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## Corrigendum: A review of trends and drivers of greenhouse gas emissions by sector from 1990 to 2018 (2021 *Environ. Res. Lett.* [16 073005](#))

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## CORRIGENDUM

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citation and DOI.Corrigendum: A review of trends and drivers of greenhouse gas emissions by sector from 1990 to 2018 (2021 *Environ. Res. Lett.* **16** 073005)William F Lamb<sup>1,2,\*</sup> , Thomas Wiedmann<sup>3</sup> , Julia Pongratz<sup>4,5</sup> , Robbie Andrew<sup>6</sup> , Monica Crippa<sup>7</sup> , Jos G J Olivier<sup>8</sup> , Dominik Wiedenhofer<sup>9</sup> , Giulio Mattioli<sup>2,10</sup> , Alaa Al Khourdjie<sup>11</sup> , Jo House<sup>12</sup> , Shonali Pachauri<sup>13</sup> , Maria Figueroa<sup>14</sup> , Yamina Saheb<sup>15</sup> , Raphael Slade<sup>7</sup> , Klaus Hubacek<sup>16</sup> , Laixiang Sun<sup>17,18,19</sup> , Suzana Kahn Ribeiro<sup>20</sup> , Smail Khennas<sup>21</sup> , Stephane de la Rue du Can<sup>22</sup> , Lazarus Chapungu<sup>23</sup> , Steven J Davis<sup>24</sup> , Igor Bashmakov<sup>25</sup> , Hancheng Dai<sup>26</sup> , Shobhakar Dhakal<sup>27</sup> , Xianchun Tan<sup>28</sup> , Yong Geng<sup>29</sup> , Baihe Gu<sup>28</sup> and Jan Minx<sup>1,2</sup>

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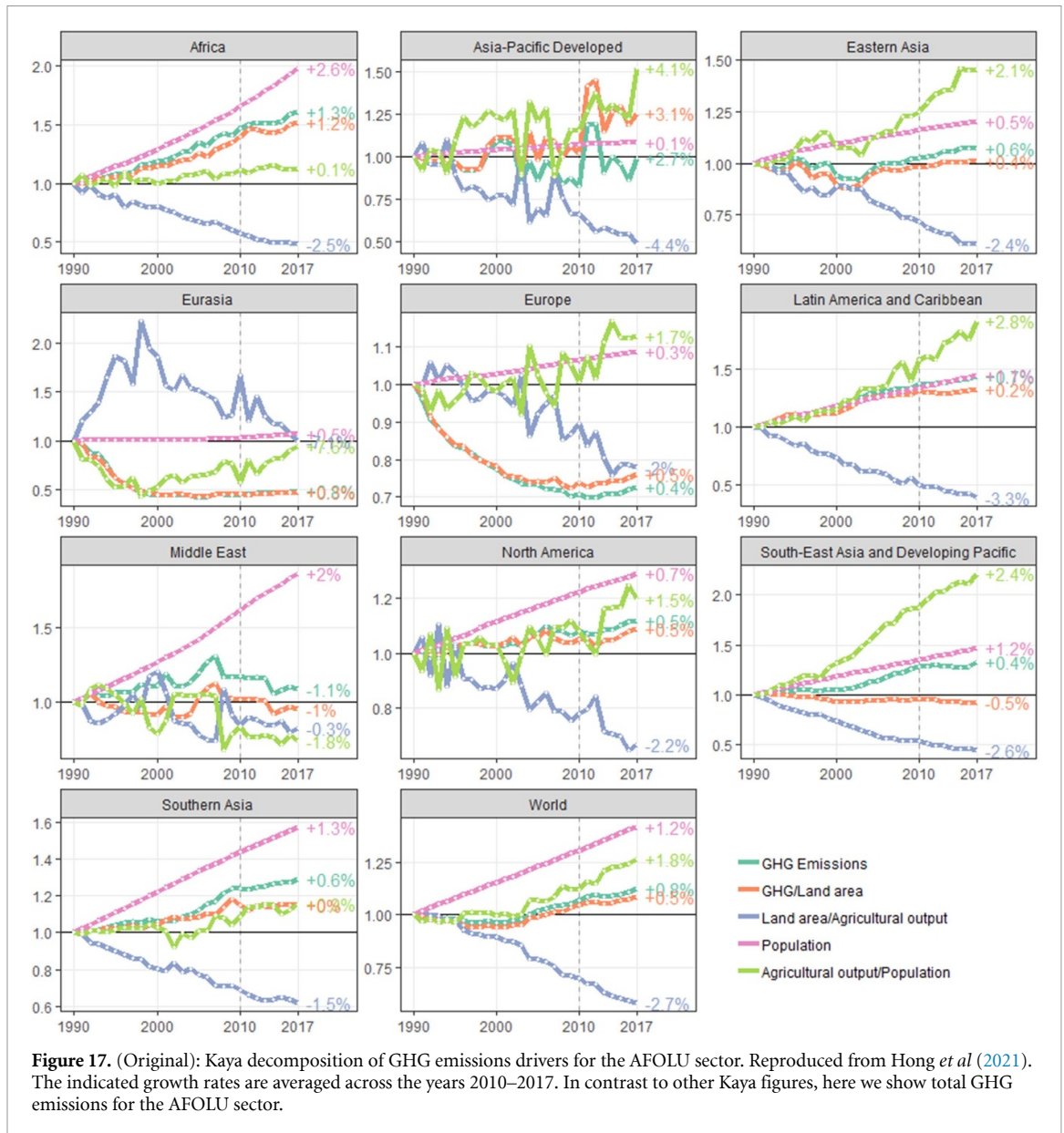
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This corrigendum resolves an error in figure 17 and clarifies the scope of the cement sector in figure 2.

Figure 17 in the original published manuscript depicts a Kaya identity for the agriculture, forestry and other land uses (AFOLU) sector. We unintentionally excluded land-use CO<sub>2</sub> emissions from total greenhouse gas (GHG) emissions in this identity, and depicted only agricultural GHG emissions. The

original published version of figure 17 is shown here, followed by the revised version with land-use CO<sub>2</sub> emissions included. Two components of the identity are affected: GHG emissions and GHG/land area. The land-use CO<sub>2</sub> emissions data used in this paper (the average of three bookkeeping models; Hansis *et al* 2015, Houghton and Nassikas 2017, Gasser *et al* 2020) has a steadily increasing global

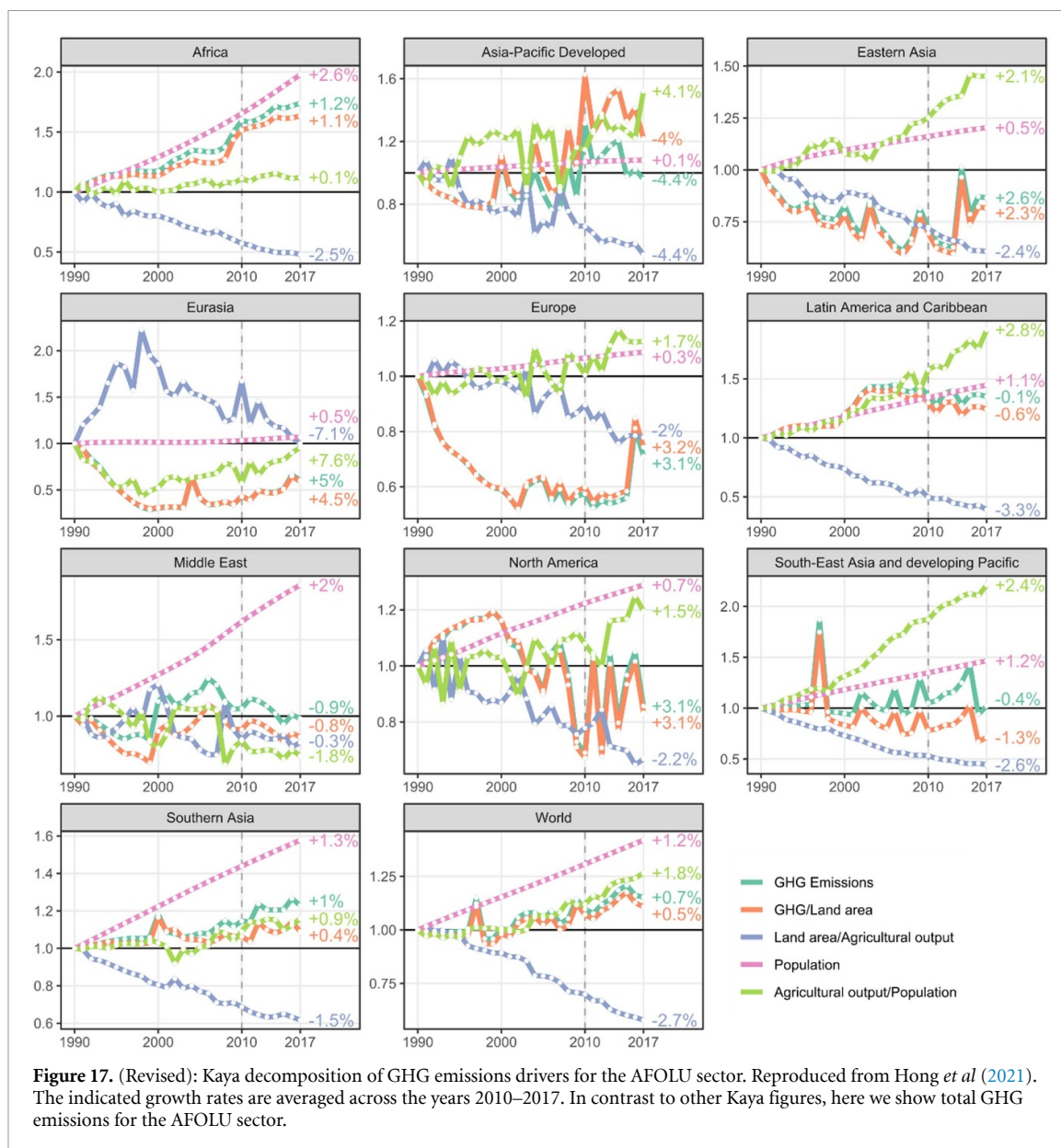


**Figure 17.** (Original): Kaya decomposition of GHG emissions drivers for the AFOLU sector. Reproduced from Hong *et al* (2021). The indicated growth rates are averaged across the years 2010–2017. In contrast to other Kaya figures, here we show total GHG emissions for the AFOLU sector.

average trend, but relatively large regional year to year fluctuations. As such, the global average Kaya identity for the AFOLU sector depicted in the ‘World’ panel is largely unaffected by the change, with a small reduction of 0.1 percentage points in the average annual growth rate of GHG emissions from 2010 to 2017. In contrast, regional growth rates, and in some cases the signs, for the GHG emissions and GHG/land area Kaya factors are affected. Since the text does not dir-

ectly refer to the Kaya factors in this figure, no other changes besides substituting the figure are necessary for this correction.

Finally, in figure 2 of the original manuscript, we clarify that cement emissions are process only, a point that was mistakenly omitted: ‘Note that cement refers to process emissions only, as a lack of data prevents the full reallocation of indirect emissions to this sector.’



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