



Energy Swaraj Foundation
Energy by Locals for Locals



अखिल भारतीय तकनीकी शिक्षा परिषद्
All India Council for Technical Education

**Wrapping up on a higher note and
many actions!**



ARE
CONFERENCE & AWARDS

**Actions for Restoring Environment
We Taking Enough Action?**

24-25th November



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1. ARE Conference and Energy Swaraj Awards

The Energy Swaraj Foundation has launched Action for Restoring the Environment (ARE) – Are we taking enough actions? Conference to encourage quantifiable actions. Actions for Restoring Environment (ARE) Conference, organised in collaboration with **All India Council for Technical Education, one-of-its-kind conference, was organised on 24th – 25th November 2022 at Vasant Kunj, New Delhi.** ARE Conference comes as a timely action to bring concerted actions by stakeholders from various walks of life to take consolidated action to mitigate climate change, amidst inconclusive and mixed outcomes of COP27.



The conference saw 8 intensive sessions - each representing one sector of the society followed by the Energy Swaraj Awards which applauded the exemplary efforts by individuals to mitigate climate change, **With 21 Partners and over 35+ speakers on-board**, the ARE Conference engaged **350+ lives who attended the conference physically** and many more who watched the conference in the online mode.

The purpose of the ARE conference was to ask tough questions to everyone that **ARE we taking enough actions?** All the speakers in the sessions conducted so far have been more or less unanimous in accepting that **No, we are NOT taking enough action.**

2. Received the Letter from Honorable Prime Minister of India

It was an honor to see a personal note from **Hon Prime Minister of India Shri Narendra Modiji** for ARE Conference and Energy Swaraj Yatra. This was the highlight of the first day of the ARE Conference.



सत्यमेव जयते

प्रधान मंत्री
Prime Minister

MESSAGE

It is heartening to learn that Prof. Chetan Singh Solanki from IIT Bombay and his Energy Swaraj Foundation, in association with All India Council for Technical Education (AICTE), are organizing "Action for Restoring Environment (ARE)" conference.

While most of the discourse surrounding climate change usually focuses upon stopping the damage on our environment, I am happy that this conference goes a step further and seeks to create a roadmap for restoring our environment.

This mirrors India's own outlook towards our planet as well. There is an element of both, reducing future damage, as well as undoing past harm.

While India has created a mass movement against single-use plastic, it has also been increasing forest cover and restoring rivers to their pristine state.

While we are leading the global movement towards a solar-powered future through the International Solar Alliance, we are also focusing on building the momentum towards an environment-conscious lifestyle through the LIFE movement that cares for the planet.

I am positive that this conference will impart greater strength to many of these initiatives and also come up with innovative action points for every part of society.

I send my best wishes to all those who are involved in this conference.

Further, I am happy to note that Prof. Chetan Singh Solanki has embarked on a journey of 11 years to create awareness on climate change and adoption of solar energy.

I wish him best for the Energy Swaraj Yatra through a solar bus.

(Narendra Modi)

New Delhi

अग्रहायण 02, शक संवत् 1944

23rd November, 2022

3. Our Partners

Mitigating climate change requires creating a public movement for collective action. To create a public movement, one individual or an organisation is not enough. Everyone should come to one platform to synchronise their energies for mitigating climate change. We are really thankful to our partners in endeavour who are supporting us in creating this public movement to tackle the climate crisis.



4. Our Sponsors

We are thankful for our partners to render support for the ARE Conference. Without their support, a conference of this scale would not be possible. Our supporters include:

Platinum Sponsor



Gold Sponsor



Silver Sponsor



5. Agenda of the Conference

There were 8 intensive sessions in the conference, each one representing one particular session of the society. The last session of this two-day conference was the Awards Ceremony. The Agenda of the two-day conference is given below:

Day 1, Thursday 24/11/2022	
Session	Event
9.00-10.00	REGISTRATION
Session 1 10:00 - 11:30	<p>Inauguration of the ARE conference and awards</p> <p>Welcoming Participants and Lighting up Solar Diya - Mr. Venkat Rajaraman Prof. Chetan S. Solanki, Professor, IIT Bombay and Founder, Energy Swaraj Foundation - Need for ARE Conference Dr. Anil Kakodkar, Padma Vibhushan Awardee, Best Wishes for ARE Conference (Recorded Message) Mr. Rajiv Kumar, Member Secretary, AICTE, Special Address Dr. Anjal Prakash, Research Director and Adjunct Associate Professor, Indian School of Business & Lead IPCC Author - Current status of climate change Ms. Siya Kumar, Class 12, Bloom Public School Mr. Atul Bagai, Country-Head India, UNEP -Understanding Climate in Government Context Mr. Anurag Sharma, Director Onshore, ONGC Dr. Ajay Mathur, Director General, International Solar Alliance - Understanding Climate in World Context Address by Chief guest</p> <p>Special Activity: Unveiling of 200 CO2 sacks</p>
11:30 to 12:00	Tea Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)
Session 2 12:00 - 1:30	<p>The Cascading Cycle: Warming world – Rising energy demand – Warming World - ARE We heading the Right Direction?</p> <p>Prof. Satish Agnihotri, Professor, Ex-MNRE, Gol Secretary, Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay Dr. Divya Sharma, Executive Director of Climate Group DDr. Vijay Prakash, Chief General Manager, NTPC Dr. Chintan Vaishnav, Atal Innovation Mission, Niti Aayog Mr. Ajay Mittal, Director, India and South Asia, Earth Day Network Prof. Chetan S. Solanki, Professor, IIT Bombay and Founder, Energy Swaraj Foundation (Panel Moderator) Ms. Gauri Singh, Deputy Director-General, IRENA (Recorded Message) – Thoughts on ARE Conference</p>

	<p>Special Speaker: Ms. Suchismita Sanyal, General Manager - Computational Sciences, Shell - Technology & Digital Innovation Powering Progress</p>
	<p>People who are taking enough actions: Urja Saksharta Abhiyan (USHA), Govt of MP - Shri Sanjay Dubey, PS, Energy and Urja Vikas Nigam, Govt of MP</p>
	<p>Special Activity: Unveiling of Climate Clock</p>
1:30 - 2:30	<p>Lunch Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)</p>
<p>Session 3 2:30 to 4:00</p>	<p>Policies and Programmes to Secure Climate and Energy security to the nation – ARE the Government initiatives pragmatic enough?</p>
	<p>Mr. Amarjeet Sinha, Ex- Advisor to Honorable Prime Minister Dr. Rakesh Sarwal, Managing Director, National Waqf Development Corporation, (Ministry of Minority Affairs) Shri. Lalit Bohra, Joint Secretary, Ministry of New and Renewable Energy Dr. Arunabha Ghosh, Chief Executive Officer, Council on Energy, Environment and Water Mr. Amit Raje, Chairman and Managing Director Aartech Solonics Ltd and Director, Energy Swaraj Foundation (Panel Moderator)</p>
	<p>Special Activity: Launch of Energy Swaraj – Portal for Action and Learning (ES-PAL)</p>
4:00 to 4:30	<p>Tea Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)</p>
<p>Session 4 4:30 to 6:00</p>	<p>Enhancing awareness and preparedness of the climate change to the grassroot level - ARE the NGOs sensitizing the communities enough</p>
	<p>Ms. Karuna Singh, Regional Director, Earth Day Network Ms. Shloka Nath, Chief Executive Officer, India Climate Collaborative Ms. Dia Mirza, UN Goodwill Ambassador Dr. Bunker Roy, Founder, Barefoot Mr. Parag Patankar, Co-Founder & CTO of Covalent Capital and Director, Energy Swaraj Foundation (Panel Moderator)</p>
	<p>People taking enough actions: Running Academic Institutions on 100% Solar Energy - Education Park - Shri. Malak Singh, Education Park</p>
	<p>People taking enough actions: Innovation and Pathway Breaking Technology for Climate Change Mitigation – Mr. Mahesh Godi, Godi Industries</p>
	<p>Special Activity: Launch of E-book (Best Practices in Renewable Energy)</p>

Day 2, Friday 25/11/2022	
Session	Event
9.30-10.00	Registration
Session 5 10:00 - 11:30	Mobilising masses towards Sustainable Actions through Spiritual Sensitization – ARE the Spiritual Organisations doing enough?
	Param Pujaya Swami Yudhistir Das, ISKON His Holiness Jain Acharya Lokesh Muni, Ahimsa Vishwa Bharti Brother Golo, Brahmakumaris Renewable Energies Mr. Bhavya Srivastava, BASIC Association Sri Sri Ravishankar, Best Wishes Prof. Chetan S. Solanki, Professor, IIT Bombay and Founder, Energy Swaraj Foundation (Panel Moderator)
	Special Activity: Join partnerships for ELT (Announcements if the organisations/institutions are willing to collaborate with ESF)
11:30 to 12:00	Tea Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)
Session 6 12:00 - 1:30	Media's effectiveness in informing and influencing societies in climate correction - ARE media giving enough space?
	Mr. Mayank Aggarwal, Independent Journalist Mr. Hridayesh Joshi, Independent Journalist Mr. Bobins Abraham, Times Internet Mr. Moinuddin Ahmad, Times Internet (Panel Moderator) Prof. Chetan S. Solanki, Professor, IIT Bombay and Founder, Energy Swaraj Foundation (Panel Moderator)
	People taking enough actions: Making breakthroughs in Solar Technology - Mr. Akash Shalgar, Sunlimited
	Announcement of Shell Game Changer: Empowering Lives Challenge
1:30 - 2:30	Lunch Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)
Session 7 2:30 to 4:00	Industries, their sustainability, environmental goals and outcomes - ARE they enough?
	Mr. Anirban Ghosh, Chief Sustainability Officer, Mahindra Group Mr. Anil Bellary, Co-Director, Indo-German Energy Forum (IGEF) Dr. Pravir Deshmukh, Senior Counsellor, CII-ITC Centre of Excellence for Sustainable Development Mr. Sandeep Tandon, National Project Manager, UNIDO

	Mr. Venkat Rajaraman , CEO, Cygni Energy Private Limited and Director, Energy Swaraj Foundation (Panel Moderator)
	Special Speaker: Dr. Rajiv Kumar , Former Vice Chairman, Niti Aayog
4:00 to 4:30	Tea Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)
session 8 4:30 to 6:00	Education and Research for Climate Change Mitigation and Management – ARE the Academic Institutions prepared?
	Prof. Rangan Banerjee , Director, IIT Delhi Prof. Debajit Palit , Professor, NTPC School of Business Prof. Sunil Kumar Gupta , Vice-Chancellor, RGPV Mr. Parag Patankar , Co-Founder & CTO of Covalent Capital and Director, Energy Swaraj Foundation (Panel Moderator)
	ARE Challenge Announcements: ARE challenge to Industry ARE challenge to Government ARE challenge to Academic Institutions ARE challenge to Individuals
4:00 to 4:30	Tea Break (Quiz question, Engaging videos, 10 Solar Diya Lighting)
Session 9 6:00 to 7:30	Energy Swaraj Awards Closing Ceremony: Plan for next Conference and Regional Conference

6. Highlights of the ARE Conference

The main highlights of the conference include the following:

- The conference also saw a special message from **Honorable Prime Minister Shri. Narendra Modi** congratulating Prof. Chetan Singh Solanki, Team of Energy Swaraj Foundation and AICTE on taking forward the climate discussions
- It was agreed that the **rate of problem (the consequences)** of climate change is greater than the **rate of solution (efforts undertaken to mitigate it)**
- Every individual must ask this basic question ourselves that **are we taking enough action** that will lead to self-realisation about how we are using the energy sources, making us more mindful of them.
- The **200kgs sacks were an eye-opener for the speakers and audiences** alike to understand and create awareness on the carbon dioxide (CO₂) emitted per capita per month.

- Climate Clock showing the time left for reach 1.5 degree Celsius of global warming was unveiled, which was then referred in all panel discussions
- **Optimization of growth is important.** People who have not achieved optimal growth should continue to grow, however, but those who have crossed the limit should be appropriately penalised.
- Atal innovation mission of NITI Aayog, GoI announced that **over 10000 climate clocks** will be assembled across the Atal Tinkering Labs across the country on 24th April 2023 in collaboration with Energy Swaraj Foundation.
- There is a **need for revolution to solve the problem of climate change.** One may turn to spirituality as a guiding light, but the change needs to come from self.
- Discussions also surrounded around India in becoming a **world leader in environmental innovation**
- Winners of Shell GameChanger, AMG Challenge and Climate Hackathon challenge with **prize money of about Rs 1.75 Crore** were announced.
- For taking Action for Climate Correction, a portal named **Energy Swaraj- Portal for Action and Learning (ES-PAL) was launched.** Through this portal, people will be able to make themselves **Energy Literate and take Action against Climate Change.** Different actions will be challenged to people through this portal. This will make people self-realised about their energy usage.



7. Session-wise Summary

Session 1: Inauguration of the ARE conference and awards

The inaugural session was started on the note that Planet Earth has the most evolved species. Air, Water, Soil, Forest, important elements of nature and for human and other species survival, are getting polluted due to human activities.

One has to adopt green solutions. As stated by Anurag Sharma, Director offshore (ONGC), many renewable solution implementations have been innovated and done by ONGC like hydrogen technology, methane initiative, CO2 capture technology and clean cooking. At the end and as a voice of today's youth, Miss Siya has requested the older generation to lead them towards the right direction to take appropriate climate corrective actions so that the youth can become a catalyst for change instead of victim.



This session has put light on the seriousness of the need of gathering for thinking about climate change and action points that could be taken. For a self-realisation and eye-opener, a 200 kg sack of CO2 was unveiled. This amount of CO2 is emitted by each person per month leading to global warming which will last upto 200-300 years.

Session 2: The Cascading Cycle: Warming world – Rising energy demand – Warming World - ARE we heading the Right Direction?

Everything requires energy. From small to smallest task to bigger one every action requires energy and in today's world maximum energy requirement is being fulfilled by carbon base fuels. All these carbon based fuels are responsible for global warming. The development and economic growth as a whole depends on these fuels that drive the life of today's world. Changing the lifestyle and dependency on these fuels for the sake of climate cannot be changed in one night.



The world economy is walking blindly behind the GDP however, in between the path to it, has degraded the natural resources, water, air and soil that are precious to human life. However, it is believed that without interception of any policy, an appropriate action cannot be performed and to do so a **tax penalty should be imposed for those who have crossed the optimal point of growth.** It's a bigger challenge but **different stakeholders have to come together to think about the complex solution and work on it.** This has to do with an urgency as very much less time has left, which was seen through unveiling the Climate Clock.

Session 3: Policies and Programmes to Secure Climate and Energy security to the nation – ARE the Government initiatives pragmatic enough?

Governments have learned from past implementations of initiatives like fighting for poverty or illiteracy to execute the implementation of action to be taken for climate change correction. Through policies and initiatives, the government is not only intending to act themselves but are for gathering people under one roof to act together.

Apart from this many enterprises or livelihoods depend on carbon based processes or materials. The policies or programmes have to take care of people who are associated with such livelihoods by providing them new green based livelihoods. But until completely shifting the circular economy to green based would not be possible. However, funds and finances can create a big gap to implement this initiative in such a short time.



It is concluded that a self-realisation for the energy usage and awareness about climate change is the need of the hour and would fasten the actionary plans. A portal was launched named Energy Swaraj- Portal for Action and Learning (ES-PAL), which will take people to become energy literate and contribute to climate correction by taking some action.

Session 4: Enhancing awareness and preparedness of the climate change to the grassroots level - ARE the NGOs sensitising the communities enough?

Civil society (NGOs) play an important role in taking national policies and its benefits to local communities. They train rural people to understand these policies and its process. Not even that they also bridge the gap between the government perspectives on the policies and people's needs. On the other hand, rural communities are the best friend of Nature. They live with and for Nature. They can be the best people who can help a lot in environmental conservation as they can listen and understand Nature's voice. However, Civil society has the ability to go to rural areas, talk to people, and can train to lead towards green development.



There are many entrepreneurship opportunities as their livelihood in rural areas regarding solar energy, farming (organic), natural dyeing, textiles and food which need to be promoted. On the other hand, there is a need to bridge the gap between science and rural youth leadership quality. However, the contribution of rural communities for climate change is less as compared to urban areas but there is a need to educate rural people about the new technologies for sustainable enterprises and make aware them about its climate implications.

Session 5: Mobilising masses towards Sustainable Actions through Spiritual Sensitization – ARE the Spiritual Organisations doing enough?

Humans have degraded the environment unconsciously through their uncontrollable action and usage of natural resources. Spirituality or self awareness can lead to understanding the actions that are harming Nature. Since ancient times, people have worshipped natural resources like water, soil, air, and sun to get the sense of their importance and to pay



respect to Nature. But with growth and development and modernization, humans are losing consciousness towards Nature. **Climate change is the byproduct of the unconscious human mind.** There is a need to meditate not for personal stress but to become climate conscious. **There is a need for new ideas, new philosophies for implementation sustainability. There is a need to connect religion with social work to propagate the solution for climate change.**

Session 6: Media's effectiveness in informing and influencing societies in climate correction - ARE media giving enough space?

Media can play an effective role for influencing societies in climate correction. There is ample space in the media sector for passing the climate news. However, only those news gets the finances that are highly viewed by the public and climate news has very less audience. **To influence the audience towards climate correction, the media have to present climate related information in a more dramatic and attractive way that will touch their heart.**



Social media can be used as a medium to pass on the information and today's youth can use it very effectively. As a concluding point, the panel brainstormed about the **need for decentralisation of the media. However, funding support is a big question for Independent Journalism.**

Session 7: Industries, their sustainability, environmental goals and outcomes - ARE they enough?

Industry sectors are major energy users and so major sustainable goals revolve around it. To achieve the sustainable goals, there is a **need to decarbonise the industries and include best practices as per the regulations** of BEE. **Renewable based innovations and handholding** to use such technologies can contribute to achieve the net-zero targets. However, such technology will have financial implications and for this some mechanisms like carbon credit or green bonds can be implemented.



As a concluding point, the panel agreed that however, the climate change correction is not going at a fast pace but the industrial sector has the solution, mechanism to implement it and so has the finance for the same. What is needed to fasten up the correction process is to utilise the right technology and innovation at the right time and right place.

Session 8: Education and Research for Climate Change Mitigation and Management – ARE the Academic Institutions prepared?

Academic sectors is the sector from which major innovative ideas and research comes out. Therefore, students should be **encouraged to find green technological solutions**. They should be encouraged to become job creators instead of job finders. Researchers can bring different mechanisms to **monitor the carbon footprints and showcasing such values in more self-explanatory ways**. There are ample opportunities in the education sector to improve the existing solutions and implement them for climate correction.

Academic institutes have to bring in programs in their curriculum that teach the students about sustainable behaviour. As a concluding point, it was accepted to become first energy literate and then adopt or implement the solutions. **Academic institutes can play an important medium for spreading awareness and consciousness about the impact of development on Nature.**



Session 9: Energy Swaraj Awards Closing Ceremony: Plan for next Conference and Regional Conference

Energy Swaraj Foundation launched AMG (Avoid-Minimise-Generate) Awards as well as Climate Hackathon Challenge - ideas and actions to save the world to recognize citizen's contributions, encourage them and provide them limelight so that they can spread their actions and ideas.



The Energy Swaraj Award recognized the best examples of individuals, organisations, industries, non-governmental organisations and government bodies who are working hard to promote sustainable living.

Through **Climate Hackathon Challenge Awards**, the aim was to inspire, motivate, and engage students by conducting various types of competition. Participants presented their ideas by following competitions: Write an on Essay on Climate Change and its Solution, Write a Song on Climate Change and Its Solution, Write Drama Script on Climate Change and Its solution, Write up on What should individuals/academic institutions/industries do to mitigate climate change?, and Paint a T-shirt with a message related to climate change and its solution.

For AMG Awards, the selection was on the basis of who followed three Avoid-Minimize-Generate (AMG) principles in their actions towards reducing their energy (electricity) consumption and adopting renewable energy solutions.

Principle-1: Avoid the use of energy by 1/3rd,

Principle-2: Minimize the use of energy by 1/3rd,

Principle-3: Generate energy locally only 1/3rd

We collaborated with Earth Day Network (earth day India network) to organise these awards.

The participants of the competition were appreciated through digital appreciation certificates. And the winners of **Energy Swaraj Awards (Avoid-Minimise-Generate and Climate Hackathon Challenge)** received **award money and certificate of achievement in the award ceremony**. Winners of Shell GameChanger, AMG Challenge and Climate Hackathon challenge with **prize money of about Rs 1.75 Crore** were announced.



8. Conclusion and Way Forward

The ARE conference and Awards will be an annual event. The second edition will take place during 25-26 th Nov. 2023. With the national conference wrapping up with many thought-provoking discussions, the idea of regional conference also gained wide acceptability to ensure year round discussions and continuous action. Also regional conferences will enable deliberation from local context with participation from local audiences. This regional conference will be held in synchronisation with Energy Swaraj Yatra.

