

Chapter 3

Entrepreneurial Opportunities In Bioenergy

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ABSTRACT

Entrepreneurism is vital as entrepreneurs push technological change and innovation, consequently generating economic growth. Bio-energy entrepreneurship is the focal point of this chapter, along with entrepreneurial motivations, opportunities, and market drivers. Market drivers include government policies, trends in energy use, and progression of the energy sector into more renewables. Several factors influence entrepreneurs, which involves several factors ranging from the environment to economics, pioneering spirit, and social factors. With the help of entrepreneurial motivations and market drivers, individuals can easily visualize and plan all the bio-energy sector opportunities. Bio-energy entrepreneurs moderate the market of transformation of biomass to energy. The bio-energy field is filled with stories of failures, successes, and everything in between. There is a marginal difference between a failure story and a success story in the modern bio-energy sector, which narrow down to timing.

1. INTRODUCTION

According to an assessment by the International Energy Agency, by 2026, India is on track to become 3rd world's largest market for ethanol behind Brazil and the United States of America, having increased ethanol requirement to an anticipated three billion litres amid 2017-2021. According to the agency, by 2026, Asia is expected on the way to surpass Europe in provisions of bio-fuels output, thanks to India's expanding appetite. While by 2026, yearly global demand for biofuels is expected to increase to 186 billion litres, an increase of 28%, Asia is expected to contribute over thirty per cent of new output during the predicted era. The main driver of demand expansion is thought to be government policy. Additional

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issues such as public transportation fuel demand, expenses, and policy design will also significantly impact. In June, Prime Minister Narendra Modi stated the government is committed to achieving a 20 per cent ethanol blend in gasoline target by 2025. Previously, the deadline had been set for 2030. According to CRISIL analysts, roughly 16-18 million tonnes of gasoline transactions are expected to be replaced due to ethanol mixing. It will be difficult for India to meet its 20 per cent blending goal in just five years, But even attaining 11 per cent blending would make it the world's third-largest ethanol market behind the United States and Brazil, the IEA study concluded, making it the world's third-largest ethanol market behind the United States and Brazil (Street, 2012). A considerable portion of India's current vehicles could be incompatible with fuel blends containing more than 10% ethanol. Retrofits are an option However, given the scale of the undertaking, this may be impractical, the IEA stated, adding that flex-fuel vehicles or vehicles otherwise compatible with 20% blends will need to be made accessible. Consumers will need to be persuaded to buy them. (Street, 2012) At present, the percentage of ethanol in gasoline is roughly 8.5 per cent. Under the Ethanol Blended Petrol (EBP) programme, the government has already reintroduced the administered price mechanism for ethanol procurement, allowing ethanol production from a variety of feedstocks such as heavy molasses, sugarcane juice, sugar, sugar syrup, damaged food grains, maize, and surplus rice stocks with the Food Corporation of India (FCI).

In Ethanol Allocation Year 2016-17 (December 2016 – November 2017), government governed oil marketing companies obtained 66.5 crore litres of ethanol, which grew to 173 crore litres in the Allocation Year 2019-20. As previously stated, the government authorised oil CPSEs to build 2nd Generation (2G) Ethanol Biorefineries using agri-residues and biomass in various parts of the country. OMCs are building 12 2-G biorefineries for a total asset of Rs 14000 crore. Ethanol purchased through the EBP programme is subject to a 5% GST rate. The EBP initiative attempts to alleviate environmental problems, lower oil imports bills, and provide farmers with a remunerative income. For Ethanol Supply Year 2020-21, the procurement price of ethanol was Rs 62.65 per litre for sugarcane juice, Rs 51.55 per litre for spoiled food grains, Rs 56.87 per litre for rice available with Food Corporation of India, Rs 51.55 per litre for maize, and Rs 45.69-57.61 per litre for heavy molasses. After acquiring statutory permits, sugar mills and distilleries are allowed to build ethanol facilities, and the government announced an interest endowment scheme to aid in the construction of these plants. (*International Energy Outlook 2013*, 2013)

2. ENTREPRENEURSHIP MOTIVATIONS

The primary movers or significant stakeholders in all bioenergy entrepreneurial ventures may be motivated by various factors. Lin (2008) acknowledged three key expansion motives for entrepreneurs: social welfare, environmental and entrepreneurial. Bioenergy will solve a problem or issue with the environment in a project with environmental implications. The environmental incentive can be seen in swine farms whose expansion plans are thwarted by concerns about the increased stench. An anaerobic digester that produces biogas eliminates stink dilemma whilst producing energy, used to generate electricity and operate agricultural equipment in the farm (biogas is cleaned to eliminate contaminations, subsequently compressed and consumed as compressed natural gas). (*Cultivating Entrepreneurship | University of Maryland Extension*, n.d.) There are several definitions and examples of social welfare, including delivering energy to a community at a cheap rate than traditional generating, creating employment for the community, and raising tax revenue. When public leaders sought to fund, manufacture, or recruit ethanol factories to their area, the corn ethanol boom provided multiple cases in point of social welfare

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