

**Integrated Research and Action
for Development (IRADe)**



**International Workshop
on
Carbon Capture and Storage in Power
Sector: R&D Priorities for India**

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Sponsored by

**UK Department for Environment Food and
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In partnership with

**Department of Science and Technology
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&

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Introduction

The power sector is the largest consumer of coal in India, accounting for 70% of total consumption. The majority of this power is generated from fossil fuels particularly coal of medium to low quality.

However, global and domestic concerns over climate change and the emissions of greenhouse gases (GHG) continue to grow.

Carbon capture and storage (CCS) technology has the potential to significantly reduce carbon dioxide emissions from fossil fuel power stations. Demonstration projects are currently planned in the UK, Europe, USA, Australia and China.

As a member of some international initiatives, such as Carbon Sequestration Leadership Forum, India needs to examine carbon abatement with her own perspectives and develop her own strategy regarding technologies such as CCS. It will be also important to consider the required supporting policies and regulation.

The technologies used in CCS may make it possible to reduce emissions and earn carbon credits at the same time. They may also provide a number of business and export opportunities.

Objectives of the Workshop

The international workshop is designed to examine the opportunities for CCS and issues regarding its deployment. It will bring together international and Indian experts already working in the areas of:

- Power plant efficiency
- Carbon capture technologies
- Transport, storage and monitoring of CO₂
- Regulatory, legal, economic, safety, environmental and financial issues

The workshop will cover:

- (a) Carbon capture technologies, their relevance for Indian power plants and how they can be added to the portfolio of R&D in the Indian power sector
- (b) Potential options for carbon storage in India
- (c) Experiences from international R&D and demonstration projects
- (d) Regulations and policies needed to support CCS
- (e) Environmental and socio-economic impacts
- (f) Costs of CCS.
- (g) R&D projects on CCS under Indo-UK collaboration.

On the second day of the workshop, breakout groups will be held on CO2 Capture, CO2 Storage and Crosscutting Issues seeking intensive participation of delegates to develop proposals for research projects for CCS appropriate to India.

Participants

The Hon'ble Union Minister Shri Kapil Sibal, Minister of Science and Technology and Earth Sciences, Government of India, will inaugurate the event. He will be joined by senior representatives of the UK Government and experts from the UK, Australia, Norway, Europe and India.

The participants will also include government officials, regulatory bodies, power generating companies, industry representatives, academics and scientists, technologies institutions and research organisations.

Expected outcomes of the workshop include the following:

- (a) Identification of potential cooperation opportunities in CCS between India, UK and EU
- (b) Development of a network for knowledge and information sharing



Integrated Research and Action for Development

Integrated Research and Action for Development (IRADe) is a fully autonomous advanced research institute, which aims to do research and policy analysis, impart training and serve as a hub of network among various stakeholders. The institute focuses on research for effective action through multi-disciplinary and multistakeholder groups for implementable solutions leading to effective governance. The key focal areas are Energy Systems - Policy & Planning, Natural Resources and Environment Management, Infrastructure-industry and Institutions, Rural and Urban Development, Climate Change and Clean Development Mechanism. In a short span of time, IRADe has started working with governmental, non-governmental and multi-lateral agencies such as MOEF, MNES, CSO, Stanford University-USA, SEWA, Winrock International, SANEI, UNEP-Geneva and PETROFED as well as with private sector players such as Pricewaterhouse Coopers (PwC) and Reliance Industries Limited. Recently IRADe completed and celebrated five successful years since its establishment.

International Workshop on Carbon Capture and Storage in Power Sector: R&D Priorities for India

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