

**Can India reduce the foreign  
exchange outgo on oil to a third  
of the current value?**

**Can one derive simultaneous  
societal benefits?**

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Current Crude oil  
utilization in the  
country

- The country uses about 140 million tonnes of crude oil (fossil fuel). It imports 70 % of this amount at 27 to 30 billion USD (Rs. 120,000 to 140,000 crores)
- The most critical of the uses is in reciprocating engines for heavy transport that has significant impact on inflation index
- Many industries depend for electricity generation on large reciprocating engines and these use furnace oil. Even larger number of industries depends on furnace oil for high grade heat.
- The crude oil prices moving from the 27 to 30 USD/barrel bracket to about 50 USD/barrel bracket in six months and the predictions of this climbing to 100 USD/barrel bracket in an year or so because the world oil production including all sources is peaking at present.

Crude oil –

HSD - High Speed Diesel,

LDO – Light Diesel Oil,

LSHS – Low Sulfur Heavy Stock, FO –  
Fuel Oil or Furnace Oil

- Gasoline, LPG, Kerosene
- Waxes and other products

| <b>Derivative</b>   | <b>Amount<br/>MT/yr</b> | <b>Nature of use</b>   |
|---|-------------------------|--|
| <b>High speed diesel</b>                                    | <b>40</b>               | <b>Heavy vehicle transport</b>                                     |
| <b>FO/LSHS<br/>(Furnace oil/Low sulfur<br/>heavy stock)</b> | <b>14</b>               | <b>Stationary power generation<br/>Combustion in furnaces</b>      |
| <b>Naphtha/NGL<br/>LDO<br/>(Light diesel oil)</b>           | <b>12<br/>2</b>         | <b>Stationary power generation<br/>Stationary power generation</b> |
| <b>Total</b>  | <b>68</b>               | <b>Transport and stationary power</b>                              |
| <b>LPG</b>  | <b>10</b>               | <b>Domestic cooking and<br/>Vehicle transport</b>                  |
| <b>Gasoline (petrol)<br/>Kerosene</b>                       | <b>9<br/>12</b>         | <b>Vehicle transport<br/>Domestic cooking/power</b>                |
| <b>Total</b>  | <b>31</b>               | <b>Domestic / transport<br/>/stationary power</b>                  |

**MT/yr = Million tonnes per year**

Q: Can we reduce the foreign exchange outgo by indigenous oil production?

Can we benefit by associated activities?

A: Use the assets, namely **unused land and water with nutrients** to create oil seeds, and use waste biomass from these operations and also use the urban, peri-urban solid wastes to create energy supplies – oil for transportation and solid fuels for rural energy security

- The Assets and technical ways of dealing with them
- Are these ideas so new at all? And if not why have they not worked
- The key ownership and networking required
- New Job creation
- Maximizing the output-to-input finance and reduction of the plan duration
- The statement of the working plan