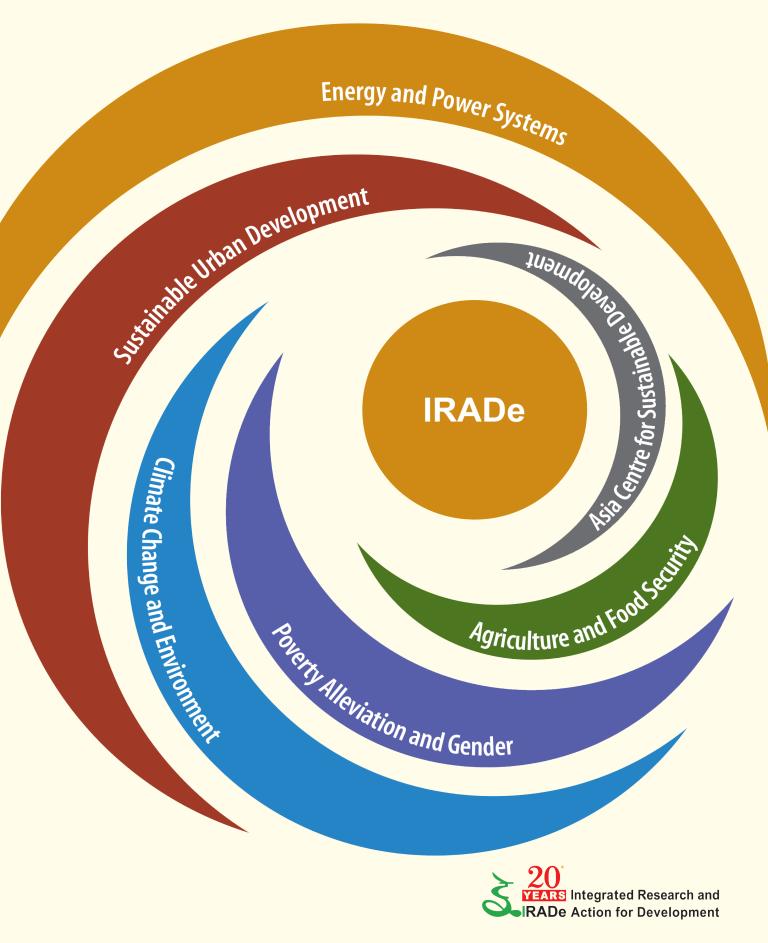
Integrated Research and Action for Development



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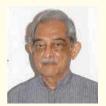


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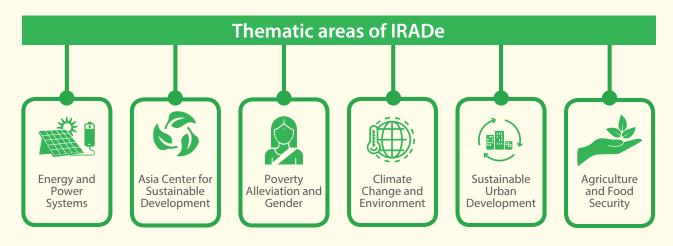
Dr. Anjana Das Senior Advisor, IRADe

About IRADe

IRADe is an independent non-profit, advanced research institute that aims to conduct research and policy analysis to engage stakeholders such as government, non-governmental organizations, and corporations, academic and financial institutions. Energy, climate change, urban development, poverty, gender equity, agriculture, and food security are some of the challenges faced in the 21st century. IRADe's research covers these issues and the policies that affect them. IRADe focuses on effective action through multi-disciplinary and multi-stakeholder research to arrive at implementable solutions for sustainable development policy research and effective governance that accounts for techno-economic and socio-cultural issues. It also

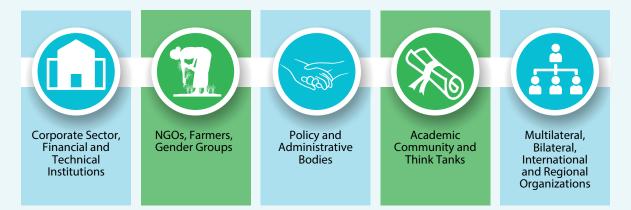
provides expertise to several ministries, national and international institutions, and partners with reputed organizations.

IRADe was established under the Society's Act in 2002 at New Delhi. It is certified as a Research & Development Organisation by the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology (MoST), Government of India. It has also been selected as a Centre of Excellence by the Ministry of Housing and Urban Affairs (MoHUA), Government of India, for urban development and climate change.



Our Partners in development

Integrated Research and Action for Development (IRADe)



Our Vision

To be a leading global independent policy research think tank that provides and enables implementable policy solutions for sustainable and inclusive development.

Our Mission

To carry out policy analysis from multi-stakeholder and multidisciplinary perspectives for decision-makers and vulnerable groups in the thematic areas of climate change and environment; energy and power systems; sustainable urban development; agriculture and food security; poverty alleviation, and gender. This is accomplished using policy research and analysis, consensus and dialogues, capacity building, monitoring, and evaluation.

Our Objectives



IRADe's activities in the above areas have cross-cutting themes such as technology assessment and policy reforms. The key activities are:

- 1. Policy Dialogues and Dissemination
- 2. Training and Capacity Building
- 3. Research and Analysis for Decision Support
- 4. Research in Action, Monitoring, and Evaluation of Projects

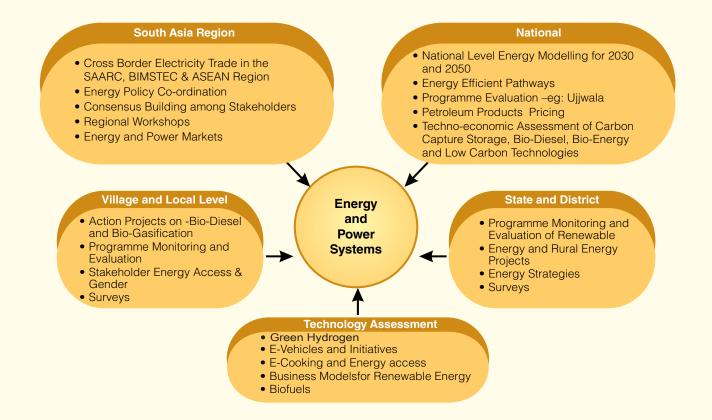
Energy and Power Systems



IRADe is engaged in policy research, capacity building and stakeholder engagement for clean energy transition, regional power markets in South Asia and some emerging technologies in the energy sector. IRADe has a strong presence in energy policy studies in India. These include energy needs of India in the context of global energy scenarios, pricing policy and reforms, technology assessment, energy access, programme evaluation, role of renewable energy trade and long-term (2050) perspectives on energy.

The analytical research included understanding the changes in trends of energy production, consumption, imports and exports of petroleum fuels and their contribution to the overall energy mix in India. Technology assessment exercises carried out include carbon capture and storage, biodiesel, renewable technologies and star-rated appliances. Fuel demand and specific sectors that impact energy consumption and energy transition till 2030 and 2050 are studied. Technology and Policy alternatives for transportation and business models for renewable energy are some of the latest programmes.

IRADe is actively contributing to National Green Hydrogen Mission and is doing studies on Long term Integrated Strategy and policies for Green Hydrogen. Access to modern energy for poor, especially for women, is a major concern always reflected in IRADe research and has undertaken several projects involving surveys and analysis. Our policy analysis cover areas related to pricing of and access to energy and also technology perspective for long term. These also explore issues linked with poverty and gender as well as climate change.

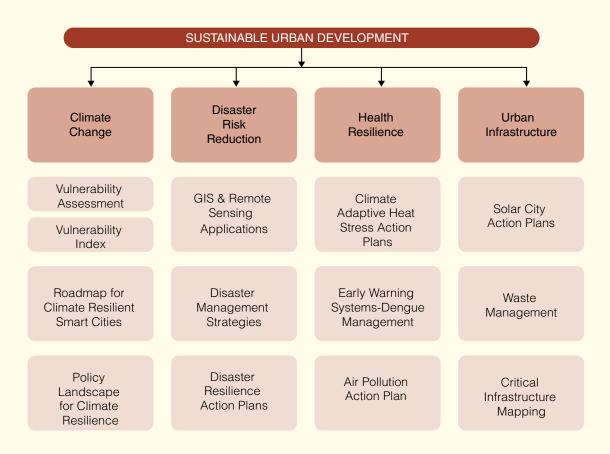


Sustainable Urban Development



IRADe is designated as Centre of Excellence (CoE), urban development and climate change by Ministry of Housing & Urban Affairs (MoHUA), GOI. IRADe collaborates with national institutions, state urban departments, urban local bodies, development aid agencies for capacity building, promoting awareness, research and training in the area of climate resilient urban development, disaster risk reduction, health resilience and urban infrastructure. IRADe has engaged with more than 36 cities in South Asia covering areas of climate resilient and disaster resilient planning and capacity building.

As the CoE, IRADe is furthering the agenda of integrating various urban development efforts and documenting best practices and policy level prescriptions. For addressing Climate Change issue in cities IRADe has carried out rapid vulnerability assessment of 20 cities, devised roadmap for mainstreaming climate and disaster resilience components in the smart city development plans of 10 cities, piloting urban climate vulnerability index. It has been involved in developing decision supporting tools for disaster risk reduction in the urban areas, including mapping the flooding hazard susceptible zones at the scale of 1:4000 at ward level. IRADe has done detailed analysis of the vulnerable zones mapping critical infrastructure and implementable solutions for building resilience of 15 Indian cities. For building health resilience within the cities the CoE has been supported six cities to develop climate adaptive heat stress action plans, early warning system for Dengue and air pollution action plans.



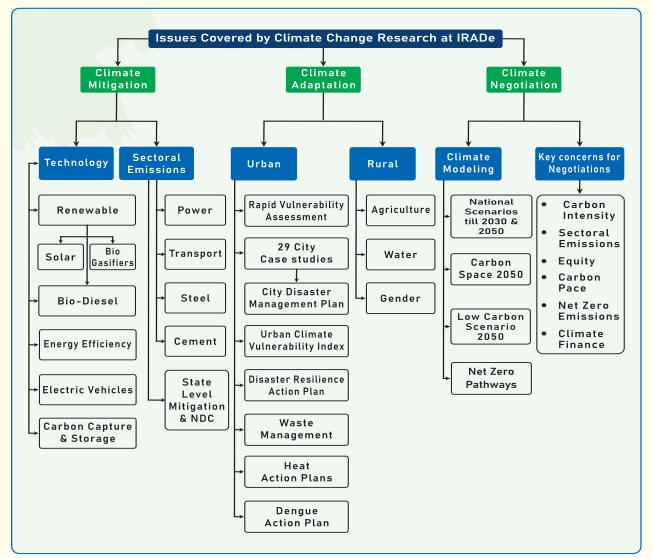


Climate Change and Environment

Local and global environmental issues, especially climate change, loom large with increasing risks. As the way forward, IRADe has adopted a multi-disciplinary approach and carries out national projects for both climate mitigation and adaptation in the country.

In climate change, IRADe intensively covers climate mitigation, adaptation and negotiations. Further, IRADe provides inputs using the activity analysis model in the area of low carbon pathways and nationally determined contributions until 2030 and 2050 for Climate Policies in India. As a member of NATCOM institutions and Indian Network on Climate Change Assessment (INCCA), IRADe assists in country reports and provides inputs on negotiating positions, arguments and policy suggestions to ensure equity principles. IRADe provided analytical support to the Ministry of Environment Forests and Climate Change (MOEFCC) for Paris Agreement

IRADe's environment project portfolios include environmental accounting and valuation for Goa and Andhra Pradesh with a focus on tourism, waste management, air and water pollution. Biodiversity and Ecosystem management for Marine National Parks are also addressed. IRADe has organized climate debate in 8 Universities for Climate Change Awareness.



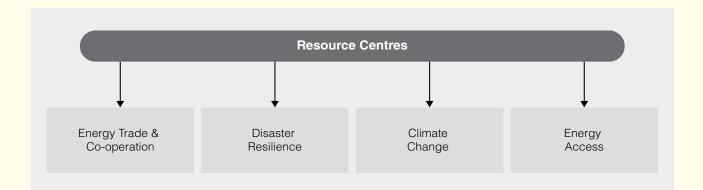


Asian countries share geography, history, arts, culture, natural resources and value systems. Regional co-operation amongst Asian Countries can generate synergy and additional benefits to each country for optimal use of resources. Asia needs connectivity, common infrastructures and co-operative mechanisms to achieve Sustainable Development Goals. Regional common perspectives require collaboration in several development areas like energy, infrastructure connectivity, climate change, agriculture, urban development, food security and disaster management. With this encouraging experience IRADe has set Asia Centre for Sustainable Development to extend our work in Asian countries and beyond to work on achieve Sustainable Development Goals. IRADe is working on sustainable development issues in South Asian Countries

Regional energy cooperation results in optimal utilization of the power resources of the region, faster universal energy access, reduction of cost of supply and more efficient integration of intermittent renewable sources to the grid. IRADe in partnership with USAID has successfully demonstrated implementation of South Asia Regional Initiative for Energy Integration to push energy trade in the South Asian region. Our EEG/ UKAID project provided inputs on the impact of declining prices of Solar Energy on South Asia power trade. We also engaged stakeholders on various options for RE integration and grid balancing and role of pump hydro energy storage for India's renewable transition. We are currently doing several studies related to regional energy cooperation among BIMSTEC nations from the Asian Development Bank (ADB).

With the four new earlier projects from the ADB and earlier a 10-year-long USAID project, IRADe has established itself as a leader in Regional Energy connectivity in the power sector of the countries in the Asian region.

IRADe is supporting the cities and national level policy makers in Bangladesh and Sri Lanka in integrating gender sensitive heat resilience in the climate policies. It has been working with the Urban Local Bodies of Rajshahi (Bangladesh) and Colombo (Sri Lanka) to develop vulnerable community focused heat action plans. We have been very successful in leveraging the collaboration with several regional forums like SAARC, BIMSTEC, SAFIR, ACCCRN, ASEAN in Asia on the sustainable development issues.

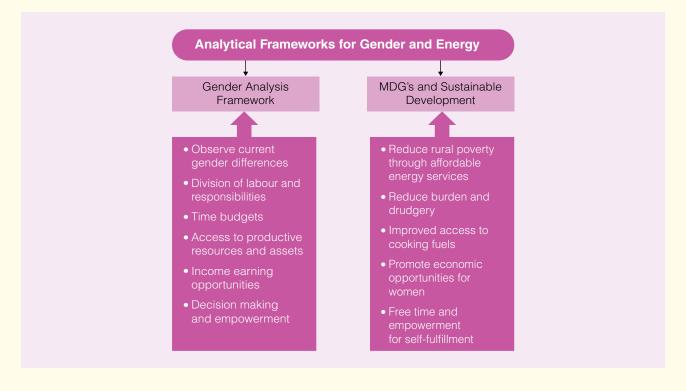


Poverty Alleviation and Gender

Unequal treatment of men and women, and their differentiated social and economic roles, have led to higher levels of poverty for women than for men. Therefore, achieving gender equity is an important consideration in improving the effectiveness of poverty alleviation programmes. In order to enhance capabilities of women, ensure their participation and decision making rights, thereby enabling them to exercise control over their own lives, IRADe has focused especially on poor women in the other thematic areas, while discussing energy, environment, climate change and food security.

In the energy sector, IRADe is advocating that more attention should be given to the problems associated with the non-commercial energy sector (fuel-wood). Clean and convenient energy sources are needed to reduce drudgery for women and increased access to cooking, and other household and productive purposes. This can have dramatic effects on women's levels of empowerment, education, literacy, nutrition, health, economic opportunities, and involvement in self development activities, including community participation.

In the last few years, IRADe was involved in projects relating to mainstreaming gender in the process of energy sector reform and climate strategies; evaluation of government programmes to increase access to clean energy for women; the gender dimension of energy sector reforms and regulation.

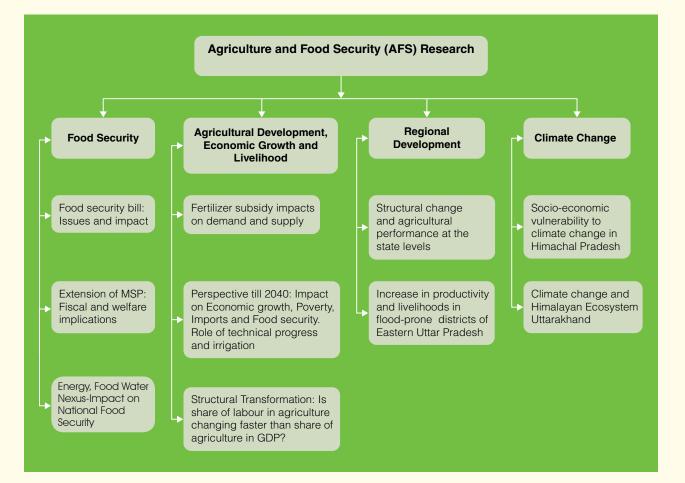


Agriculture and Food Security



Food security issues now should also include climate change. To enhance food security, IRADe focuses on yield growth in agriculture, a rational development strategy for handling the issues of excess labour in agriculture sector, management of arable land in India, institutional approach for collective action and rational use of irrigation water etc. The domestic self-sufficiency ratio for food security needs to be optimized. IRADe has worked on the following projects related to the field of agriculture and food security.

IRADe has developed a general equilibrium model to explore the Indian agriculture over the next 30 years that will have profound implications for diversification for rural urban migration, for agricultural profitability and food security. In the past IRADe has conducted a study that entails estimation of demand for Natural Gas in the Indian Fertilizer Industry and analyze the fertilizer demand, to access the impact of various feedstock prices, to estimate the total subsidy for the fertilizer sector, to suggest range of policy alternatives, to recommend viable policy and reform options for policy-makers for India.



IRADe's Sponsors Collaborators and Partners

IRADe networks with **the government, ministries/departments, international organizations,** public and private sectors, academic experts, NGOs, and consultants to work on projects awarded by them. IRADe provides decision support to eleven ministries that include Ministry of Environment and Forests and Climate Change, Ministry of New and Renewable Energy, Niti Aayog (formerly Planning Commission), Ministry of Power, Ministry of External Affairs, Ministry of Earth Sciences, Ministry of Housing and Urban Affairs, Department of Science and Technology, Central Statistical Organization under Ministry of Statistics and Programme Implementation, Technology Information, Forecasting and Assessment Council (TIFAC), etc. for many national level projects.

At the **international level**, IRADe has worked with bilateral and multilateral organization like the World Bank, Asian Development Bank (ADB), U.S. Agency for International Development (USAID); United Nations Development Programme (UNDP); United States Environmental Protection Agency (USEPA), Wuppertal Institute for Climate, Environment and Energy, (WISION) Germany; Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany; Rockfeller Foundation; International Institute for Applied Systems Analysis (IIASA), Austria; British High Commission (BHC), Centre for Clean Air Policy (CCAP), USA; International Institute for Sustainable Development (IISD), South South North Trust (SSNT) International Development Research Centre (IDRC), Canada etc.

IRADe has partnered with **academic**, **private sectors**, **multinational organizations**, think tanks and NGOs. These include Shakti Foundation, Indian Council of Social Science Research (ICSSR), SEWA, Petroleum Federation of India, Pricewater House Coopers, ICF International, Rockefeller Foundation, Institute for Social and Environmental Transition (ISET), Center for Clean Air Policy (CCAP), Indian Council for Research on International Economic Relations (ICRIER), InsPIRE Network for Environment, Stanford University, National Bank For Agriculture and Rural Development (NABARD) and World Wildlife Fund (WWF) Collaborations with IIT-B, IIT-Madras, IIT-Delhi, TERI, GB-Pant Institute of Himalayan environment and development, IIPHGandhinagar, IIPH-Bhubaneswar, North East Space Application Center (NESAC), NERC, US Embassy, LCEDN, DST/MoES, Pacific Northwest National Laboratory (PNNL), Council On Energy Environment and Water (CEEW), Center for Study of Science, Technology & Policy (CSTEP), The Energy and Resource Institute (TERI).

IRADe has also developed strategic partnerships **and is part of global networks** like the USAID's Low Emissions Asian Development (LEAD) program – ASIA-LEDS, ENERGIA-International Network for Gender and Sustainable Energy, Netherlands; Global Clean Cook Stoves Forum, UN Foundation; Asian Cities Climate Change Resilience Network (ACCCRN), Global Technology Watch Group (GTWG-DST), Climate Action Network South Asia (CANSA). State and City level senior officials have partnered with IRADe and supported us, when we have carried out some pioneering work in the field of state level energy planning, city level climate resilience planning, other climate change and livelihood studies.

We profusely thank all the sponsors whose logos are flagged overleaf, who have believed in us and supported us generously. State and City level senior officials have partnered with IRADe and supported us, when we have carried out some pioneering work in the field of state level energy planning, city level climate resilience planning, other climate change and livelihood studies.

Our Supporters in Progress

PRAKASH JAVADEKAR



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