A new indicator for carbon-neutral consumption: An enhancement to CFP with cost for emission compensation by renewable energy technologies

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This study examines pros and cons of a new indicator, which aims at enhancing influence of carbon footprint (CFP) on the business and public behaviors. The indicator is the carbon emission compensation cost based on the CFP of a product. Here, carbon compensation technologies (CCTs) include wind power and photovoltaic systems. The indicator incorporates efficiency of the CCTs, which are dependent on climatic conditions at the location of consumption, and lifetime of the evaluated product. As a result, more durable and lower CFP products are preferred by using this indicator. The effectiveness of the new indicator will be evaluated by a survey to understand influences on their cognition of issues and on intention of consumptions. Preliminary survey is designed and the results are introduced.

Keywords: Carbon footprint, Renewable energy technology, Carbon-neutral consumption, Questionnaire, Product lifetime