



Integrated Research and Action for Development

**ENVIRONMENT & CLIMATE CHANGE** 

**ENERGY AND POWER SYSTEMS** 

**IMPACT OF POLICY REFORMS** 

POVERTY ALLEVIATION AND GENDER

**ACTION PROJECTS WITH COMMUNITIES** 

TRAINING AND CAPACITY BUILDING

POLICY ADVOCACY AND DISSEMINATION

#### CHAIRMAN'S MESSAGE

During the five years, since its founding IRADe has engaged in a range of issues and followed approaches that we had envisaged at its founding. It is gratifying to see that IRADe has lived upto its name. In its programmes, research and action have been blended.

Institutes like IRADe play an important role in our democratic country, striving for inclusive growth. Policy makers need to know how effective are their policies in delivering the intended benefits to people. However, researchers by themselves can miss out on real life constraints. Policy analysis and research can be more relevant if it is blended with action. While sample surveys and monitoring of programmes can help, there is a need to go beyond. If a programme is not working, one needs to know why and what can be done about it. Researchers engaged in action, evaluation, monitoring and capacity building can possibly provide better answers to such questions.

Starting a new Institute from scratch without any financial grant from a benefactor is a daunting task. IRADe has successfully accomplished it and has not only grown in size but has carried out a number of very useful studies and projects. The credit goes to the efforts of its staff led by the Executive Director, Dr. Jyoti Parikh.

I wish that in the coming years, IRADe grows and contributes through its work for better human development not only in India but also in other countries.

Congratulations IRADe.

Kirit S. Parikh Chairman

#### MESSAGE FROM EXECUTIVE DIRECTOR

During early 2002, Dr. Kirit Parikh and I were exploring the opportunity to set up a new kind of development institute. This new institute would use multi-disciplinary methods, for no real life problem can be solved by a single discipline. Moreover, the institute would not be content with only doing research, but would also engage actions at the field level, in policy advocacy and in training activities.

The multi-disciplinary multi-stakeholder institute we envisioned, IRADe, has now completed five years. Over these years we have succeeded in engaging not only academic experts but also NGOs, government's ministries, the public and private sectors and international agencies-all of who provided their understanding and perspectives in our work.

Throughout, we were fortunate and grateful that there was other equally enthusiastic founding members, who have volunteered their time, gave us their ideas and provided their encouragement.

We thank all and our council members, friends, supporters and well-wishers for making it possible for us to reach this stage.

Jyoti Parikh Executive Director

#### **FOUNDIND MEMBERS**

#### Name

Kirit S. Parikh (Chairman)

Jyoti K. Parikh (Executive Director)

Ela Bhatt

Adi Godrei

Keshub Mahindra

R. A. Mashelkar

Shirish Patel

Manmohan Singh

#### Profession / Designation +

Economist and Engineer

Scientist: Energy & Environment

Founder, SEWA

Industrialist

Industrialist

Director General, CSIR

Consulting Engineer

Member, Rajya Sabha

<sup>\*</sup> Mr. Hemant Sahai, Sahai Law Consultants, was appointed in 2005 as Honorary Treasurer.



Founding Members

### INTERNATIONAL ADVISORY BOARD

#### Name

Mr. Nitin Desai

Prof. Amartya Sen

Prof. Gustav Speth

Sir Nicolas Stern

Prof. Joseph Stiglitz

#### **Position**

Currently at ICRIER \*

Harvard University

Yale University

**U** K Treasury

Colombia University

The names of the current staff members and the past staff members who stay with us and contributed are listed with the individual work programmes.

<sup>+</sup> At the time of IRADe registration in 2002

<sup>\*</sup> Formerly Under Secretary General, United Nations

#### INTEGRATED RESEARCH AND ACTION FOR DEVELOPMENT

#### **BACKGROUND AND FOUNDING OF THE SOCIETY**

A comprehensive approach to development inherently involves the participation not only of the government, but also of NGOs, industry, corporations and financial and technical institutions. It is essential that these stakeholders be involved as partners at all stages of the research process. An inclusive research process creates wider consensus and makes policy reforms more acceptable.

With these ideas Integrated Research and Action for Development (IRADe1) is set up as a fully autonomous advanced research institute, which aims to do research and policy analysis, train people and be a hub of a network among various stakeholders. IRADe is an institute that focuses on

- Research for effective action
- Multi-disciplinary, multi-stakeholder research for implementable solutions
- Policy research that accounts for the political economy of the society and effectiveness of governance It is a 'think tank' that works with 'action tanks'.

#### **OBJECTIVES**

- To develop understanding that integrates multi-stakeholder perspectives concerning issues of development.
- To promote a wider consensus through research and analysis on effective policies among stakeholders and policy makers.
- To build capacities among professionals for multi-disciplinary, multi-stakeholder policy analysis.
- To promote ideas and initiatives for inclusive developments at the local and global levels.
- To promote research supports to developing countries for development and also to negotiate international agreements better.

#### **FOCAL AREAS AND ACTIVITIES**

- Environment and Climate Change (ECC)
- Energy and Power System (EPS)
- Impact of Policy Reforms (IPR)
- Poverty alleviation and Gender (PAG)
- Action Projects with communities (APC)
- Training and Capacity Building (TCB)
- Policy Advocacy and Dissemination (PAD)

Rural and urban development technology assessment are some of the cross cutting issues that are not only embedded in research programmes but in Action, Training and Dissemination.

#### 5-Years of IRADe-Event

IRADe completed 5 years in September 2007. In the five year period, IRADe has gained considerable strength and carried out wide-ranging activities in the field of environment and climate change, energy and power systems, policy reforms and advocacy, poverty alleviation and gender, training and capacity building and most importantly in action projects with the deprived and marginalized sections of the society.

On the occasion of the completion of the first 5 years of and as a mark of gratitude to all the well-wishers, IRADe held a dinner-event on 4 October 2007 at New Delhi. We had the privilege of the presence of Shri Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, Government of India and Shri V. Subramaniam, Secretary, Ministry of New and Renewable Energy, Government of India as the chief guests. The event was attended by representatives from ministries, public and private sectors, experts, academics, NGOs and others.

Shri Montek Singh Ahluwalia noted that IRADe strives to work on diverse issues in the context of research, analysis, project activities, etc. so as to improve understanding of the complex issues. He also appreciated IRADe's role as an independent evaluator to assess the effectiveness of different programmes and policies sponsored by government and quasi-government organization.

Shri Subramaniam recalled IRADe events sponsored by the Ministry of New and Renewable Energy and congratulated IRADe for the achievements. He also emphasized that much needs to be accomplished to be on the road of sustainability and growth.

IRADe hope to strongly foster our relationships with the government, private institutions and civil societies in our future endeavours to get better handle on multi-stakeholders perspectives. Their remarks on our role for concurrent evaluation and the importance of NGO and independent think tank are highly relevant and we hope to do more such work.

The occasion gave the opportunity to thank our council members, our donors and wee-wishers and congratulate all the IRADe staff for their dedicated work with commitment.









#### **ENVIRONMENT AND CLIMATE CHANGE**

Local and global environmental issues, especially, climate changes have loomed large in the recent times. They need complex multi-disciplinary approach requiring new techniques of modeling.

One of the first projects IRADe did was on Climate Change and Clean Development Mechanism (CDM) reflecting on Greenhouse Gas (GHG) reduction potential in the developed countries as well as sectoral base line studies in India for transport, Power, Cement and Construction, Wind power, Hotel industry, co-generation, etc.

IRADe has also carried out Natural Resource accounting for four sectors, namely, solid waste generation from municipal waste , water pollution from industries, hotel industries and forestry using the SEEA, UN System of Environmental and Economic Accounting Framework.

CGE modeling for climate change is being carried out in a long-term project in a macro-economic input-output framework for the Indian economy with 24 sectors and activity analysis for climate friendly technologies. IRADe is also active in explaining options for post-Kyoto negotiations and the technology initiatives needed.

#### Developing CGE Model with Activity Analysis for Climate policies in India

Ministry of Environment & Forests (MoEF), GOI

#### Natural Resource Accounting in Goa, Phase II, under SEEA Framework

Central Statistical Organization, under the Ministry of Statistics and Programme Implementation, GOI

GHG Reduction Potential, Sectoral Base Lines and Opportunities for Clean Development Mechanism (CDM) Ministry of Environment & Forests (MoEF), GOI

Conference on "Opportunities for Energy Efficiency in Cement and Building Materials", 13 February 2004 at New Delhi

Institute for Global Environment Strategies, Japan

#### Opportunities for CDM for Coal Bed Methane

Reliance Industries Limited

Workshop on "Climate Change and Hotel Industry: CDM Opportunities", 18 June 2005, Goa, India Ministry of Environment and Forests (MoEF), GOI

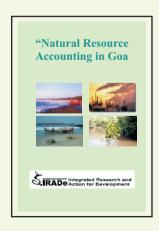
Staff: BD Sharma, Vinay Singh, Pallavi Maitra and Kavita Singh



Dr. Kirit Parikh welcoming the delegates at the workshop "Opportunities for Energy Efficiency and Clean Development Mechanism (CDM) in Cement and Building Materials", 13 February 2004, New Delhi



Workshop on Climate Change and Hotel Industry: CDM Opportunities, 18 June 2005, Goa. India



#### **ENERGY AND POWER SYSTEMS**

IRADe is active in studies relating to fuel demand and specific sectors that have impacted the trends in energy consumption. It has studied the current petroleum mix scenario in India through understanding the changes in trends of production, consumption, imports and exports of petroleum fuels and their contribution to the overall energy mix in India. IRADe has attempted to estimate of demand for Natural Gas in Indian fertilizer industry on the face of changing fertilizer policy options of Indian Government. To give impetus to biodiesel, which has emerged as an alternative to high-speed diesel, IRADe has prepared two background papers on the diesel substitutes covering the entire mechanism from tree plantation practices to processing of oil including investment opportunities, technology development and market adaptation.

#### Techno-Economic Assessment for Bio-energy in India

Technology Information Forecasting and Assessment Council (TIFAC) under Department of Science and Technology (DST)

#### Integrated Analysis of Diesel Substitutes from Oil Seeds for India

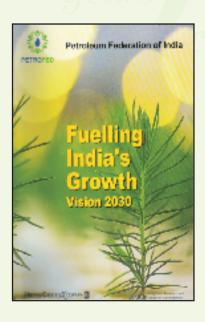
Petroleum Federation of India (PetroFed), New Delhi

#### Projection for Petroleum Products, Natural Gas and substitutes up to 2030

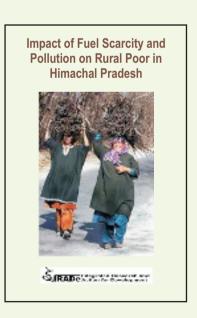
Pricewaterhouse Coopers (PwC) and PetroFed, New Delhi

#### Impact of Fuel Scarcity and Pollution on Rural Poor, 2004

Global Development Network (GDN) through its regional working group South Asia Network (SANEI), New Delhi Staff: Amit Walia, Vinika Koul, Pallavi Maitra and Pallav Purohit







#### IMPACT OF POLICY REFORMS

Energy policy reforms and financial sector reforms are underway. They have the potential to increase efficiency and some of them may create an adverse on the poor. IRADe has examined impact of energy sector reforms on poor and agriculture in a modelling framework. Fertilizer sector is calling for reforms and New Pricing Scheme (NPS) is announced.

Franchisee system leads to reduce losses, higher efficiency and income generation. IRADe has also attempted to see implications of the extension of Minimum Support Price (MSP) in the food grain surplus states and those districts where it has not been operative so far. Such potential reforms that could play a large role in the future of energy and economy are some of the priority areas of IRADe.

Extension of Minimum Support Price (MSP): Fiscal and Welfare Implications

Planning Commission, Government of India (GOI)

Demand for Natural Gas in the Indian Fertilizer Sector Study

Program for Energy and Sustainable Development (PESD), Stanford University, California, USA

ENVISION- Information system Reforms at the Ministry of Environment and Forests

Pricewaterhouse Coopers (PwC) through Ministry of Environment and Forests, GOI

Evaluation of Franchisees System under Rural Electrification Programme in the States of Assam, West Bengal, Nagaland and Rajasthan

(i) Ministry of Power, GOI (ii) Rural Electrification Corporation (REC)

Energy Policy Reforms and Agriculture in India: A General Equilibrium Approach

Stanford University, California, USA

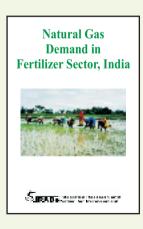
Workshop on Energy Policy reforms and Agriculture in India: A general Equilibrium Exploration, 20 April 2004, New Delhi

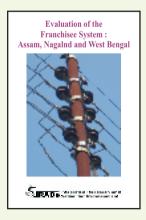
Stanford University, California, USA

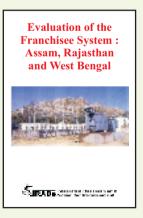
Staff: C.R Dutta Biswas, Vivek Singh, Chandrashekhar Singh, K.K. Govil, Gurina Bajaj and Ayan Pujari



Participants of workshop on Energy Policy Reform and Agriculture in India: 20 April 2004, New Delhi







#### POVERTY ALLEVIATION AND GENDER

To enhance capabilities of women and to ensure increased participation of women in decision making, IRADe is advocating that more attention should be given to the non-commercial energy sector (fuel-wood) managed by women, as it is the second largest energy source after coal resources. In the last few years, IRADe was involved in projects relating to mainstreaming gender approach especially in energy sector. It is necessary to reduce the hardship and drudgery involved in gathering and transporting non commercial energy and adverse health impact from indoor air pollution. We organized and participated in the events related to the United Nations Commission for Sustainable Development (CSD 14, 2006 and CSD 15, 2007).

IRADe works through international gender and sustainable energy network ENERGIA with head quarters in the Netherlands and is currently the National Focal Point (NFP) for it in India.

Gender related projects/seminars/workshops handled by IRADe are listed below:

Gender Audit of National Energy Policies, 2007

Workshop for Gender Audit, 10 October 2007, New Delhi

ENERGIA India National Stakeholders Consultation on 22 May 2007 at New Delhi

The Third ENERGIA National Focal Points Meeting, 1-3 November 2006 at New Delhi

National Stakeholder Consultation on Gender Issues, MDGs and Poverty Alleviation for CSD 14, 16 March 2006 at New Delhi

"Mainstreaming Gender in Energy Policy" 2006 – Background paper and presentation prepared for Expert Committee to formulate Energy Policy, Planning Commission, Government of India

The above projects and workshops are funded by ENERGIA of ETC Foundation, Netherlands.

IRADe-SANEI Dissemination Workshop on "Impact of Fuel Scarcity and Pollution on Rural Poor", 11 March 2005 at New Delhi

Global Development Network (GDN) through its regional working group SANEI South Asia Network, New Delhi

Gender and Climate Change: Vulnerability, Adaptation, Mitigation and Financial Mechanism – Paper for COP8, 2002

United Nations Development Programme (UNDP)

The Energy, Poverty and Gender Nexus in Himachal Pradesh, India: The Impact of Clean Fuel Access Policy on Women's Empowerment, 2004

DFID/KAR through ENERGIA of ETC Foundation

Staff: K. Sangeeta, Saudamini Sharma, Meenu Mishra



Dr. Jyoti Parikh at the Ministerial Meeting at the United Nations CSD 15, New York



National Stakeholder Consultation on Gender issues, MDGs and Poverty Alleviation for United Nations CSD 14, 16 March 2006 at New Delhi



The Third ENERGIA Asian Regional Focal Points Meeting, 1-3 November 2006 at New Delhi

#### **ACTION PROJECTS WITH COMMUNITIES**

To appreciate ground realities facing the concepts and policies, IRADe implements action projects to enhance development, livelihood and basic needs. These are in the areas of biodiesel, oil seeds plantation and extraction and renewable energy in Gujarat, Haryana and Rajasthan in collaboration with Panchayats, community and other NGOs. We find working with communities both challenging and rewarding.

IRADe has installed and commissioned in each of the two villages in Patan District, Gujarat two wood gasifier power plants of 10 kW each, about 100 improved stoves to minimize wood consumption at household level, five to ten biogas plants to provide clean cooking options and jatropha plantation in 5 to 8 hactares each in the two villages with the help of GEDA, SEWA, local community and Panchayat. Two points for light and one point for 5 amp. socket are given to each household. For sustainable livelihood creation, village based flour mills and sewing machines will be provided.

IRADe has installed and commissioned Jatropha oil extraction unit in Bawal Tehsil, Rewari District of Haryana. The microenterprise model of the project could be replicated in many villages in Haryana and elsewhere in the country, where plantations at small scale exist.

Village Energy Security Program (VESP) in Vavdi and Vaddithar hamlets in Patan District of Gujarat Sponsor: Ministry of New and Renewable Energy (MNRE), GOI.

Model Bioenergy to complement a development project consistent with the principles of ecology, equity and energy efficiency and thereby guarantee long-term sustainability of programme
Global Environment Facility (GEF) Small Grants Project.

#### Rural Micro Enterprise Model for Biofuel Extraction in India

A three-day training programme on "Participatory Approaches and Management Techniques" 27 to 29 November 2006, Bawal, Haryana, India

#### Dedication of Oil Extraction Unit, 19 August 2007, Bawal, Haryana, India

The above project and its related programmes were funded by WISION programme managed by Wuppertal Institute for Climate, Environment and Energy, Germany.

# Action Plan for Pilot Demonstration Projects in Jeevika Villages of SEWA SEWA-IRADe

**Staff**: B D Sharma, Rajesh Bajpai, Onkar Nath, Amit Walia and Jignesh Jadav



Dr. A R Kidwai Hon'ble Governor of Haryana observing the oil extraction unit at Bawal, Haryana



More than 2000 people attended the Dedication of Oil Extraction Unit on 19 August 2007 at Bawal, Haryana



Women at the Improved stoves demonstration programme in Gujarat

#### TRAINING AND CAPACITY BUILDING

From 2004 to 2007, six International Training Programmes (ITP) were organized by IRADE for capacity building in environment & sustainable development and renewable energy.

IRADe-UNEP Workshop on "Training Session on Capacity Building- Environment, Trade and Sustainable Development", 24 November 2004, at New Delhi

Participants from Delhi based organization and Northern States of the country attended the training session. Participants came different ministries, Planning Commission, several Universities and many research institutions and industries.

**Sponsor:** United Nation Environment Programme (UNEP).

Training-of-Trainers Workshop on Use of Economic Instruments for Environmental Management in Asia, 27 –29 April 2005, New Delhi

In this three-day Training-of-Trainers, the participants worked on their country specific environmental problems identified prior to the workshop, analyzed main economic causes for the problem and then suggested possible Economic Instruments to address them.

**Sponsor:** UNEP and Ministry of Environment and Forest, Govt. of India.

#### International Training Programmes, 2004, 2005, 2006 and 2007

IRADe has been organizing International Training Programmes (ITP) every year since 2004 on Renewable Energy Technology (RET) for participants from Asia and Africa. So far, four ITPs have been organized on various topics under Renewable Energy Technology (RET). They were as follows:

- "Renewable Energy in Local, national and Global Context with Socio-economics Perspectives", March 2004
- "Renewable Energy: Techno-economic, Finance and Socio-Environment Issues", 7-17 December 2004
- "Alternative Fuel: Energy Security, Techno economic and Environmental issues", 23-30 March 2006
- "Role of Renewable Energy in Energy planning and expanding Livelihood Options", 14-22 March 2007.

Participants belonged to middle or senior level officers (Director, Executive Director, Advisor, Assistant Professor, Assistant lecturer, Lecturer, Manager, Program Officer, Engineer, etc.) from the Ministries, non- government organization and from different universities of Asia and Africa. Countries participated are as follows;

Asia: Nepal, Bangladesh, Pakistan, Iran, Sri Lanka, Vietnam, Cambodia, Thailand, Indonesia, China,

Africa: Nigeria, Tanzania, Cameroon, Sudan, Malawi, Algeria, Uganda, Camaroon

**Sponsor:** Ministry of New and Renewable Energy (MNRE), GOI.

Staff: Pankaj Karn, Swarna and J M Singh



IRADe-UNEP Workshop on "Training Session on Capacity Building- Environment, Trade and Sustainable Development", 24 November 2004, at New Delhi



Participants of 2nd International Training Programme on Renewable Energy from Asia and Africa and IRADe staff



Prof. Jyoti Parikh, Executive, Mr. V Subramanian, Secretary MNES with the participants of 3rd International Training Programme.

#### POLICY ADVOCACY AND DISSEMINATION

### Energy Conclave 2006, "Implementing the Integrated Energy Policy- The Way Forward", 26-28 July 2006, New Delhi

The Energy Conclave 2006 inaugurated by the Prime Minister Dr. Manmohan Singh was a mega event of three days participated by more than 300 high level delegates from various sectors such as coal, oil, gas, power, renewable energy, energy efficiency, finance, science and technology, and sustainable development.

The Integrated Energy Policy (IEP) and ways to implement were discussed in great detail to understand the implication of the IEP on key players and stakeholders across the energy sectors, to create an environment for effective coordination and networking among complementary sectors and to identify effective ways to ensure improved access to energy for the poor and rural India.

The Conclave was privileged to get gracious support from Ministry of Power, British High Commission, Reliance, Power Grid, Vestas, GAIL, ONGC, NTPC, Torrent Power, Suzlon, Assam Tea Company, British gas, IDFC, PFC, PTC, IDBI, IREDA, ALSTON, NHPC, CII, Etc. Besides, India Energy Forum, Pricewaterhouse Coopers and Petroleum Federation of India gave intellectual and moral support.

The report of the Conclave containing recommendations has been published and kept on IRADe website.

#### Biodiesel Summit 2007, "A Discussion Forum for Biodiesel Stakeholder", 29-30 January 2007, New Delhi

This multi-stakeholders summit for bio-diesel was held over two days to discuss bio-diesel policy, technical know-how, energy security, climate change and its linkages among its stakeholders.

The summit was attended by nearly 150 delegates from central and state government ministries, public and private sector companies, research institutes and research and development (R & D) organizations, bank and financial institutes and experts and academics.

The summit brought various stakeholders together to address their concerns by bringing high level officials from the Ministry of Petroleum and Natural gas, Ministry of Panchayati Raj, Ministry of New and Renewable Energy, Ministry of Rural Development, Planning Commission, Rashtrapati Bhavan and various government departments.

## IRADe-IIEF (Invest India Economic Foundation) "State Market Conclave 2005-Second Generation Financial Sector Reforms Conclave", 06-08 January 2005, New Delhi

Shri P. Chidambaram, Union Finance Minister, inaugurated the Conclave, which was aimed at examining financial policy reforms needed for facilitating a financial sector, which would support and foster 8 per cent growth. The Conclave was a step towards a consultative process for effective design and efficient implementation of economic and financial policies, which will benefit India's citizens in the years to come.

The event brought policy makers, regulators, financiers and leading economists from India and abroad under one roof to examine second generation financial sector reforms for India and the relevant policy imperatives for the Government.



The Hon'ble Prime Minister Dr. Manmohan Singh giving the inaugural speech at the Energy Conclave 2006, 26 July 2007, New Delhi



Delegated at the Biodiesel Summit 2007, 29-30 January 2007, New Delhi



Shri P. Chidambaram, Union Minister, Finance inaugurating the IRADe-IIEF State Market Conclave 2005, 06-08 January 2005, New Delhi

#### FORTH COMING EVENTS BY IRADe

## 1. The National Dissemination Workshop of Gender Audit of National Energy Policies in India, 17 January 2008, New Delhi.

The Objective of the workshop is to disseminate the key findings and results of the Gender Audit exercise which, IRADe is carrying for national energy policies in India. It involves an in-depth analysis of energy planning. policy making and poverty reduction approaches aimed at identifying gender gaps in energy/poverty policies and making gender and energy issues visible to a wide audiences.

Participants will include senior officials from the concerned ministries, economists, gender specialists, renewable energy experts, civil society groups. etc.

The Gender Audit exercise is being carried out with support from and in collaboration with ENERGIA: the International Network on Gender and Sustainable Energy, with headquarter in the Netherlands.

### 2. International Workshop on Carbon Capture & Storage (CCS) in Power Sector in India, 22-23 January 2008at New Delhi.

As India may reach coal based generation upto 370 GW by 2030, do we need CCS technology that can capture and bury carbon dioxide in the ground'? Can the benefits of reduced pollution and carbon credits outweigh economic and environmental costs, safety, and regulatory problems, given that India's per capita emissions are low?

Considering the importance of the issue, the Hon'ble Minister Shri Kapil Sibal, Union Minister of Science and Technology, Government of India, has agreed to inaugurate the Workshop. Senior experts and officials of the ministries and research institutions, public and private players in power sector, energy suppliers, financial institutions, media, educational institutions and academics from India and UK, Australia, Norway, European Union will participate and share their knowledge and experiences.

Over the period of two days discussion will be held among stakeholder with focus on greenhouse gas emission reduction strategies and the role of CCS, demonstration of CCS. advanced power generation technologies for CO2 abatement. feasibility and business prospective for carbon capture and storage, monitoring and transportation and crosscutting issues such as safety, economic costs, environmental and social impacts, regulation of CCS etc to come up with strategy for CCS and R&D projects.

It is being organized by IRADe in partnership with British Nigh Commission and Department of Science and Technology, Government of India.

### **PUBLICATIONS**

Four types of publications are prepared

- o Books
- o IRADe Conference reports
- o Brochures
- o Project reports

Books	Reference no.
Techno-economic assessment of bio-energy in India	BK-IRADe-03-2006
Fuelling India's growth visions 2030	BK-IRADe-02-2005
Fuelling India's growth –past trends and scenarios 2010-11	BK-IRADe-01-2004
IRADe conference reports	
Biodiesel summit 2007	CR-IRADe-02-2007
Energy conclave 2006	CR-IRADe-01-2006
Brochures	Reference no.
Biodiesel extraction , Bawal , Haryana , India	BR-IRADe-03-2007
Village energy security projects , Gujarat , India	BR-IRADe-02-2006
Solar assembly center, Gujarat , India	BR-IRADe-01-2005
Project Reports	Reference no.
Natural gas demand for fertilizer sector in India	PR-IRADe-11-2007
Evaluation of franchises system : Assam, west Bengal and Rajasthan	PR-IRADe-10-2007
Evaluation of Franchisees System:	PR-IRADe-09-2007
Assam, West Bengal and Nagaland	
Natural Resource Accounting (NRA) Goa	PR-IRADe-08-2007
Integrated analysis of diesel substitutes from oil seeds for India	PR-IRADe-07-2006
GHG Reduction Potential, Sectoral Baselines and Opportunities for CDM for India	PR-IRADe-06-2006
The Energy Poverty and Gender Nexus in Himachal Pradesh, India: The Impact of Clean Fuel Access Policy on Women's Empowerment	PR-IRADe-05-2005
Electricity pricing reforms and agriculture in India	PR-IRADe-04-2005
Impact of fuel Scarcity and Pollution on Rural Poor	PR-IRADe-03-2005
India's National Circumstances for addressing Climate Change (NATCOM)	PR-IRADe-02-2003
Gender and Climate Change (COP 8)	PR-IRADe-01-2003

Journal, articles and conference papers brought out by respective staff members of IRADe.



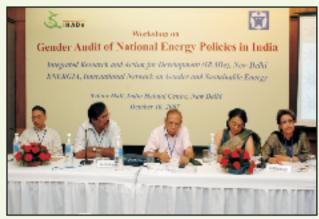
The Hon'ble Prime Minister Dr. Manmohan Singh and Minister of Power Shri Sushil Kumar Shinde at IRADe's Energy Conclave 2006



Dr. A R Kidwai, Hon'ble Governor of Haryana visiting the Oil Extraction Unit at Bawal, Haryana



Participants at IRADe's 4<sup>th</sup> International Training programme, 2007



Gender Audit Workshop on 10 October 2007



Dr. Jyoti Parikh at COP/MOP1 organized by IGES at Montreal, Canada



Building of Biodiesel Extraction Unit, Bhadoj, Bawal





# Integrated Research and Action for Development (IRADe)

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