Abstract

The present research **Proposal for the calculation of the carbon footprint in the construction service of high voltage power lines in Peru 2023**, is motivated by the growing concern about climate change and its impacts that are leading to greater awareness of the need to reduce greenhouse gas emissions in all sectors, including the construction of high voltage power lines. In Peru, the expansion of these infrastructures is crucial for economic and social development, but it also represents a significant environmental challenge. The **general objective** was to develop a spreadsheet that allows determining the carbon footprint in the construction service of high voltage power lines in Peru. The **methodology** used was of the applied type, descriptive level, experimental design with a quantitative approach, based first on the description of the supply and construction stages in the construction service of high voltage power lines; a statistical sample of 40 professionals experts in high voltage power lines was used. The **conclusion** was that a specific spreadsheet tool was designed to calculate the carbon footprint of the construction service of high voltage power lines in Peru, which was subjected to a rigorous validation process using a representative sample of real data from executed projects. The tool calculates the carbon footprint both at the supply stage and at the construction stage.

Keywords: carbon footprint, construction service, high voltage power lines, greenhouse gases.