

ISMA – DATAGRO SEMINAR

on

Ethanol and Sugar

Ethanol distribution & Logistics in India – Issues and Prospects



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Ethanol Distribution

- During the current Ethanol Supply Year (ESY) 2021-22 (Dec.-Nov.):
 - a. total requirement at 10% blending - 4590 million litres
 - b. total quantity contracted - 4509 million litres
 - c. total quantity supplied - 3333 million litres
 - d. blending %age achieved - 10.03%

(figures as of 4th Sept., 2022)

Ethanol Distribution.....contd.

- Out of the above :
 - a. quantity contracted by sugarcane based distilleries - 3658 million litres
 - b. quantity supplied by sugarcane based distilleries - 2870 million litres
 - c. quantity contracted by grains based distilleries - 851 million litres
 - d. quantity supplied by grains based distilleries - 463 million litres

Target

- Target to achieve 10% blending has been achieved during ESY 2020-21
- Government of India has fixed target to achieve 20% blending by ESY 2025-26
- Earlier this target was fixed for 2030
- It has been preponed by the Government
- As per NITI Aayog, Government of India, total requirement for 20% blending, a total quantity of 10160 million litres would be required

Target.....contd.

- Ethanol from sugarcane based feedstocks is majorly produced in the States of Uttar Pradesh, Maharashtra and Karnataka
- Therefore, ethanol has to be moved out of these States to other States
- Though Grain-based ethanol manufacturing facilities are coming up in other States, ethanol would be required to move out of these States
- Looking at the huge requirement of 10160 million litres, logistical infrastructure has to be streamlined and strengthen-up
- Also, entire quantity has to be moved from manufacturing facilities to blending points

Logistics - Issues

- Currently, in India, entire quantity of ethanol is moved through truck-tankers (TTs) i.e. road movement
- Movement of ethanol by road becomes costlier due to increased cost of road transport
- Simultaneously fuel is burnt to carry fuel
- Also, to carry the entire quantity of 10160 million litres of ethanol, approx. 3,50,000 TTs shall be required (on the basis of TTs of 29 KLs)
- Movement of these number of TTs would result in GHG emission of approx. 76 Million MT

Logistics - Prospects

- To overcome the issues indicated above and to move huge quantities of ethanol from one place to other, including the far-flung areas, following options are available for consideration:
 - a. movement of ethanol through Rail Tank Wagons / Rail Rakes – can be moved in dedicated rail tank wagons
 - b. movement of ethanol through RORO / Containers by Rail – RORO model of Railways wherein trucks are carried by Rail
 - c. movement of ethanol through Pipelines – dedicated pipelines to be laid down for the purpose
 - d. movement of ethanol through ferries / steamers in coastal area

Suggestions

- Development and improvement in infrastructure for Rail movement
- Establishment of rail loading hubs near ethanol manufacturing clusters
- Movement of TTs carrying ethanol, on priority, by the Railways on RORO Model
- Development of infrastructure to move ethanol through waterways where it is possible

Thank you