

A slowing down of the biodiesel industry in Colombia

In recent times, world demand for agricultural products has been driven by population growth and higher per capita income in emerging economies. However, as of the early years of this new century, biofuel development came on stage as a new energizing factor for these products, leading to improved price levels and a positive effect on the profitability of agricultural sources of raw materials for the production of renewable fuels.

As far as biodiesel is concerned, production in different countries is based on oils and fats of animal and plant origin, essentially from local sources. Such is the case in the European Union and Canada with their rapeseed-based production; the United States, Brazil and Argentina with soybean oil as the raw material; and Malaysia, Indonesia and Colombia, with palm oil.

The development of the biodiesel industry has come about as a result of clear policies designed to create incentives through direct support to production and marketing, but always under regulations focused on establishing the biodiesel-diesel blend percentages.

At present, blend percentages are 4 and 7 % (B4/B7) in the European Union, 3 % (B3) in Canada, 2 and 3 % (B2/B3) in the United States, 7 % (B7) in Argentina, 5 % (B5) in Brazil, 5 % (B5) in Malaysia, 10 % (B10) in Indonesia and 10 % (B10) in Colombia, among others. As a result, world production increased from 2 million tons in 2000, to nearly 30 million in 2013, at an average growth rate of 23 % per year.

In Colombia, government support, established a decade ago, led to the development of a biofuels policy underpinned by the economic and productive conditions required to make this fledgling industry a reality in this country. Spurred by the conviction that biofuels were a key driving force for agricultural activity and an environmentally friendly source of employment and renewable energy to diversify our energy portfolio, the initial blend was set at 5 % and then gradually increased up to 10 % nationwide in 2011. This blend is still in force, except in Bogota, where the 8 % blend prevails, and it is expected to be increased to 20 % in a not too distant future.

For Colombian oil palm growers, the development of this new segment in the domestic market presented itself as a great opportunity. Indeed, planting increased substantially starting in the late 1990s, resulting, early in the 2000s, in a supply level well above the local demand, traditionally tied to the production of edible oils and fats, balanced animal feed, and cleaning and home products. At the time, this promoted an increase in export volumes with a negative effect on the revenues for the sector as a result of high logistic costs.

The trend towards saturation of the traditional palm oil market was counteracted by the development of the biodiesel industry and the subsequent demand for this new product. This brought about improvements in product marketing, higher revenues for the sector, and added value for the domestic agribusiness.

Today, there are close to 500,000 hectares planted in oil palm in Colombia. This means that in a few years time, palm oil production will surpass 2 million tons, a two-fold increase over the existing production. Hence, Colombia has the necessary local raw material to meet the needs of the traditional market and to commit steadily to a program of biodiesel blend increases to 15 % (B15) and 20 % (B20).

In response to this opportunity, signals sent by the national government in relation to biofuels have not been consistent with the conditions set forth in the existing regulations. Bogotá and its surrounding areas are still at an 8 % (B8) blend level, and large-scale mining does not use the national biodiesel blend, when the 10 % blend ought to be in use in both cases, as happens in the rest of the country. Moreover, there is greater uncertainty as a result to changes in the initial rules of the game pertaining to the price structure for biodiesel, given that the market is fully government-regulated. In some instances, this has affected the flow of locally produced palm oil sales.

The lack of knowledge about the behaviour of fossil fuel and biofuel markets by some government officials results in attempts at setting equivalent price levels without taking into consideration the fact that cost structures are radically different and respond to different supply and demand conditions.

Unfortunately, while other countries value the economic, environmental and social positive externalities derived from biofuels, in Colombia they are disregarded. The study entitled *Evaluación beneficio-costo del uso del biodiésel como componente en la formulación del diésel distribuido en Colombia (Cost-benefit evaluation of the use of biofuel as a component in the formulation of diesel distributed in Colombia)*, conducted in 2013 by Fedebiocombustibles, shows that the benefits associated with this activity have outstripped the costs by USD \$ 3.3 billion over an 18-year period. The calculation comes from subtracting the costs associated with the implementation of the National Biofuels Programme, estimated at USD \$ 5.457 billion and attributed to tax exemptions and the need to cover the higher cost of biodiesel as compared to diesel, from the overall estimated benefits associated with the use of this biofuel, estimated at USD \$ 8.757 billion. The latter are associated mainly with new rural jobs and reduced morbidity and mortality from respiratory diseases as a result of improved air quality, together with savings in additives for automotive vehicles and logistic costs. The above reflects the positive impact of palm biodiesel as a driver of wealth and economic development for the country.

The bottom line is that the oil palm required to feed biodiesel production resulting from the increase to a 20 % blend (B20) is already on the ground; the benefits in terms of economic growth, rural development, job creation, wellbeing, and contribution to health and the environment, have been proven; the technology and business push required to drive this huge industry are in place. The only missing piece is strong government determination evidenced by clear, long-term policies and the willingness to push biodiesel and palm oil production, giving Colombia a chance to show its potential as a producer of renewable energies such as biofuels.