Fiji Sugarcane Industry Amidst COVID-19 Pandemic

Hirdesh Kumar Sachan¹ · Deeksha Krishna¹

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Abstract Fijian sugar industry is a major performer in Fiji's national economy, although it has been challenged by a range of problems alongside its journey. The latest vulnerability of the amplifying pandemic of the novel COVID-19 (coronavirus) has influenced the sugar industry and its interrelated ventures, in Fiji, and, all through the world. The entire supply chain of the sugar industry has been affected by spillover effects. The Fiji sugarcane industry amidst COVID-19 pandemic and concrete steps taken in response by the government and industry during these difficult times are deliberated in this paper.

Keywords Fiji · Sugarcane · COVID-19 · Sugar industry

Introduction

Fiji's sugar industry, considerably contribute to the socio-economic growth of the country, started in 1800s by British and progressed fast after joining indentured labourers from India (The Fiji Sun 2008). This industry has changed socio-economic life of the cane belt population, particularly in the rural areas up to revolutionary level, facilitated commercial agriculture, generated employment in small to medium businesses, established market retailers, cash crop farming practices, medical development, well-being and credit facilities (Davies 1998; Singh 2020). Subsistence-level farming and sugarcane cultivation are dominating in Fijian agricultural sector and later provide approximately

15% of livelihood to Fijian (Deverall and Lennon, 2005). The sugar industry contributed economically to Fiji's gross domestic product (GDP) and triggered economy previously, but from early this millennium, sugarcane yields charted decline with the current yields lower than 2 million tonnes per year, lesser than about 4 million tonnes before 2000 (Singh, 2020).

The sugar industry in Fiji, which has benefited from numerous agreements and treaties since 1975, is no longer sustainable due to the expiry of the preferential sugar price contracts in 2017 (Singh 2020). This decrease in sugarcane production is attributed to lower sugar recovery and by product rates, high agricultural costs (including fertilisers, transport and harvesting costs), a decline in sugarcane acreage attributed to untimely and/or non-renewal of land leases, higher labour requirements, and increased adoption by farmers and their young generation of white-collar jobs, and less or no interest towards the industry (The Fiji Sun 2008; Singh 2020). Pandemic COVID-19 triggered a public health crisis and a financial crisis in Fiji. The effects of COVID-19 on the Fijian economy are enormous, particularly in the tourism sector, major disruptions to trade flows, a major downturn in economic activities and a substantial effect on public finances.

Indicating the dramatic growth in the number of cases and the continuing possibility of more global dissemination, on 11 March 2020, the World Health Organisation (WHO) confirmed the pandemic of COVID-19. In reaction, many countries closed their borders, restricted or banned international travel, annulled mass meetings and, in various cases, even introduced community, regional or national movements restrictions.

The first confirmed case of COVID-19 was reported in Fiji on 19 March 2020 and increased to five positive cases on 25 March 2020 (WHO 2020). A number of steps had

✉ Hirdesh Kumar Sachan
sachanhk@gmail.com

¹ College of Agriculture, Fisheries and Forestry, Fiji National University, PO Box 1544, Nausori, Fiji

been taken to suspend all passenger flights to and from Fiji, to limit travel within and outside the affected area and to place restrictions on non-essential gatherings. In addition, other steps have since been taken to ensure the health and well-being of Fijians. The Fijian economy is expected to decrease by 4.3 per cent in 2020 after a 0.5 per cent increase in 2019. The economic downturn would be much sharper on the basis of the duration of the pandemic, and the economic repercussions will be much more severe if border closures by major trading partners are prolonged.

The economy is expected to rebound in 2021 and 2022, with a broad-based growth projection of 1.9% and 3.0%, respectively (COVID Supplementary Budget, 2020). The Fiji Sugarcane industry amidst COVID-19 has been discussed, and pragmatic measures taken by the government and industry during these challenging times are discussed herein. The economy is projected to recover in 2021 and 2022, with a large-scale growth forecast of 1.9% and 3.0%, respectively (COVID Supplementary Budget 2020). The Fiji sugarcane industry amidst of COVID-19 and practical steps taken by the government and industry during these difficult times are deliberated in this paper.

Fiji Sugar Industry and COVID-19

The threat of coronavirus has ravaged Fiji, the Solomon Islands, Tonga and Vanuatu. Population at great risk because these countries are having high levels of obesity and healthcare services are still weak. The country's export composition is less diversified than its GDP. It is vulnerable to external shocks due to over-reliance on tourism and remittances, and as regards rural livelihoods, to the high dependence on the sugar sector. The Ministry of Sugar Industry has decided to finalise its first-ever Sugar Industry Policy. The Ministry of Sugar Industry has been allocated \$53.6 million in the 2020–2021 Budget (FBC News 2020).

Mills crushed a total of 182,545 tonnes of cane for the period ending 13th July 2020 representing just under 10% of the anticipated seasonal estimate of cane available for crushing which accounts for an improvement of 33% year on year (FSC 2020). Nationally, mill output has shown an upward trend, with running time utilisation 40 per cent higher than last year and average weekly mill stoppages 28 per cent lower. Sugar production of 14,016 tons is 22 percent higher than in the same timeframe in 2019, but cane purity and recoverable sugar volumes stayed below estimates last year. The 2020 sugarcane crushing season started in Labasa on 10th June, with Rarawai Mill due to open on 23rd June and the Lautoka Mill to follow on 24th June (The Fiji times 2020).

Lautoka mill had a pre-crush problem with boiler fan which was resolved, with local refurbishment and repair. A burst bulk water pipeline also had to be repaired which led the mill deliberately run slowly for first few days. Cane supply was adequate from both manual and mechanical harvesting gangs and close to \$200 million in sugar and molasses sales revenue expected for Fiji in 2020/21 season which would be a major contribution into the Fijian economy in these challenging times (FSC 2020).

Meanwhile, the FSC reported a combined ratio of 9.9 tons of cane to sugar (TCTS). The Lautoka sugar mill had to crush 13.5 tons of cane to make one ton of sugar last week, while the Rarawai mill in Ba needed 12.5 tons of cane to produce one ton of sugar, and the Labasa mill needed 9.9 tons to make one ton of sugar. The three mills crushed 882,905 tonnes of cane as at September 7, 2020 and produced 77,702 tonnes of sugar. Low cane quality crushed at Lautoka was caused by Rarawai several days old cane delivered during the weekend (FSC 2020). The per cent burnt cane delivered at Lautoka increased to more than 66 per cent which impacted can quality and TCTS negatively. Farmers sent 71 per cent burnt cane to Rarawai mill which affected sugar production (The Fiji times 2020). The Fiji Sugar Corporation (FSC) began loading more than 40,000 tons of sugar for export to the USA and Spain as the first vessel to ship the two bulk cargoes from the Malau and Lautoka terminals to Labasa on Tuesday 18th August, 2020. (The Fiji times 2020a).

During June about to three hundred lorries laden with cane were parked at the Rarawai mill after a breakdown halted operations at the factory which resulted in farmers from Rakiraki to Cuvu in Sigatoka sending their cane to Ba (The Fiji times 2020a).

The government had discussion with the Indian Government on assistance in improving the rail system in Fiji. FSC deployed 23 trucks to cart cane in Tavua and Ba to the Rarawai mill. Government provided support to ease the transportation system in sugarcane industry and budgeted a total of \$5.9 million and was given to FSC to procure 44 trucks, out of which 33 trucks will provide services to the cane farmers in Labasa this year at affordable cartage rates. FSC introduced decreases in sourcing to necessary products only; stricter regulation and reduction of maintenance expenditure; locking back resources and contracting activities; pay cuts of at least 15 per cent for senior management, 7.5 per cent for staff officers and 5 per cent for all non-staff employees; audited administration and support functions for the initial four-month period, unpaid leave introduced for some 130 employees identified as due in both processes and retirement and job arrangements (Fijivillage 2020).

Despite the impacts of Tropical Cyclone Harold and COVID-19, Government support was provided for cane

farming to entice young farmers to secure land for cane farming through the new farmers programme to increase cane productions. In the last two years, 117 new farmers, 18 of whom were females, have been assisted in Labasa mill area. The group of farmers secured leases and have commenced cane farming. Government is also providing cane planting grant of more than \$47 million in all mills areas since 2017 (The Fiji Sun 2020). There are 38 cane harvesters in Labasa this year, and FSC has organised training sessions for 30 locals to operate the mechanical harvesters. Around 35 per cent or 231,700 tonnes of cane was expected mechanically harvested this year in Labasa, and it was expected that there would be no stand over cane this season as the mill would close earlier than expected because the Government had increased support for mechanical harvesters (The Fiji Sun 2020a). Sugar cane farmers across the country received their third cane payment from 2nd April 2020 a day earlier than anticipated and became a welcome relief to many farmers and their families who worked tirelessly to revitalise the sugar sector (FBC News 2020a). The Ministry of Sugar introduced seven capital programmes worth \$50.9 million in this financial year. The projects will allow farmers to advance cane production through new Cane Access Roads, Sugar Cane Growth & Farmers' Assistance, Sugar Stabilisation Fund, New Farmers' Assistance Program, Fertiliser Subsidy, Weedicide Subsidy and Cane Cartage. The effort was funded by the Project Steering Committee of the Heads of Business Enterprises to provide strategic vision and to oversee the implementation of the programs (FBC News 2020b).

Prospects for Fijian Sugar Industry

Sugarcane is a long-term labour-intensive crop and thus planting and field operations can be affected by lockdowns. Increased emphasis needs to be focused on mechanisation programs for different cultural processes, such as planting, inter-cultural operations, ratooning and harvesting. Specialised equipment and cost-effective farm machinery targeted to small and marginal farmers should be given the highest priority. The sugar sector should explore the potential applications of artificial intelligence in the management of sugar cane production, crop and soil quality monitoring, predictive crop analysis and the growth of smart supply chains. The Fijian sugar industry should step up its efforts to diversify and add value to specialty goods. Emphasis should be put on the production of specialty sugars, low GI sugars, nutraceuticals, medicinal drugs, pharmaceuticals, etc. from sugar cane co-products and sugars. Alternative use of by-products such as bagasse (chemicals, resins), filter cake (e.g. bio-methane, bio-NGC), etc. can be tested (Solomon et al. 2020). COVID-19

stressed the need to maintain a hygienic condition and the manufacture of hand sanitisers should begin. Better monitoring of contractors engaged in cane access road construction is needed to ensure the development of quality work and to minimise the diversion of government funds. The need is to approach villages and groups and others who have lost job due to COVID-19 pandemic to undertake cane cutting (Pacific Community 2017).

Micro-level planning to determine the existing and future developmental needs of the sugar industry is necessary due to the continuing crisis of COVID-19. This is important to ensure that, with limited capital and unfavourable climate, farm and factory production can be sustained and that stakeholders across the supply chain, from producers to traders, can prosper. Many of these impacts may be transient, but interventions such as increased mechanisation in farmers' fields, diversified cultivation, added value, etc. are here to remain and help, helping the sector to cope with and resolve such unforeseen hard times and difficulties leading to a more competitive sugarcane industry.

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