

Pramod Chaudhari, Chairman, Praj Industries

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Pramod Chaudhari, Chairman, Praj Industries, did his engineering from Indian Institute of Technology, Bombay (IIT) and Advanced Management Programme at Harvard Business School in 1995. His career spans over 40 years of professional and entrepreneurial endeavours. He established Praj in 1984 and is now intensifying the Company's activities into the knowledge domain of biotech processes and systems in the global arena. The focus is on clean technologies coupled with alternate feedstocks for renewable energy sources. He has contributed to the National Biofuels Policy as a member of the Committee on Development of Biofuels - Planning Commission, Government of India, for introduction of renewable fuels to India. Pramod is the Founder Trustee of Pune International Center (PIC).

Praj Industries is a global process solutions company driven by innovation and integration capabilities, offers solutions to add significant value to Bio-ethanol facilities, Brewery plants, Water & Wastewater treatment systems, Critical Process Equipment & Systems, Hipurity solutions and Bio-products. Over the past 3 decades, Praj has focused on Environment, Energy and Agri-process led applications. Praj has been a trusted partner for process engineering, plant & critical equipment and systems with over 750 references across five continents. Solutions offered by Praj are backed by its state of the art R&D Centre called Praj Matrix. Led by an accomplished and caring leadership, Praj is a socially responsible corporate citizen. Praj is listed on the Bombay and National Stock Exchanges of India.

Replying to Anil Mascarenhas of IIFL, Pramod Chaudhari, Chairman, Praj Industries says, “Given the impact of fossil fuels on the environment and human health, there has been increasing focus towards renewable energy sources like solar energy and cleaner non-hydrocarbon automotive fuels such as ethanol globally as well as domestically.”

Intensified activities are being witnessed in renewable energy as far as clean technologies and alternate feedstock are concerned. Walk us through the developments in recent years and Praj’s contribution to the same.

Yes, given the impact of fossil fuels on the environment and the human health, there has been increasing focus towards renewable energy sources like solar energy and cleaner non-hydrocarbon automotive fuels such as ethanol globally as well as domestically. India is a net importer of petroleum products and despite low global crude oil prices, India is spending a massive Rs 4.5 lakh crore on crude imports, which was Rs 7.5 lakh crore earlier. Thus, there is an urgent need to the alternative fuel economy. To that end, the government is promoting alternative fuel like ethanol, methanol and bio-CNG. Transport sector contributes 15% to the GHG emission of India and is easier to work on with the use of cleaner fuels like ethanol. These measures will not only help the country reduce its dependence on imported fuels, but it will also boost the rural development and agriculture sector and create additional employment opportunities.



Praj has recently set up a demonstration plant based on its indigenously-developed 2nd Generation technology (2G) to produce ethanol from agri-waste. In fact, Praj is the first company in India to develop its own 2G process called “Enfinity” to manufacture ethanol from biomass or different types of agricultural residues like rice husk, wheat straw, corn cobs & stover, cotton stalk, dried twigs and leaves, bagasse, grasses and forest waste etc. into ethanol with optimum product yields.

Given its benefits, we are implementing an innovative “Techno-Socio-Economic” model that aims to provide end-to-end solutions for our biomass-based ethanol production process. The 2G technology is outcome of 6 years of intense R&D efforts, starting with laboratory trials to pilot scale trials. Our effort is on developing 2G ethanol manufacturing plants with the entire value chain including biomass handling and biomass composition and its impact on the operations.

What expansion have you undertaken in recent times? Tell us about your R&D center.

Praj does not operate or manage any biomass capacity on its own, as Praj is a process solutions provider for bioethanol, alcohol and brewery and critical process equipment, and not a Sugar, OMC or Power company, who would be ideal candidates to have biomass capacities. As a process solutions provider, Praj builds ethanol-manufacturing plants for Sugar companies and OMCs. However, we are committed to invest in R&D to continuously improve our 2G technology for producing ethanol. Today, over 7% to 8% of the global ethanol production is done through Prajtechnology.

Comment on your recent deals with OMCs to establish second-generation (2G) bio-ethanol plants. What will the output be? To what extent will farmers benefit in terms of disposing their agri-waste at a price?

In the last few months, Praj has signed MOUs for second-generation (2G) ethanol plants with the Oil Marketing Companies namely Indian Oil Corporation Ltd (IOCL) and Bharat Petrochemical Corporation Limited (BPCL). IOCL is setting up two second generation (2G) bio-ethanol plants one plant each at Panipat (Haryana) and Dahej (Gujarat), which would have capacity to produce 100 Kilo litres of ethanol per day. The BPCL’s 2G ethanol plant in Odisha will also have a capacity of 100 Kilo litres of ethanol per day. As the second generation bio-ethanol technology uses lingo-cellulosic biomass (agri-residue) as feedstock, farming community is expected to be benefited from additional revenues from agri-waste, which is typically used as fodder and a good part of it is often burned, adding to pollution.



To ensure sustainable supply of the feedstock/raw material for the ethanol producers, Praj is developing a structured Biomass Management Ecosystem that benefits farmers. Praj's ecosystem incorporates tie-ups with farmers for the infrastructure - machinery and logistics – for effective procurement and transportation of the agriculture waste from the farmland to the ethanol plants. While contributing to the cleaner environment, our Biomass Management Ecosystem also brings numerous indirect benefits such as improved livelihood, rural employment, skills development and additional revenue for farmers, which is in sync with various government schemes such as National Rural Livelihoods Mission that aims at promoting self-employment and organization of rural poor.

What are the steps needed to make ethanol more viable and cost attractive?

It is heartening to see that ethanol blending program is catching up good momentum in India in the last 2 years. To make it more viable, a firmer policy with focus on implementation of the blending mandate will help. Additionally, alternate feedstock to molasses such as agri-waste needs to be harnessed. 2G ethanol technology exactly serves this purpose.

As far as the 2G technology is concerned, we are confident of the scale up. As the technology gets further tested and refined, the cost of production will also stabilize.

You are very optimistic about year 2017 as far as bio-fuel space is concerned. Could you cite some reasons?

All our efforts are towards making 2G bio-ethanol technology a success. After remaining under pressure for around two years, the global crude oil prices are on the upswing and if the OPEC and other oil producing countries maintain production cuts, the oil prices may remain firm in the coming years. However, the oil price is just an incidental reason. The more important factor is the environment. Unchecked consumption of fossil fuels is causing serious damage to the environment, resulting in global warming and unusual climatic conditions. We have responsibility towards our environment and to leave a safer world for our future generations, it is important that we control the degradation of our environment.

In November 2015, the United Nations Climate Change Conference at Paris negotiated a global agreement on the reduction of climate change, representing a consensus of the 196 parties attending it. The Paris Conference aimed to reach an international agreement on limiting emissions of carbon dioxide and other greenhouse gases

that are contributing to global warming. The agreement will become legally binding if joined by at least 55 countries which together represent at least 55 percent of global greenhouse emissions. However, this will be easier said than done. While there is no definite timeframe, but the agreement at the Paris Conference is the official recognition that Climate Change must be addressed on war-footing.

What are your expectations from the budget?

Going by the government's actions during the last few months, I expect this year's Union Budget may announce something significant for the people as well as the industry. Expectations are high regarding the increase in the income tax limits for individual tax payers. While there could be some new innovative means of raising government revenues. Overall, we feel that the budget will aim at containing fiscal deficit and keep inflation under control. As representative of an industry that is linked to the environment protection, we would seek tax exemptions for activities that contribute to betterment of the environment.

Your book "As is What is" was recently published. Tell us more about the book.

"As is What is" is a selective memoir that looks into the exciting journey that I and my entrepreneurial venture Praj has undertaken. This is the story of my journey to create an industrial venture that has made an impact on various industry sectors like transportation fuel, waste-water treatment and bio-energy. The book traces my middle-class Maharashtrian roots and upbringing, and my personal and business journey, which I hope can serve as an inspiration to many who aspire to create something significant. The book also captures the journey of Praj during the last three decades, during which it has had its own share of crests and troughs and has witnessed worldwide economic slowdown in some of its key businesses and how Praj has weathered the adverse conditions to emerge a winner.