

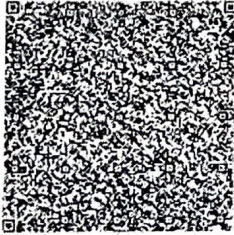


सत्यमेव जयते

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# GUIDELINES FOR INFORMATION & DEMONSTRATION CENTERS

## Introduction:

Policy document

(The use of vegetable oils, wood & plant wastes and animal fats as fuels for lighting and heating purposes dates back to prehistoric times.) (Usage of Karanj, Neem and other vegetable oils as sources of light in rural areas is well recorded in ancient Indian folklore and history.) The first diesel engine invented by Rudolf Diesel in late 19<sup>th</sup> century was actually run on peanut oil!

First

(The term *biofuel* as is understood in the modern context, has two major offshoots namely, biodiesel and bioethanol.) These are in reality ways of harnessing solar energy through the medium of plant kingdom. In fact, there are several people who feel the biodiesel route of harnessing solar energy is ideal since this involves greening of wastelands which has tremendous environmental benefits as well.

India has signed the Kyoto Protocol and to initiate in Bio Fuel Energy sources is one of the mandate. Usage of Bio fuel will increase the scope of carbon credit trading with developed countries besides curtailing the emission of carbon dioxide into atmosphere.

Blending of Bio Fuel with Fossil Fuel has been endorsed by Government of India and the Bureau of Indian Standards has approved 5% blending ethanol and gasoline. The Government of India has plans to blend 10% by 2017 and above 10% beyond 2017.

The policy statement of Karnataka State envisage the use of only non edible oil seeds for producing bio diesel so that the edible oil is left only for human consumption.

Further for the cultivation of non edible oil seeds only dry lands, waste lands and degraded forest land would be used and use of agriculture land would not be encouraged.

## Background:

Karnataka has also been a leading state in R&D on the entire value chain of biofuels. The first official policy on biofuels (bioethanol) in India was actually incorporated in the Millennium Biotech Policy of GoK in 2001. In 2003, SuTRA in collaboration with a Karnataka based reputed NGO Samagra Vikas organized an all-India Conference on Policy and Strategic Issues in the Biofuel Sector of India in IISc, Bangalore. The Conference which was inaugurated by Mr Ram Naik, the then Union Minister for Petroleum, had the active participation of several important organizations involved in each and every stage of the value chains of biofuel sector. The recommendations, which were later sent to Government of India, actually laid the foundation for the draft policy on biofuels of GoI.

Government of Karnataka under the leadership of Hon'ble Chief Minister B.S. Yediyurappa also took the proactive step of forming a Task Force on Biofuels in Sept. 2008 under the leadership of Mr. Y B Ramakrishna, a hand on biofuel professional who had also contributed to this sector earlier through Samagra Vikas. This was indeed the turning point for the biofuel sector in Karnataka. Mr. Ramakrishna has marshaled the considerable resource base in Karnataka into an effective driving force and the Task Force has indeed accelerated and given a new focus to the several advantages of Karnataka. From then onwards there has been no looking back and now a stage has been reached in which other States are looking up to Karnataka for guidance & leadership. The Task Force has taken several initiatives some of which are

1. Finalization of the Karnataka Biofuel Policy,
2. Formation of a new Karnataka Biofuel Board,
3. Extensive planting of important non-edible oil species,
4. Establishment of Biofuel Parks and Information & Demonstration Centers all over Karnataka etc.

The Bio Fuel Task Force has set up four I&D centres in Gulbarga, Chintamani, Chamrajnagar and Bijapur and has plans to set up such centers in all the districts of the State. For the year 2011-2012 the newly formed Karnataka State Biofuel Development Board has already lined up several programmes and projects in the State of which setting up of I&D centers in the remaining districts of the State is also on the anvil.

It is envisaged that these I&D centers will be the nodal hub for bio fuel activities in the districts in future. Thus it is necessary to prepare these centres to take up the Bio Fuel Development to greater heights through demonstration of the technologies, awareness camps and training programmes in order to fulfill the objectives of the State in this regard. They have to be constantly upgraded and exposed to State of the Art Technologies.

It is with these objectives that this proposal has been prepared for funding the activities of the centers.

#### **Organization of I&D Centers:**

The existing I&D centers and the proposed ones will be housed in an already existing Institutions such as Krishi Vigyan Kendra(KVK), Engineering and Scientific Institutions, Universities who would provide building space and other utilities for the running of the centers. A senior faculty or Scientist having relevant experience will coordinate the activities of the Centres.

I&D Centre will consist of two sections namely Information Section and Demonstration Section. Each of the section will be manned by staff having relevant qualifications and experience to carry out the tasks of the respective sections. The overall coordination of the activities would be done by the host Institution/Department. The proposed staffing pattern for the I&D centers would be as follows:

Sl.No.	Name of the Post	Nature of Job	Qualification	No. of Post
1	Senior Scientific officer (to be provided by the host institution)	Over all coordination of the Centre		1
2	Scientific Assistant	Coordination of training /awareness programme	BSc/ MSc	1
3	Technician/Mechanic	Demonstration/Maintenance	ITI	1
4	Casual Labourers	Office Work/ Nursery works	Unskilled	2

### Infrastructure Requirement:

- Office Furniture
- Computer System with Printer
- Internet/Broad Band Connectivity
- Basic farming equipments
- Seed/oil/ by products storage devices
- Display boards

This does not include the oil seed extraction and processing equipments and testing kits which is must for starting the demonstration centre.

### Activities of the I & D Centers:

The roles and responsibilities of the I & D Centre should be defined for streamlining the day to day activities of the Centre. The objectives of each of the activities of the Centre should be clearly defined before embarking on the programme. The Centres should have dedicated manpower, infrastructure and funds to cater for the activities of the Centres. This will help the Centre to fulfill its objectives.

The responsibilities of the Information and Demonstration Centre shall meet the needs of all stake holders in Bio fuel Development. The I & D Centres shall endeavour to contribute to the socio-economic development of the nation by demonstrating the entire Biofuel Value Chain.

In the context the following activities desired for the Centres:

1. Assessing the energy requirement of a village/family
2. Development of nurseries and plantation
3. Designing seed collection and storing mechanism
4. Demonstration of the production processes
5. Developing publicity material
6. Build linkages with farming communities
7. Setting up of facilities in farmers location
8. Market Research
9. Some research activities with some additional funding from the KSBDB / other agencies like DST/DBT/MNRE etc.
10. Training of youths in cultivation/machinery repairs/troubleshooting

11. Training of Farmers/Self Help Groups ( with 10-15 training programmes per year)
12. Equipment and Infrastructure maintenance
13. Involving local NGO's and provide technical support to line departments / district administration
14. Any other related activity with the approval of the KSBDB

✓ **A. Awareness Programmes – 12 by each I&D Centers to be coordinated by KSCST**

1. Duration - 1 Day
2. Venue: Gram Panchayaths
3. Contents
  - a) Distribution of Brochures
  - b) Demo through Models
  - c) Audio –Visual Displays (use of Mobile Demo Vans may be considered)

✓ **B. Training Programmes – 8 by each I&D Centers to be coordinated by KSCST**

1. Duration – 1 Day (25 members)
2. Venue: Information & Demonstration Centers
3. Contents:
  - a) Nursery Development
  - b) Plantations Techniques
  - c) Oil Expelling and use of byproducts
  - d) Trans esterification and use of biodiesel
  - e) Value addition to byproducts
  - f) Maintenance

✓ **C. Workshops – only for I&D Centre Staff**

- i. Duration – 2 days
2. Venue: KSCST/MGRIED
3. Contents: Advances in Technologies  
(Proposal to be submitted to KSBDB as and when required for funding)

**D. Organizing Farmers Associations**

1. Farmers Associations be organized in at least 10 villages
2. Responsibility of seed collection
3. Initiation of work on value addition at village level
4. Facilitate entrepreneurship development at village level

**Budget: (for each Centre for one year)**

**A. Non Recurring:**

1. Computer & Accessories
2. Office Furniture
3. Storage Devices

Host institution to provide  
25,000.00

4. Display Board with stand (10 numbers) 50,000.00  
 5. Telephone & Internet Connectivity (BSNL Broadband only) Host institution to provide

Total A (Non Recurring): Rs. 75,000.00

**B. Recurring:**

**1. Salaries**

Sl. No.	Name of the Post	Monthly Emoluments	No. of Post	Total per Annum
1	Senior Scientific officer (to be provided by Host Institution)	-----	1	-----
2	Scientific Assistant	12000	1	1,44,000
3	Technician/Mechanic	8000	1	96,000
4	Casual Labourers	5000	2	1,20,000

✓ Total Salaries: Rs.3,60,000.00

2. Travel: Rs. 50,000.00  
 3. Reports & Publications: Rs. 20,000.00  
 4. Posters & Banners: Rs. 10,000.00  
 5. Office & Computer Maintenance: Rs. 10,000.00  
 6. Plant & Machinery Maintenance: Rs. 10,000.00  
 7. Training Programmes(12 nos.): Rs. 1,80,000.00  
 8. Awareness Camps( 15 nos.): Rs. 1,50,000.00

Total B (Recurring):1+2+3+4+5+6+7+8 Rs. 7,90,000.00

Total Budget for One Center for one Year: A+B

Rs. 75,000.00+Rs.7, 90,000 = Rs. 8, 65,000.00


(Rupees Eight lakh sixty five thousand only)

**NOTE :** The budgetary support by the KSBDB will decline over a period of two to three years . The host institutions are required to recover most of the cost by sale of the biodiesel produced as well as by sale of other bye products. The goal is to make I&D Centres self sustaining to demonstrate the industry & the larger public the viability of bio diesel production for commercial production. The empirical data generated by the I & D Centre will be very useful for economic analysis.

Date: 21.03.2011

Ref: KSBDB/ I & D Centres/CR-07/2010-11

Managing Director

  
 7/2/2012  
 Technical Officer  
 Karnataka State Biofuel  
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