Paper/Poster Title	Paper/Poster Title

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Abstract	200 words max

Is the coffee Geographical Indication scheme really a win-to-win strategy for deforestation? The case of Colombia

Introduction	100 – 250 words

Colombia is one of the third countries in the world for coffee production and second in Latin America. In 2005 the Colobian government recognised the Cafe de Colombia within the European Geographical Indication (GI) quality scheme while in 2007 Caffe de Colombia became the first extra-EU products recognised as GI by the EU. Geographical Indication is the main pillar of the EU agri-food quality policy. It aims at protecting the names of specific agri-food products (food and wine) to promote their uniqueness (characteristics, reputation and quality) essentially, or exclusively, resulting from the peculiarity of their region of origin, their traditional expertise as well as the local communities' know-how and cultural habits. In addition to preserve preserving high-quality products from standardised competitors and avoid unfair competition, GIs have been recognised as effective tool for enhancing positive spill-over effects at the territorial level. Among others, literature stresses their positive role in supporting sustainable development. In this respect, considering the importance of coffee in Colombian agricultural production, the aim of this work is to evaluate the effect of GI implementation on national deforestation. The choice to focus the analysis on forest change is twofold. Firstly, Colombia is covered for more than half (53,3%) of its surface by forest area, hosting 8% of the entire Amazon Rainforest. Secondly in Latin America the forest frontier between agricultural area and natural forest is immediate; therefore, agriculture generally expands at the expense of the forest, hence forest losses could be exacerbated also by coffee production. In fact, since the EU is one of the primary markets for coffee consumption, the GI acknowledgement would expect to have a return in terms of production and demand boost from the European market.

Methodology	100 – 250 words

Methodologically, we adopt a Synthetic Control Method (SCM), the "most important innovation in the policy evaluation" field. The SCM is a counterfactual approach for policy evaluation to estimate the impact of a treatment on a single unit in panel data settings. It provides quantitative support for case studies by creating a synthetic control unit that simulates what the outcome path of a single treated unit would be if it did not undergo a particular policy via a data-driven approach. In this paper, therefore, we simulate a counterfactual Colombia without the implementation of GI policy in 2005 using the 20 most important Latin America coffee producers over the period 1975-2020 as the donor pool. The characteristics of the synthetic unit are, in fact, simulated by a weighted combination of the same characteristics related to different control units (donor pool). We relied on a novel database we arranged starting from an ad hoc reconstruction of forest cover data based on the latest Forest Resources Assessment (FRA) of FAO for each country of our sample. Furthermore, additional variables used to construct the counterfactual Colombia were: coffee production as share of total cereal production, gdp per capita, population density, share of agricultural area, yield, and two proxies able to identity countries' quality of institutions and trade openness, respectively.

Results	*100 – 250 words*

Results show a positive effect in the years right after the certification. Since the 2005 onward a clear difference between real and synthetic Colombia is visible, indicating that, in this country, all as equal, forest cover would have experienced a worse increase in deforestation rates without the acknowledgment of Cafe de Colombia as a GI. However, in the long run the effect declined over time suggesting that the agricultural area, even after the certification, continued to expand even with higher rates compared to our syntetic Colombia without the GI policy.

Discussion and Conclusion	*100 – 250 words*

Henceforth, the adoption of GI scheme for the coffee it seems to have led to a sustainability spill-over effect in terms of less deforestation in Colombia, but only in the short term. In the long run, to achieve an effective forest transition, specific policies oriented toward forest management should be implemented in tandem with agri-food policies in order to avoid higher forest losses compared to a business-as-usual scenario. Here, in fact, after the positive initial effects of the certification, an consistent worsening in terms of deforestation rates occurred rising doubts about the effective sustainability of these policies. This study has policy implications at both micro (producers strategies) and macro (national strategies) levels. On the one hand, from a micro perspective, local actors would be interested in remaining and investing within the region of origin of certified products, while foreign private investors attracted. This could result in an increasing demand for agricultural areas at the expense of forest land. On the other hand, from a macro level perspective, national and local institutions could be informed to implement strategies capable of combining community-led assets sustainability issues. Sustainability is, in fact, the key to both the coffee producers and the country's national advantages. Eventually, the recent 2022 "Coffee, Forest Climate Agreement" signed by the Colombian government, exporters, producers and civil society, marks a milestone in this direction.