented by the Nordic Chamber of Commerce and Industry. Our activities are conducting industrial grade energy in all its industries, performing training programs for management and factory staff as well as facilitating contact between technology providers and companies. We have been working with companies who represent the supply chain of H&M in Bangladesh. We have also done pharmaceuticals, Steels, foods and others. Overall our finding for an individual factory is that it is possible to save 17% of energy used. This is equivalent to almost 900,000 cubic meters of gas and this 17% is just the tip of the Iceberg in terms of energy cost. An individual factory can save 150 thousand US Dollars per year on an average. In terms of CO2 emissions they can save 18%, which is equivalent to every factory burning 1 million liters of gasoline. The number is a total percentage we have found from 42 factories from which almost 7 million dollars can be saved per year and in energy cost savings is more than 1.5 million Giga Jules.

As there is limited availability of energy, to expand the production the only way you can expand is to conserve the energy that you are already using. If you want to expand in the future you need to consider energy efficiency as a way to get more energy. There are demands from International buyers and partners who are also putting up requirements for how efficient has to be with resources.

When companies procure this kind of technologies, the question they must ask themselves, is how much this piece of equipment is going to cost them over the lifetime. To be integrated into the process in the factories, it can be difficult to find the right technology or service. It's not a greatly available market yet. However, we are trying to create an online database consisting of a list of technology providers and which type of technologies they offer. This will help make it easier for companies to go out and get some quotations for different kinds of technology. Keeping up to date is also important. That is why we have created paper on industrial energy efficiency, which can be downloaded from a website called green-growth.bd.com.”

### MR. MUNAWAR MISBAH MOIN

“In the energy pyramid, conservation is actually the biggest part of the game followed by energy efficiency. In renewable energy at the industrial sector, the rooftop solar plays an interesting role. In the fuel independent power supply, for almost 20-25 years that is what solar can offer; and in today's tariff at the industry which is around 8 or 9 Taka, the investment payback can be as low as 5 to 6 years. Based on one's investment and average lifespan of almost 20 years, with this investment the average cost of electricity can be actually only Taka 3. So increasingly rooftop solar is becoming a very viable solution for industry.

Lets consider a case study where there is rooftop solar with BIPV (Building Integrated Photo Voltaic). If the existing energy load is of 500 kilowatts and backup by diesel generator is of 500 kilowatts and if we add a similar size solar installation assuming the space is available, we can immediately get 10% to 15% cost reduction at the energy level. Now in the same facility if we add on energy efficient activities like lighting equipment machines and things like that from that activity alone we can reduce almost 30% of load from energy and when we combine all this we can get almost 25 to 30% of cost reduction in the same facility. BIPV was traditionally considered very expensive but costs are significantly reducing. With 8% to 10% efficiency of those glass panels, in large garment factories and with all energy efficient lighting equipment and others combined we can get almost 25 to 30% in energy savings.

The first energy neutral facility in the country is a roller skating stadium in Motijheel area. The building itself only consumes 100 kilowatt electricity so whatever it is generating is actually putting back into the grid. So that's why it's called energy neutral. A similar one is introduced in the Prime Minister's office. Bangladesh Bank also have a nice rooftop that takes care of the lighting load of the governor's floor, dual electrification board.

The textile and apparel sector is playing a very interesting role over the last few years where there is an increased demand in solar solution at the rooftops. Using solar will be great priority that means the cost of buying from the grid and somebody investing in a solar would be almost the same. We can actually gain much more in terms of efficiency and cost saving. There are almost 9 to 8 solar module manufacturers in the country including our company and combined capacity of these manufacturers is almost hundred megawatts.”



### MR. S.M. MAHMUD HASSAN

“Energy efficiency program in Bangladesh has started in 1984 to 1985 by the Ministry of Power and Energy Resources and the World Bank. And Arthur D. Little and Bechtel company came to India first and formed Bangladesh Bureau of Energy Efficiency. Then they came to Bangladesh and they formed the Energy Monitoring Unit and then they left for Pakistan and formed Energon. So from that period, energy efficiency program is going on, but energy efficiency program was not popular then. SREDA was implemented in December 2012. It is now the icon of the Bangladesh government.

Our company is catalyzing clean energy in Bangladesh. We started a 5 years project in 2013, and this is the 5th and final year. SREDA has 5 tasks:

- Task 1 is to strengthen BARK.
- Task 2 is working with power division.
- Task 3 is Energy Efficiency program in industries in 4 sectors.
- Task 4 is we work for demonstrated management
- Task 5 is we promoted 10 improved group stores.

We have completed hundred works through energy audits and based on that results we have also carried out detailed 48 energy audits. We have allocated 2 million US dollars to 33 plants. We have trained the loan officers and relationship managers in 9 banks, 400 in numbers to bring them into the energy efficiency financing. These are the main practices we do. Energy audits comprises of 4 Ps. First P is for the Position of the plant and how it is running. Second P is for finding out what the Problems are. Third P deals with the Possibilities to solve the problems and the final P is for Proposal.”

### MR. SIDDIQUE ZOBAIR

“When Bangladesh National energy policy was created back in 1996, energy efficiency is treated as the 5th fuel, but now it is treated as the 1st fuel. Energy efficiency is the most efficient way of reducing the energy burden.

There is a two way threat for any industry in the future: the price may go high and the supply may meet shortage, which the industry is now facing for gas supply. And a few years ago it was the same in case of electricity. There is a two way risk we can eliminate by improving the energy efficiency. All over the world most of the countries are putting a lot of importance for energy efficiency rather than explore the other form of energy resources. Energy efficiency is the best option by which we can tackle the climate vulnerability. Despite the conventional energy price reduction in the international market, energy efficiency has reduced energy usage significantly and this trend will continue further. So as a developing country, our energy consumption certainly will increase, per capita energy will increase but at the same time if we cannot integrate the energy efficiency measures then it might hamper our economic development in the future. For example, the most available energy efficient device is the lighting device which is the LED and internationally its price is coming down and it is significant. So if we participate in energy-efficient activities which seem to be very high today, in the future the cost of energy efficiency will be gradually coming down. Sometimes in industrial sectors they always try to translate this kind of technical intervention in terms of money and ask what will be the pay back. Technology prices are coming down and energy prices are going up, so if we start thinking today it will be better tomorrow. We are mostly dependent on the natural gas and liquid fuel and other forms of energy including Biomass, coal and others. SREDA already has created an energy efficiency and conservation master plan. In preparation of this master plan, we considered how much energy are being consumed in what sector and what is the savings potential there. If energy efficiency measures are incorporated, almost 50% energy that are used in the industrial sector followed by the residential sector. According to that scenario, gradually energy consumption will go up and the supply of natural gas will go down. So there is a huge gap between the demand and supply of energy that we have to face in the future. In order to fill this gap, we have to be dependent on the international market. The price and supply of these energies in the international market is out of control, so we do not know what the situation will be of the supply and what the price of that energy sources will be. So it is better to reduce the energy as much as possible by incorporating the energy efficiency measures in Bangladesh. Using the master plan, by 2030 it is possible to reduce 20% of the energy intensity in Bangladesh. There is a significant amount of energy that we can conserve and save if we incorporate the energy efficient technologies. Similarly, in case of residential sector, we can save 30% energy if we incorporate the efficient light, refrigerator, air conditioner and motors. From SREDA we took the initiative to implement the energy efficient activities in Bangladesh. We have the energy manager and energy audit program through which we work with the industry people, they will visit the industries and identify the scopes to increase the energy efficiency, the cost, the right technologies, and the payback. On that report, the industry people will decide how they will manage those activities on their own and if required SREDA is always with them to support them by legal regulatory framework by incentive, concessionary financing, technology transfer and information transfer. SREDA has a very interactive website which industrial people can use to know more about energy efficiency in a cost effective manner. We also have the energy living program for the appliances where the common people, when they go to market, can select the energy efficient devices or appliances. There will be a label at the top of the equipment, so that people can easily understand which one is energy efficient. It can be a star based labeling system where more stars will mean more efficient, so they can decide from the options. SREDA also has the building program to certify any building through a building rating system. Seminars are held regularly to disseminate the knowledge to the concerned stakeholders and the government, private and other sectors. SREDA has three consensual financing program one is JAICA supported energy efficiency financing program. We are also jointly working with Central Bank to identify 200 crore Taka for supporting the energy efficient activities in the industry as well as the commercial sector with 8 percent interest. Sometimes industry people are not very much aware so it is also very important to educate them and provide them the right information and bring the right technologies in place and bring the consensual financing incentive measures through which they will be encouraged. So our approach is a two way approach- the stick and carrot. There will be regulation but at the same time to bring these activities in a very enabling manner there will be incentive and consensual financing.”





# Knowledge Session 3

## GREEN FACTORIES



### MODERATOR

**MR. MIRAN ALI**, Director of Bangladesh Garment Manufacturers & Exporters Association (BGMEA) and Honorary Consul of Slovak Republic in Bangladesh

### SPEAKERS

**MR. MD. ATIQUUL ISLAM**, President, Center of Excellence for Bangladesh Apparel Industries (CEBAI) & Immediate Past President, Bangladesh Garment Manufacturers & Exporters Association (BGMEA)

**DR. ZEBUN NASREEN AHMED**, Dean, Faculty of Architecture and Planning, Bangladesh University of Engineering and Technology (BUET)

**MR. RENE-VAN-BERKEL**, Officer in Charge, Regional Office for South Asia, United Nations Industrial Development Organization (UNIDO)

**MR. RISHABH KASLIWAL**, P.E. Managing Director, Kamal Cogent Energy Pvt. Ltd

**MR. GAURAV MUKHIJA**, Regional Manager – Market Development, GBCI, Sister Organization of United States Green Building Council (USGBC)



### Mr. Md. Atiqul Islam

“We all have some responsibilities for our future generations. In Bangladesh now we can see that there are a lot of Platinum, Gold and Silver rated green garment factories. But when we started the garment industry in 80s, there were concerns only about the quality and shipment. Then came compliance, then social responsibility and after that factory capacity and capability audit etc. In the registration of BGMEA garments industry there were 5800 factories, but the number of currently running factory is around 2300. This is because of the survival of the fittest. So business case is now very important at this moment. Unfortunately, we are not getting any benefits from the customers even after we establish Platinum or Gold rated green factories which incur huge costs.”

### Dr. Zebun Nasreen



“I would like to talk about the need for customized green building code for Bangladesh. Codes are actually mandatory regulations that people have to follow in their buildings yet when we looked at most of the buildings here in Bangladesh, we see that there is a lot of violation of codes. Codes are actually the law, if you break the code you are breaking the law, but still people break them. But if we look at the things that the participants of this forum follow, such as various rating systems, these are not mandatory. You do not have to follow them, yet you are doing it. So what is the secret that you are following something that you do not need to follow and why are most people breaking things that they have to follow? If we understand that we will understand business. It is not because we love the environment, we do it because it makes better business sense and that's why we do it.

Codes are a set of rules that specify standards for buildings and buildings must conform to the codes. The main purpose of the building codes is to protect life and to protect public health & safety and the general welfare of the people around us. The Building Code becomes law because it is formally adopted by the Parliament or some authorized body. Normally in Bangladesh's case, the Parliament has adopted it. So it has become a law that has to be followed. Codes are based on climate, culture and economy standards. Standards are based on asking, physiological responses and therefore acclimatization; on what you are expecting from your environment and it is also connected to what you can afford. People's expectations and standards will be different from the others who work in higher or different standards and so it has to do with affordability, culture and expectations. Codes and Standards therefore have to be contextual. We are running out of fuel and so we have to be energy efficient. We can be energy efficient by using energy to make our building work and that energy has to make it work according to some standards. So these standards that have been set for different places are set by asking for votes. When we are looking at general sense of satisfaction in a building, of work space or office, thermal comfort of air quality, lighting, acoustics, cleanliness, maintenance, you are asking the persons if they are satisfied or not. If you are not satisfied, the rating will go down and if you are satisfied, it will be higher and this is how all standard are set. All rating systems are based on somebody asking around and getting these answers. “But who are these somebody? Unfortunately they are not us.” If they are not us, the answers that has been given to these questions have not been at our level. So we need our own standard that is appropriate for Bangladesh in order to be energy efficient. A lot of studies have been done in BUET on conceptuality, on finding out how to relate all these standards to our own climate, culture and population. It was found that unnecessarily high values of these comforts are indicated by environment. If we look at the garments factories, their conditions, the compliance says that where a person is sewing, light level should be 800 Lux. I have seen in my own class that when it is 150 Lux, it is perfectly comfortable for all of our visual activities. Unfortunately we can't give 150 Lux because the compliances say it has to be 800 Lux. So complying with the standards, you are actually using more electricity. We want to comply with the buyers and it's good to comply, but why not compromise in the standard? The expectations are different, low light levels are better than high light levels and light levels are actually associated with the feeling of heat, which is a psychological thing. For instance, LEED is very popular all over the world; it is fair for essential to make aware the green issues. However, LEED itself has lots of codes which are very American. If one wants to have a Platinum rating obviously you want two points from everywhere, so one would want to use the sort of glass building materials and finishes according to LEED standards which is perfect for America but to get these materials from America to Bangladesh, will end up spending a lot of transportation fuel!

We need to look at LEED and properly weed out those things which are not contextual to us. LEED should have to be more green than it is platinum because if the environment is not happy then eventually it is not going to be sustainable. The codes must be energy efficient and being contextual is vital for sustainability. Therefore, we need a customized green building code for Bangladesh in order to save the environment and be sustainable, and we have to do this before it's too late.”





## MR. RENE-VAN-BERKEL

“UNIDO is a specialized agency in the UN that works for industrial development. As a part of UNIDO we work with developing country member states to support industrialization and are now working in the framework of the sustainable development goals by 2030 agreed upon by our government leaders. We work in the SDG9, which is about inclusive sustainable industrialization. We want global sustainable industries not just for the sake of industries but Industries that take care of the people and take care of the environment. If we look at how many planet earths we need if we calculate the footprints of every person in planet earth, we would see that with what we currently have, sometimes in future we will have used up all the resources for the year and basically we are on our trajectory to use two planets by 2030; which cannot be a solution. We need to break this link between growth of the economy and the use of additional natural resources. So that is the concept of green industry. We should say that we want to implement this concept of green and clean economy manufacturing. So it means that we want to manufacture more with less. More garments with less water, energy and chemicals.

UNIDO has two prompt agenda, one is we need to look about greening of existing industries to minimize environmental impact with ease of use and second part is that we need the companies that we are supplying the green solution, the producers of the environmental goods and services. We have the focus on the area of resource efficiency and cleaner production and that is working inside factories. We work inside factories to improve resource efficiency and achieve waste minimization which is basically less wastewater production per unit of output per pair of jeans. This will also help to achieve human wellbeing and eliminate hazardous components from the workplace and create a work environment which is neat and clean and which is also productive. It basically comes down to increasing resource productivity using less materials, water, energy and producing less wastewater and emissions. So that is the concept that UNIDO and its partners have been working for the last 20 years. We also look at different ways how this can be achieved. Textile can get the chemicals that do the job efficiently and effectively and have least environmental impact. We have to control the processes that always run efficiently. We need to figure out where the water is being used in different parts of the factory before we can actually manage to reduce it. The next part is equipment modification; areas where efficient motors, efficient equipment and other equipment can come in and we can look at the improvement of existing technologies. Next is the technology change and this is what we try to do something completely different. The next would be to look for onsite reuse and recycle which is trying to find another use for materials and energy within the company, traditional areas and of course water recycling and heat recovery. The next is by-products, because we can use it somewhere else. Final one is product modification where largest benefit is possible with redesign of actual products.

UNIDO is working towards a circular economy. There are new and breakthrough technologies for clothing and achieving circular economy in the government sector. We are not doing this for philanthropically, it just makes good business sense, it makes business profitability element there but of course there is a link through social responsibility too. If we do not take care of the environment, our workers are exposed to hazardous conditions and the community is exposed also. So it is not only about the environment, it is also about responsible business conduct. Maybe we can also highlight and link to green industry or resource efficiency in the context of the sustainable development goals. If you make Industries more sustainable it will also help to improve the sustainability of the cities and also ultimately partnership for progress for responsible business.”

## MR. RISHABH KASLIWAL

“Kamal Cogent Energy is a joint venture between Kamal and Kamal group. It is in business since 1936 and has an International joint venture with an American company. We are into sustainability consultancy services such as LEED. Essentially we are approaching environmental sustainability in holistic fashion so we want to look at transport sites, water and energy. We will discuss two case studies. Our first case study would be a new factory that has been set up in Chittagong. This garment factory is 350 thousands square feet, and they are getting about 20% savings in energy and 40% savings in water. What are the big interventions in the factory was using several motors instead of clutch based motors which helps us save about 300 thousand kWh. They use natural ventilation there. It can be done without much interaction technologies. There are electric charging points for electric vehicles, good filtration systems and clean chemicals which are not harmful for the environment. These products are available locally. In the design process they are trying to utilize simulation techniques to optimize the building. They are trying to go from 165 EPI to 55 EPI at low cost. They also have sky pipes or solar pipes through the roof to increase natural daylight level. Considering all these the cost is 35 Taka per square feet that makes 1 crore Taka. As part of the LEED process, there are several audits that we have to do to assess where we are. The good news is that there are consultants like us who can help.

The second case study is for the building in Tongi by the Preeti Group. For the 5 year old building and with 600000 square feet, we were able to complete all this technologies for at a cost of 70 lac Taka so that is about 14 Taka per square feet. So this is what it should cost roughly in this range. LEED is independent of climate and independent of location. Most of these factories are in the India-Bangladesh region and are between 10 to 30 rupees per square feet with a payback of 3 to 4 years mostly. So regardless of having a small or big plant, this is what the cost should be. I hope that over time this will become cheaper.”



## MR. GAURAV MUKHIYA

“The Green Business Certification Inc (GBCI) is a certified agency of US green building council. GBCI is taking care of LEED certification, PEER is to do with energy, a WELL rating is how you actually performing through a building and its occupants. ‘Edge’ is a rating system we recently developed for the affordable housing community masses. GBCI is going to incorporate various rating system across the globe and it has rating system for everyone, for every kind of building and factory and city also. LEED is the biggest rating system which has approximately around 90000 projects across the globe. We believe LEED is for all needs and for all spaces. Every space can be LEED certified.

LEED would have BD + C which is building design and construction at the very early stage of a project. Then there is ID + C which is interior designing. We have ONM (Operation and Maintenance) which is for the existing buildings and factories. LEED is helping the mini stakeholders, owners and occupants. LEED is all about leaders. As a representative of our organization, I feel that anybody who's going for a LEED certification is actually leading the pathway.

The US Green Building Council (USGBC) has presence in more than 165 countries across the globe. They have around 2.06 million square feet of project area being added every day. The industry, factories, hospitalities, schools, developers, residential complex, architects, everybody is now looking forward for LEED certification. They have more than 90000 projects registered and undergoing certification all across the globe. In Bangladesh, India, Sri Lanka, there are a few of the biggest projects which are there and are contributing in terms of the environmental footprint and building square footage. There are almost 230000 green Homes projects registered and are under certification.

The backbone of any project is the professionals. LEED AP is a kind of accreditation to professionals who help all the stakeholders in various stages. In India, there are more than 2400 projects which is certified and undergoing certification. After USA, Canada and China, India is approximately the largest contributor towards the LEED certification. Compared to India Bangladesh has a very big number right now. The number of projects that are registered or are undergoing certification, whether it is factories, residential apartments or commercial buildings, is around 525. Considering the population and size of Bangladesh it is a very good number. We would look forward to increase this number in the next couple of years. The area is around 96.9 million square feet and that's adding every day. The garments factories are contributing a lot to this numbers. More than 470 projects are undergoing certification and around 40 projects are certified.

The motto of Bangladesh RMG sector should be Red to Green. Rather than being an energy guzzling and water consuming industry, it should be green and contribute to the stakeholders. It should also reduce its environmental impact. Around 47.8% of the energy consumption of Bangladesh is itself from the industries which is a very big number and has to be reduced through Energy Efficiency, integrated processes, writing systems, stakeholders and knowledge partners. GBCI is looking forward to be knowledge partners for all the stakeholders and we would be very happy to contribute. We would be happy to have more accredited professionals from Bangladesh and would be very interested to have workshops with colleges and Universities and architectural and engineering students. In terms of green building and the impact the factories can play, it's a common sense that Bangladesh industry is actually contributing so much to the environmental impact; the next step is that it has to be efficient. Being efficient will save money and that money can be contributed to the well being of the stakeholders and employees. The scope is very clear, it's a triple bottom line -- People, planet and profit. If anything is efficient and green, it will definitely be good to the planet, people and also good for the profit, he argues. In case of the apparel industry, there is a lot of competition from other stakeholders and countries and the way it can be done is to increase efficiencies and bring green into their factories. I would like to introduce a newly launched platform called ARC. They have been working on it for the past 5 to 6 years and it is a performance pathway tool. They are giving this to all the stakeholders, clients, owners and even the consultants. It is an online portal and with it one can start understanding on a daily basis how buildings are performing on LEED certification. It is a building performance, monitoring and scoring tool. It's a live LEED performance score. You can follow the ups and downs of a project and even compare with the global benchmarking. They make sure that most important sections including energy, water and also human experience are right. Human experience talks about the thermal comfort, how the stakeholders and employers are feeling inside the building. After energy and water, human experience has a big number as the buildings are for the stakeholders and the occupants. This is why human experience is considered as a very important section. With ARC one can actually see a real time analysis of a project with any internet enabled device from anywhere in the world. The score and performance reflects one's commitment. It is time saving and it will help the stakeholders immediately. This is going to benefit all the consultants and the stakeholders because it will save time and we can use that saved time elsewhere. This tool is available for all LEED certified projects and one can start tracking his projects from day zero. For the ones who are not certified or would like to understand how this tool is going to help them, they just have to go to arcskoru.com, get the project registered and start inputting the data and get the performance score, it's that simple. It's a guideline and transformative tool for all the stakeholders. With these, the numbers are above 70% for water savings and above 30% for energy savings.”



# Knowledge Session 4

## SUSTAINABLE FINANCING



### MODERATOR

**MR. ASIF IBRAHIM**, Vice Chairman, Newage Group

### SPEAKERS

**MR. ASHRAFUL ALAM**, Country Project Coordinator, UNCDF & DGM, Bangladesh Bank

**MR. IFTY ISLAM**, Group Chairman, Asian Tiger Capital Partners

**MR. MD. MAHBUB-UR-RAHMAN**, Deputy CEO & Country Head of Commercial Banking, HSBC Bangladesh



### MR. ASHRAFUL ALAM

“Central banks have wide ranging effects on the economy and society as a whole. Their decisions on monetary policy and sustainability are closely intertwined. Nonetheless the link between mandates and the objectives and instruments of Central banks and broad sustainability agenda are really reflected in policy debates. Bangladesh Bank’s mandate is to stabilize domestic monetary value and maintain a competitive external par value of the Bangladeshi Taka towards fostering growth and development of the countries productive resources in the best National interest. Within this legal context the central bank focuses on price stability along with moderate inflation while providing sufficient space in each monetary program for domestic credit which supports broad-based investments inclusive of growth objective. In case of trade off between these goals the bank prioritizes growth over the inflation as long as the latter remains tolerable. In addition, the bank plays an important role in pursuing sustainability priorities including property alleviation and environmental stability. So basically Bangladesh Bank’s role in sustainable finance can be viewed as this: it has three focuses in each sustainable financing -- social responsibility, environmental sustainability and inclusiveness. Priority areas for sustainable financing are the agriculture, SME’s, women entrepreneurs, green business and industries, mandatory environmental risk management guidelines for the banks and sector specific policies and reporting. Bangladesh Bank in 2011 started green banking initiative for the financial sector and in three phases. Bangladesh Bank promoted greening the financial system or the banks by providing instructions and guidelines to the banking industry for both internal greening of the banking processes as well as integrating sustainable financing in the bank’s investment and lending. So these are the basic sustainable financing priorities for Bangladesh Bank. A number of issues are there: environmental and social risk assessment, environmental and social footprint, women economic empowerment, poverty reduction, job creation, reducing inequality, food security, sustainable energy, capacity building and reporting Bangladesh Bank’s role in greening the financial system. We can see that International support for green initiative is huge. Bangladesh bank is also taking support from ADB, World Bank, JAICA for providing green finance to the financial sector and also Bangladesh Bank is making arrangements from its internal resources for green refiners including a Sharia based refinance scheme. Massive digitization towards paper light office and other bank digitization moves have been made. Bangladesh Bank operates several refinance schemes including one for the renewable energy. The total fund for this is 25 million and to date the disbursement for refinancing green projects have been almost 30 million USD because this is a revolving refinance scheme under Bangladesh Bank. In refinance scheme for green product initiative, the total is 25 million USD and in local currency it is around 200 crore Taka. The channel for providing this credit to the entrepreneurs is banks and non-bank financial institutions. Interest rate for this refinance scheme for the banks who are basically the lenders is 5%, client level interest is 5% + 3 to 4 % depending on loan tenure. If it is a 3 years loan then on top of the base rate 5% it will be 5 + 3 = 8% and if it is 4 years it will be 3.5 and 5 + 3.5 equals to 8.5%; and if it is more than 5 years the fee is 9%. And for solar irrigation pumping system it is only 2% on top of base rate making it 7%. This refinance scheme also allows bank to wholesale this credit through Micro Finance Institutions (MFI). There are 51 categories of products and if any enterprise is going to establish industry on these 51 categories of products they can avail this type of refinancing scheme through banks or non-bank financial institutions. Loan taken from another bank is also eligible for refinancing scheme and syndicated loan is also re-financeable by Bangladesh Bank if several banks come together and make a syndicate to finance a big project then this syndicated loan also will be refinance by Bangladesh Bank. Refinance limit is hundred percent of the loan bank extended to client level will be free finance to the bank and the maximum amount of loan that can be offered under the scheme depends on type of product. Under the scheme Bangladesh has financed several RMG industries. Because of Bangladesh Bank’s initiative and promotion of green finance and sustainable finance, Bangladesh has become well known in the world.

According to the refinance scheme the three products have maximum loan limit: liquid waste management for establishing central effluent treatment plant, renewable energy- waste-heat recovery system, and lead acid battery recycle plant. On March 2017 Bangladesh Bank has issued a Master Circular for renewable energy refinance scheme. In that Master Circular product wise maximum loan limit has been detailed out for 51 products. Bangladesh Bank has ample opportunity to refinance the sustainable financing or financing sustainable projects taken by entrepreneurs in Bangladesh. Bangladesh Bank has several others schemes under SME special programs department. Furthermore, under the agricultural credit department they also provide sustainability finance from a refinance scheme. Apart from all these refinancing programs, Bangladesh Bank is also promoting house sustainability for the financial institutions like less use of water, less use of energy, less use of paper and in all these areas Bangladesh Bank has taken steps to establish policies that will reduce the environmental footprint by the financial institutions in Bangladesh.”



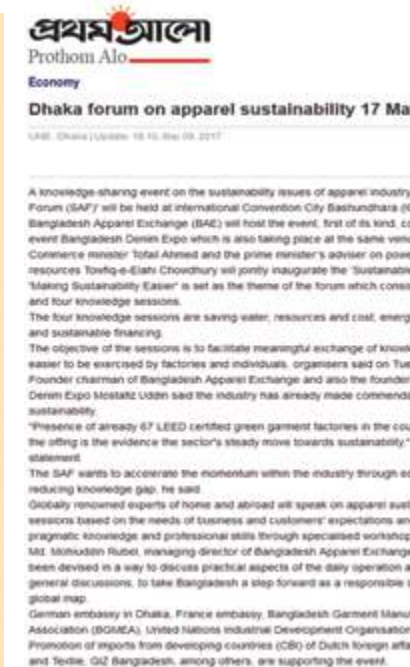
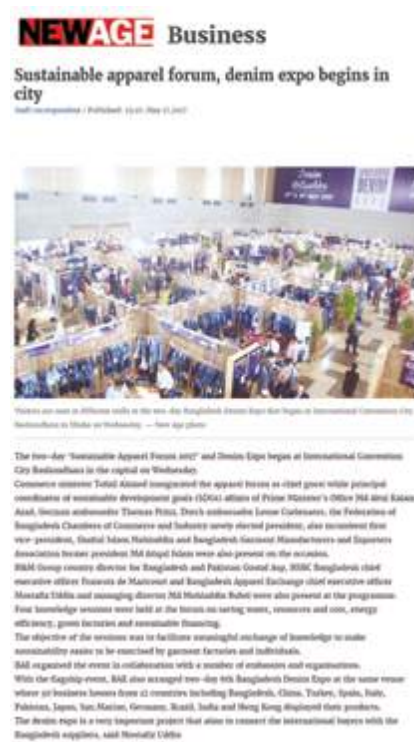


## MR. IFTY ISLAM

“Bangladesh is the world’s greatest MVC (most vulnerable country), considering growing population, reducing lands and climatic variations like storms. In the context of financing, Bangladesh might be getting billions or more of dollars of First-World guilt trip money. The First World’s actions caused global warming and now countries like Bangladesh who did not contribute to global warming are now suffering from it. All these funds have been theoretically made available but in practical terms very little of anything has been distributed. Reason behind this is that First World governments argue that countries like Bangladesh are not able to implement attractive green financing scheme for projects and so they are reluctant to give money to Bangladesh. The World actually wants to implement one of the climate change funds in Bangladesh but not the Bangladesh government. On the other hand, for countries like Bangladesh and a sector like RMG, developed countries and development agencies like the World Bank or the UNDP are sharing the responsibilities. It is important to see how much greater focus and initiative by both the developed country governments and Bangladesh government is given to find the right mechanism, to get more of this ‘climate change guilt trip’ money to the development sector. When we think about financing, we have to consider is it actually a lack of access to financing; is it the company or the garment sector textiles who want to make green financing investments who do not have access to sufficient funds? Another separate question is, should there be financial incentives to encourage? Both are relevant topics for discussion and we can get more feedback because a lot of this climate change investments are very long term in nature and so Bangladesh banking system does not really have an ability to make long term lending because the asset liability mix in Bangladesh is very short term.”

## MR. MD. MAHBUB-UR-RAHMAN

“For an organization like HSBC, the sustainability is kind of a business as usual. It is treated as lending decisions. There is a sustainability risk parameters that the bank charges and they are also signatory to the equator principles, which binds the financial institutions to look into this matter. In terms of remediation process in the last 3 to 4 years, the bank’s experience as quite pleasant. First of all from the perspective of the awareness and the willingness to do the remediation, it is enough to note the presence of the dignitaries in this forum; and from a perspective of the bank, the fact that HSBC is the Title Sponsor of this event reflects how they believe in this industry and the entrepreneurs of this industry. Financing has never been an issue, he believes, it’s about the entrepreneurs’ willingness and desire to make it a part of their overall propositions. This is a factor of investment.”













# Other Events

BANGLADESH APPAREL EXCHANGE (BAE) HAS TAKEN SEVERAL INITIATIVES TO PROMOTE AND PROPEL THE APPAREL SECTOR OF BANGLADESH. THE BAE IS THE HOST OF INTERNATIONALLY ACCLAIMED BANGLADESH DENIM EXPO HELD TWICE IN EVERY YEAR. IT INITIATED SUSTAINABLE APPAREL FORUM (SAF) IN MAY 2017 AS THE FIRST EVER APPAREL SUSTAINABILITY KNOWLEDGE EVENT IN BANGLADESH. IT WAS ALSO AN 'IMPLEMENTING PARTNER' IN THE SUSTAINABLE SOURCING IN GARMENT SECTOR (SSGS) CONFERENCE ORGANIZED BY THE EMBASSY OF THE KINGDOM OF THE NETHERLANDS TO BANGLADESH IN SEPTEMBER 2016. THE BAE WAS THE 'IN COLLABORATION WITH PARTNER' IN THE DHAKA APPAREL SUMMIT ORGANIZED BY BANGLADESH GARMENT MANUFACTURERS & EXPORTERS ASSOCIATION (BGMEA) IN FEBRUARY 2017. AS ITS ANOTHER INDIVIDUAL INITIATIVE THE BAE ANNOUNCED TO ORGANIZE BANGLADESH FASHION- OLOGY SUMMIT IN FEBRUARY 2018 IN DHAKA FOR BRINGING TOGETHER THE INNOVATION OF APPAREL AND FASHION INDUSTRY FROM AROUND THE GLOBE AT ONE PLACE.

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