The relationship between pollution and international trade is an important issue for the global environmental policy. The pollution haven hypothesis (PHH) states that countries tend to produce and export goods from sectors with less stringent environmental regulation (Millimet; Roy, 2015). In many countries, there are weak environmental policies and laws mainly in the segment of non-renewable natural resources (NRNR), which comprises goods such as ores and other minerals; fuels; and non-ferrous metals (WTO, 2010; UNEP, 2012). According to WTO (2010) and UNEP (2012), the international trade of NRNR can accelerate the depletion of these goods leading to exhaustion and the increase of pollution in the producing/exporting countries. Thus, this research aims to evaluate the international trade flows considering the costs of importation/exportation and the environmental performance of countries. Our hypothesis is that countries with higher Environmental Pollution Indexes (EPI) tend to import NRNR from countries with lower EPI, ratifying the PHH.

Our database consists of 10,350 observations on international trade importation of 46 countries, considering the years of 2006, 2008, 2010, 2012 and 2014. The data comprises 86.32% of importation value of NRNR in the world for the selected period. The data sources were: COMTRADE (2018); WITS (2018); CEPII (2018); and EPI (2018). We estimate a gravity model of international trade applying four econometric models for robustness check of our results (Anderson; Van Wincoop; 2004; Silva; Tenreyro, 2011): Ordinary Least Squares with pooled data; Fixed Effects; Aleatory Effects; and Poisson Pseudo-Maximum-Likelihood (PPML).

Our results show that some variables contributed positively for the trade flows of NRNR between partners in the selected years: contiguity, common language, population of importer and exporter, Gross Domestic Product per capita from importer and exporter, area of exporter and colonial relationship in any time of history. Additionally, the higher the EPI of the importing country, the greater the trade flow of NRNR, and the higher the EPI of exporter country, smaller the trade of these goods. Therefore, it is important that countries with less severe environmental regulation improve their laws and policies, mitigating the possible effects of regional pollution.