



Impact Investing

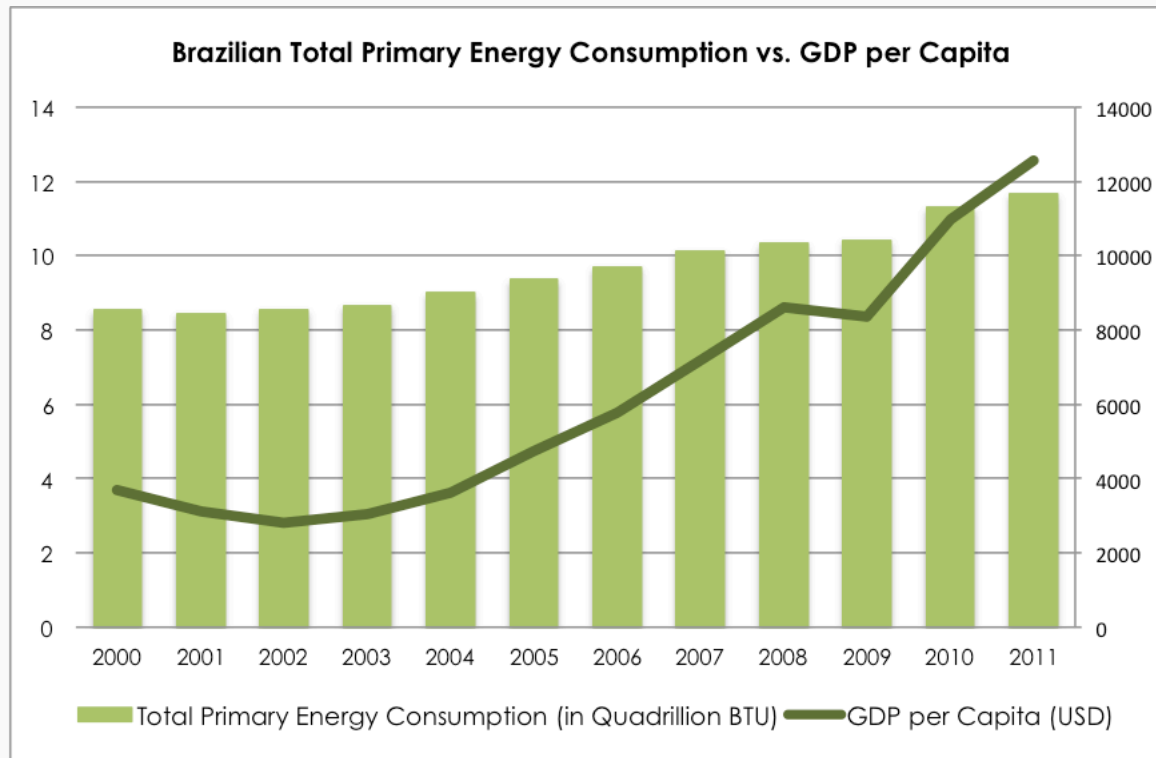
A Mean to Foster Bioenergy in Brazil?

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Brazil's Economic Growth Leads to an Increased Energy Demand



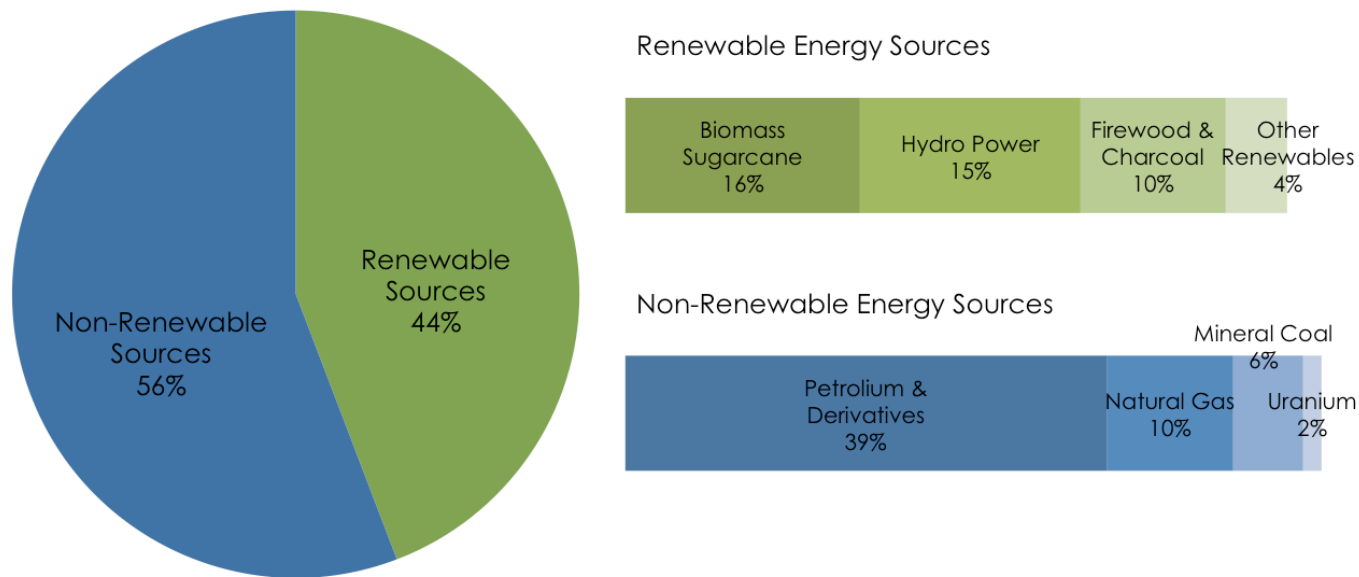
Brazil's economic development correlates positively with the need for energy

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Slide 2

Brazil Has a High Renewable Energy Share Compared to the World Average

Brazil's Primary Energy Consumption (2011)



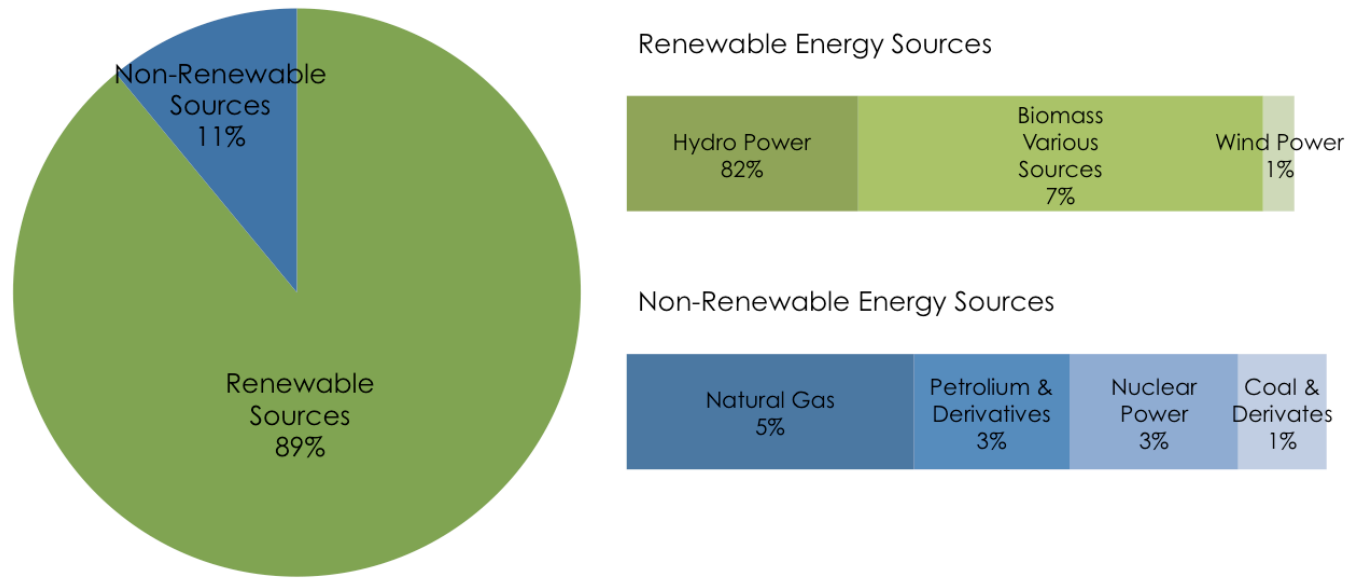
→ The world average renewable energy share is only 13%

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Slide 3

The Brazilian Electricity Matrix Presents Another Picture

Brazil's Electricity Matrix (2011)



→ Non-diversified electricity matrix highly dependant on hydropower

Is there Potential for Bioenergy from Residual Biomass and Energy Crops? (1/2)

Bioenergy

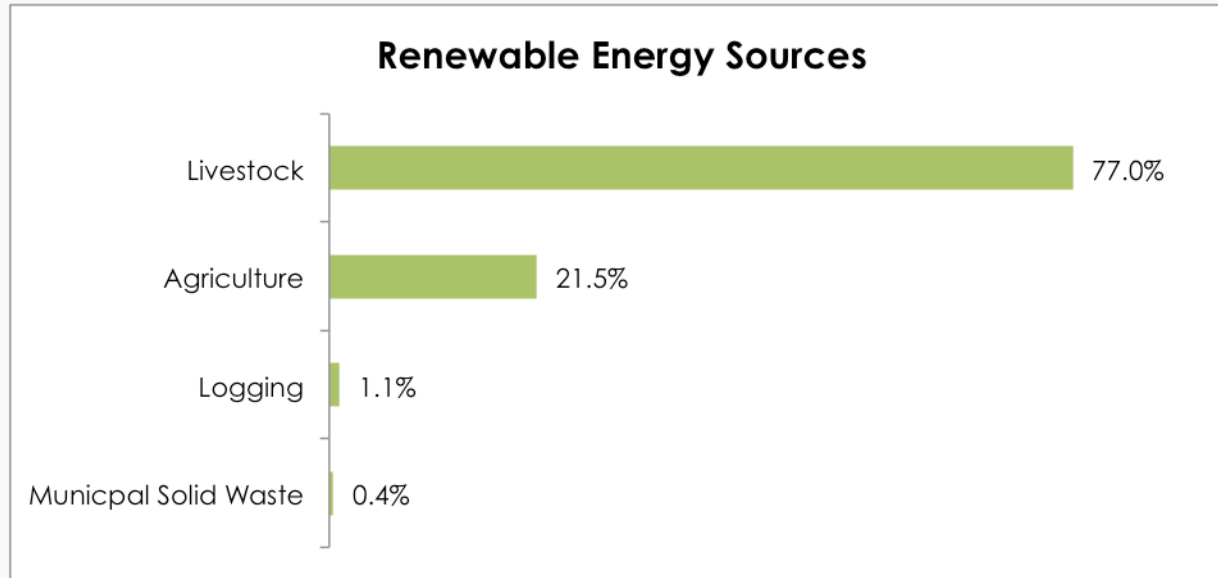
Energy derived from the conversion of biomass. Biomass may be used directly as fuel, or processed into liquids and gases

Biomass

Any organic (decomposing) matter derived from plants or animals available on a renewable basis (e.g. wood, agricultural crops, herbaceous & woody energy crops, municipal organic wastes, manure)

- IEA highlights the potential for advanced biomass technologies from residual biomass, organic wastes and energy crops

Is there Potential for Bioenergy from Residual Biomass and Energy Crops? (2/2)



- Growth of Brazilian agroindustry of 9.7% in the first quarter of 2013
- Further growth potential with 275 million hectares agricultural land and 400 million hectares cultivable land
- 250-600 million tons of residual biomass per year

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Why Did the Market for Advanced Biomass Technologies Did Not Gain Momentum?

Alternative Energy Sources

- High popularity of hydro power
- Brazilian oil resources

Financial Challenges

- Auction system for renewable energy sources in favour for wind power
- High CAPEX of biomass installations

- Do Brazilian biomass project bear potential for impact investors?
- 30% of the total impact investments in emerging markets targeted Latin America
- 15% of the total impact investments targeted the clean energy technology sector

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Are Impact Investors More Likely to Invest Into Brazilian Biomass Projects than Traditional Investors?

Investment Processes of Impact Investors and Traditional Investors

Commonalities

Investment processes and selection criteria

Differences

Impact investors add the dimension of measurable and intended social and or environmental impact

Different return expectations

- The specific criteria of investors depend on their strategy and targets (financial first vs. impact first)
- Traditional investors may also look for business cases with a positive impact



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