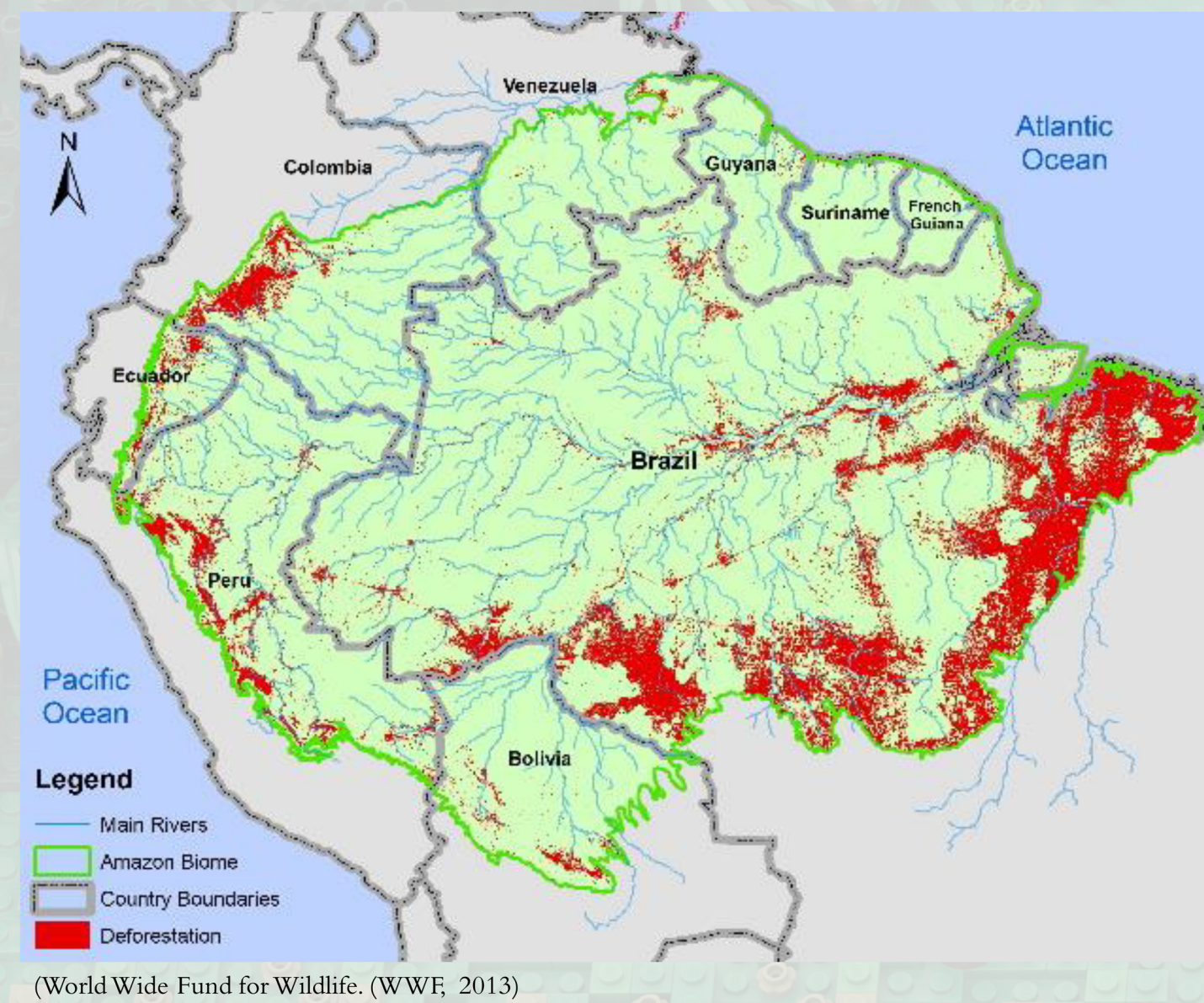




## Problem

Deforestation has eliminated 20% of the highly biodiverse and carbon-mitigating Amazon rainforest, causing at least 38 recorded extinctions thus far. Cattle ranching drives 80% of this deforestation.



## Method

- Project research focused on Brazil, where most of the Amazon lies and where most deforestation occurs
- Cattle supply chains were analyzed with the aim of finding solutions to reduce deforestation without harming the existing industry

## Dynamics of Amazonian Beef Production

*Indirect suppliers* sell their cattle to other ranches, while *direct suppliers* sell directly to slaughterhouses. Indirect suppliers cause a large proportion of deforestation because they are not monitored by slaughterhouses.

*Confinements* consolidate cattle into small spaces, relying on crops for feed production. Though uncommon in Brazil, they produce an average of 26 times more beef per acre per day than pastures.

*Traditional pasture-based systems* predominate, but have low productivity and require significant deforestation for expansion.

*Intensification* is the practice of raising more cattle on less land. Productivity is lower than that of confinements, but intensification does not have many of the environmental and ethical costs.

Cattle are often transferred between ranches before sale to slaughterhouses. Cattle from deforesting farms can be “*laundered*” through non-deforesting farms to circumvent slaughterhouse zero-deforestation policy.

*Slaughterhouses* are owned by large meatpackers. *JBS*, which processes 40% of Amazonian beef, signed the *G4 agreement* with Greenpeace in 2009 to halt beef purchase from farms that practice deforestation. However, the agreement ignored indirect suppliers.

JBS hires *external auditors* to assess compliance to the G4 agreement. The auditors conclude no violations, but research groups have found significant lapses in G4 enforcement. JBS does not currently utilize public cattle transit records (*GTA*s) to detect laundering suppliers.

## Solution

Our solution proposes a marketing campaign to create consumer pressure for JBS and other meatpackers to sign a new agreement with the Brazilian government which will:

- Track indirect suppliers by linking animal transit records and prohibit purchase from deforesting properties
- Cause a change in the culture of deforestation throughout the supply chain
- Incentivize ranchers to adopt confinement or intensification as an alternative to deforestation when expanding operations

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