

Farm size and greenhouse gas emission: Do large farms in China produce more emissions?

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Electronic supplementary material

The IPCC coefficient methodology was used to calculate GHG emissions. Emissions are obtained by multiplying the activity of the source by the corresponding factor. The calculation method is shown in Equation (S1).

$$E = \sum E_f = \sum EF_f \times a_f \quad (S1)$$

where: E – total GHG emissions (measured in CO₂-eq); f – type of GHG sources; E_f – GHG emissions from various sources; EF_f , a_f – GHG emission coefficients and activities from each source, respectively.

For nitrous oxide emissions from agricultural land, methane emissions from paddy fields, methane emissions of animal enteric fermentation, methane and nitrous oxide emission of animal manure management systems, a_f denotes the input of N, area of paddy fields, the year-end stocks, respectively. For emission coefficients, the data published by the National Development and Reform Commission in the Guidelines for the Compilation of Provincial Greenhouse Gases Inventories (Trial) are used.