

BCC&i
THE BENGAL CHAMBER

13th Edition of
Environment & Energy Conclave

INCLUSIVE GROWTH with
RESOURCE SECURITY

26th and 27th August 2020

Principal Country Partner

GREAT

BRITAIN & NORTHERN IRELAND



Also featuring

KOLKATA VIRTUAL SUSTAINABLE ACTION DIALOGUE

Pre-event of the World Sustainable Development Summit (WSDS) 2021



EVENT REPORT

Knowledge Partner



By CUTS International

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ABOUT THE CONCLAVE

THEME: INCLUSIVE GROWTH WITH RESOURCE SECURITY

- Annual 'Environment and Energy Conclave' held by The Bengal Chamber of Commerce and Industry: an international forum for discussing issues pertaining to climate change mitigation and business response to climate risks.
- The 13th edition focused on 'Inclusive Growth and Resource Security' in the context of the ongoing Covid-19 pandemic.
- The virtual summit was graced by eminent national and international speakers with an emphasis on Asia Pacific and UK as its Country Partner.
- The event created a platform for stakeholders from the Government, Industry, Academia, Think Tanks and Youths to brainstorm and advocate strategies for climate change mitigation.

The Conclave is a precursor to COP26 to be held in Glasgow, Scotland in November 2021

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KEY RECOMMENDATIONS: COP26



FOCUS ON RENEWABLE ENERGY UPTAKE COUPLED WITH DECARBONISATION, DECENTRALISATION AND DIGITALISATION FOR ACHIEVING THE TWIN GOALS OF ENERGY SECURITY AND CLEAN ENERGY

POWER SECTOR

EMPHASIS ON ELECTRIFICATION OF THE SECTOR USING STRATEGIC TOOLS (FOR E.G. PLEDGES, KNOWLEDGE PARKS) INNOVATIVE TECHNOLOGY (FOR E.G. VEHICLE TO GRID) AND A CRADLE TO GRAVE APPROACH

TRANSPORT SECTOR



INVESTMENT IN GREEN TECHNOLOGY, INNOVATION AND R&D FOR RESOURCE-EFFICIENT ECONOMIC GROWTH

INDUSTRIES AND CORPORATES

INCULCATION OF SUSTAINABLE AND RESILIENT PRODUCTION AND CONSUMPTION PATTERNS BY ADOPTING A DECENTRALISED AND PEOPLE-CENTRIC APPROACH

COMMUNITY AND LIVELIHOODS



FOCUS ON CIRCULARITY OF RESOURCES BY REDUCING THE TRANSACTION COSTS INVOLVED IN 'REDUCE, REUSE AND RECYCLE'

RESOURCES

The key to sustainability is through inclusive growth, circular economy and global brotherhood. The Conclave aims to initiate this through international policy advocacy by bringing together perspectives from the Government, Industry, Academia and Youth. Further, the Conclave assumes greater importance as its proceedings will be submitted to the COP26 for deliberations and action.

GHANSHYAM PRASAD

Joint Secretary

Ministry of Power
Government of India

The Covid-19 pandemic has stressed upon the need for self-reliance or 'atmanirbharta'. The power sector in India has been a strong proponent of this and has taken steps to achieve resilience through launch of a National Power Portal for data management and access, significant measures for resource optimization through economic dispatch of electricity and fostering energy efficiency. Strengthening consumer linkages and R&D in environment friendly practices should be the way forward.

Data is critical for management, analysis and governance of a sector as critical as Energy. Data creates the crucial link between energy and the economy and provides competitive advantage in the industry. The current challenges faced by Indian energy data management agencies include lack of coordination, lack of data and limited access. NITI Aayog is working towards this through newer technologies, creation of common data platforms and improving data quality.

MOHIT BHARGAVA

Head of Renewable
Energy Division, NTPC
Limited
& CEO, NTPC Vidyut
Vyapar Nigam Ltd.

Aligned with the national approach of target-based renewable integration, NTPC, India's premier thermal power producer has adopted the same by committing 30 GW of variable renewable energy by 2030. Newer renewable technologies such as hydrogen based, carbon capture and sequestration and circular economy (fly ash to sand/cement and waste to power techniques) are the key pillars of NTPC's green power ambitions.

GAUTAM RAY

Chairperson

Energy and Environment
Committee, The Bengal
Chamber

RAJNATH RAM

Adviser (Energy)

NITI Aayog

Session I

Towards Green Recovery and Industry Transition

Bringing together Policy Makers and Business Leaders with COP26 Leadership to discuss policy interventions and business models to create roadmap for green recovery

For further details please visit: <https://bit.ly/3c87MTn>

MODERATED BY:

DEB A MUKHERJEE

President Designate

The Bengal Chamber

**KEY
SPEAKERS**

NATALIE TOMS

Director-Prosperity Team
India

British High Commission,
New Delhi

AJAY MATHUR

Director General

The Energy Resources
Institute (TERI)

JOHN MURTON

UK Government's
COP26 Envoy

**MOHAMMAD
HOSSAIN**

Director General- Power Cell
Power Division

Ministry of Power, Energy &
Mineral Resources,
Government of Bangladesh

“ We do not need economic and health crisis to ensure that we have clean air. Technology and economics are already in place to enjoy green growth. ”

JOHN MURTON
UK GOVERNMENT'S COP26 ENVOY

- **NEED FOR GREEN RECOVERY**

- Natural disasters like wildfires in California and Australia, typhoons on the Eastern US Coast, cyclones in Eastern India.
- A global health crisis which has paralysed economies and healthcare systems across the world.
- Rising commercial viability of green technologies and their adoption in industries. For e.g. Solar and hydrogen instead of coke and coal for energy intensive industries like steel and cement.

- **GLOBAL NARRATIVES FOR GREEN RECOVERY**

- UK has reduced overall emissions by 45% over the last 30 years while expanding the economy by 75%.
- Global trade in low carbon goods and services is expected to grow manifold by 2050.
- Indian firms are strengthening the global narrative by setting science based targets for reducing emissions. The strategy is also being adopted by Mahindra Group and others.
- 'Race to Zero' initiatives are being adopted by businesses and non-government stakeholders which pledge that the global temperature rise will not go beyond 1.5 degrees.

- **POTENTIAL AREAS FOR ADOPTION OF GREEN TECHNOLOGY**

- Power Sector: While electricity access to people has increased from 47% in 2009 to 97% in 2020 there is a strong case for parallel enhancement of the share of Renewable Energy Technologies.
- Solarisation of agriculture, cold chain infrastructure and power intensive industries including cement and steel. Simultaneous research and innovation on alternate fuels including hydrogen powered vehicles etc.
- A survey by TERI in Kolkata suggests that there is an economic basis for uptake of electric vehicles, especially in the two-wheeler segment provided that there is sufficient charging infrastructure.

WAY FORWARD

Decarbonisation based on the following pillars

1

ENERGY EFFICIENCY

3

ELECTRIFICATION OF
TRANSPORT

2

DECARBONISATION OF
ELECTRICITY

4

ELECTRIFICATION OF
OTHER SECTORS IN
INDUSTRY AND TRANSPORT

Session II

India Inc. Round Table Towards Green Recovery

Bringing together industries and corporates to chart a green progress map for India

For further details please visit: <https://bit.ly/2FEBCSX>

MODERATED BY:

DEB A MUKHERJEE

President Designate

The Bengal Chamber

STEFAN LOUIS

Chief Executive Officer

Exide Leclanche Energy Pvt.
Ltd

**SUBHASENDU
CHATTERJEE**

Whole Time Director

Haldia Petrochemicals Ltd

**RAGHAV RAJ
KANORIA**

Managing Director

India Power Corporation
Ltd

**KEY
SPEAKERS**

ANNA FRENCH

Deputy Head of DFID
India and Head of the
Urban, Energy and Green
Growth Team

**P K
MUKHOPADHYAY**

Member Secretary

Damodar Valley Corporation

SPECIAL REMARKS:

NIGEL TOPPING

UK Government's High Level Climate
Action Champion

COP26

**RAHUL
TABHANE**

Country Head - India

UK Export Finance

**DEEPAK
AMITABH, IRS**

Chairman and Managing
Director, PTC India
Limited

“As China has taken advantages in business of EV, solar and wind technologies; Indian enterprises have an opportunity to do the same and more.”

NIGEL TOPPING

UK GOVERNMENT'S HIGH LEVEL CLIMATE ACTION CHAMPION, COP26

- **PREDICTING THE DISRUPTIONS**

- A failure to collectively imagine the impediments of climate crisis has led to sub-optimal efforts to curb its negative impacts. What is presumed to be an incremental process, disruption through innovation, however happens exponentially.

- **ELECTRIC VEHICLES IN INDIA**

- In the Indian context, the falling prices of batteries globally has tipped the scales towards electric vehicles.
- Future of EVs in India seems bright with 20-30% of all four-wheelers envisioned to be electric in the next few years.
- Need of the hour is active policy support and adequate enabling infrastructure for charging.

- **GREEN RECOVERY IN OTHER CARBON-INTENSIVE INDUSTRIES**

- Akin to the transition in the transport sector, other carbon-intensive sectors are also adopting emission reduction targets while maintaining their growth trajectory.
- Haldia Petrochemicals which has CO₂ emissions of 0.2 tonnes per annum is adhering to preventive measures such as afforestation and has planted 0.2 million trees across 160 acres of land, towards this end.

- **CLEAN ENERGY TRANSITION IN POWER SECTOR**

- While India's GDP is expected to take a hit due to the Covid-19 pandemic and nationwide lockdown, the Power sector has exhibited resilience throughout. In particular, renewable energy (RE) has shown significant potential by contributing to almost 20-25% of supply on some days in the month of May and June in states like Maharashtra and Karnataka. This highlights the future investment potential of renewables.
- In the context of West Bengal, industry players like Damodar Valley Corporation are also giving out tenders for floating solar power plants and rooftop solar construction.
- In another milestone for renewable energy, Kolkata holds the title for being the first city where power trading of 200-250 MW took place.

WAY FORWARD

Planned strategies for green recovery

1

INPUT, INNOVATE AND
INITIATE FOR GREEN
RECOVERY

Businesses and Carbon Intensive
Sectors

3

SHARING AND POOLING OF
RESOURCES

Financial and Non-Financial

2

DECARBONISATION,
DECENTRALISATION AND
DIGITISATION

Power Sector

4

COMPREHENSIVE 'CRADLE
TO GRAVE' APPROACH

Recycling of Batteries in EVs

Session III

Kolkata Virtual Sustainable Action Dialogue of WSDS 2021 - Driving Post Covid Economic Growth Through Resource Efficiency

Bringing together Stakeholders to focus on resource efficiency in the context of regeneration from COVID-19

For further details please visit: <https://bit.ly/3mkOSip>

MODERATED BY:

AJAY SHANKAR

Distinguished Fellow

The Energy Resources
Institute (TERI)

**SOUVIK
BHATTACHARJYA**

Associate Director -
Integrated Policy Analysis
Division

The Energy Resources
Institute (TERI)

SESSION CONCLUSION:

AJAY MATHUR

Director General

The Energy Resources
Institute (TERI)

**SADHAN KUMAR
GHOSH**

Professor, Mechanical
Engineering & Chief
Coordinator, Centre for
Sustainable Development
and Resource Efficiency
Management, Jadavpur
University

DEB A MUKHERJEE

President Designate

The Bengal Chamber

DIVYA TIWARI

Chief Executive Officer
Saahas

KEY SPEAKERS



RACHNA ARORA

Deputy Team Leader
(EU-REI Project)

GIZ

WSDS PRESENTATION:

**ANNAPURNA
VANCHESWARAN**

Senior Director - Communication
Outreach and Advocacy Unit

The Energy Resources
Institute (TERI)

**VEENA
SAHAJWALLA**

FAA FTSE HonFIEAustCPEng, ARC Laureate
Fellow,
Director, ARC Green Manufacturing Research
Hub, Director, NSW Circular, Director, Centre for
Sustainable Materials Research & Technology
Faculty of Science, University of New South
Wales (UNSW)

“The pandemic has led to resilient, smaller supply chains, reducing costs and wastage in the process.”

SADHAN KUMAR GHOSH

**PROFESSOR, MECHANICAL ENGINEERING & CHIEF COORDINATOR, CENTRE
FOR SUSTAINABLE DEVELOPMENT AND RESOURCE EFFICIENCY MANAGEMENT
JADAVPUR UNIVERSITY**

- **THE KEY TO BUILDING RESILIENT SUPPLY CHAINS IS TO FOCUS ON AND SUPPORT THE LOCAL ECONOMY**
 - The Covid-19 pandemic has brought to light the importance of building resilience across the economy for coping with disasters, natural or man-made.
 - In order to build resilience the key focus should be on localisation. As the economy and consumption patterns move towards decentralisation there will be an increase in livelihood opportunities and resource efficiency.
- **RESOURCE EFFICIENCY AND CIRCULAR ECONOMY LEAD TO HIGHER PRODUCTION AND LOWER COSTS**
 - The pandemic has redefined resource use and reuse and reiterated the need for circularity.
 - Circularity of resources build efficiency while reducing costs, thus leading to better economic outcomes. A truly circular economy can be achieved through sustainable consumption and production across the spectrum.
 - Development of microfactories is one such example where locally produced wastes can be up-cycled to cater to local needs. This will foster a move from 'economies of scale' to 'economies of purpose'.
 - Quality is an important consideration which can be tackled through certification of waste material.
- **POLICIES FOSTERING REUSABILITY, CIRCULARITY, INCLUSIVITY AND DECENTRALIZATION**
 - As a primary step towards policy changes, linkages should be established between public health, environment and natural resources.
 - Following that, Government and private stakeholders should collaborate to explore partnerships for fostering resource efficiency and spreading awareness.
 - Steps taken by the Central and State Governments towards this end include:
 - Draft National Policy on Resource Efficiency
 - State-level resource efficiency strategies (Goa)
 - Sectoral resource efficiency strategies

WAY FORWARD

Tackling the pandemic by focussing on circular economies and local supply chains



INVESTING IN GREEN
TECHNOLOGY AND
INVENTIONS FOR
SUSTAINABLE
DEVELOPMENT



ADOPTING A PEOPLE-
CENTRIC APPROACH FOR
INCLUSIVE GROWTH



SHORT TERM PLANNING
AND REDEPLOYMENT OF
RESOURCES, TALENTS AND
INFRASTRUCTURE



REDUCTION IN
TRANSACTION COSTS FOR
'REDUCE, REUSE AND
RECYCLE'

Session IV

Round Table Discussion on Sustainable Energy Security for the Sub-Continent

The Energy Sector in SAARC Countries is at the front line of global climate change concerns due to its high dependence on fossil fuels. Transition from conventional to renewable energy sources will be key to maintaining energy security in the future. For India it is coal to renewable, Bangladesh gas to renewable, Bhutan hydro to other sources of renewable and Nepal from hydro and biomass to other sources of renewable.

For further details please visit: <https://bit.ly/2FsapTV>

MODERATED BY:

**ARUN M
MUKHERJEE**

Mentor, Energy and
Environment Committee

The Bengal Chamber

**KEY
SPEAKERS**

KULMAN GHISING

Managing Director
Nepal Electricity Authority

SHAFIQUE UDDIN

Managing Director
West Zone Power Company
Bangladesh Power Development Board

SONAM TOBJEY

Chief Executive Officer
Bhutan Power
Corporation Limited

“It is encouraging that for maintaining sustainable growth of all, countries in the sub-continent are collaborating with each other and cross-border trading as a part of ensuring energy security.”

ARUN M MUKHERJEE

MENTOR, ENERGY AND ENVIRONMENT COMMITTEE, THE BENGAL CHAMBER

- **NEPAL**

- Electricity generation powered by mostly hydro power plants, stands at an installed capacity of 6000 MW with an unexploited hydro potential of close to 43 GW. Additionally, wind energy potential is also around 3000 MW, which remains largely unexploited.
- Cross border transmission from India happens from different points through a 400 KV line. 11 such transmission lines are also in the pipeline in the subcontinent.

- **BANGLADESH**

- 96.7% of the total generation is from fossil fuels.
- In renewable energy solar is the maximum at 64% followed by hydro at 36%. Though the country has potential for further solar development it faces land constraints due to high population density. There are plans to increase the solar power by installation of solar panels in educational institutions, government offices and public buildings.
- Bangladesh envisions universal, cost effective and affordable access to quality electricity by 2021. This is expected to be a catalyst for developing livelihoods and building resilience with an emphasis on self-employment activities, thus empowering households and industries.
- Between 2009 and 2019 structural reforms have been made which has led to increased peak demand, transmission capacity, number of consumers, per capita consumption and number of irrigation consumer pumps.

- **BHUTAN**

- Total generation is 2326 MW, 71% of which is exported to India. Currently, 900 MW of hydro power projects are under progress and overall the country is carbon negative.
- Achieving rural electrification by 2020 was made a priority by the Peace, Prosperity and Happiness Document published in 1999 and was realised by 2005. From 20% coverage and 27,000 customers in 2002 Bhutan has achieved 99.99 percent coverage in 2020 with 1,20,000 customers.
- With increased demand Bhutan is venturing into solar with its pilot 180 KW plant and 600 KW pilot wind power generation project, funded by Asian Development Fund.

WAY FORWARD

Renewable energy and smart technologies are the key to the future of power

1

SUSTAINABILITY STUDIES FOR EXPLOITATION OF NEPAL'S HYDROPOWER POTENTIAL NEED TO BE ANALYSED AND IMPLEMENTED

NEPAL

2

RENEWABLE ENERGY SCALABILITY IN BANGLADESH NEEDS TO BE EXPLORED ALONG WITH PREPARATION OF PLANS FOR SHORT TERM AND LONG TERM ENERGY ACCESS

BANGLADESH

3

IN A POST-COVID SCENARIO THE EMPHASIS SHOULD BE ON GRID SYNCHRONIZATION, GRID AUTOMATION AND UTILISATION OF SMART TECHNOLOGIES IN THE POWER SECTOR

BHUTAN

DEB A MUKHERJEE

President Designate

The Bengal Chamber

The first day of the 13th Environment and Energy Conclave has facilitated meaningful discussions on green growth, energy security and transition to clean energy. It has also witnessed a brainstorming on post-Covid recovery through resource efficiency. The second day aims to take this forward by discussing strategies for a resilient and sustainable Sunderbans, and the nuances of E-mobility transition in India. It also plans to bring together the voices of the youth for sustainable development.

West Bengal is in a leading position in the power map of the country, with optimal coverage of rural electrification, quality and reliable power supply across the state and Kolkata as a front-runner in terms of E-mobility and power performance. However, with climate change altering the course of our lives, the way forward is collaborative solutions combining multiple sectors of the economy such as power and transport.

LIBBY GREEN

Head of Prosperity
(Climate, Energy,
Urban, Ease of Doing
Business, Financial
Services)

British High Commission
New Delhi

The COP26 discussions are going to be based on five key themes - clean transport, clean energy, nature-based solutions, adaptation and resilience and finance. UK has made considerable efforts towards low-carbon growth and now envisions working in close partnership with India to find out the best possible solution for climate change. A key stakeholder for fostering this is the private sector, which must be actively involved to increase the pace and scale of clean, green and resilient economic growth.

Utilisation of alternate sources of energy for power generation is the need of the hour as well as a key objective of the COP26 discussions. To that end, West Bengal has hiked up solar-based generation from 2 MW to 130 MW in the last four years and plans to expand it to more than 300 MW in the next one year. Hydel power generation is also being promoted in the state with the 1000 MW Turga Pumped Storage project being a model initiative. Additionally, state-driven E-mobility initiatives are on the rise in Kolkata with the introduction of E-buses and setting up of charging infrastructure. In light of the current pandemic the need of the hour is for industries to use this as an opportunity to shift the focus on EVs as an endeavour to reduce pollution and generate employment.

GAUTAM RAY

Chairperson

Energy and Environment
Committee, The Bengal
Chamber

**SOBHANDEB
CHATTOPADHYAY**

Minister-in-Charge,
Department of Power

Government of West
Bengal

Session V

Climate Resilient Strategies for Vulnerable Sunderbans

Focussing on creation of a Water-Energy-Food Nexus system as part of a Disaster Management and Adaptation Programme for Sunderbans region to address its vulnerability due to climate change

For further details please visit: <https://bit.ly/3mmKgGA>

MODERATED BY:

**ALOKE
MOOKHERJEA**

Past President

The Bengal Chamber

**KEY
SPEAKERS**

**JAYANTA
CHAKRABORTY**

Senior General Manager,
Indofil Industries Limited and
Co-Chairperson, Agriculture &
Rural Development
Committee, The Bengal
Chamber

**DEBALINA
SENGUPTA**

Associate Director, TEES Gas
and Fuels Research Center;
WEF Nexus Coordinator,
Texas A&M Energy Institute

ANDY LARGE

Director
UKRI GCRF Living Deltas
Research Hub
School of Geography,
Politics and Sociology
Newcastle University

**A ANURAG
DANDA**

Senior Visiting Fellow
Observer Research
Foundation

ALEXEI LEVENE

Co-founder
Desolenator

“Research has shown that when humans allow deltas to return to a fundamentally dynamic state, resilient systems re-emerge. Future policy approach should therefore recognise an explicit role for ecosystem infrastructure and ecosystem services in delta disaster management approaches.”

ANDY LARGE

DIRECTOR, UKRI GCRF LIVING DELTAS RESEARCH HUB
SCHOOL OF GEOGRAPHY, POLITICS AND SOCIOLOGY, NEWCASTLE UNIVERSITY

- **UNIQUE CHARACTERISTICS OF DELTAS: WHY THEY REQUIRE A DIFFERENT STRATEGY**

- The Sunderbans, the world's largest delta located on the confluence of Ganga, Brahmaputra and Meghna and spreading across India and Bangladesh, is home to 3.5 million people and a vast range of biodiversity.
- The characteristics of the Delta are not homogenous and hence the vulnerabilities are multifaceted ranging from food and water risks to uncertain livelihoods. Thus a one-size-fits-all strategy is not the key to tackling the diverse risks faced by the delta.
- A key characteristic and challenge of deltas is the volatility of land which makes it difficult for it to be monetised.

- **CLIMATE RESILIENCE Vs DISASTER RESILIENCE: A MITIGATION STRATEGY**

- Climate change makes the Sunderbans prone to natural disasters. Potential climate change risks for the delta include rise in sea level, storm surges, increase salinity of agricultural lands, prolonged & severe flooding and contamination of drinking water sources.
- Current response strategies have mostly been ad-hoc and targeted towards building disaster resilience rather than climate resilience.
- Need for the hour is to adopt long term adaptive solutions which will help build resilience for the delta ecosystem as a whole.

- **STRATEGIES FOR BUILDING A CLIMATE RESILIENT SUNDERBANS**

- Nature based solutions are the way forward for building climate resilience. A combination of accommodative, protective and retreat based mitigation strategies will help attain the objective.
- A step towards targeted mitigation is building disaster resilient food-energy-water nexus systems. For e.g. building state-of-the-art desalination systems by using Resilient Systems Engineering.
- Focusing on the local system and building community partnerships and innovative technology is the key to decentralised resilience building. 'Desolenator' is one such innovative mitigation measure which combines green technology, disaster resilience and community based ownership for scalable and sustainable drinking water supply.

WAY FORWARD

Strengthening local capacities and implementing targeted interventions for tackling climate risks

1

ADOPTING LAND SHAPING
TECHNIQUES AND NATURE-
BASED SOLUTIONS

3

FOCUSSING ON
COMMUNITY-BASED
INTERVENTIONS AND
EQUITABLE PARTNERSHIPS

2

EXPLORING ALTERNATIVE
LIVELIHOODS AND BUILDING
CAPACITIES FOR THE
POPULATION AT RISK

4

DEVELOPING LONG TERM
STRATEGIES FOR RISK
MITIGATION AS OPPOSED
TO AD-HOC
REHABILITATION
EFFORTS

Session VI

E-MOBILITY FORUM

Bringing together stakeholders for discussing the promotion of zero-emission mobility using EVs as a smart solution for a sustainable environment

For further details please visit: <https://bit.ly/2GZYo8H>

MODERATED BY:

ANIRBAN GHOSH

Chief Sustainability Officer

Mahindra Group

VEDANTHA KUMAR

Head of Transport and
Industry

International Climate
Strategy (COP26)

S GOPAL

Managing Director

Energy Efficiency Services
Limited

**KEY
SPEAKERS**

HEMANG SHAH

India Head

EO Charging India

UDAI S MEHTA

Deputy Executive
Director

CUTS International

DEBASHIS SEN

Chairman -WBHIDCO &
Additional Chief
Secretary

Government of West
Bengal

**PRABHAT KUMAR
MISHRA, IAS**

Principal Secretary

Department of Transport
Government of West
Bengal

**PRABODH
BAJPAI**

Associate Professor -
Electrical Engineering,
Energy Science and
Engineering

IIT Kharagpur

**HAIMANTI
PODDAR**

Senior Energy, Climate Change &
Urban Adviser, Prosperity Team-
UK Trade, Economics and
Prosperity, British Deputy High
Commission, Kolkata

“A participatory and consultative policy planning and implementation process with active inputs from key stakeholders in the EV ecosystem and support from research organisations is the way forward for E-mobility.”

UDAI S MEHTA

DEPUTY EXECUTIVE DIRECTOR, CUTS INTERNATIONAL

- **POTENTIAL OF E-MOBILITY**

- 80% of India's vehicle fuels are dependent on imports.
- India's target to achieve 30% EVs by 2030 is going to save 474 MT of oil imports and 846 MT of CO2 emissions.

- **EXISTING EFFORTS BY THE STATE FOR E-MOBILITY TRANSITION**

- In addition to the incentives and subsidies under the FAME scheme of the Department of Heavy Industries, EESL is also actively installing charging stations across the country, with a target of 10000 charging stations in the next three years.

- **CHALLENGES FOR E-MOBILITY**

- Regulatory uncertainties and structural barriers like limited choice, unavailability of required EVs in India, high upfront costs, lack of charging infrastructure and after-sales services are drawbacks for the EVs to prosper.

- **IMPACT OF EVs ON THE POWER GRID**

- Newer technologies, in particular EVs are poised to play an important role in increasing the flexibility of the power systems as they will act as both source and sink of electricity.

- **ENABLING INFRASTRUCTURE FOR EVs**

- Within the next few years charging infrastructure is expected to be in place in India with installation of adequate chargers per EV and amendment of building codes for setting up of public charging stations.

- **EXAMPLES FROM WEST BENGAL**

- Rajarhat in West Bengal is a pioneer in the state in terms of E-mobility adoption, with the introduction of E-buses and E-3W for public transport and provision of all necessary enabling infrastructure. The city has been awarded with the platinum rating by the Indian Green Building Council. Further the Government has pledged that by 2030 all buses plying in the state will be electric, and are taking steps towards that commitment.

EV GENERATED WOMEN EMPLOYMENT IN RURAL INDIA: AN INSPIRING TALE

- During Prince Charles's visit to India, on November 13, 2019 to promote E-mobility, he had taken a ride on an electric auto rickshaw in Delhi.
- A 24 year old girl, Maria, was the driver who lived in a village 20 kms. away from Allahabad and had never earned more than 4000 rupees per month.
- Now, by driving an electric auto rickshaw she earns approximately rupees 20,000 per month and simultaneously provides the last mile connectivity in her village.
- She has influenced others in her village and almost sixty women are driving E-rickshaws and deriving livelihoods out of this green venture.



Source: Outlook India

WAY FORWARD

Using an ecosystem approach for fostering E-mobility transition

1

CORPORATE PLEDGES AND CAMPAIGNS

EV100 campaign and C40 pledges

3

RESEARCH AND DEVELOPMENT INITIATIVES IN INFORMATION AND COMMUNICATION TECHNOLOGY

Charging and discharging in the Vehicle-to-Grid (V2G) mode and app based solutions

2

KNOWLEDGE PARTNER FOR EV POLICIES

For planning, design, implementation and monitoring. E.g. Dialogue and Development Commission

4

MULTILATERAL COOPERATION FOR KNOWLEDGE EXCHANGE

UK-INDIA, Utah-Rajasthan etc

Session VII

YOUTH FORUM: #GREEN

Bringing together youths from different countries with their perspectives on 'Sustainability'

For further details please visit: <https://bit.ly/3hrADmA>

MODERATED BY:

**PAULINE
LARAVOIRE**

Sustainability Director, Techno India
Group, Founder, Y-East, Curator, Offbeat CCU and
Director, Technopreneurs' Surrogate Ventures

**KEY
SPEAKERS**

**BONU RAMESH
NAIDU**

India

**SRIJAN
MUKHOPADHYAY**

India

**MEHERUBA
MAHBUB**

Bangladesh

**MOHAMEDSUFIIYAN
CHALLIWALA**

USA

**MICHAELA
SAMANTA**

Indonesia

**AREEYA
TANDUKAR**

Nepal

“It is essential to provide the opportunity to the youths to express their knowledge, ability and skill in their own profession/subject to be able to contribute to sustainability. They need the resources to travel across borders and create a stronger collaboration(s) to drive the agenda of sustainable development.”

MICHAELA SAMANTA
INDONESIA

- **SUSTAINABLE DEVELOPMENT**

- Sustainable development goes beyond resource sharing and requires informed decisions for adopting solutions that maximise the efficient use of natural resources.
- The need of the hour is to balance consumption patterns so as to give back to the Earth what is being taken away from it.

- **POLICY CHANGES**

- In order to facilitate a collective approach towards sustainable practices there is a need for policy support on short term closure of economic activities, promotion of renewable energy and development of a circular economy.

- **PRACTICE CHANGES**

- Micro level sustainable practices need to be adopted for bringing about a long term macro change. Individual consumption patterns need to be revised and clean energy uptake needs to be promoted at the individual level.
- Key changes need to be made in terms of educating the youth about climate change and the need for sustainable development.

- **GIVING VOICE TO THE YOUTH**

- Currently the role of the youth in climate policy decisions is limited. Further, there are entry barriers for young start-ups and the absence of a global platform for the collective voice of the youth.
- For ensuring sustainable growth and development it is imperative that the future generation be involved in the decision making process.

- **COMMUNICATION STRATEGY**

- Communication is key to informing consumers about how their choices impact the climate. Media is a potent tool which needs to be utilised for taking the concept of sustainable development to the masses.

WAY FORWARD

Collective action and voice for taking forward the concept of sustainability

1

IMPLEMENTING
BEHAVIOURAL CHANGES AT
THE INDIVIDUAL LEVEL

3

INVOLVING THE YOUTH IN
CLIMATE POLICY DECISIONS

2

INVESTING IN GREEN AND
CLIMATE RESILIENT
TECHNOLOGY

4

INVESTING IN EDUCATION
AND AWARENESS
GENERATION FOR ALL

THANK YOU



THE BENGAL CHAMBER

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