

ACBCCS 2015

Workshop on Awareness and Capacity Building in Carbon Capture and Storage and Utilization: Towards a Low Carbon Growth Strategy

27th - 31st July, 2015, New Delhi, India



Objectives of ACBCCS-2015

i) To provide understanding of science & technology of Carbon Capture, Storage and Utilization and its growing importance in the energy industry.

ii) To learn about CO₂ Capture - chemical, biochemical, biological options and identify terrestrial CO₂ storage processes in the context.

iii) To put forth perspectives on carbon removal and utilization processes in knowledge domain and submit recommendations to concerned agencies.

Background

As the increased emissions of greenhouse gases, particularly carbon dioxide & others and their accumulation in the atmosphere are giving rise to global warming and climate change, the impending concerns are demanding scientific & technological actions at national and international levels. The Carbon Capture and Storage (CCS) is an emerging option to reduce CO₂ concentrations in the atmosphere by capturing from its point sources. The basic understanding of earth processes is very important in this context.

For a study of CO₂ sequestration, fundamental and applied research is needed to improve the understanding in order to predict and monitor the performance. In the biannual workshops held by CCRI so far, there has been huge motivational effect on the work being carried out in various research centers in the country as the participants were exposed to practical utilization of their research. In this context the energy intensive industry can achieve significant benefits and co-benefits from CO₂ mitigation for public good. An excellent feedback was received from the participants.

Workshop Theme

Carbon Dioxide Removal Processes in Energy Intensive Industry

Rationale

- ❖ Carbon fixation is an end-of-pipe pollution mitigation solution to fossil fuel combustion. It involves capture of excess CO₂ from point sources and its permanent fixation away from the atmosphere. To achieve a carbon balance in the atmosphere in an enhanced CO₂ scenario, science & technology gaps exist in CO₂ capture materials and processes as well as location based research for fixation.
- ❖ CO₂ Sequestration from energy industry provides a future option for dealing with increased accumulation of greenhouse gases. For it to be a viable option, it needs to be cost-effective, reliable and safe in comparison to other carbon management options, such as improvements in energy efficiency and renewable energy sources.
- ❖ International efforts in capacity building in CCS through formal and informal trainings have begun around 2003. In Post Kyoto phase CCS is being looked at as one of the possible low carbon growth strategy and India would be a party for Post Kyoto Protocol agreement to be finalized in Paris COP in 2015. Better understanding as a number of issues including social implications of CCS, modalities of technology transfer and economic burden would help in decision making.
- ❖ India is among the few developing countries, which has a national program in CO₂ sequestration research funded by the Government viz. DST, MOES, DBT as well as Industry viz. NTPC, ONGC, Reliance among others. The workshop would provide an exposure to current status for understanding and bridging the gaps.
- ❖ It is therefore timely that an exposure is provided on world view on the subject and issues are elaborated for broadening the perspectives on CO₂ Sequestration.

Workshop Highlights

27.07.2015 Inauguration
Key Note Address

28.07.2015 Carbon Dioxide Removal
Processes in Energy
Industry

29.07.2015 Case Studies in Energy
Intensive Industry for
CO₂ Utilization

30.07.2015 Sequestration / Storage
of captured CO₂

31.07.2015 Round Table Discussions

Convener / Organizing Secretary:

Dr. (Mrs.) Malti Goel

CEO, CCRI and Former Adviser
& Emeritus Scientist, MST

Contact: info.acbccs@gmail.com

Sponsored by

Ministry of Earth Sciences
(Government of India)

ONGC Energy Centre



Patrons

Dr. S. Z. Qasim Former Secretary DOD and
Ex-Member Planning Commission

Shri R.V. Shahi
Former Secretary, Ministry of Power

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Director General, Bureau of Energy Efficiency

Dr. Anupam Agnihotri, *Member*
Director, JNARDDC, Nagpur

Dr. B. Bhargava, *Member*
Director General, ONGC Energy Center

Prof. G.N. Qazi, Vice Chancellor
Jamia Hamdard University

Shri Gautam Sen, *Member*
Ex-Executive Director, ONGC

Prof. Prabhat Ranjan
ED, TIFAC

Dr. M. Sudhakar, *Member*
Advisor/Scientist 'G', MoES & Director, CMLRI

Shri V. S. Verma, *Member*
Former Member, CERC

Shri S. K. Pati, *Member*
Chief Environment Management, Tata Steel

Prof. T. Satyanarayan, *Member*
Professor, University of Delhi, South Campus

Convener / Organizing Secretary

Dr. (Mrs.) Malti Goel,
CEO, CCRI and Former Adviser & Emeritus
Scientist, MST

Invited Speakers

Dr. A. Agnihotri *
Director, JNARDDC, Nagpur

Prof. Tapas Bhattacharya *
ICRISAT, Patancheru

Prof. V. B. Gupta *
Devi Ahilya Bai University, Indore

Sh. V.S. Verma
Distinguished Professor, CPRI

Prof. B.C. Tripathy *, JC Bose National Fellows
School of Environmental Science, JNU

Prof. D. B. Sahu, Director
IBSD, Manipur

Dr. K. Palanivelu *, Director, CCCAR,
Anna University, Chennai

Dr. (Mrs.) M. Premalatha
NIT, Tiruchirappalli

Dr. (Mrs.) Malti Goel *
Visiting Professor, Jamia Hamdard

Prof. P.S. Yadava *
Manipur University

Dr. P.S.R. Prasad *
NGRI, Hyderabad

Prof. Ranjan Pradhan
CVRCE, Bhubaneswar

Nominees from Tata Steel, NALCO,
Coal India, ONGC and Others

**Confirmed*

Who Should Attend?

The workshop aims at providing information and awareness on latest developments in the field of Carbon Capture and Storage and other related issues. The target participants in this workshop are:

- Nominees of major stakeholder industries and institution in the country
- Power plants and Power Utilities
- Institute like IITs and other private institutes
- Research laboratories like CSIR labs
- State and Central Universities
- PSU and Energy Industry Representative

Delegate's Registration can be done at www.ccri.in/ACBCCS-2015.html

Vision

Mission

Innovate and become Center
of Excellence in Human
Resource Development and
Capacity Building in Climate
Change

Organizers

Climate Change Research Institute is founded with a mission to promote environment education, innovation and teachings. It aims to address wide strata of society about the consequences of climate change on our lives and taking control measures. Institute is taking initiative to create awareness on energy security and sustainability through lectures in schools and college, workshops and internet reach. Its future work plan would include development of educational tools on topics of scientific and societal interest; such as energy, health and water in the climate change context. Research and studies would be undertaken on science & technology measures aimed at climate change mitigation and ways of reducing the emission of CO₂.

