

2. BIOFUEL CELL ACTIVITIES

Principal Investigator	: Mr. S. N. Sondur
Duration	: 1 year
Budget	: Rs.30.00 lakhs
Funding	: KSBDB, GoK

KSCST is coordinating the activities of 32 Biofuel Information and Demonstration centres in Karnataka State through regular interactions, meetings and workshops. Biofuel Cell is also promoting R & D activities in Biofuels through Student Project Program (SPP) of KSCST and faculties of Engineering Colleges. The Cell has also setup a laboratory for carrying out experiments on Biofuels. The action plan for the year 2016-17 has been approved by Karnataka State Bioenergy Development Board (KSBDB) for Rs. 30.00 lakhs.

Progress (February 2016 to October 2016)

MNRE Biofuel Workshop:

A National level workshop on “Biofuel Feedstock Value Chain (with special emphasis on Bio -Diesel production) in India and Creating an Action Plan” was held at NIAS, Bengaluru on 18th and 19th April, 2016. The workshop was organized jointly by KSCST, KSBDB, UAS, Bengaluru and sponsored by Ministry of New and Renewable Energy, Government of India. The two days workshop was held to chalk out long term plans for the development of biofuel in the national level based on the Karnataka model. Experts from different parts of the country were invited for this workshop to share their expertise and experience. The programme was inaugurated by Shri. Annasaheb, M.K. Patil, Chairman, Biofuel Committee, MNRE, GoI and Shri. Y. B. Ramakrishna, Chairman, National Biofuel Task Force, Ministry of Natural Gas and Petroleum, GoI. Smt. Varsha Joshi IAS, Joint Secretary, MNRE was present during the panel discussions and valedictory function.



MNRE Biofuel Workshop held at NIAS on 18th& 19th April 2016

39th Series Student Project Programme – Biofuel Projects

Mid-Term Evaluation:

The mid-term evaluation of SPP-Bioenergy projects was held at SIT, Tumakuru on 18th May, 2016. Under the 39th series of SPP, 68 projects were sponsored for the final year students of BE, M.Tech, MSc and MBA. The evaluation was done by experts from IISc and SIT Tumakuru. Under this series, 4 projects were guided by Biofuel cell, funded by KSBDB.

Seminar and Exhibition:

The State Level Seminar and Exhibition for the 39th series SPP was held at BLDE college of Engineering, Vijayapura on 19th and 20th of August 2016. 50 Biofuel projects were selected for this Seminar and Exhibition. Awards were given to 8 best projects (4 - BE, 1 - MBA, 1- M.Tech, 1 – MSc and 1 – Exhibition).

National Science day Celebration:

National Science day was celebrated at Maharani's Science College for Women (MSCW), Bengaluru on 26th February 2016. The event was marked by exhibition of S & T models on the theme 'Application of Science in Green Energy' by post graduate and under graduate students of MSCW. The event was marked by exhibition of models by students and special lecture by Prof. Balakrishna Gowda, Department of Forestry and Environment Sciences, University of Agricultural Sciences, Bengaluru. Dr. S.G.S Swamy, Executive Secretary, KSCST graced the occasion and gave away the prizes for best models.

Biofuel Workshop

As per the action plan of Biofuel Cell for 2016-17 a two days' workshop was organized for the Coordinators and staff of all the Biofuel Information and Demonstration district centers. The workshop was held on 28th and 29th September 2016 at SIT Tumkuru. The programme was inaugurated by Shri. K.G. Shantaram, IAS, Chief Executive Officer, Zilla Panchayath, Tumakuru and presided over by Prof. M.N. Channabasappa, Director SIT Tumakuru. Dr. R. Shivakumaraiah Principal SIT Tuamkuru and Dr. S.G.S. Swamy Executive Secretary, KSCST were the Chief guests. The programme included presentations by the Coordinators regarding the status of their respective centers and future plans and also hands-on training for the staff of BIDC.

R & D Activities - Biofuel Cell coordination with University and Institutions

- Experiments were conducted in the Biofuel Cell lab for degumming the non-edible oil to reduce the viscosity for better combustion.
- Experiments were also carried out on the application of non-edible oil cake to improve the nutritional value of the vermin compost. Trials are being conducted on agricultural crops and the results are awaited.
- As part of the internship programme experiments were conducted by students from Manipur University, Imphal on value addition to glycerol, a by-product of biodiesel production. The experiments were carried out in collaboration with NDRI to explore the potential of glycerol as animal feed.

- During 2015 -16, the Biofuel cell collaborated with Jain University for R&D projects on Biodiesel and by-product. The projects were sponsored by KSCST under the faculty programme. The following projects have been carried out by Jain University
 - Identifying unique properties of proteins in non-edible oil Cakes
 - Production of fatty acid methyl ester from non-edible oil seeds using different techniques

Technical Lectures on Biofuels:

Two technical lectures on Biofuel were organized at M S Ramaiah Polytechnic and NMKRV College for women respectively on the topics “Biofuels- A Promising Alternative Fuel” and “Research opportunities in Biofuel”, respectively.

Biofuel Activities in Challakere Campus

Based on a request made by KSCST, Indian Institute of Science has given approval for taking up Biofuel activities in IISc. Challakere Campus and earmarked 2 acres of land for the purpose. KSCST expresses its gratitude for the same and will be shortly taking up Biofuel nursery activity and plantation based on a proposal submitted to IISc.