



‘Placing Sugar Assemblages’



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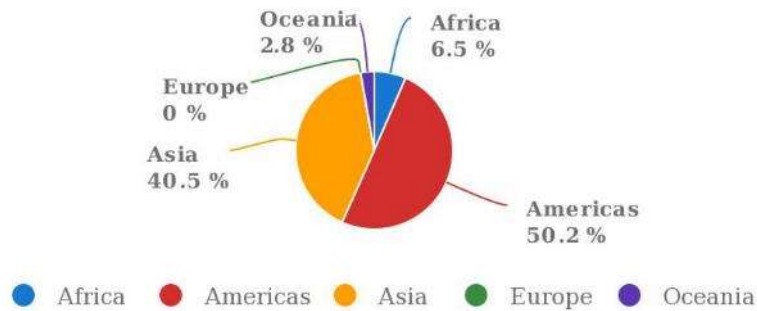
Sucre Lucre

- Sugar regime – global in operation, local in effects
- Industrial by design and nature
- State mediation
- Australia, Mauritius, Malawi
- Sustainable sugar? - post Brexit challenges



Production share of Sugar cane by region

Average 1961 - 2016

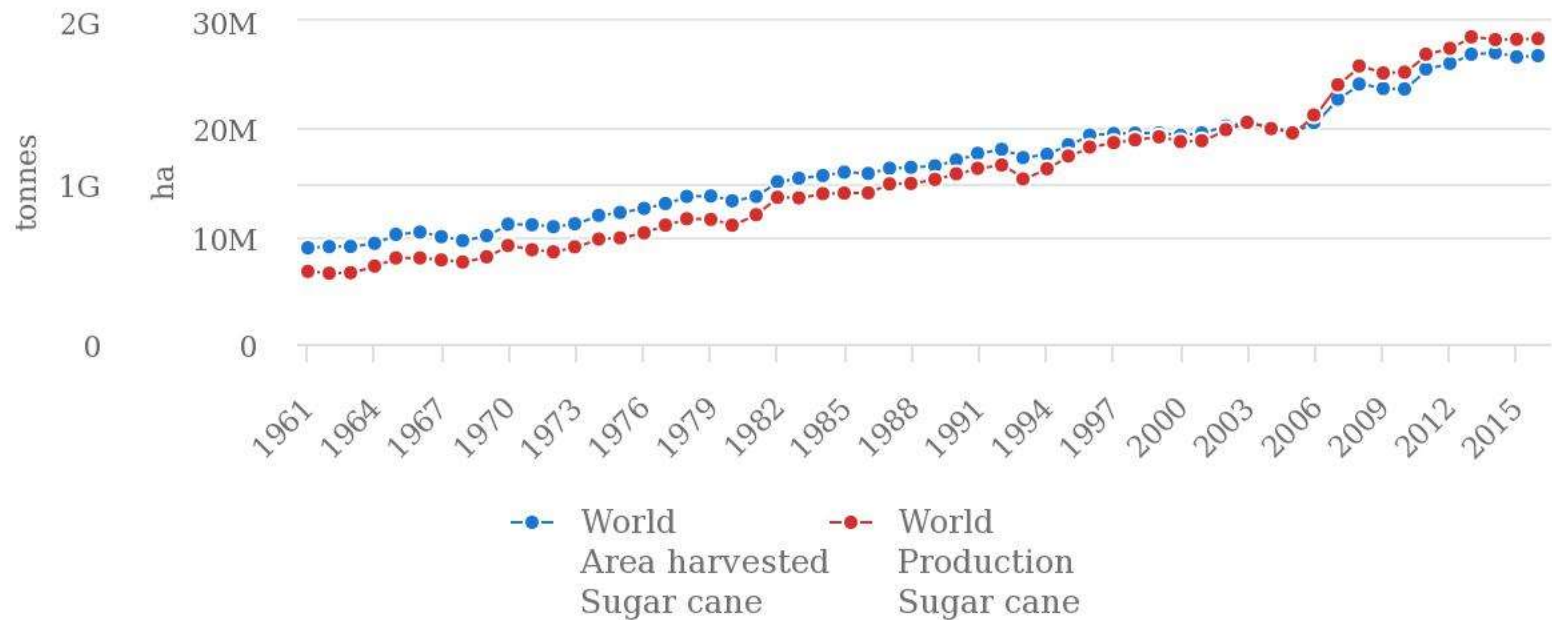


Source: FAOS



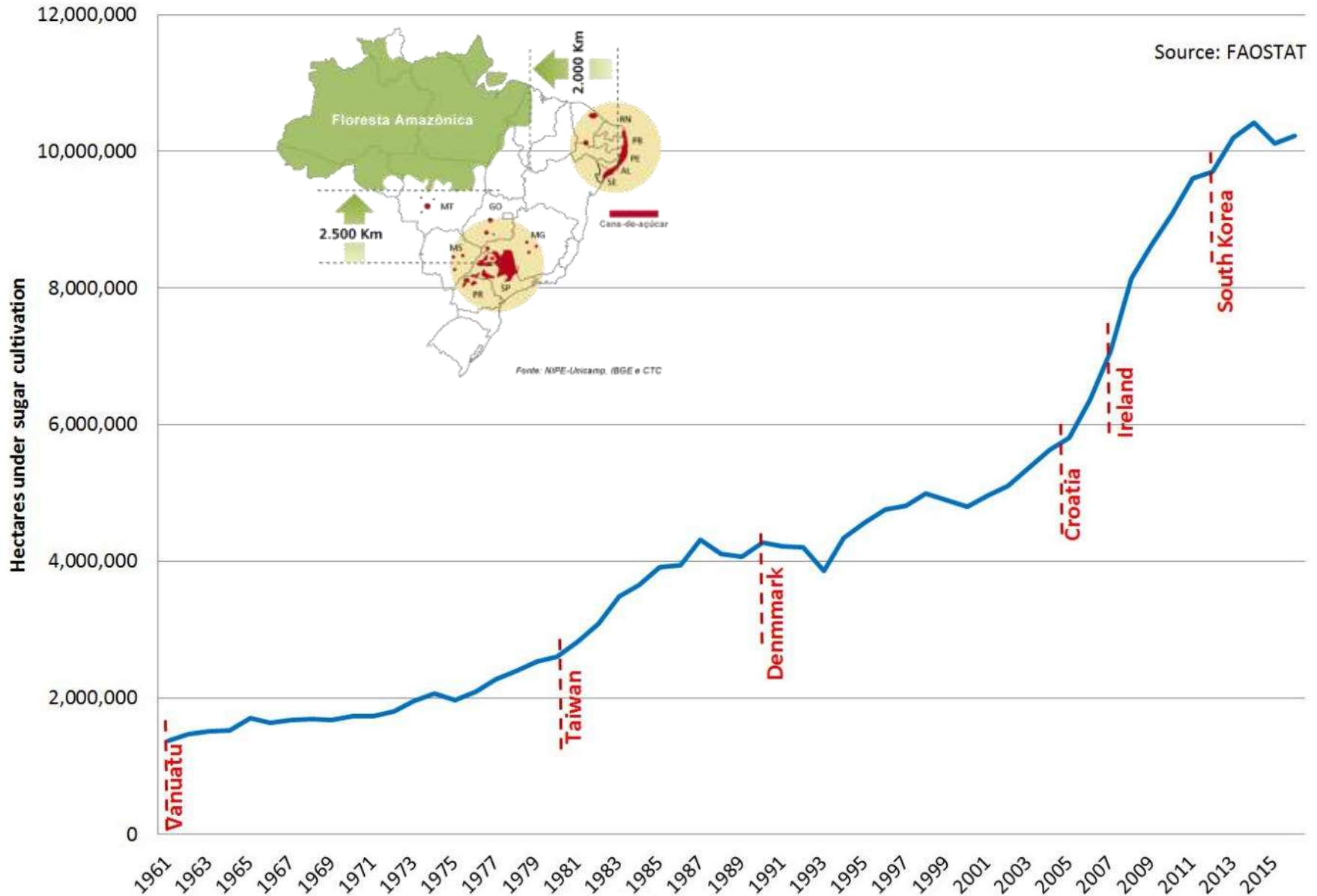
Production/Yield quantities of Sugar cane in World + (Total)

1961 - 2016



Source: FAOSTAT (Nov 07, 2018)

Sugar cane land expansion in Brazil 1961-2016



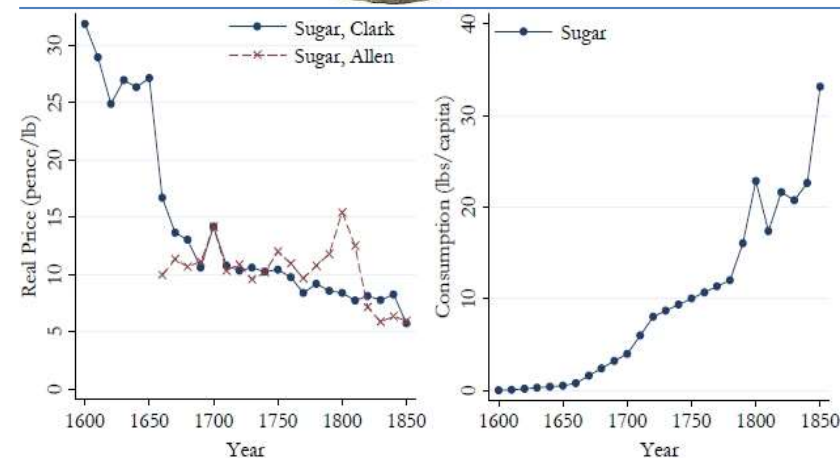
Sucre Lucre

- 177.59 million tons consumed 2019
 - 14% increase over decade
- 75% cane: 25% beet
- One third grown for export = \$17-\$18
- Sugar production is always both agricultural and industrial
- Template for industrial agriculture
- Disproportionate significance to national economies and corporate interests



Industrial by nature

- India 4th century – technology & labour
- 1490s sugar plantations West Indies
- *Industrial revolution began in the fields*
- Steam - expanded territorial reach and rates of productivity
- Exotic ‘sweet spice’ to everyday ‘ingredient’ – essential and politically significant



Real Sugar Prices and Sugar Consumption Per Capita in England, 1600-1850

Policing the Beet

- Mid 18th century – crystalized sugar from white Silesian sugar beet
- **Napoleonic Wars 1800s**
 - blockade and subsidy
- State interventionism
- 1890 Germany produced more sugar than Caribbean (Richardson 2015)
- Beet sugar = 50% of world sugar production

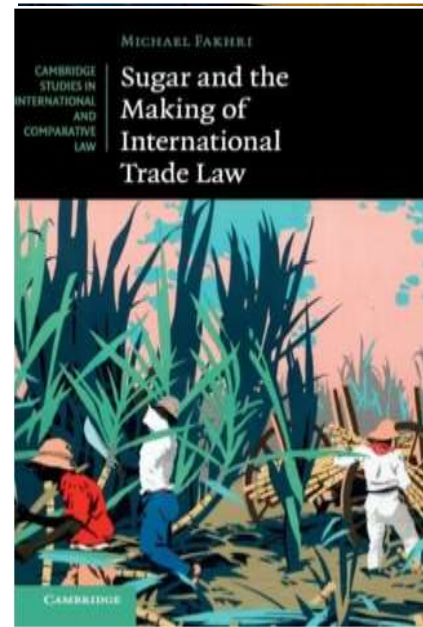


SACCHARVM
Quia Saccharum paritur arte, plerumque Pictura, quam vides, docet te molis.



Globally Regulated

- ‘Unilateral free trade’ - a disfunctioning British ideology since 1840
- Rise of rival sugar economies
- **1902 Brussels Sugar Convention**
 - (Fakhri 2014, Pigman 1997)
- First modern global ‘multilateral trade’ institution
- Sought to organise international trade of a single commodity
 - **Permanent Sugar Commission** – oversaw implementation
 - Penalties for subsidy
 - binding legal framework,
 - arbitration institutions,
 - global surveillance systems monitoring the production, sale and transnational movement of sugar
- **1937 Sugar Agreement / 1977 Sugar Agreement**



‘[t]he sugar treaties teach us that to organize international trade in a way that assumes that the market should be “free” from the state has little practical meaning; market actors cannot operate without certain legal structures, political decisions, and social relations’: Fakhri 214, 212



Factories in the field

- Industrial agriculture
- Monocrops / central mill
- Centralized by design
- Organised 'like a military operation' (Attwood 1992)
- High impact



Why does this all matter?

- Industrial production by design and nature
- High impact
- Land take
- Water
- Soils
- Fertilizer
- Biodiversity

Poles of Production

Queensland, Australia

- Cane introduced 1860s - state intervention - plantation farms
 - Indentured labour
- State regulation – WWI – quota, relations of production, pricing
 - British Empire/UK main market
- 1973 – EEC and end of quota
- High global prices – private capital expansion of cane lands
 - Asia and Middle East markets prioritised



Poles of Production

Queensland, Australia

- 80% production for export
 - Vulnerability – shocks and competition
- 1994 largest global supplier
 - (3 million tons – Brazil in 2011 25 million tons)
- Restructuring 1990s/2000s
 - Further investment in mills and marketing
 - Some farms and communities uneconomic
- Environmental externalities absorbed by public and environment – Barrier Reef



Nambour is ...

- Memorialised
- Recreationalised
- Residentialised
- Pasturised



Source: Coggan & Whitten 2008, CSIRO

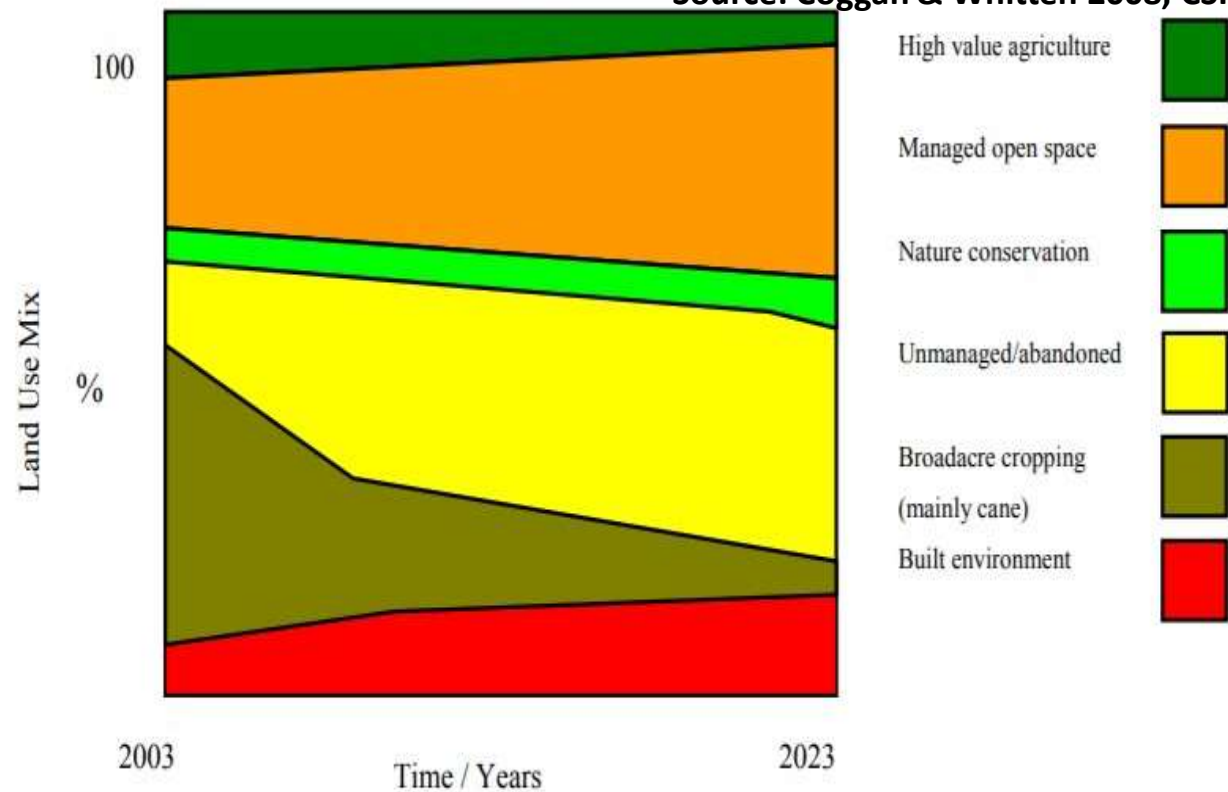


Figure E1: Land use and proportions over time with no policy change.

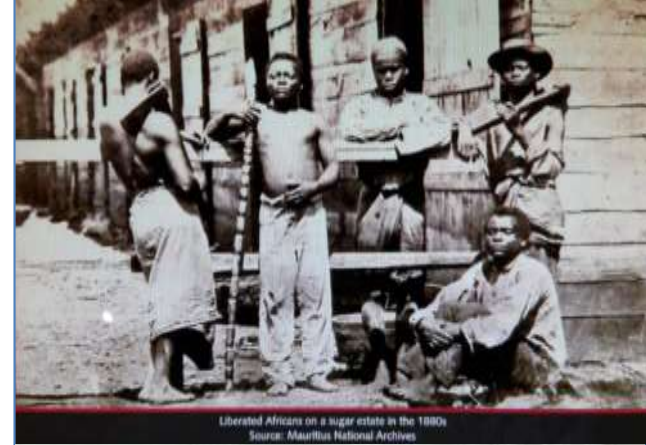
Mauritius

- Middle income country – GDP \$13 billion, \$21k per capita
- 1.3 million people
- Sugar generates \$300 million
 - significance has declined - e.g. fish now \$300 million, textiles \$840 million
 - 25% GDP 1975, 2% GDP 2018
 - But 15% of export earnings
- Economy now rests on services (finance), light manufacturing (textiles), ICT, tourism
- Densely populated island dominated by sugar industry for three centuries



Sugar Island

- Cane introduced by Dutch 1639
- France > Great Britain – plantation model / deforestation
- Underpinned by slave trade / 400,000 indentured labour – gained land rights
- 1900s - Consolidation
 - Emergence of dominant agri-businesses
- 1975 Sugar Protocol – price protection
- EU guaranteed market - 507,000 tonnes



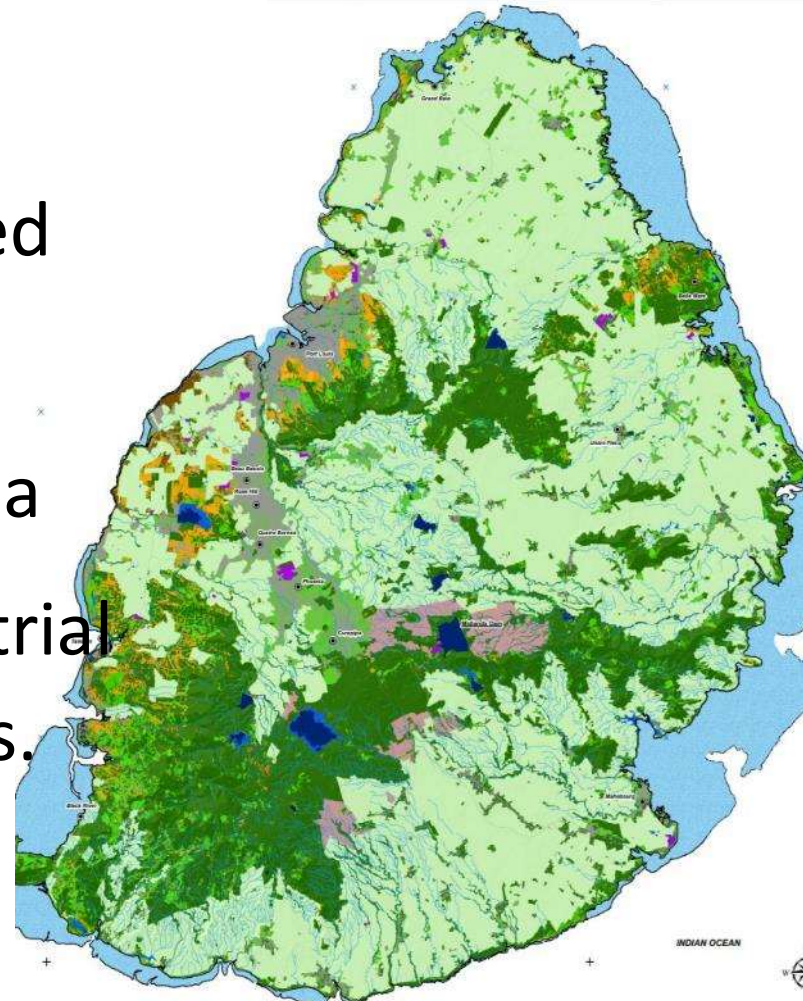
Boom, bust, burnin

- 1970s on - slump global prices
- ‘Cogeneration’ = new revenue stream / farm subsidy
 - ‘integrating energies’
- 25% of electricity from renewable sources
 - Equivalent 200,000 tons coal
- Sugar Protocol ended 2009
- 2017 EU a competitor
- Anticipatory governance



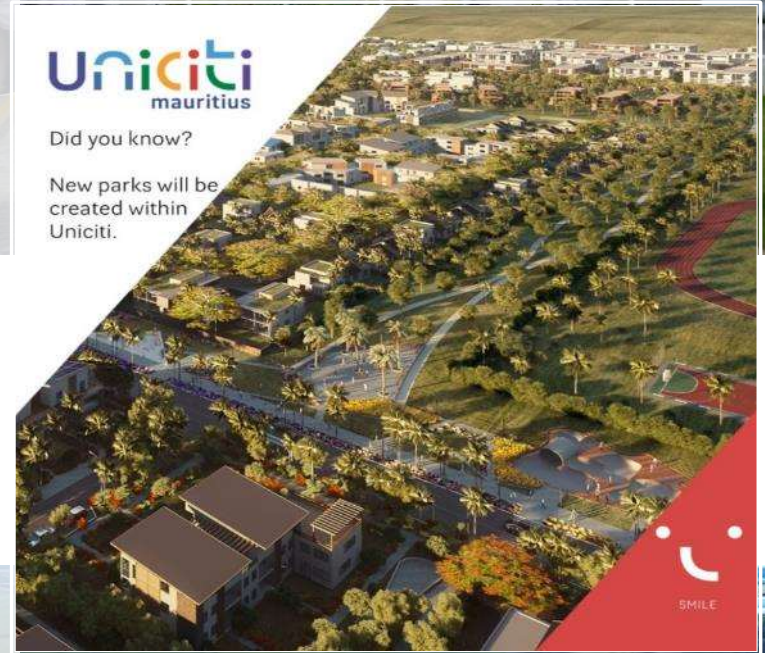
Global Sugar bites

- Mauritian cane growers
 - expect a hit
- Cane significance has declined
 - 25% GDP 1975, 2% GDP 2018
- Over 50% of land surface area
- mill planters (the agro-industrial combines) and small planters.

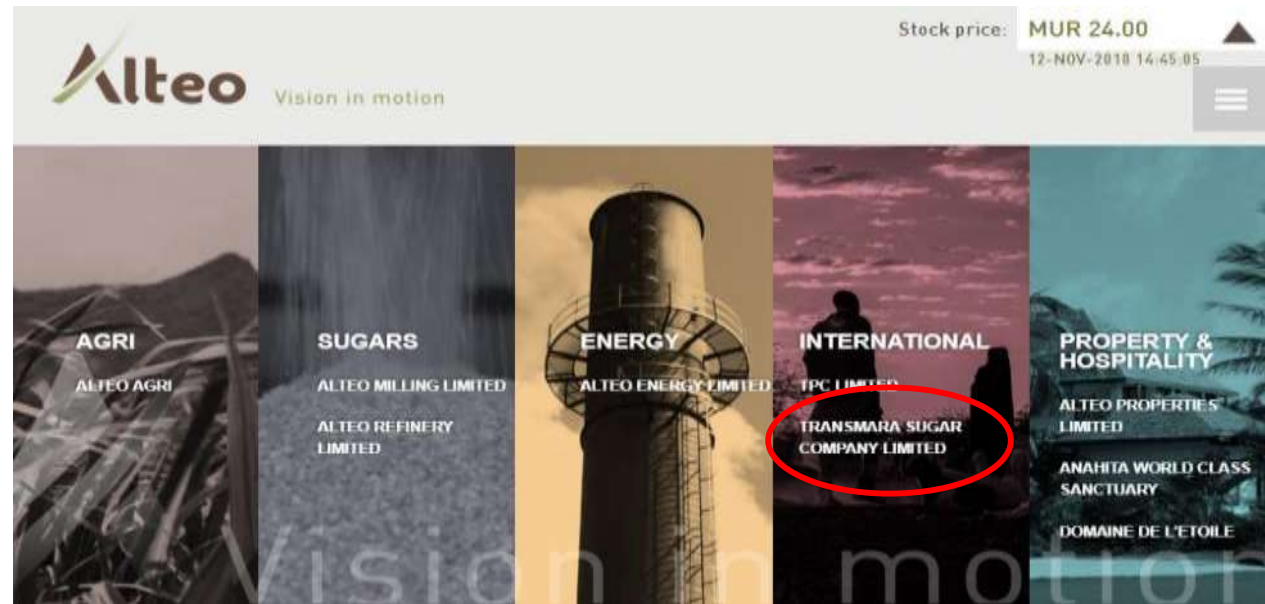


Mill planters

- Consolidation
 - 20 became four companies
 - Omnicane, Terra, Medine, Alteo
- rationalising cane land
- diversifying income - real estate
 - Energy generation /Biofuel
 - Technology parks
 - Light manufacturing
 - Property
 - Education and urban
 - Tourism
 - Financial services



21st century corporate imperialism?



- diversifying income
 - Overseas
 - Including sugar sector in Africa
- Investing agribusiness in Africa
 - Ghana
 - Kenya
 - Mozambique
 - Tanzania
- Retain access to EU



Small planters

- Number of growers declining
- Government not inclined to invest in sugar infrastructure further
- Food security – 80% imported
 - Many products not grown (meat, dairy, wheat, rice, pulses)
- Growers vulnerable to mills and global prices
 - FairTrade - premium
 - Cooperatives – share costs, loans, equipment and marketing
 - abandoning land
 - other cultivation
 - horticulture

Mauritius: Small farmers join co-operative movement as sugar prices plunge

June 12, 2014 1 Comment Business ion



The change in the Mauritian sugar industry has had a drastic impact on the livelihood of as many as 17,000 small-scale sugarcane farmers who contribute about 28% of national sugar production.

To increase their income, approximately 5,000 small-scale farmers have joined the fair-trade movement. In 2013, they received additional income of \$60 per tonne above the normal price of \$530 by producing 21,000 tonnes of sugar under this label.



Malawi

- 20 million people – very poor
- Sugar cane = 22k ha / 0.6% of agricultural land
- Cane accounts for 60% of all irrigated land
- Important foreign earnings revenue stream
- ‘Green Belt Initiative’ launched 2010
 - Rationale - Food Security
 - Irrigation of ‘a million hectares’
- Increasingly focused on sugar cane cultivation – foreign exchange replacement for tobacco
- EBA provides incentive to switch



Sugar Cane,
Malawi



Green Belt Initiative

- Ambitious scheme / large loans
- Political imperative - returns on investment and foreign exchange
- But
 - Land conflict
 - small holders with customary tenure targeted,
 - conversion to sugar precludes alternative crops,
 - contract farming ties production to mills,
 - communities destabilised,
 - elite interests and patrimonialism

Greenbelt Irrigation initiative



Under construction: The Chikwawa Green Belt Initiative sugar mill

The global regulation of sugar?

- Three countries – located within a global sugar production and supply system – centrality of the state
- Each impacted differentially by regulatory regimes and changing sites of production
- Sugar inherently industrial and problematic as both driver of development and dependency
- Consumer is king, but the king is blind



Can sugar be sustainable?

- Certification standards – historical focus on labour conditions
- Price stability - Organic and Fairtrade certification
- **Fairtrade** – important to specific countries – e.g. Malawi and Mauritius
- UK main market for FT in EU
- **Bonsucro** new scheme – part initiated by WWF
 - emphasis on labour, energy, and supply chain
 - purchasers (e.g. Coca Cola, Ferrero) buy credits – law, labour, inputs, ecosystem service
 - About 4% of cane land is enrolled in Bonsucro
- Relatively little ‘certified’ sugar is **actually** sold as such – is there a market for ‘sustainable sugar’?



More Questions Than Answers

- Scale? – future small holder farming
- Is ‘sustainable sugar’ limited to its visibility?
- Demand management? – might sustainable production mean a reduction in supply?
- Unintended consequences – unilateralism and LEDCs
- UK – ABF / Tate and Lyle
 - Brexit





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