

Indian Biofuel Policy

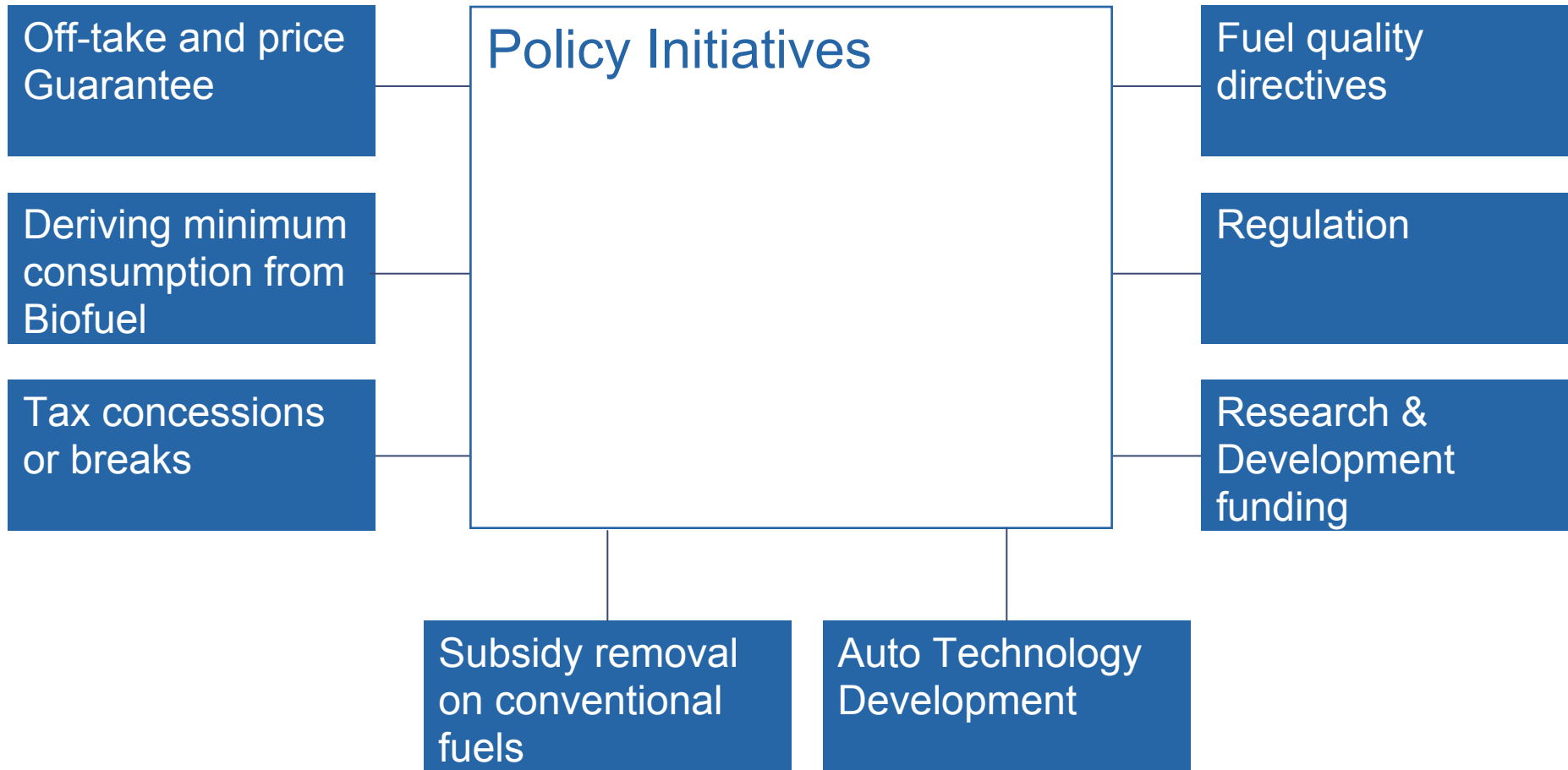
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The Biofuel Policy Objectives

- Various analyses have suggested that both biodiesel and bio-ethanol produce substantially less CO₂ emissions (depending on the particular feedstock) than their fossil fuel counterparts.
- Domestically produced biofuels would help reduce reliance on imports of crude.
- Protect consumers from global volatile prices of crude.
- Promote free competition.

Typical internationally deployed policy measures attempt encouraging production, trade, emission control and investments



Policies need to be designed after due assessment of counter-arguments the biofuel industry is facing despite many positives.



- Energy Security
- Emission Control
- Agriculture promotion....
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- There is an entrenched petroleum import lobby
- Can be grown anywhere, with least input – a wishful thinking
- ‘Fuel-switch’ & baselines make CDM benefit impractical
- Farmers work on handkerchief-sized plots
- Trade difficult; fuels need to be ‘commodity’
- Corn ethanol has a negative fossil energy balance
- Ethanol has a negative CO2 impact
- Increased corn ethanol production is increasing prices for corn grain
- Biofuels exacerbate world hunger
- Jatropha is not a native species of India

Biofuel Initiatives by Government of India

- In India, the Indian Power Alcohol Act 1948, mandated the blending of power alcohol in petrol as early as 1948.
- This Act was repealed in 2000, as part of an administrative reforms drive to repeal legislation that had not been used.
- Planning Commission submitted a report on development of Biofuel in June 2003.
- 5% Ethanol blended Motor Gasoline was mandated in 9 major sugar cane growing states and 4 union territories from 1st Jan 2003.
- 5% ethanol blending in MG was extended to 20 states and 4 union territories from 1st Nov 2006 subject to commercial viability.

Biofuel Initiatives by Government of India

- Recently, a group of ministers headed by external affairs minister Mr. Pranab Mukherjee has recommended that oil companies should immediately move to 5% blending in all states except Jammu & Kashmir, the north-east and the island territories.
- The next stage is a voluntary shift to 10% blending from October of this year, which might not be feasible due to lack of infrastructure.
- By October 2008, oil companies will mandatorily have to blend petrol with 10% ethanol.
- A cabinet nod is required after the GOM's recommendations.

Biofuel Initiatives by Government of India

- “National Mission on Biodiesel” was launched in 2003 to address socio-economic and environmental concerns.
- The launch was proposed in two phases: By 2006-07, Phase 1- Demonstration project. By 2011-12, Phase 2-Self sustaining expansion.
- Biodiesel Purchase policy issued-1st Jan, 2006.
 - Up-to a blend of 20% can be marketed immediately, provided the OMCs do not incur loss due to pricing of bio-diesel.
- National Biofuels policy is under finalization. The policy has revised the national indicative targets for biofuel blending. The aim of the policy is to project short term -5% by 2012, medium term-10% by 2017 and long term-20% beyond 2017.

Key Highlights of the Biodiesel Purchase Policy

- With effect from 1.01.06 the public sector oil companies shall purchase bio-diesel as per specified standard at the rate of Rs. 25/litre*** (inclusive of taxes, duties, transportation costs). *** Rates revised later
- The purchase centers are identified in consultation with oil marketing companies on the basis of availability of minimum testing facilities.
- Rolling out of mass awareness programmes on plantation, collection of seeds and extraction of oil, by PCRA in association with Ministry of Panchayti Raj and state Government.
- Progress of the implementation of the biodiesel purchase policy by the oil marketing companies will be monitored

Highlights of the Draft National Biofuels Policy

- A 'National Biofuel Development Board' is proposed to be created.
- The Board would develop the roadmap for use of biofuels in petrol and diesel engines in a time bound manner besides taking necessary steps to introduce the policy measures.
- A Biofuel Development Fund would be created to meet financial requirement for implementing the policy measures.
- The National Biofuel Development Board would administer this fund.
- The policy has revised the national indicative targets for biofuel blending. The aim of the policy is to project short term -5% by 2012, medium term-10% by 2017 and long term-20% beyond 2017, demands and plan for the substitution through various forms of biofuels.

Highlights of the Draft National Biofuels Policy

- The price of biodiesel would be matched with diesel price, after excise duty, at the oil depots of the petroleum companies.
- In view of the uncertainty in feedstock and market pricing and also the initial high cost of technology; excise duty and State VAT exemption to blended part of biodiesel in diesel would be extended for 7 years and reviewed thereafter.
- The Government (State and Central) would announce a Minimum Support Price and make arrangements to buy seeds, if the market price falls below the Minimum Support Price.

- A specific authority Chhattisgarh Biofuel Development Authority (CBDA) set up on 26.01.2005. It's major objectives-
 - Promoting the R&D facility for undertaking need based research, developing appropriate technology and extension packages to attain the targeted output.
 - Increasing rural income and women empowerment.
- Govt. fallow land is being offered on lease to the private entrepreneur to undertake Jatropha plantation at rent To put up biodiesel plant of appropriate capacity :-
 - First Year Rs 100/ - per Ha; Second year Rs 225/ -per Ha;
 - 6th and 7th year Rs 500/- per Ha; 8th year onwards Rs 1000/- per Ha; and also

State Biodiesel Programmes and Policies: Govt of Chattisgarh Initiatives

- Support prices for Jatropha and Karanja seed and their oils are declared as Rs 4.50/- per kg and Rs 18/- per liter respectively.
- Initiatives taken by CBDA for promotion of Biofuels :-
 - 5 crore saplings have been distributed to farmers, private agencies and various department for planting on their fallow land.
 - 95 farmers training programs have been organized at various places in Jatropha cultivation. About 10,000 have been trained.
 - 156 programs in 6 districts have so far been organized through Lok Kala Jatha (Local Artist Troups) for sensitizing farmers in local language regarding various economic and social benefits of Jatropha.
 - CBDA has setup 1 KL per day biodiesel manufacturing plant at Raipur and the same has started production also after due trials. Currently Biodiesel so produced is being used in the CM's official vehicle, department buses and in public transport.

- Uttarakhand Bio-fuel Board (UBB) has been constituted as a nodal agency for bio-diesel promotion in the state.
- The UBB has already implemented Jatropha plantation in 29 Van Panchayats, covering an area of 350 Hectares benefiting 187 families by this plantation activity.
- UBB has established Jatropha Gene Bank to preserve high yielding seed varieties.
- Beneficiaries have been selected from Van Panchayats with a criterion that they should be BPL and priority has been given to SC/ST.
- Each beneficiary has been issued identity cards so that they may open account in bank with zero balance, right person gets the payments for plantation and seed costs.

State Biodiesel Programmes and Policies: Rajasthan

- The Rajasthan Rural Development and Panchayati Raj Department is set to establish a biofuel development authority that will be manned by 17 people.
- In January 2007, the state cabinet introduced a policy for cultivation, processing and utilisation of biofuel plants like jatropha and karanj on 4.84 million hectares of cultivable wasteland with special emphasis on private sector participation.
- The rural development and panchayati raj department was made the nodal agency for monitoring the policy. As per the policy, 30 percent of the land would be given to private and public sector companies, while 70 percent would be allotted to self-help groups (SHGs).

Ethanol: Issues and Outlook

- The ethanol required for a 5% blend in petrol nationally may seem to be available.
- Due to sugarcane rain fed cultivation, domestic sugarcane molasses may not represent a reliable feedstock.
- Further, the dynamics of the molasses/ethanol industry may be better understood in terms of Indian control policies.
- The Central government sets the policy regarding ethanol blending, but the State governments control the movement of molasses and often restrict molasses transport over State boundaries.
- State governments also impose excise taxes on potable alcohol sales, a lucrative source of revenue.

Ethanol: Issues and Outlook

- Review of these policies as well as development of alternative feedstocks could provide solutions to these problems.
- Crops like sweet sorghum and tropical sugar beet represent attractive alternate feedstock for ethanol.
- It is expected that new technologies like enzymatic fermentation of cellulose will, in the near future, enable ethanol to be manufactured at competitive prices from cheap, easily available material like wood and crop residue.

Biodiesel: Issues and Outlook

- India's current biodiesel technology of choice is the transesterification of vegetable oil.
- Since the demand for edible vegetable oil exceeds supply, the government has decided to use non-edible oil from Jatropha/Pongamia seeds as biodiesel feedstock.
- It is important that large-scale cultivation of Jatropha/Pongamia is established before biodiesel production can meet even a 5% blending requirement nationally.
- Though many states have come out with favourable policies to provide land to support the private sector participation in biofuels, care needs to be taken to ensure that the rights of the land owners as well as users of such land (for grazing etc.) are protected.

Biodiesel: Issues and Outlook

- Further, the economics in the different segments of the supply chain need to be addressed.
- The cost of cultivation and the return per hectare are the most important criteria for considering the economic viability of the plantation when planning and implementing a project at such a large scale across the country.
- Finally having a national biofuels policy in place that identifies clear responsibilities for the various agencies and addresses the concerns of the participants would boost the sector development.

Proposed Policy Actions – Biodiesel

- Development of Jatropha as Biodiesel crop
- Identification of land for nursery raising & plantation
 - Concessional loans to farmers
 - Buy-back guarantee for purchase of seeds
- Arrangement for seed collection and oil expelling
 - Selection of technology & economies of scale
 - Categorisation – renewable, Non-ODS, GHG reduction, pollution substitution refinery
 - Blending & marketing through OMCs
 - Duty & tax exemptions



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