

Interactive comment on “Global CO₂ emissions from cement production” by Robbie M. Andrew

Anonymous Referee #1

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Authors claim “We show that global emissions in 2016 were 1.45 ± 0.20 Gt CO₂, equivalent to about 4% of emissions from fossil fuels. Cumulative emissions to 2016 were 39.3 ± 2.6 Gt CO₂, 66% of which have occurred since 1990”, this is what have been done by emission dataset of EDGAR, CDIAC and US EIA etc. The numbers provided by author are almost same with that from EDGAR.

Authors' another major conclusion that cement emission estimation should be based on the amount of clinker rather than the cement, and thus the emission from China is overestimated by CDIAC. It is true but it has been known and analyzed for a long time – Figure 4b in Liu et al. ACP published in 2013 shows exactly the same of what author listed in Figure 3. <https://www.atmos-chem-phys.net/13/10873/2013/>

The real contribution author could make, for example, is to investigate the clinker ratio with physical experiments & mass measures. Merely comparing CDIAC/IEA/USGS

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data with Monte Carlo simulation cannot be considered as an independent research at all.

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