



COMMISSIONING OF BIOFUEL EXTRACTION UNIT IN INDIA

Bawal (Haryana)

Supported By

Wuppertal Institute
for Climate, Environment
and Energy

Background:

The local level biomass based strategies are being discussed actively at policy level in recent years in India especially in the Planning commission, Ministry of New & Renewable Energy and Ministry of Rural Development. India has great potential for production of biofuel from non-edible oil seeds. In addition, the production process provides a base for sustainable employment through various activities like seeds collection, primary processing, oil transesterification, transportation and marketing.

Wuppertal Institute for Climate, Environment and Energy (WISION) through its Sustainable Energy Project Support (SEPS) has given financial support to IRADe to implement a project titled “Rural Microenterprise Model for Biofuel Extraction in India”. This project is undertaken to harness locally available Jatropha plantation to generate biofuel in Bawal Tehsil of Rewari District (Haryana). The commissioning of decentralised biofuel extraction unit is aimed to benefit rural areas by improving livelihoods of villagers, increasing accessibility of alternative fuel at village level, increasing the green cover and motivate community towards biomass energy usage.

Project Specific Objectives:

The specific objectives of the project are:

- Formulate Microenterprise Model for biomass based energy system at village level.
- Provide easy access to alternative fuels in rural areas.
- Provide sustainable livelihood options for women at village level.
- Process locally available jatropha and other oilseeds.

Model Concept:

The Jatropha plantation is established on about 16 hectares of wasteland in three adjoining villages of Bawal block (Haryana). Cooperative structure in the model is adopted by involving local community, and this mechanism ensures the collection/ procurement of oilseeds and marketing of extracted oil. It is a model for the post implementation activity for biofuel plantation programme of Government of India.

Partners Involved:

A) Village Panchayats: Three Panchayats are involved in the project. The Village Panchayat, Bhadoj has provided land for the extraction unit and required support to establish the unit. In the project, the local community owns the assets and manages their entire operations.

B) Bawal Biodiesel Cooperative (BBC): The common interest group constituted of 6 male and 5 female members from three project villages are managing all project activities.

C) Regional Research Station of Chaudhary Charan Sigh Haryana Agricultural University, Bawal: A Centre for Excellence in research, development and extension, particularly in rainfed agriculture and oilseeds crops. The center is the technical partner for this project.

Project Activities Completed:

Awareness Generation: Several community and village level meetings were held to highlight the potential of biodiesel and livelihood generation options. People were made aware about the benefits of producing and using biodiesel in their villages.



Training to Community People

Formation of Bawal Biodiesel Cooperative (BBC): A committee with eleven members was formed from the three project villages to manage the extraction unit and other community development activities.

Building Construction & Commissioning of Oil Extraction Unit: The extraction unit with a capacity of one tonne of seed processing per day is located in a two-room building. It consists of oil expeller and filter press. The unit has been commissioned successfully. The oil content is 37% and the quality is acceptable.

IRADe Endeavors for Biodiesel:

IRADe is engaged in multifaceted activities in the field of biofuel especially biodiesel which involves policy support, trainings, field implementation and dissemination.

Training Programmes: National and International Training Programmes organised by IRADe are opening the windows for participants from developing and underdeveloped countries to learn and share their experience on renewable energy options.

Policy Support: IRADe has recently completed two studies on bioenergy including biodiesel, bioethanol and biomass gasification for government and public sector. These studies suggest policy framework for the development of bioenergy in India.

Field Implementation: The field implementation projects in Haryana and Gujarat have given a way forward for the local level biomass based energy system. IRADe intends to undertake more field implementation projects to meet the energy demand of rural people through renewable sources.



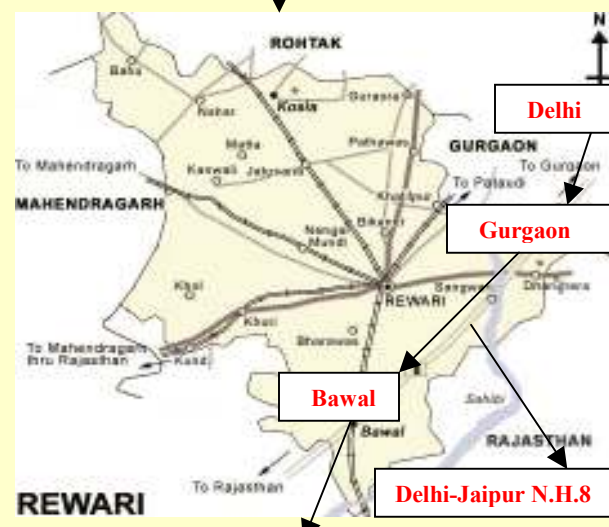
Biodiesel Summit

Dissemination: The experiences and lessons learnt through all above activities are widely disseminated through workshops, conferences and publications. The Energy Conclave 2006 organised by IRADe has become a milestone in this direction. We organised Biodiesel Summit – “A Discussion Forum for Biodiesel Stakeholders” with objectives to deliver equitable and accessible biodiesel policy, providing technical and institutional services and linkages among all stakeholders etc.

Location Map: India



Haryana State



Bawal, (Rewari Dist., Haryana)

IRADe:

Integrated Research and Action for Development 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, and seek to identify implementable solutions leading to effective governance. The key focus areas are Energy System- 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, IRADe has worked with government, non-government and multi-lateral agencies such as MOEF, MNRE, CSO, Stanford University, USA, SEWA, Winrock International, SANEI, UNEP-Geneva, and PETROFED as well as with private sector such as PricewaterhouseCooper, New Delhi and Reliance Industries Limited. IRADe has also done studies on integrated perspective and techno-economic assessment of biodiesel in India for petroleum federation of India (PETROFED) and Technology Information Forecasting and Assessment Council (TIFAC).

Dr. Jyoti Parikh,
Executive Director
Integrated Research and Action for
Development (IRADe)

C-50, Chhota Singh Block
Asian Games Village Complex,
Khelgaon, New Delhi- 110049.
Tel: +91-11-26495522, Telefax: 91-11-26495523,
E-mail: jparikh@irade.org, www.irade.org