

How far can Cellulosic Ethanol help India?

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In the world's second highest populated country, it comes as no surprise that we face shortages and rise in demand in various sectors of the economy, one of it being the great and increasing demand of energy resources. In India, like all other countries, one of the majorly utilized resource, apart from coal, natural gas, hydroelectricity, etc. are the petroleum products especially the transport fuels, of which the demand has further been accelerated by the of late decrease in the oil prices. There is a lot of research being done as to what can successfully replace gasoline as an equally efficient and more environmental friendly fuel. One of these alternative fuels being ethanol.

Ethanol fuel is trying to be increasingly used in our transport fuels, especially gasoline as an additive, despite its drawbacks. As of late, to reduce the pressure of ethanol production on the sugar and food industries, the government of India is looking forward to the formulation of Cellulosic ethanol, ethanol extracted out of agricultural wastes, on a large scale to be used in place of the traditional molasses based ethanol. The introduction of this cellulosic ethanol, also known as the 2nd generation ethanol (2G ethanol) could curb to a large extent the burden on the fossil fuels, and with the benefit of India largely being an agricultural economy there would be no shortage of raw materials. The first step towards this initiative will be completed once the government manages to reach the 20% blending rate of gasoline mandate by 2030, which itself will bring about a significant decrease in the environmental consequences and costs previously levied due to increase in demand of the petroleum products. In this paper discussed is the demand and availability of raw materials for the 2G ethanol to fulfill the 20% mandate of ethanol blending, and the consequences of the thriving ethanol industry in the country which would positively impact and help India's international environmental obligations, petroleum costs and as well as the agricultural sector.