

# Energy Matters January- March 2024

A newsletter from Shakti Sustainable Energy Foundation delivering articles and writeups on relevant issues, its various engagements towards enabling climate change solutions and development positive outcomes in collaboration with policy makers, civil society, academia, and industry.

### Role of Building Material Industry in Achieving Low Carbon Growth

With rapid urbanisation and industrialisation, the industry sector is poised for substantial growth given flagship initiatives including Make in India, *AtmaNirbharBharat*, Housing for All, Smart Cities, etc., that are expected to promote manufacturing in the country. Estimates suggest that about 70% of India's infrastructure is yet to be built. In the next two decades, the total residential floor space is expected to see a massive increase from 20 billion sq. m to 50 billion sq. m. (IEA, 2021). This indicates huge opportunities to save embodied emissions from the whole life cycle of building materials or other products.

Sakshi Nathani, Programme Manager, Industry, Buildings and Cooling Programme at Shakti writes in Society of Energy Engineers and Managers (SEEM Magazine).

### Union Government Should Consider Inclusion of ZEVs as Part of Phase Out Policy for Ice Trucks

The Supreme Court's recent directive to the Ministry of Road Transport and Highways (MORTH) to formulate a policy for phasing out heavy-duty diesel vehicles and replacing them with Bharat Stage VI (BS VI) vehicles is a welcome step in the right direction. With air pollution being a compelling issue in India, this can also be an opportune time for the Government to build a momentum towards advancement and adoption of Zero Emission Vehicles (ZEVs). With the gradual elimination of heavy-duty vehicles, it may be advantageous for MORTH to include ZEVs as part of its policy intervention. We would like to elaborate some important points in favour of this suggestion.

Priyadarshini Alok, Programme Manager, EMI at Shakti, writes in Energyworld.com from The Economic Times.

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#### Critical Minerals – these are India's initiatives to strengthen the value chain and future opportunities.

India has taken some commendable steps and initiatives at national and international levels to increase country's participation in critical minerals and clean energy value chain, write CEEW's Rishabh Jain and Shakti's Vivek Chandran in article published by cnbctv18.com on Mar 15, 2024.



### FOCUS

Shakti is part of several important initiatives that are of special interest in the current ecosystem. In this section, we focus on some interesting and impactful areas where Shakti is providing support, expertise, and knowledge.

#### Bihar Climate Action Conclave: Empowering Change for a Greener Tomorrow

The Bihar Climate Action Summit, a collaborative effort between Shakti, UN Environment Programme (UNEP), World Water Institute (WRI) India, Council on Energy, Environment and Water (CEEW), and Confederation of Indian Industry (CII) convened under the theme 'Empowering Change for a Greener Tomorrow.' The initiative received support from various deepdive partners, including Research Triangle Institute (RTI) for Energy, Development Alternatives (DA) for Industry, and ICLEI for Waste Management on March 4, 2024, in Patna, Bihar. The Conclave was a gathering of experts, stakeholders, policymakers, and practitioners to discuss climate strategies tailored to Bihar's context.



#### Shakti Signs MoU with National Institute of Advanced Studies (NIAS)

Shakti signed an MOU with NIAS Bengaluru on January 15, 2024, for a period of five years. Under this agreement, Shakti and NIAS have agreed to cooperate in the fields of climate and clean energy, or any other inter-sectional area as may be mutually agreed, including research and studies, academic exchange, and interaction to build data and evidence, knowledge, and information, communication, and practice.

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Dr Sailesh Nayak, Director, NIAS, Prof. Ajay Sood, Principal Scientific Adviser to the Government of India, and Ms Vatsala Joesph, Interim CEO & CFO, Shakti (3rd, 4th and 5th from left) at signing of MoU

#### Shakti Signs MoU with Goa Energy Development Agency (GEDA)

Shakti signed an MoU with GEDA on February 8, 2024 to foster collaboration to expedite the deployment of Renewable Energy in the State of Goa. The long term objective of this agreement is to achieve ambitious climate goals, notably transitioning to 100% REbased electricity supply in Goa by 2050.



Hon'ble Chief Minister of Goa, Dr Pramod Sawant (2<sup>nd</sup> from left), witnessed the signing of the MoU

## CONVENINGS

Shakti believes in bringing together stakeholders from different arenas to enable them to work together, analyse problems, explore solutions, encourage innovative thinking and engage with them to help catalyse effectiveness towards a more sustainable future. In this Newsletter, we showcase some key Convenings organised by Shakti that resulted in impactful and positive discussions.

#### **Annual Work Planning 2024**

During Shakti's Work Planning Workshops for 2024, held in January and February, 2024, the Programme teams organised several important Convenings that were a congregation of experts from leading think tanks, academic institutions, and various subject matter experts etc. to collectively brainstorm and deliberate on opportunities to harmonise ongoing efforts with India's low-carbon growth.

### Strategic Roundtable on Milestones for India's Energy and Food Systems Transition

Shakti's 'Strategic Roundtable on Milestones for India's Energy and Food Systems Transition' at New Delhi, was a prelude to the Annual Work Planning Workshop 2024. The participants included senior members of Shakti's partner organisations and stakeholders who gathered to explore and discuss what India's updated NDCs should look like from an economy-wide and sectoral perspective.



#### **Critical Raw Material Programme**

#### Critical Raw Materials for Low Carbon Technologies

A two-day workshop on 'Critical Raw Materials for Low Carbon Technologies' was organised in New Delhi as a collaborative effort among Shakti, Council on Energy, Environment and Water (CEEW), Centre for Social and Economic Progress (CSEP), Indian Council for Research on International Economic Relations (ICRIER) and the International Institute for Sustainable Development (IISD). The objective of the workshop was to delve into India's potential strategies for harnessing Critical Raw Materials and to enable a sustainable low-carbon energy transition.



Secretary, Ministry of Mines, Shri B. L. Kantha Rao delivering the keynote address

#### Read more

#### Clean Power Programme

The Clean Power team organised five convenings as part of Work Planning Workshop 2024. These session witnessed the presence of representatives from various sectors including CSO partner organisations, academia, industry experts, and consulting partners. They served as an significant platform for a crucial conversations on various aspects of Clean Power.



The Convenings were held on the following topics:

Navigating Wind Energy Opportunities in India Utilities and Power Market Reforms State-Level Clean Energy Transition Initiatives Future of Distributed Renewable Energy in India Identifying Barriers and Shaping the Future for High RE Pathways

### Climate Policy and Climate Finance Programmes

### Sub-National Action on Climate Change

The primary objective of the workshop on 'Sub-National Action on Climate Change' hosted by the Climate Policy team of Shakti was to assess the advancements achieved across different projects within the programme and explore additional areas for the development of a resilient low-carbon pathway at the sub-national level.







#### Transitional Finance: Enabling low-carbon Transition in India

Climate Finance team of Shakti organised a convening on 'Transitional Finance: Enabling low-carbon transition in India, the aim of which was to assess the transition finance landscape in the country, identify areas that require near and long-term philanthropic support, and identify key solutions that can deliver a high-impact output.

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#### Modelling Long Term Low Carbon Pathways

A workshop on 'Modelling Long-Term Low Carbon Pathways' by the Climate Policy team was organised to assess the advancements achieved across different projects within the programme, identify challenges encountered by partners, and explore additional areas for the development of a resilient low-carbon pathway.



#### Industry, Buildings and Cooling Programme

#### Decarbonising the Built Environment

Industry Building and Cooling Programme team organised a Stakeholder Planning Workshop where 16 organisations and 18 participants from CSO organisations, consultancies, think tanks, academia, and subject matter experts gathered to deliberate on key challenges and opportunities related to addressing embodied carbon through whole lifecycle emissions, low-carbon building materials, and technologies.



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#### Pathways to Sustainable Cooling in India

In this workshop, various subject matter experts deliberated on key challenges and opportunities in operationalising India's Cooling Action Plan (ICAP) recommendations at the subnational level, specifically in space cooling within buildings and the sustainable cold value chain.

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#### ACCLIMATE Training Week: Empowering CSOs for Effective Climate Action

Shakti facilitated a week-long technical training at the Bankers Institute for Rural Development (BIRD) Campus in Lucknow, for the recipients of the ACCLIMATE Challenge Fund where the primary focus was to enhance the capacities of the winners of the ACCLIMATE Challenge Fund in addressing the impacts of climate change.



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## CENTRESTAGE

As a thought leader and respected knowledge partner, Shakti team members are invited to participate and share their thoughts at various important platforms, events, and discussions. This is a recognition of their expertise and knowledge in a vast variety of topics. In this newsletter, we showcase some of the prime events where Shakti team participated.

#### Interaction with Honourable Finance Minister on Panchamrit Strategy

Shakti was invited to be part of a meeting with the Honourable Finance Minister, Smt. Nirmala Sitaraman, to discuss the way forward for India's Panchamrit Strategy towards achieving India's Net Zero goal. Dr Ashvini Kumar, Advisor to Shakti, attended the meeting and And shared his thoughts on the subject with other participants and the FM.



Hon'ble Finance Minister, Srimati, Nirmala Sitharaman, interacting with a group of experts at an informal round-table

#### **IGFE Green Awards**



Shri Nitin Jaikumar Gadkari, Hon'ble Union Minister of Ministry of Road Transport and Highways, Government of India with Dr Ashvini Kumar of Shakti, chair of the jury panel

Dr Ashvini Kumar, advisor to Shakti, was invited to come on as jury member for the Indian Federation of Green Energy (IFGE) Awards. The jury is made up of domain experts from the green energy sector, nominated by various ministries, departments, agencies, industries, and media experts.

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#### Developing Power Market Derivatives for the Indian Power Sector



IIT Kanpur, in collaboration with Center for Energy Regulation (CER) and Energy Analytics Lab, organised a Stakeholder Consultation Workshop on 'Developing Power Market Derivatives for the Indian Power Sector' on March 1, 2023. Siddharth Arora, Associate Director, Clean Power, Shakti, participated in the panel, comprising representatives from the Central Electricity Authority PTC India Ltd, Indian Energy Exchange, and EY Parthenon, that explored the theme 'Identifying Risks and Hedging Avenues in the Indian Power Market: Role of Derivatives'.

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#### Tamil Nadu Climate Summit 2.0: Charting a Path Towards Sustainability



Shubhashis Dey, Director, Climate Policy and Climate Finance, Shakti, had the honour of releasing a report 'Baseline study on Rehabilitation of Coastal Habitats for climate change adaptation through eco–friendly solutions' prepared by National Centre for Coastal Research for Department of Environment and Climate Change, Government of Tamil Nadu during Tamil Nadu Climate Summit 2.0.

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#### Sustainable Transition for Future-Ready Jharkhand



The Task Force on Sustainable Just Transition in collaboration with Government of Jharkhand, Center for Environment and Energy Development (CEED), and United Nations Development Programme (UNDP), organised an international conference on 'Sustainable Transition for Future-Ready Jharkhand'. Anuradha Saigal, Programme Manager, Climate Policy, Shakti, participated in a session on 'Sustainable Energy Transitions: Envisaging the Strategic Shift to meet Climate & Net Zero Goals.'

Sustainable Transition for Future-Ready Jharkhand Global Perspectives and Learnings for Climate Resilient Growth



WRI India, in collaboration with Government of Jharkhand, Center for Environment and Energy Development (CEED), and United Nations Development Programme (UNDP) organised a conference on 'Sustainable Transition for Future-Ready Jharkhand: Global Perspectives and Learnings for Climate Resilient Growth'. Balaji R, Senior Programme Manager, Electric Mobility, Shakti, moderated a session on 'Revolutionising Transport: Steering Towards Sustainable Mobility' at the two days International Conference.

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#### Apprise the Key Stakeholders about the HSBC led- Hydrogen Economy Initiative



Bansi Shukla, Senior Programme Manager, Industry, Buildings & Cooling, Shakti, participated at the workshop on 'Apprise the Key Stakeholders about the HSBC led- Hydrogen Economy Initiative', organised by Shakti, in partnership with Maharashtra Energy Development Agency (MEDA) and Mahratta Chamber of Commerce, Industries, and Agriculture, Pune (MCCIA). Making Evaluation Heard: Navigating the Evaluation Discourse within the Global South Context



Shakti participated in **EvalFest 2024**, organised by Evaluation Community of India on the theme 'Making Evaluation Heard: Navigating the Evaluation Discourse within the Global South Context' where Ramanshu Ganguly, Associate Director, Climate Insights, moderated a roundtable session on 'Making Evaluation Heard: Navigating the Evaluation Discourse within the Global South Context.'

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### eARTh: Climate Communication for Behaviour Change



Shakti, as part of its knowledge inputs for CSTEP's <u>eARTh</u>. <u>initiative</u> to inspire climate action through art, participated in a 3-day session in Bengaluru with the mentors and fellows selected for the programme. A session on 'Climate Communication for Behaviour Change' was conducted by Atima Mankotia, Director Communications, Shakti, for the mentors and fellows.

#### Enhancing Planning, Institutional Frameworks and Capacities on Adaptation and Resilience



Shakti participated in a panel discussion on 'Enhancing Planning, Institutional Frameworks and Capacities on Adaptation and Resilience' as part of TERI's flagship event, World Sustainable Development Summit. Shubhashis Dey, Director, Climate Policy and Climate Finance, spoke about building resilience in communities for economic prosperity.

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#### Offshore Wind Roadmap Development for the State of Gujarat and Tamil Nadu



The Gujarat Energy Research & Management Institute (GERMI) and ICLEI South Asia jointly organised an Industry Stakeholder's Consultation on 'Offshore Wind Roadmap Development for the State of Gujarat and Tamil Nadu' where Siddharth Arora, Associate Director, Clean Power, Shakti, spoke about the importance of collaboration between key stakeholders from the industry to ensure that diverse perspectives, expertise, and insights are taken into consideration in the planning and development process.

#### Transition Towards Net Zero: Paving the Path for a Sustainable Future



Shubhashis Dey, Director, Climate Policy & Climate Finance, Shakti, Dr Nandini Biswas, Assistant Professor, School of Humanities, K.R. Mangalam University, and Kruthika Jerome, Programme Manager, Climate Finance at Shakti, co-authored a chapter titled 'Responding to Climate Change in BANI world with Climate Finance Measures' in the book titled 'Transition Towards Net Zero: Paving the Path for a Sustainable Future'.

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#### Launch of Framework for Voluntary Carbon Market in Agriculture Sector and Accreditation Protocol of Agroforestry Nurseries



Shubhashis Dey, Director, Climate Policy & Climate Finance, and Kartikey Sharma, Programme Manager, Climate Finance, Shakti, were part of the launch event to drive the initiative aimed at fostering the adoption of Voluntary Carbon Market (VCM) practices within the agricultural sector.

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#### Strengthening Green Financing and Mainstreaming Gender







Shakti in collaboration with Small Industries Development Bank of India (SIDBI), Agence Française de Développement (AFD), Green India Financial System (GIFS), and Greening of Finance by Women (GRoW), organised the Annual Theme Discussions Summit 2024, on 'Strengthening Green Financing and Mainstreaming Gender'. Mr Nitin Desai, Board member of Shakti, inaugurated the event and launched SIDBI's book on financing e-mobility. Shubhashis Dey, Director, Climate Policy & Climate Finance, Shakti participated in the session on 'Lessons learnt of G20 Presidency for the Indian financial sector and perspective + COP28 messages and takeaways in Indian Context'.

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### The Future of Vehicles: An Electric Horizon



The Transport Department, Government of Bihar, Bihar State Pollution Control Board (BSPCB), and WRI India organised 'Bihar EV Conclave with the theme 'The Future of Vehicles: An Electric Horizon,' where Narayankumar Sreekumar, Associate Director, Electric Mobility Initiative, Shakti, participated in the session themed around 'Importance of State-Driven Action for Accelerating E-Mobility'. Priyadarshini Alok, Assistant Programme Manager at Shakti, spoke on 'Navigating Tomorrow's Cities: Public Transport for a Cleaner, Greener Future'.

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#### Strengthening the DRE Ecosystem: Focus on Rural Livelihoods in North-East Region



Amit Kumar Singh Parihar, Director, Clean Power, Shakti, moderated a session on 'DRE for Climate-Ready India' during the workshop on Strengthening the DRE Ecosystem, organised jointly by Clean Energy Access Network (CLEAN) and Water Energy Food Transitions (WEFT) Research LLP on March 9, 2024.

#### Hydrogen Economy: Innovation led Growth in Industrial Clusters



Shakti, in collaboration with Gujrat Power Cooperation Limited (GPCL) and PwC had organised a kick-off consultation workshop to familiarise the key stakeholders about the initiative and further initiate the programme activities for 'Hydrogen Economy: Innovation-led Growth in Industrial Clusters of Gujarat'. Dr Sachin Kumar, Director, Industry Buildings and Cooling, Shakti, moderated a Consultation Session, 'Readiness for adoption of and Pathways to catalyze GH2 uptake in industrial units/ clusters of Gujarat'; Bansi Shukla, Senior Programme Manager, Shakti, highlighting the importance of research in driving Green Hydrogen innovation and Dr Ashwini Kumar, Advisor to Shakti, presented Shakti's initiative supported by HSBC, focusing on India's net-zero emissions target and their efforts to build a wide green hydrogen ecosystem.

#### Development of Decarbonisation Strategies in the Indian States



At a Shakti and Vasudha Foundation co-hosted workshop on 'Development of Decarbonisation Strategies in the Indian States' that brought together relevant stakeholders from the government, industry, civil society, and other experts to deliberate on various aspects of developing low-carbon strategies and pathways tailored to the specific needs of each state, Nidhi Madan, Associate Director, Shakti, set the context for the workshop.

Read more





### **Electric Mobility Initiative**



From ICE to EV: Opportunities and Challenges for Just Transition in Indian Automobile Sector



EV Infrastructure and Green Hydrogen Mobility



| India Smart Utility Week (ISUW)



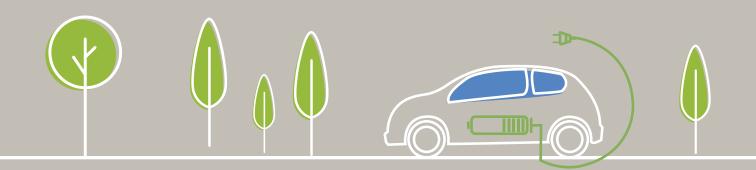
Electrification of Trucks for Cement Sector in India



Revolutionising Manufacturing with Sustainability to Achieve Net-Zero Output across Economic Sectors



| Bihar EV Conclave





Battery Manufacturing & Global Supply Chain



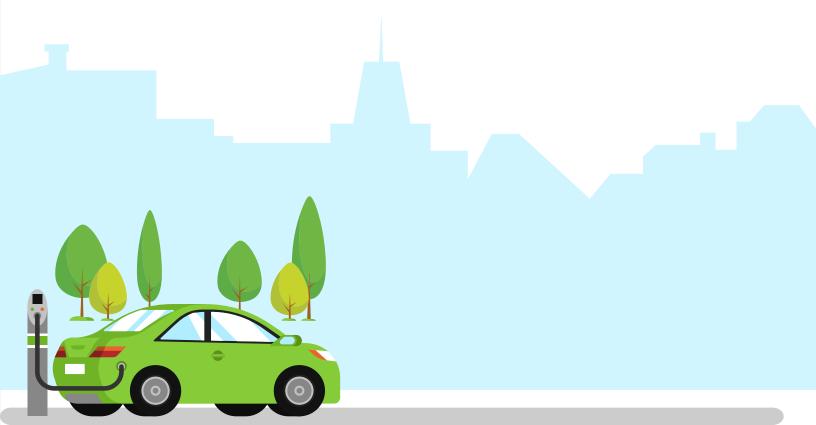
World Sustainable Development Summit (WSDS) 2024



Promotion of Freight Movement through Electric Trucks



Battery Manufacturing and Supply Chain Summit 2024



### INSIGHTS

Shakti is a team of experts who write informative and opinion articles on relevant subjects. This section showcases some of the significant pieces of writing by Shakti team members.

#### Role of Local Leadership in attaining Sustainable Development Goals

The SDGs represent a global agenda; they require local action to achieve them, write Anuradha Saigal & Divya Bawa, of Shakti in an article published in special edition of Terra Green (TERI), Volume 16, February 2024.

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### HIGHLIGHTS

Shakti organises regular activities encouraging participation and engagement of its staff to build a spirit of inclusivity and warmth that is intrinsic to Shakti as an organisation and create a sense of belonging and responsibility towards the organisation's goals and values.

#### International Women's Day 2024 Celebrations at Shakti

Shakti celebrated International Women's Day 2024 on March 8, 2024 when women professionals of Shakti were honoured by Vatsala Joseph, Interim CEO, Shakti.

Read more | Watch video









## **New Joinees**

Tanay Tarany

Joined as Senior Programme Manager– Clean Power



Potluri Bhuvana Manjari Joined as Consultant – Electric Mobility

Ankit Jha Joined as Researcher– Climate Insights







Publications and Knowledge Resource Centre

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