

## PHD POSITION ON GLOBAL TRADE FLOW AND THE FOREST SECTOR

The University of Padova, Dipartimento Territorio e Sistemi Agro-forestali (TESAF-UNIPD) and the Joint Research Centre (JRC) of the European Commission are inviting applications for PhD positions through the Collaborative Doctoral Partnership (CDP) scheme. The CDP scheme intends to enhance the science-policy link through strategic collaborations with higher education institutions characterized by research excellence and international reputation, in order to:

- Train a new generation of doctoral graduates in science and technology with a focus on the science-policy interface, able to understand the research needs at different stages of the policy cycle, capable of providing scientific support to policy and of using transferable skills in science communication and knowledge management.
- Co-develop, co-host and co-supervise doctoral studies between higher education institutions and the JRC.
- Strengthen collaboration between the JRC and higher education institutions by promoting mutual enhancement of related skills and competences, combining existing knowledge and capacities, and enhancing networking in key scientific areas.

### Research topic

The disappearance and the degradation of forests is receiving increased global attention. The EU has developed a set of actions to reduce pressures on forests and fight deforestation. Among those actions, the EU Timber Regulation was established to curb the trade of illegally harvested timber and timber products and more recently the Communication of the European Commission "Stepping up EU Action to Protect and Restore the World's Forests" stresses the importance of better monitoring trade flows.

EU consumers import a large part of the timber from other EU member states but they also import furniture, timber and paper from countries on the Asian and American continents. Forest products markets are global, and so are corporations. Forestry and the forest industries are linked through foreign direct investments. Many European companies have direct investments in Asia and the Americas and symmetrically Asian and American corporations have direct investments in Europe. Even small forest-based businesses are dependent on global timber prices for their profitability. In this light, the forest-based industries can be seen as one global forest sector. A painful question looms within global timber supply chains: Illegal logging. It damages natural ecosystems, undermines the competitiveness of legitimate companies who perform sustainable forest management and destroys livelihoods.

The aim of the PhD is to further investigate over global trade flows, extending along two crucial research paths. The first path is trade diversion: when a strong regulation is put in place in the EU, does it stop illegal trade flows, or are they simply redirected to other importing countries on the global markets, a phenomenon also described as policy leakage? The research should analyze changes in global trade flows in light of legislations banning illegal timber. The second path is relocalization: some evidence suggests timber buyers shift back from tropical to temperate timber species. The research will look for drivers of relocalization. The quantitative analysis will be based on bilateral trade data from UN Comtrade and Eurostat Comext, additional relevant sources should be explored. The methodological framework will be shaped starting from econometric methods such as gravity model of trade and constant market share analysis.

A possible extension to this work concerns the imports of agricultural products. Agricultural land expansion is the main driver of deforestation. An on-going analysis of the environmental impacts of EU imports looks into the relationships between shifts in global biomass trade and deforestation patterns. The work benefits from recent advances in remote sensing on monthly time series detection of deforestation and forest degradation. The research could contribute to this extension and develop competencies at the intersection between environmental economics and lifecycle analysis.

Candidates showing interest for computerized data analysis will be at ease in this position.

### Offer

- We offer a three-year PhD position in collaboration with the Joint Research Centre (JRC) of the European Commission.
- The PhD research will be realized at the Dipartimento Territorio e Sistemi Agro-forestali dell'Università di Padova (TESAF-UNIPD) through its PhD program Land, Environment, Resources and Health (LERH) and at the Joint Research Centre (JRC) in Ispra, Italy (at JRC for a period of 24 months).
- We offer a competitive fellowship. While at the JRC in Ispra, you will get a contract as a grant holder Category 20 (see: [https://ec.europa.eu/jrc/sites/jrcsh/files/jrc\\_grantholder\\_rules.pdf](https://ec.europa.eu/jrc/sites/jrcsh/files/jrc_grantholder_rules.pdf)).

**More info and application**

The selection process is based on the normal procedure for the selection at the LERH PhD School. After being selected as a LERH PhD student a second selection is made by JRC. Candidates should at the start of the employment contract with JRC have the nationality of a Member State of the EU or a country associated to the Research Framework Programmes (Horizon2020).