

Rainforest Alliance Certified™ and its Global Trade Effects in the Cocoa Sector

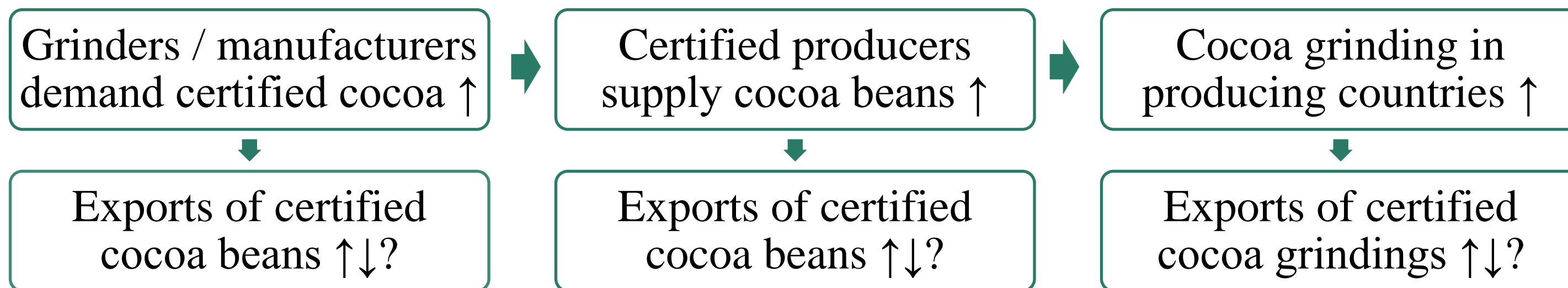
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1. Motivation

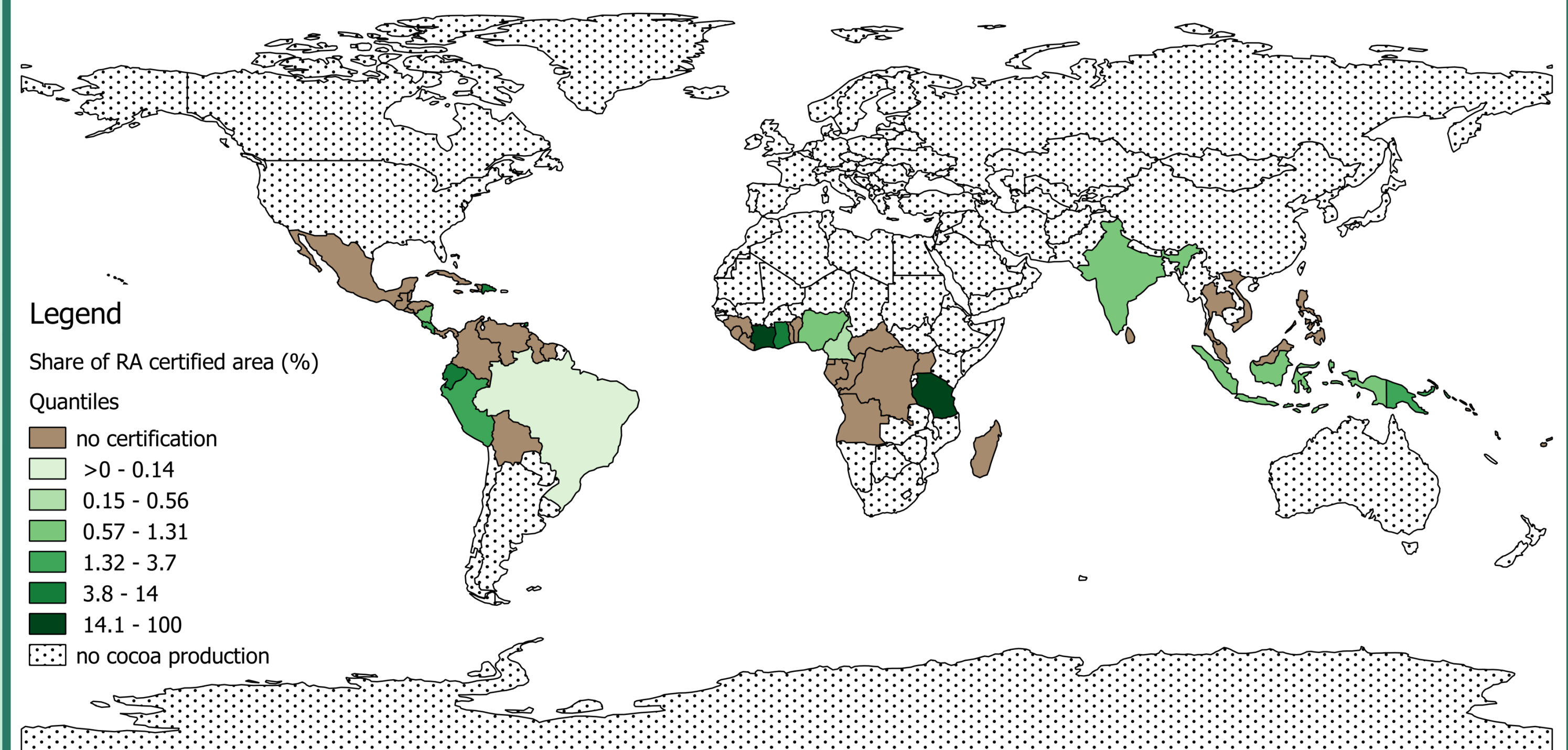
Recent developments in the global cocoa sector



- Hypothesis 1: The share of Rainforest Alliance certified land area affects cocoa exports positively.
- Hypothesis 2: The trade effects differ across cocoa products.

2. Background

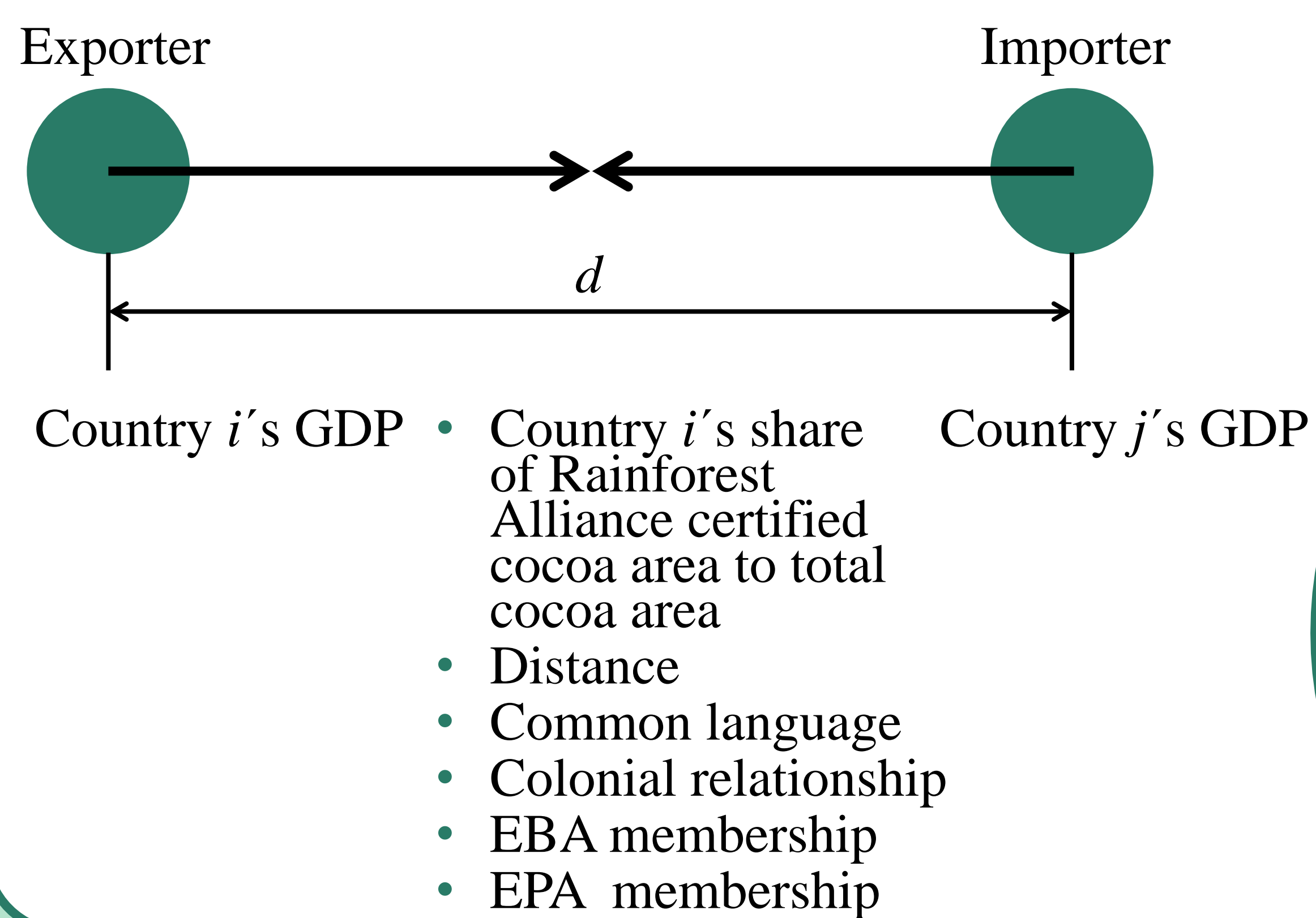
Rainforest Alliance certified producers, 2016



Source: Rainforest Alliance annual report 2016 and FAOstat

➔ 10.2% of global cocoa production area is Rainforest Alliance certified

3. Methodology: Gravity model of trade

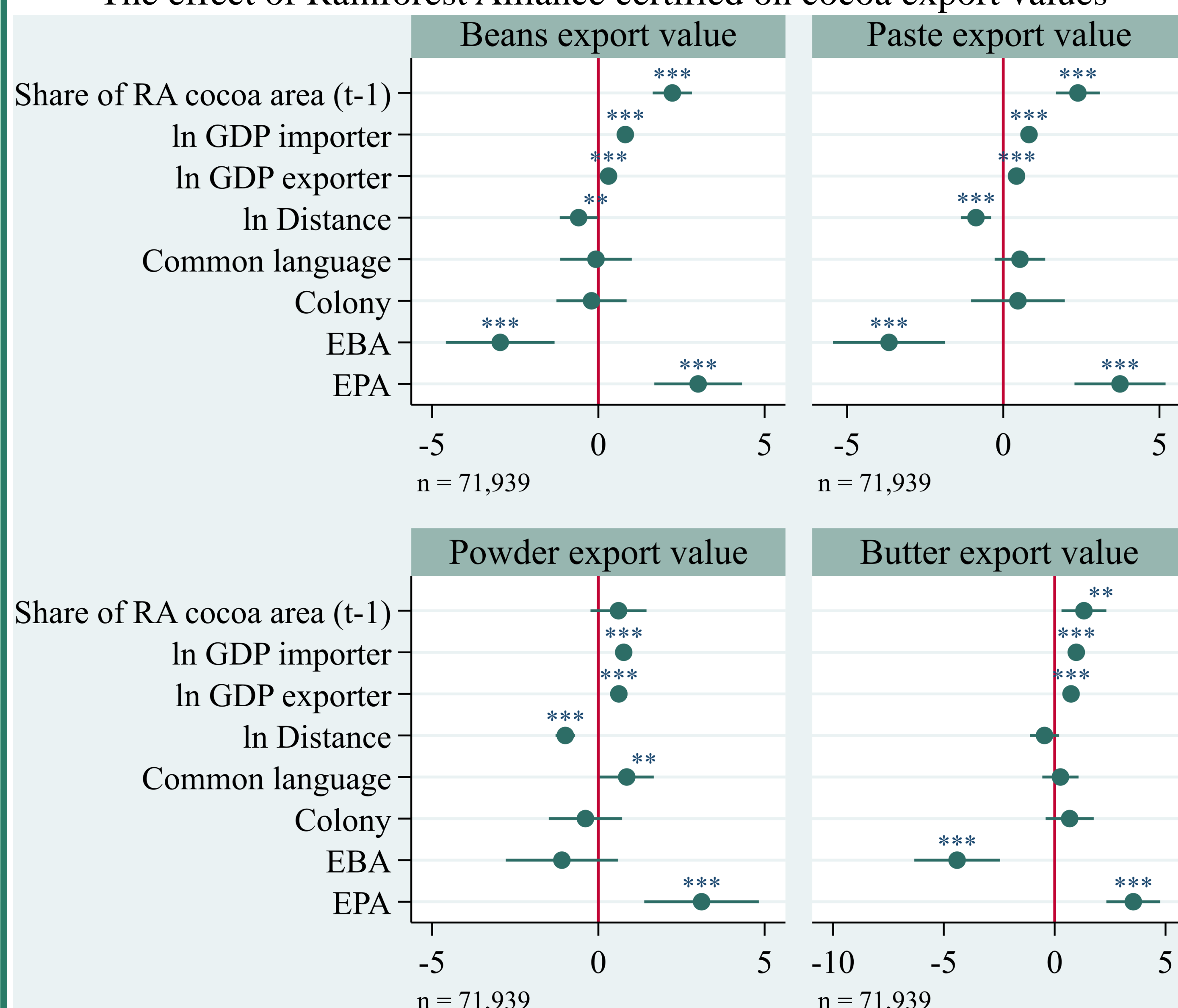


4. Limitations

1. No disaggregation of certified and uncertified bilateral cocoa trade flows
2. No country-level data on share of Rainforest Alliance certified cocoa grindings
3. No data on double certification

5. Results

The effect of Rainforest Alliance certified on cocoa export values



Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; Robust standard errors clustered at country-pair-level; Coefficient estimates were obtained using a Poisson pseudo-maximum likelihood (PPML) estimator; Bonus-Vetus method used to account for multilateral resistance

6. Findings

- Countries with higher share of Rainforest Alliance certified cocoa area are more likely to export cocoa products
- The trade effects differ across cocoa products: Strongest effect for cocoa paste, followed by cocoa butter and cocoa powder
- Most common *gravity* variables do have expected sign and magnitude:
 - Higher demand by importer (GDP), higher supply by exporter (GDP), common language, colonial relationship and EPA enhance trade of cocoa products
 - Higher bilateral distance decreases trade of cocoa products

7. Discussion

- Strongest trade effect for cocoa paste:
 - Cocoa paste is the first processing step and therefore less sophisticated to produce
- Insignificant trade effect for cocoa powder:
 - Non-certified countries are more likely to specialize on export of cocoa powder
 - Cocoa powder is used to produce drinking chocolates or bakery products
 - Those industries have lower demand for certification