Cane railways in the Sugar Industry

Sugar mills that have cane railways are located in a 1530 km coastal strip from Childers in the south to Mossman in the north.

The purpose of the railway systems is to transport freshly harvested cane to the sugar mill for processing as soon as possible, generally within 6 -14 hours and definitely within 24 hours. The operation goes on 24 hours a day and in most cases 7 days a week during the crushing season.

Two mills also transport raw sugar by private railway to the local port.

The investment by the sugar industry in cane railway networks is significant. There are in excess of 4,000 kilometres of track, of which about 3,000 kilometres is main line, transporting up to 32 million tonnes of sugar cane each season. There are about 250 diesel hydraulic locomotives in use and about 52,000 cane "bins", both four-wheel and bogie, are used to transport the chopped cane during the crushing season of up to 26 weeks. These vary in capacity from 4 tonnes to 14 tonnes. Locomotives of up to 520 kilowatts of power are in use, with numbers of them converted to 610 mm (2ft) gauge from 1067 mm (3ft 6 in) and even standard gauge.

The furthest run to a mill is 119 km and the average distance hauled ranges from 13 kms up to 35 kms. Trains can run at 40 km/h and can be up to 2000 tonnes in weight and one kilometre in length.

Where adjoining mills operate under common ownership, the rail systems are connected, not just for ease of locomotive and rolling stock transfer, but more importantly for cane transfer to smooth out supply, particularly in the case of mill or rail breakdowns.

The cane railway track network (610 mm gauge) and all rolling stock is owned, operated, upgraded and maintained by sugar mill owners. This substantial infrastructure system operates without public funding support.

The cane railway networks are dedicated, mill-owned transport systems which ensure that considerable tonnages of cane are not transported on Queensland's road systems.

Mill-owned cane railway systems make a significant indirect contribution to state infrastructure by transporting up to 30 million tonnes of cane each year over a five to six month period through corridors other than roads.

In the 2016 crushing season, approximately 32.2 million tonnes or 94 per cent of cane harvested in Queensland was transported directly to raw sugar mills on these mill owned cane railways.

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Whilst there is substantial variation depending on terrain and other circumstances, it is estimated that the current cost for an additional kilometre of operating rail track is between $400,000 and $600,000.

This does not include any bridges, road crossings or necessary adjustments to other infrastructure. No other agricultural industry makes a similar contribution (between $1.5 billion and $2 billion in replacement value) in reducing road traffic through use of private transport infrastructure, such as cane railways.

The tonnage of cane transported on the cane railway network is equivalent to keeping 20,000 truck movements per day off the coastal road network during the crushing season.

The availability of suitable 2nd hand rail for upgrades and maintenance is vitally important to the industry as the cost of new rail is prohibitive. During the past few years the industry has spent more than $3 million to boost all important stocks of rail needed for maintenance and relaying of worn sections of track.

This 2nd hand rail has become available because of track upgrades or in some cases the closure of regional QR lines. The Milling Council plays a lead role in sourcing and purchasing this all important rail for on-sale to its member mills.