



Bangladesh Environment Network (BEN)

BEN Bimonthly Webinar Series – 004 (Jan 28, 2023, Saturday)

Sustainable Transportation: Potentials for e-Mobility in Bangladesh

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The Bangladesh Environment Network (BEN) bi-monthly webinar has been a success held in January. BEN recently organized a virtual webinar on Saturday, January 28, 2023, titled "Sustainable Transportation: Potential for e-Mobility in Bangladesh." The webinar was organized with the aim of bringing together experts from various fields to discuss the current state of sustainable transportation in Bangladesh and the potential for promoting e-mobility in the country. The webinar was attended by a diverse group of participants, including government officials, researchers, industry representatives, and members of civil society. The event was livestreamed at BEN Facebook (FB) page and the presentation slides are available for further references of the readers at BEN website.

The webinar was chaired by Dr. Saleh Tanveer, former global coordinator of BEN from Ohio State University, USA and facilitated by Dr. Hossain Azam, current BEN member and faculty member from the University of the District of Columbia, USA. Current global coordinator of BEN Dr. Khalequzzaman from Lock Haven University welcomed everyone to the webinar and provided a brief overview of current activities of BEN around the world including recent environmental movement in Bangladesh.

This webinar had a diverse group of experts both from Bangladesh and abroad who provided key directions for sustainable transportation in Bangladesh. The webinar speakers were a) Mr. Moshuazzaman Mahmud, Technical Director and International Strategy Lead, Integrated Transport Planning Ltd. (ITP), UK, b) Dr. Md. Ziaur Rahman Khan, Professor, Dept. of Electrical and Electronic Eng, BUET, Dhaka, Bangladesh, c) Dr. Shams Tanvir, Assistant Professor at California Polytechnic State University, California, USA, d) Mr. Mahbulul Islam, Senior Manager, US EPA-Region 10 & BEN Member, Seattle, Washington, USA, e) Dr. Zia Wadud, Associate Professor in Transport and Energy, University of Leeds, Leeds, UK, and f) Dr. Md. Shamsul Hoque, Professor and Transportation and Safety Expert, Dept. of Civil Eng., BUET, Dhaka, Bangladesh.

The key-note speaker, Mr. Moshuazzaman Mahmud of ITP, UK discussed the current global state of e-mobility and potential for e-mobility in Bangladesh. He presented data on the current state of transportation in the country and the need for alternative forms of transportation which will reduce emissions and improve citizens' quality of life. He discussed the potential benefits of e-mobility, including reduced dependence on fossil fuels, improved air quality, and reduced greenhouse gas emissions. He emphasized that the EV policy in Bangladesh in its early stage and adoption of three-wheelers with its structural faults causes 10% of fatal accidents. He underlined the importance of proper infrastructure, including charging stations and dedicated lanes, to support the adoption of e-mobility. He discussed Bangladesh's strengths, weaknesses, opportunities, and threats for long term EV adoption in Bangladesh with key considerations needed for policy and regulatory overall, charging infrastructure and energy sector. Mr. Mahmud set the foundation for subsequent exciting and engaging discussion that followed later part of the webinar.

The second speaker, Prof. Dr. Md. Ziaur Rahman Khan of BUET, covered the topic of electric vehicles in Bangladesh. He provided an excellent overview of different EV practices in Bangladesh including three-

wheelers. He discussed the current state of electric vehicles in the country and the opportunities and challenges of promoting their adoption. He also discussed the role of the government in promoting e-mobility, including the development of regulations, subsidies, and tax incentives. He emphasized battery waste management as part of overall EV adoption in Bangladesh and a potential market of recycling. He discussed about a redesigned three wheelers in Bangladesh University of Engineering and Technology (BUET) addressing all the safety issues with modification cost 20,000 Taka needing further actions. He discussed other EV challenges for Bangladesh such as high pricing, lack of financial incentives, absence of charging infrastructures, lack of technical manpower and potential for transportation chaos leading from large scale grid failure.

Dr. Shams Tanvir of California Polytechnic State University, USA covered the business models and technologies that could be considered for EV charging infrastructures in Bangladesh. He presented an overview of the various technologies and business models available, including public and private charging stations, and the role of government and private sectors in promoting the adoption of e-mobility. He discussed the potential for business models that incentivize the adoption of electric vehicles, such as shared mobility services and car-sharing programs. He accentuated the importance of private-public partnerships in promoting the development of charging infrastructure in Bangladesh.

Mr. Mahbulul Islam of US EPA discussed the impact of electric vehicles on air pollution and greenhouse gases (GHGs). He presented data on the current state of air pollution and GHGs in Bangladesh and the potential for electric vehicles to reduce emissions. He emphasized the importance of reducing GHGs and air pollution to protect the environment and improve public health through electric vehicles but emphasized that the EV's impact can be minimized if powered by electricity generated from renewable sources such as, hydro, solar, wind, or nuclear power plants. He also emphasized that power production and battery manufacturing or recycling can be controlled significantly using pollution control technologies.

Dr. Zia Wadud of Univ. of Leeds, UK covered the topic of sustainable mobility and the role of EV in Bangladesh to promote it. He presented an overview of the current state of sustainable transportation in Bangladesh and the need for a comprehensive approach to promoting sustainable transportation. He accentuated the importance of investments in infrastructure, education and awareness, and policies that encourage the adoption of e-mobility. He discussed seven (7) sustainable goals for EV in Bangladesh with the potential for job creation, increased access to transportation, and improved public health. He cautioned about adopting EV for climate goal only rather recommended policy makers to be aware of unintended effects (e waste, noise, safety) and strengthen or formulate policies & regulations around safety, noise and battery recycling with proper implementation.

The final speaker, Dr. Md. Shamsul Hoque, covered the topic of electric vehicles in Bangladesh and the opportunities and challenges they present. He discussed the potential of electric vehicles to reduce emissions and improve public health and the challenges of promoting their adoption. Dr. Hoque highlights the need for a collaborative effort between the government, private sector, and academia to promote the growth of e-mobility in Bangladesh. Moreover, Dr. Hoque from his active engagement with different leading projects of Bangladesh discussed different roadblocks and provided recommendations how to promote EV adoption in Bangladesh.

The Q&A session has been very interactive and had very engaging discussions about different points raised by the speakers. Several audiences praised the initiative taken by BEN about sustainable transportation for Bangladesh and requested for follow-up engagement EV related activities (e.g white paper for Bangladesh, newspaper articles etc) in the future. In his remarks, Dr. Tanveer Saleh reviewed the key topics and discussions throughout the webinar and emphasized the importance of e-mobility in achieving sustainable

transportation in Bangladesh. He encouraged attendees to take an active role in promoting e-mobility and to share their insights and ideas with others in the industry. Thus, this webinar served as a call to action for attendees to take an active role in promoting e-mobility and contributing to developing a more sustainable transportation sector in Bangladesh.