

**Policy Guidelines for Intensive Cultivation of Oil Seed Bearing Trees and
Bio-diesel Production**

**GOVERNMENT OF ORISSA
Science & Technology Department**

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No. /Bhubaneswar

RESOLUTION

**Sub: Policy guidelines for intensive cultivation of oil seed bearing trees
and bio-diesel production**

Bio-diesel produced from vegetable resources is fast emerging as a viable alternative to petro-diesel, particularly in the face of its diminishing supply and the resulting steep increase in price.

Production of Bio-diesel also supplements the general economic growth by way of waste land utilization, employment generation, entrepreneurship development, augmentation of additional source of power, increasing share of organic manure in agriculture etc.

1.0 Potential of Bio-diesel Production

The current bio-diesel production potential of the State has been estimated at approximately 1000 KL per annum. With further utilization of about 30% wasteland of the State the production is likely to increase up to 14000 KL per annum. At B20 this oil can be blended with 70000KL of Diesel and at B5 the same can be blended with 280000KL of diesel.

2.0 Quantification of Benefits of Bio-diesel production:

Total expected production: 14000 KL per annum

Utilization of wasteland: 0.6 Million Hectares

Employment generation: 100 million man days

Additional organic manure: 42,000 tons

With the above consideration in view, Government has been pleased to decide the following guidelines for implementation and promotion of Biodiesel in the State.

3.0 Objectives and strategies:

The main objective of the policy is to enhance economic growth through maximisation of production of bio-diesel in the state. Other objectives are:

- 3.1 To put at least 30% wasteland of the State into effective use through cultivation of oil seed bearing trees;
- 3.2 To enable the poor and disadvantaged people of the society to take up cultivation of oil seed bearing trees;
- 3.3 To fix up the minimum support price of oil seeds;
- 3.4 To enable interested and eligible entrepreneurs to set up bio-diesel production plants;
- 3.5 To provide suitable market linkage to bio-diesel producers to sell their product, and
- 3.6 To set up quality control facilities to guide entrepreneurs to produce BIS standard bio-diesel.

4.0 Operative period:

The scheme for promotional and fiscal incentives for intensive of cultivation of tree borne oil seeds and establishment of bio-diesel production units will come into operation with immediate effect and will remain in force for a period of TEN years.

5.0 Cultivation of Oil seed bearing trees:

5.1 Propagation of oil seeds

Although several oil bearing trees like Karanj, Mahua, Polang, Kusum, Neem, Simarauba, Sal, Linseed, Castor, Baigaba etc. are native to Orissa, systematic propagation and processing of these seeds is very important in view of large scale commercial production of bio-fuels. However, the proposed magnitude of the campaign calls for well laid out actions and well defined roles and responsibilities of different stakeholders.

5.2 Selection of Oil bearing Trees:

Except Polang which grows well in regions closer to the sea coast all other species can be grown all over the State even on marginal and degraded lands.

Oil seed bearing trees can be chosen depending upon the local agro-climatic conditions and economic feasibility for large scale bio-diesel production. *Jatropha Curcas*, however, is a generally accepted bio-diesel species because of its adaptability to all types of harsh conditions.

5.3 Supply of seedlings:

Government and private nurseries shall be encouraged to prepare seedlings of Bio-fuel trees and supply the same to interested farmers, co-operatives, Self Help Groups etc. at moderate prices. Financial incentives should be provided to women self help groups, grass root level Non Government Organizations/Community Based Organizations and individuals in tribal sub-plan

areas for raising nurseries so as to build up a strong and continuous seedling supply chain.

5.4 Availability of land for cultivation of oilseed bearing trees:

About 2 million hectares of land is available under the categories of barren and uncultivated land and fallow lands. A major portion of this land can be utilized for cultivation of oil seed bearing trees. Besides, huge areas of degraded forest are also available in the State where such cultivation can be taken up. Cultivation of oil seed bearing trees can also be taken up on field boundaries, tank bunds, fences etc.

5.5 Distribution of land:

5.5.1 Identification of land:

While farmers have to be encouraged to cultivate Bio-fuel plants along the fencing and the bunds of cultivated lands, the very success of the programme depends on raising such plantations on marginal and degraded lands. Such areas coming under common land, wasteland, canal and tank bunds, degraded forests, along the railway tracks, highways have to be identified by designated Government Departments and given on long term lease to interested Van Sanrakshan Samittees , Pani Panchayats, co-operatives, Self Help Groups, Tree Growers' Societies etc. for plantation purpose.

5.5.2 Eligibility

Under these policy guidelines all families living below poverty line are eligible for government incentives for cultivating oil seed bearing trees.

Self Help Groups, other farmers groups, associations, consortia etc. with more than 50% members belonging to the BPL category will be preferred.

5.5.3 Allocation of wasteland:

Waste land in suitable agro-climatic zones will be identified by concerned Government functionaries and allotted for the purpose of cultivation of oil seed bearing trees to different categories of beneficiaries as under

Individual farmers : 2.5 hectare per beneficiary
belonging to BPL
categories

SHGs/ VSS/
Bhumi Panchayats/
Other recognised
farmers groups etc. : 25 hectares per group

Allocation of land will be made as per prevailing Acts of the Revenue Department under OLR/OPLE/OGLE.

Van Suraksha Samittees with due permission of the forest Department may also raise oil seed bearing tree plantations in forest and degraded forest lands. In such cases the quantity of land to be allocated per VSS may be decided by the forest department.

The above arrangement, however, does not prevent others to grow plantation on their own land.

5.6 Financial incentives:

5.6.1 Support price of oil seeds:

In order to facilitate farmers to sell their oil seeds, State Government shall fix up remunerative support prices for purchase of different oil seeds suitable for production of Bio-fuels.

5.6.2 Incentives for raising commercial plantations:

For raising commercial plantations different categories of cultivators can avail financial assistance under back ended credit linked subsidy programme of National Oilseed and Vegetable Development (NOVOD) Board under the Ministry of Agriculture, Government of India. (Annex-I)

For cultivation of oil seed bearing trees at present subsidy @ 30% subject to the benchmark cost of Rs 30,000/- per hectare is available under the NOVOD guidelines. The pattern of assistance is 30% subsidy, 50% bank loan and 20% beneficiary share.

6.0 Establishment of Seed collection centres and buy- back arrangements:

Government /private /NGO managed seed collection centres with adequate infrastructural facilities shall be established at well connected locations for collection and preservation of seeds. Such collection centres shall have facility to determine the oil content of seeds, grade and certify the seeds on the basis of their oil content and purchase the same from the farmers at support prices determined by government.

7.0 Establishment of Bio-diesel production centres

Bio-diesel production can be low tech, and is not capital intensive. Bio-diesel production does not require economy of scale. There is no minimum size for a bio-diesel facility and small decentralized bio-diesel facilities do not require dedicated technical staff support; they can be operated by locally trained non-technical staff.

Eligible entrepreneurs shall be entitled to subsidy as per the special package offered under Self Employment Programme implemented by the Industries Department. Such special package allows 15% capital subsidy and 3% interest subsidy.

Financial assistance and other incentives for setting up complete bio-diesel production units shall be given to individual entrepreneurs as well as groups as per relevant provisions of IPR, PMRY, and KVIC/KVIB.

All such incentives shall be in consonance with the Self Employment Policy of the State Government.

7.1 Selection of Entrepreneur:

Entrepreneurs for setting up bio-diesel plants shall be selected as per selection procedure in vogue of the District Industries Centres (DIC).

8.0 Preparation of Detailed Project Reports:

Standard priced DPRs for different capacities of Bio-diesel Plants shall be made available to the selected entrepreneur by OREDA. Location specific amendments to the DPR, if any, shall be incorporated by OREDA subject to verification of details and on payment of costs of such verification etc.

9.0 Establishment of Quality Control centres:

Bureau of Indian Standards (BIS) has specified standards for quality of Bio-diesel for blending with petro-diesel in India. Indian Oil Corporation has also set up certain quality standards and norms for procurement of Bio-diesel by them.

The entrepreneurs in order to sell their bio-diesel must adhere to the above standards and norms and such adherence should be monitored by suitable Quality Control Facilities created under the State Nodal Department / Agency.

Such facilities shall also duly certify the Bio-diesel following which sale to indenting buyers or consumption for one self can be affected by the respective Bio-diesel unit.

10.0 IEC Activities:

As of now, there is very little mass awareness about organized plantations of oil seed bearing trees in the State. The opportunities and potential to various beneficiaries like farmers, traders, industry and consumers have to be properly articulated. Booklets, brochures, manuals etc. have to be prepared in Oriya detailing the package of practices in plantation of bio-fuel trees , collection and preservation of seeds, buy back arrangements, economics, financial incentives, loans etc. and widely circulated among farmers. Government Departments like Agriculture, Forest, OUAT, Krishi Vigyan Kendras , PRIs, NGOs and other grass root level extension functionaries , electronic media, etc. should be adequately geared up to take up the task of awareness and education. Suitable budgetary provisions should be made by the State Government for such extensive awareness and education campaigns.

11.0 Role of OREDA

Orissa Renewable Energy Development Agency, in short OREDA, will act as the Nodal Agency for the entire programme and function as the single window for promotion and facilitation of all projects prepared under these guidelines.