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Formal commitments on Zero forest degradation and on deforestation-free supply chain: an effective mean of forest protection?

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Outline

- Background
- Zero deforestation commitments
- The leather case study
  - The Italian side
  - The Brazilian side
- Conclusions

Slides can be download from the web: search “pettenella”

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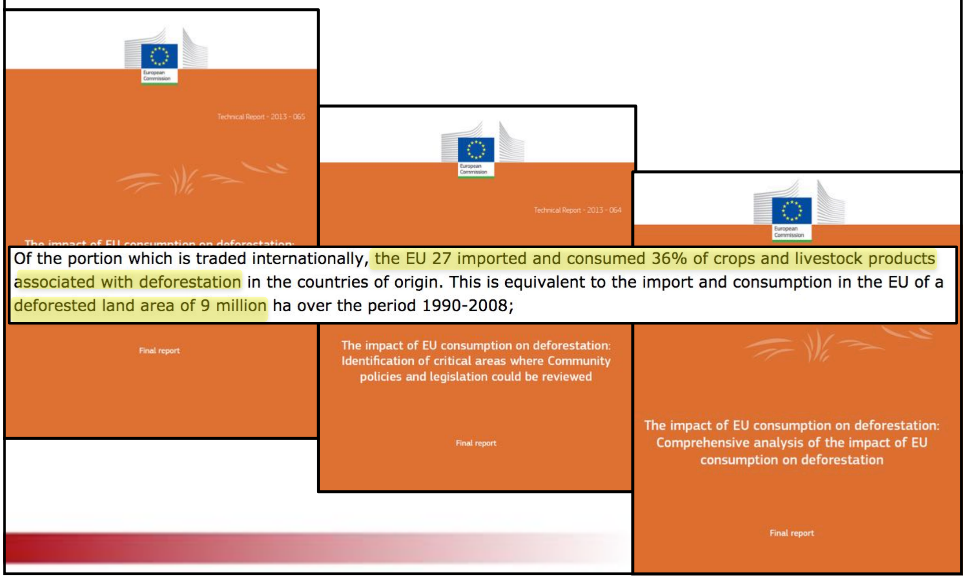
Embedded deforestation and forest degradation



Of the portion which is traded internationally, the EU 27 imported and consumed 36% of crops and livestock products associated with deforestation in the countries of origin. This is equivalent to the import and consumption in the EU of a deforested land area of 9 million ha over the period 1990-2008;

Our background questions

- Who is responsible for the process of forest degradation?
- How to involve the private sector in preventing-alleviating such problem?
- Can we, as responsible consumers, be influential in such investments?

- Can large industrial companies, brands and stores been asked to be responsible for protecting forest resources?

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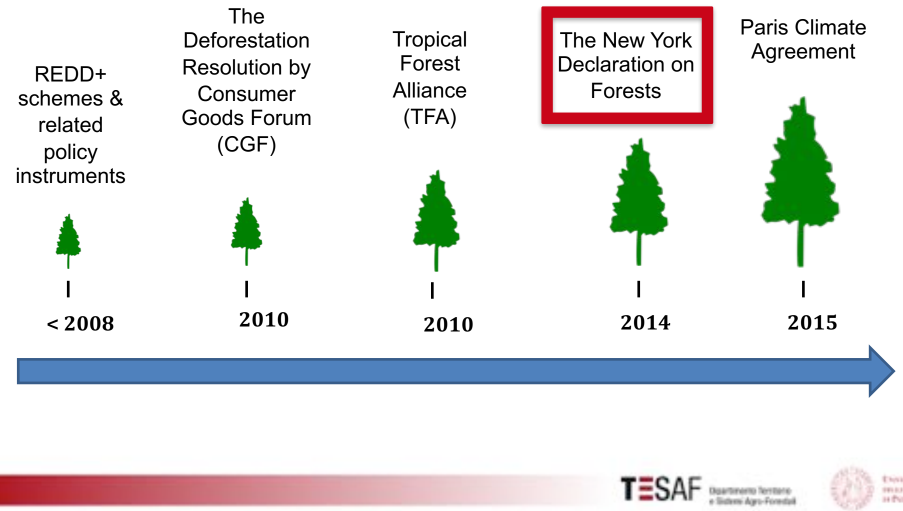
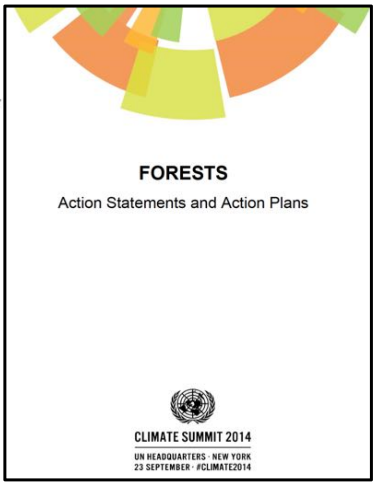
Historical trend



New York declaration (2014)

Companies

57. Apical Group Limited
58. Asia Pulp and Paper
59. Asian Agri
60. BAMA
61. Barclays
62. BioMar
63. Boston Common Asset Management
64. Calvert Investment Management
65. Cargill
66. Cermaq
67. Clarmondial
68. COOP Norway
69. Danone
70. Delhaize
71. Denofa
72. Deutsche Bank
73. Felleskjøpet Agri
74. Felleskjøpet Rogaland Agder
75. Ferrero S.p.A.
76. Golden Agri-Resources
77. General Mills
78. Grupo Bimbo
79. ICA Norge
80. Johnson & Johnson
81. Kao
82. Kellogg's
83. Lloyd's Banking Group
84. L'Oreal
85. Marks & Spencer
86. McDonalds
87. Miller/Howard Investments, Inc.
88. Mondelez
89. Musim Mas
90. Nestle
91. Nordic Choice Hotels
92. Norges Gruppen
93. Orkla
94. Permian Global
95. Procter & Gamble
96. Pick n Pay
97. PT Rimba Makmur Utama
98. Rema 1000
99. Royal Ahold
100. SC Johnson
101. Skretting
102. Sime Darby
103. Sobeys
104. Trillium Asset Management LLC
105. Unilever
106. Walmart
107. Westpac
108. Wilmar International
109. Yves Rocher Group



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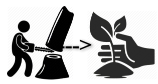
What it means?

Zero deforestation

Zero **gross** deforestation

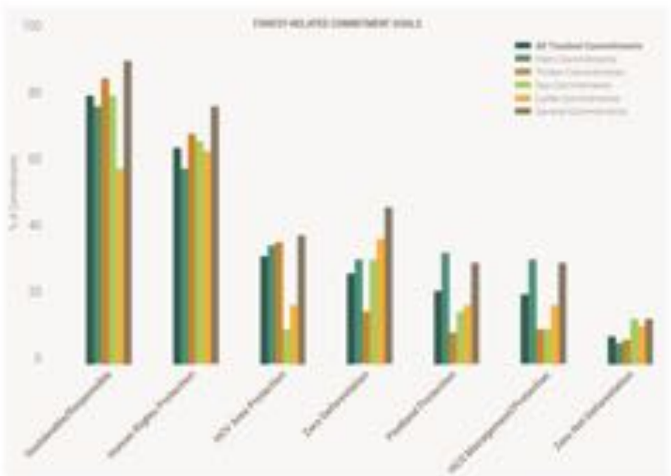
No loss of forest cover over a given time period caused by conversion of forest to non-forested land…



Zero **net** deforestation

is not synonymous with a total prohibition on forest clearing: some **forest loss** could be **offset** by **forest restoration**

Considerations on forest degradation?



Source: McCarthy, 2016

Statistics on Zero deforestation commitments

Source: Donofrio et al., 2017

Characteristics of the commitments

Source: Donofrio et al., 2017

Commitment tracking tools

Tools to track and to classify commitments

Tools to help monitoring the commitments

- **Forest 500**, Global Canopy Programme
- **Supply Change**, Forest Trends
- **NYFD Progress Report**
- Carbon Disclosure Programme, **Reports**

- **Starling project**, Airbus Defence and Space, The Forest Trust (TFT) and SarVision - a combination of high-resolution optical satellite and radar imagery to provide unbiased monitoring of forest cover change.
- **Global Forest Watch**, WRI – near real time GIS data
- **Trase** - Global Canopy Programme and Stockholm Environment Institute

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Impact vs. commitment by sector

Source: Donofrio et al., 2017; Henders et al., 2015

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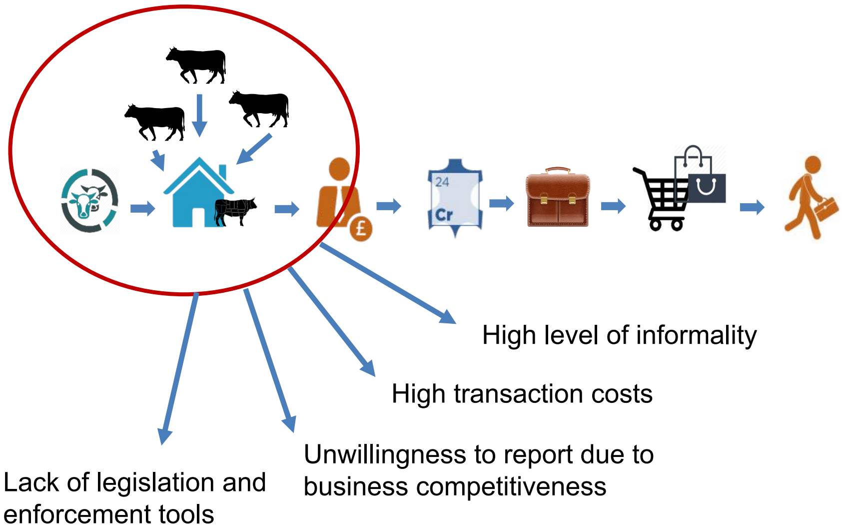
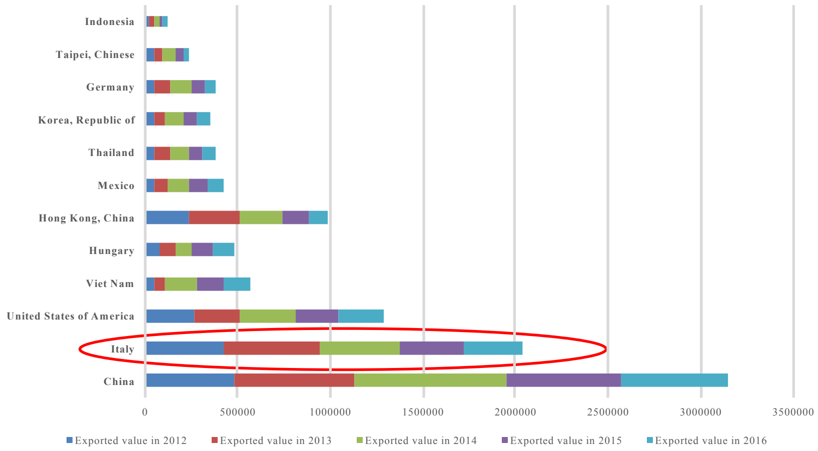
Typical supply chain of leather



Why Italy and Brasil?

List of importing markets for a product exported by Brazil
Product: 41 Raw hides and skins (other than furskins) and leather



Source: ITC, 2017; UN COMTRADE 2016

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Italian tanning industry

UNIC

UNIC (Italian Tanners' Association) is the trade association that since 1946 represents and protects the Italian tanning sector, strategic industry in the leather manufacturing value chain and key player in the Italian economic context.

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Italian tanning industry

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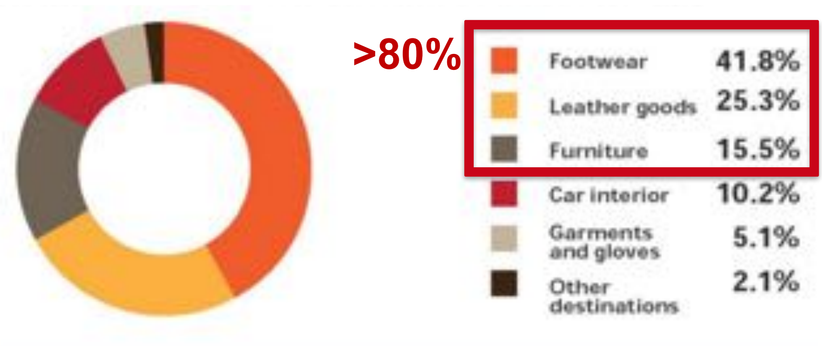
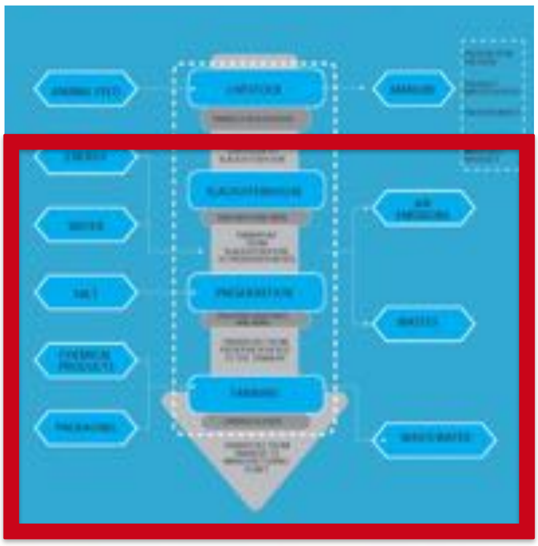
Italian leather by destination sector



Source: UNIC, 2017

Waste product vs. by-product



Where to start the LCA (Life Cycle Analysis)?

- from the livestock management (→ by-product) or
- from the slaughterhouse (→ waste)?

EU Commission, Environmental Footprint pilots
Leather Pilot project

Waste product vs. by-product

UNIC, Sustainability Report 2015

*"**Tanning industry** uses as **raw material** semi-finished leather or raw hides/skins, which come almost exclusively **from the food industry (over 99%) of which they are waste**."*

EU Commission, Environmental Footprint pilots Leather Pilot project

A significant advance in terms of considering it as a byproduct. This position helps to enlarge the scope outside of the tanning facility and consider upstream processes when talking about carbon footprint of leather.

Examples of best practices worldwide

LWG – Leather Working Group "Hide traceability Audit Protocol" – special attention to deforestation and Brazil (with tanneries certified)

JBS – the biggest meat producer in Brazil

JBS Italy Srl. – Leather division of JBS, with tanneries in Arzignano and traceability system for leather due to sourcing from its own farms and slaughterhouses in Brazil.

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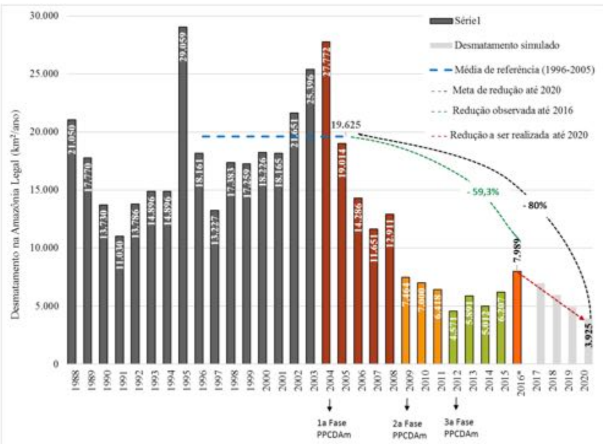
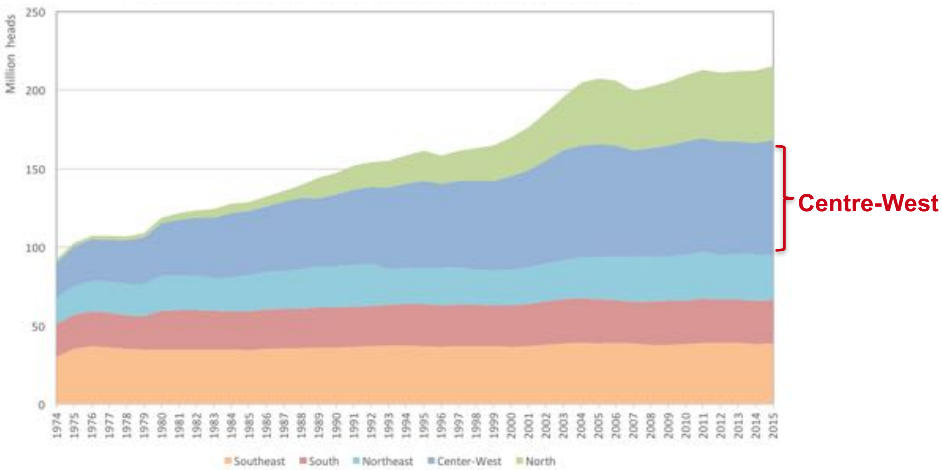
Developments in Brazil

- **Brazil loses more forests** than any other country in the world = 984 000 ha yr^{-1} (FAO 2016)
- After significant gain in reducing deforestation in the Amazon region, numbers are **back on the rise**
- **Agriculture** is responsible for **≈91% of deforestation** in Brazil (Hossonuma et al. 2012):
  - 58% Commercial
  - 33% Subsistence



Source: MMA 2017

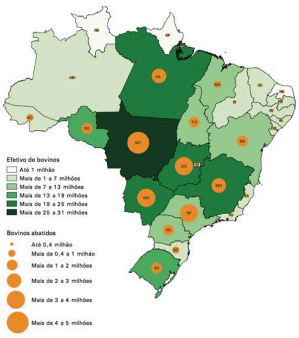
Evolution of live cattle in Brazil according to the regions (1985-2915)



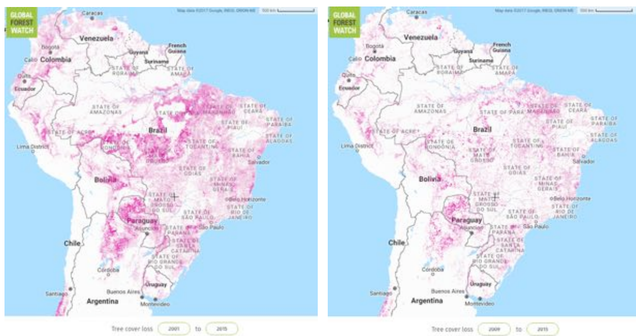
Source: Adapted from IBGE 2016

Cattle ranching: a direct driver of deforestation

2 maps of deforestation



Source: IBGE 2016



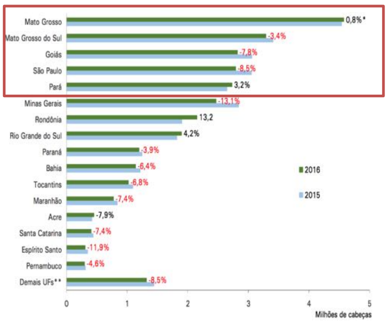
deforestation **from 2001-2015**… and **from 2009-2015**

The 2001-2015 map shows a much higher relation to deforestation and size of cattle herd/slaughter

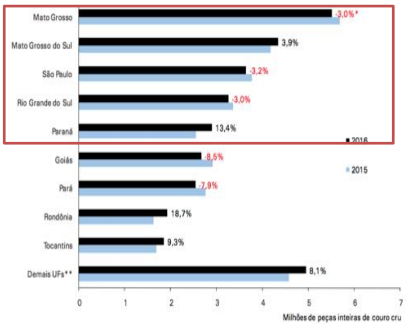
Source: Hansen/UMD/Google/USGS/NASA, accessed through Global Forest Watch

Sub-national top producers

Ranking of annual variation on the cattle slaughter - State - 2015-2016

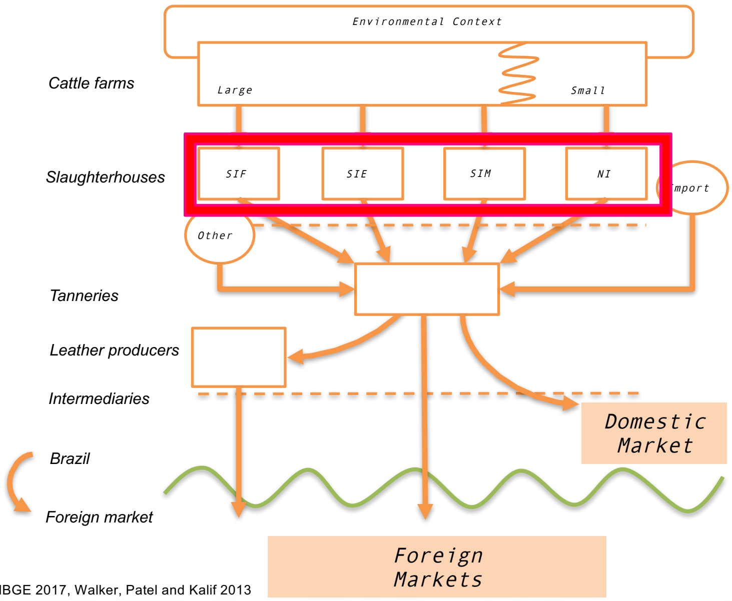


Ranking of annual variation of the total amount of raw leather by tanneries - States - 2015-2016



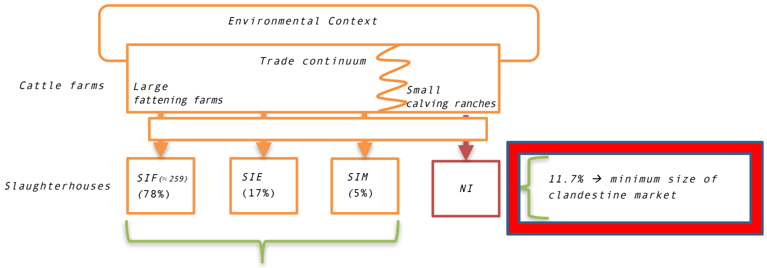
Source: IBGE 2017

Supply chain up to slaughterhouses



Based on: IBGE 2017, Walker, Patel and Kalif 2013

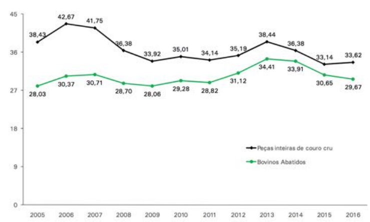
Supply chain up to slaughterhouses



In 2016:

- 29,67 Millions of bovines were slaughtered under a type of sanitary inspection
- US$ FOB 4,34 Billions in beef exports

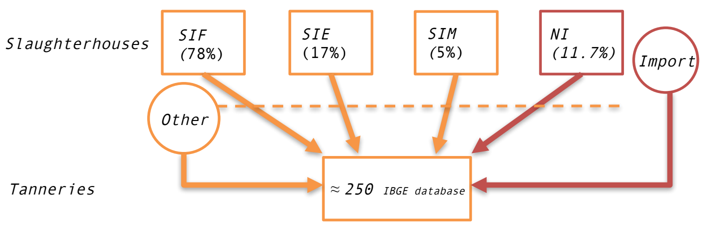
Difference between reported slaughters vs. raw hide



Sources: IBGE 2017, Walker, Patel and Kalif 2013, IBGE 2016

Source: IBGE 2017

Leather supply to tanneries



Origins of whole raw cattle hide received by tanneries in 2016

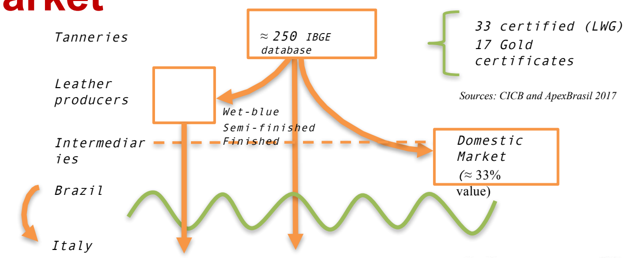
Origins	2016 Unit	2016 %
Total	**33 618 634**	**100**
Federal slaughterhouses	22 040 476	65.6
Tanning service providers	7 966 204	23.7
Salters (Intermediaries)	2 716 989	8.1
Municipal slaughterhouses	440 810	1.3
Other tanneries and other origins	225 721	0.8

Source: IBGE 2017

96,9% → chromium-based
2,8% → tannin-based

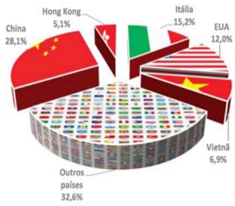
Sources: IBGE 2017, Walker, Patel and Kalif 2013, IBGE 2002

Tanneries supplying to the external market



In 2016:

- ≈ 67% Brazilian leather production is exported (value)
- US$ 2,033 Billions



Source: CICB 2016a
** Graph does not include manufactured leather products exported*

Sources: IBGE 2017, Walker, Patel and Kalif 2013, CICB and ApexBrasil 2017, IBGE 2002, CICB 2016a

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Added value along the supply chain

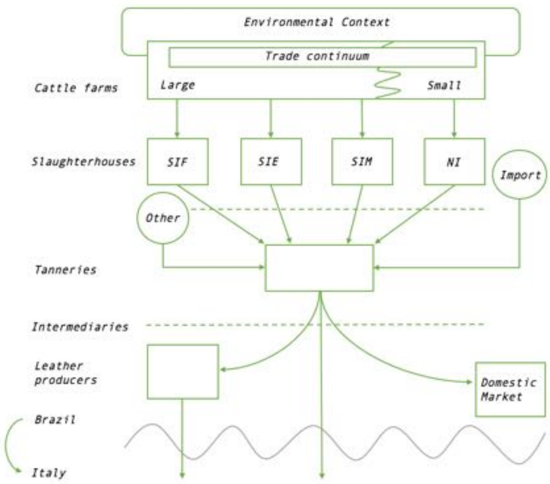
Average price per unit %

Calf → 378 US$
CEPEA 2017

Cattle → 1000 US$
CEPEA 2017

Hide → 182 US$
Walker et al. 2013
Meat → 999 US$
Walker et al. 2013

Wet-blue →
Semi-finished →
Finished →
Wallet? →



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Brazilian side

- Complexity of upstream supply chain makes it **difficult to trace animal hides** to individual farms and prevent deforestation and forest degradation
- Thus, **"zero deforestation commitments"** by large individual companies operating for the international market **can hardly be a panacea** for stopping deforestation in Amazonia (important role of small enterprises and of the domestic market)
- Zero deforestation in Brazil should be associated to a policy aimed at **increasing the productivity of farms** (currently, average 1.6 head of cattle/ha) and to **using only already deforested lands**
- The Brazilian government pledged **22 Million hectares to restoration and low-carbon agriculture by 2030**, suggesting a shift in balance from command-and-control measures to incentivizing a more sustainable economy.

Conclusions

Italian side

- **No clear awareness** about the link between deforestation and leather sector among **consumers**, **big brands**, and **large stores**
- **Italian tanners no motivated** to give transparency to the **origin** of the leather (individual cases excluded)
- Challenges to create **synergies with meat industry**
- Challenges to invest in a **potential competitive advantage** ("*Buy Italian responsible leather*") and **reduce** problems of **forest degradation**
- Risk to create a **dual market** (leather not associated to forest degradation for the rich European consumers vs. “normal” leather for other consumers)

Thank you!

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