

# Water Footprint Assessment: Innovation tool in Brazilian Water Governance

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# Introduction

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## Methodology

## Water Footprint

## Brazil's Water Law

## Relation and Applicability

## Conclusions

## Acknowledgement

- Global water crisis
- “More urgent than global warming”<sup>\*1</sup>
- Commodity of the Century
- May become the trigger for a next world war

<sup>\*1</sup> Clark (2014)

# Goals

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- Water Footprint (WF) = Water efficiency indicator
- Discuss its applicability
- Suggest as a potential tool for Brazil's Water Governance

# Methodology

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- Exploratory bibliographic survey
- Law No. 9433/97 and its tools was studied
- Comparison between law and Water Footprint tools

\* **NOTE:** Not yet tested for practice

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- It originated the idea of “Virtual Water”
- 2002 – Arjen Y. Hoekstra
- DEFINITION: \*2

“The total fresh water volume used during the production and consumption of goods and services, likewise the direct and indirect consumption in the production process-chain”

- Considers direct and indirect aspects

\*2 Hoekstra et al. (2011)

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- Sustainability – Regional and temporal factors
- Most popular methodology currently \*3
- ISO 14.046 : 2014
- Recommended by FAO and UNESCO
- Spain – Became the first country in the EU to adopt (2008)

\*3 Pina (2010)

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- Brazil has the largest water availability in the world
- Historical of negligence and wastage
- 1997: Law No. 9433 – National Policy on Water Resources
- Brazilian water governance base

# Brazil's Water Law

## Tools

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- Water Resources Plan
- Framing of Water Bodies in Classes According to Prevailing Use
- Granting of Rights of Use of Water Resources
- Charge for the Use of Water Resources
- Information Systems on Water Resources



# Relation and Applicability

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- Both consider the river basin as territorial unit
- WF is compatible with all instruments
- CROPWAT + CLIMWAT – Developed by FAO:
  - Recommended for use on WF
  - Already used by ANA (Brazil's National Water Agency)
- Easy understanding and appeal to the masses

# Conclusions

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- Law No. 9433/97 + Water Footprint are consistent
- The WF can help in decision-making
- WF can be applied to each of the 5 instruments of the Brazilian Water Law
- An internationally standardized method would give Brazil a position and highlight by innovation
- Accompanying international trends

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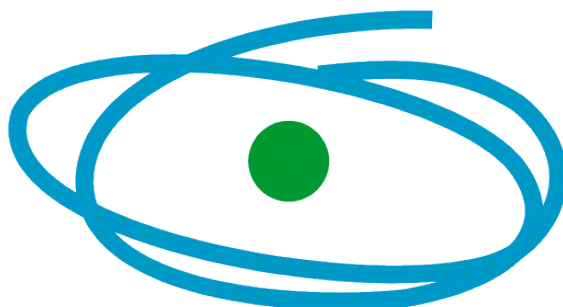
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*Gado de Leite*



**C A P E S**



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# THANK YOU!!

# ;D

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