

Latin American Sugarcane Report

Sustainability risks and impacts in the regional rum value chain





Project introduction

Who we are and what we did

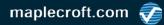


Verisk Maplecroft

- UK based risk analytics and consulting company, part of Verisk Analytics (Nasdaq:VRSK)
- Proprietary risk datasets, research and consultancy provide insight into political risk, human rights, economic and environmental issues impacting organisational resilience, sustainability and the business environment
- A history of working with multisector clients on valuechain analysis, management systems support, risk management, environmental and human rights impacts, sustainability and integrated reporting

What we did

- Conducted a desk-based review of the Latin American sugarcane value chain for the rum industry
- Mapped value chain and analysed key sustainability risks for the top five sugarcane producers, providing a risk report for each country as well as quantitative country risk benchmarking, charts and maps
- Draw on publicly available information, including government and industry reports, academic studies, media, NGOs, proprietary datasets (Maplecroft), and validate the information with stakeholder interviews
- Highlight opportunities for taking action



Mapping the sugarcane value chain within rum production



There are many stages and actors in rum's sugarcane value chain from the plantation to the shop floor in Scandinavia



Plantations, Outgrowers, Independent mills, State-owned mills, Commodity traders





Farming Land preparation Planting Applying fertilisers Cultivation, weeding



Harvesting
Burning
Cutting cane



Transporting
Loading
Hauling
Unloading
Weighting



Juice extraction
Juice extraction
Juice sampling
Sugar, Molasses





Molasses production for rum manufacturing

Boiling Centrifugalisation



Rum manfacturing

Fermentation Distillation Repose Blending



Packaging

Bulk rum Bottling Labelling



Transporting

Domestic use US export International export



Importing



Retail

Kev:

- Raw material production
- Intermediary step
- Bi-product
- Rum manufacturing

tinugalisation blending — Kt



Rum is commercially produced in most Latin American countries



Sources: Verisk Maplecroft; Ministry of Rum



The rum sold by the monopolies comes from almost all of them



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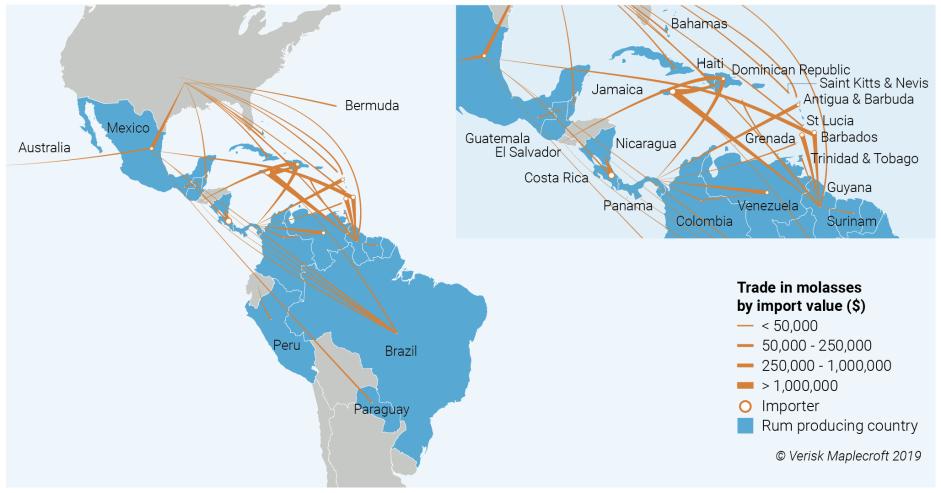


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| Country | % of NAM rum brands | Brands sold by NAM |
|---|---------------------|--|
| Dominican Republic | 10% | Brugal, Barceló, Oliver y Oliver, Ron Cristoba, Ron Matusalem, Relicario, Motorhead, Ron Esclavo, Ron Quorhum, Cubaney |
| Barbados | 10% | Foursquare, Mount Gay, Plantation, Bumbu, Cognac Ferrand, Old Pascas, Doorly's |
| Guyana | 10% | Barracuda Silver Rum, Bristol, El Dorado, Pyrat, Routa, Captain Morgan, Sweden Rock, Port Mourant |
| Jamaica | 9% | Captain Morgan, Monymusk, Plantation Xaymaca, Transcontinental Rum Line Jamaica, Bristol Jamaica, Hampden, Vale Royal, Forsyth's, Navy Island, Cambridge, Friendship Room EK, Long Pond, Rum Bar, Worthy Park, Wray & Nephew, Appleton |
| Trinidad | 9% | Angostura, Kraken, Ron de Jeremy Spiced, Plantation Trinidad |
| Venezuela | 8% | Destilerías Unidas, Santa Teresa, Ron Pampero, Diplomatico, Roble |
| Cuba | 8% | Havana Club, Ron Mulata, Conde de Cuba, Pacto Navio |
| Panama | 6% | Malecon, Ron Abuelo, Ron de Jeremy Reserva, Naud, Plantation Panama, Companero, Rum Nation, Origen, Malteco, Kuna, Transcontinental Rum Line Panama, Zafra, Cana Brava, Auld Rare, |
| Guatemala | 6% | Ron Anejo, Plantation Gran Anejo, Ron Zacapa, The Pirate Bay, Ron Abuelo Reserva, Malteco Reserva, Phantom, Darsa, Rhum Selection, Kill Devil |
| Brazil | 4% | Leblon, Cachaca 51, Sagatiba, Velho Barreiro, Pitu Cachaca, Capucana, Bem Bom, Novo Fogo, Magnifica |
| Bermuda | 3% | Bacardi, Gosling's |
| Martinique | 3% | Bally Velier, Trois Rivieres, Neisson Vieux |
| Mexico | 2% | Deadhead, Ron Caribe, Ron Valdeflores, Paranubes, Mocambo, Charanda Real de Uruapán, El Ron Prohibido |
| Peru | 2% | Ron Cartavio, Ron Millonario, Plantaton Single Cask Peru |
| Haiti | 2% | Clairin, Shack |
| Grenada | 1% | Westerhall |
| Nicaragua | 1% | Flor de Caña |
| Saint Kitts & Nevis | 1% | Sister Isles |
| Antigua & Barbuda | 1% | Cavalier, English Harbour, Antigua Distillery |
| Remaining 7% of brands are sourced from other Latin America, Europe, USA, and international | | |



The molasses used in rum production comes from a variety of sources, including domestically, regional partners and rest of the world



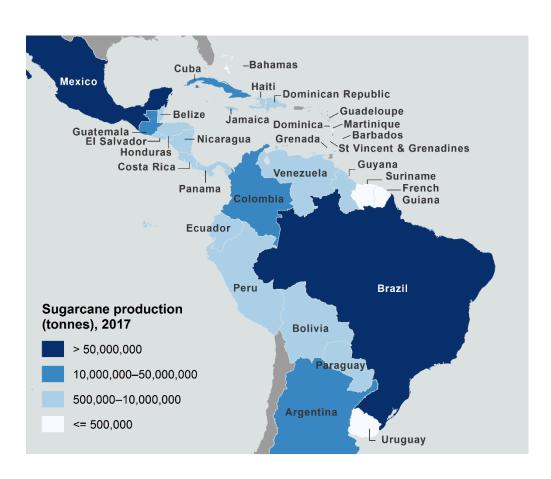


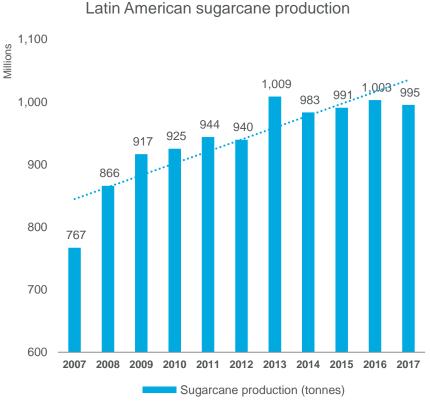
Prominent sustainability risks within Rum's sugarcane value chain



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Focusing sustainability and social impacts analysis on this region as it is a major sugarcane and rum producer





Source: FAOSTAT

There are substantial environmental challenges in the region which may impact or be affected by sugarcane



Forced labour and child labour are high profile human rights issues linked to LatAm sugarcane production by the US Department of Labor





Dominican Republic

Major rum and sugarcane producer, regional molasses exporter



Major brands: Brugal & Co, Barceló, Macorix and Cubaney **Sugarcane production:** 5.46 Mt (2017)

Molasses: Relies mostly on domestic supply, small imports

from Panama, suppliers big regional rum producers

Key info: Largest sugar processing mill is the Central Romana mill, followed by Cristóbal Colón and Consorcio Azucarero Central. US is the largest buyer of DR's sugar, accounting for 99% of exports in 2017. DR also a major supplier of molasses to the region, exporting to Trinidad, Barbados and Jamaica.

Key risks *Migrant workers, child labour, forced labour, poor working conditions*

Social US DoL linked sugarcane industry with forced labour and child labour due to conditions at plantations and mills. Reports of low wages, long hours and poor working and living conditions at the 'bateys' – isolated sugar settlements. Large migrant population from Haiti, sometimes whole families working – vulnerable to exploitation due to lack of civil rights. OHS risks high with accidents common, inspections infrequent and migrant workers not protected by national laws.

Environment Air pollution from mills has negative impacts on local communities – leading to protests and unrest. Sugarcane historically led to deforestation but current impact is disputed and more localised. Country at high risk from effects of climate change; agriculture particularly vulnerable.



Jamaica

Major rum producer, relies on domestic and imported molasses

Key risks Economic risks, water stress, flooding

Social Privatisation of sugar factories and weakening sugar market has led to job insecurity and weakened worker rights. Redundancies at sugar mills and factories have severe impacts on the economy – where 1% of GDP is from the sugar industry – and contribute to already high unemployment levels.

Environment Sugar cane farming causes water and air pollution, while also contributing to local water scarcity issues. Sugar crops are vulnerable to flooding during hurricanes. Land clearing and chemicals used in sugar farming have caused biodiversity loss.



Major brands: Captain Morgan, Appleton, Myers's, Wray & Nephew **Sugarcane production**: 1.13 Mt (2017)

Molasses: Domestic production and imports from Dominican Republic, Mexico and Guyana

Key info: Jamaica's sugarcane industry is struggling. Since 2016, two of the country's six major sugarcane mills have closed down. The largest mill still operating is the Frome mill, owned by Pan-Caribbean Sugar, followed by Appleton's Worthy Park mill. High-end rum producers like Myers's and Appleton are closely linked to the local cane industry as their brands are considered speciality, locally produced rums.



Brazil

Sugar-based spirit producer, sugarcane risks vary substantially by region



Major brands: Leblon, Novo Fogo, Cachaca 51

Sugarcane production: 758 MT (2017)

Molasses: Cane is grown directly for raw sugar and ethanol (largely biofuels), rum made from cane juice rather than molasses

Key info: Largest sugarcane grower globally - efficient and technically capable industry. ~60% sugarcane produced in Western São Paulo state. Brazil largely supplies to the US.

Key risks Poor working conditions, forced and child labour, OHS, deforestation, land grabs

Social US DoL states child and forced labour are prevalent in the industry, particularly where harvesting still manual and labour intensive. Mechanisation is reducing this risk in some areas of the country. Sugar industry workers are frequently exposed to OHS risks, often with low wages and long working hours. Land grabs also linked to the industry, particularly affecting indigenous persons.

Environment Sugarcane a major cause of deforestation for the last 30 years, although rate now slowing. Increased likelihood of forest fires may also pose risk to industry if not controlled. Air pollution from cane burning linked with adverse health impacts in Sao Paulo Major water pollution from agricultural waste documented.

Managing the risks

Focused on human rights and labour standards



How can downstream companies demonstrate their respect for human rights within the rum sugarcane value chain?

Context

- Clear expectation for the monopolies to manage sustainability risks in the supply chain
- But due diligence actions should:
 - Be proportionate to the size and complexity of the business
 - Reflect the level of risk / severity of impacts (and focus on the most severe)
 - Consider whether the business caused, contributed to or is directly linked to the impacts
 - Consider how much leverage it has to affect change in the wrongful practices of an entity which causes harm (and potentially how to increase leverage)

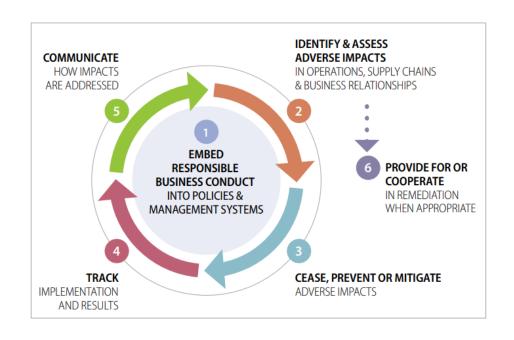


Green Choice symbols lead to product's environmental



Opportunities within rum sugarcane value chain

- Focus: identify the most salient issues and locations for the organization and focus efforts around those
- Influence: exercise influence through the supply chain by ensuring your suppliers are upholding and communicating your ethical sourcing requirements
- Partnerships and collaboration: Build strong partnerships with key suppliers and other stakeholders to address human rights challenges and improve operating standards
- Transparency: enhance reporting and disclosure, demonstrate you're 'walking the talk'





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"This toolkit is intended to support M&S suppliers and partners to implement a strategy for their business and their supply chains to tackle modern slavery, as well as make clear M&S' expectations."



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The Nordic Alcohol Monopolies













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THANK YOU.

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