

Fig. S1: (top left) EDGAR Livestock emissions after applying observation operator. (top middle) Satellite based livestock emissions. (top right) Spatial distribution of degrees-of-freedom for signal (DOFS). (bottom left) EDGAR livestock emissions. (bottom middle) difference between satellite and EDGAR (upper-middle minus upper left). (bottom-right) same as bottom middle but normalized by uncertainty of difference and only for regions where DOFS > 0.2 (upper right)

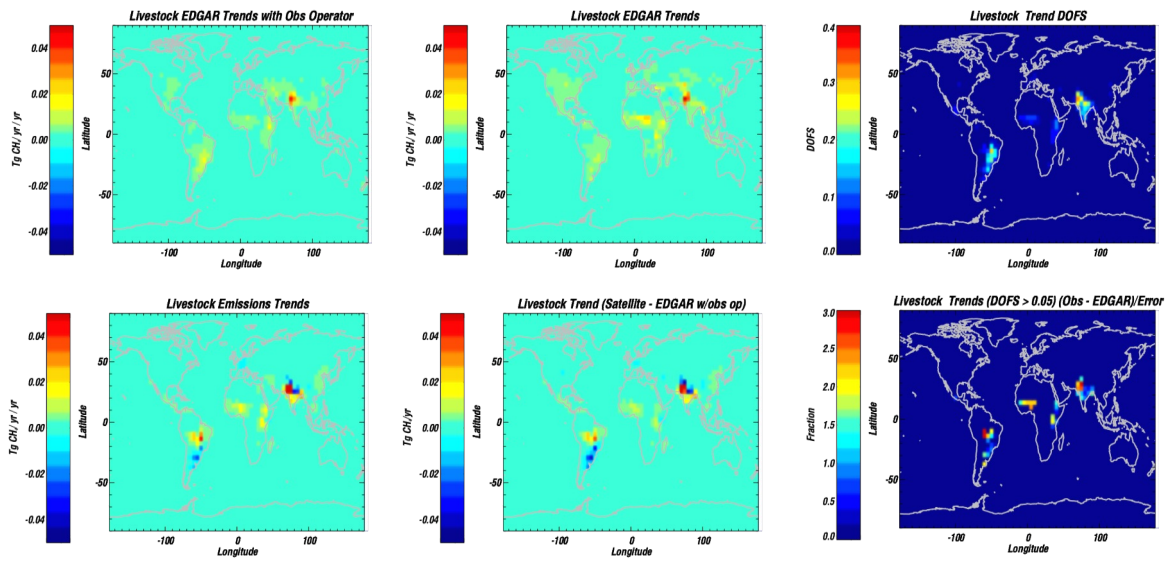


Fig. S2: Same as Figure S1 but for livestock emission trends and DOFS criteria for bottom-right figure changed to 0.05

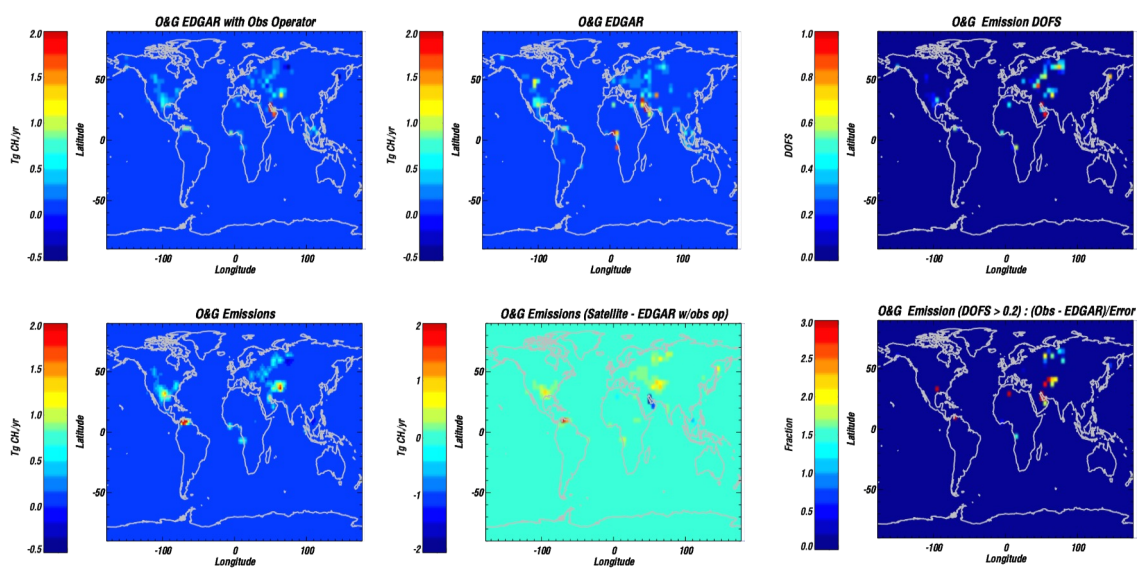


Fig. S3: Same as Figure S1 but for Oil and Gas (O&G) emissions.

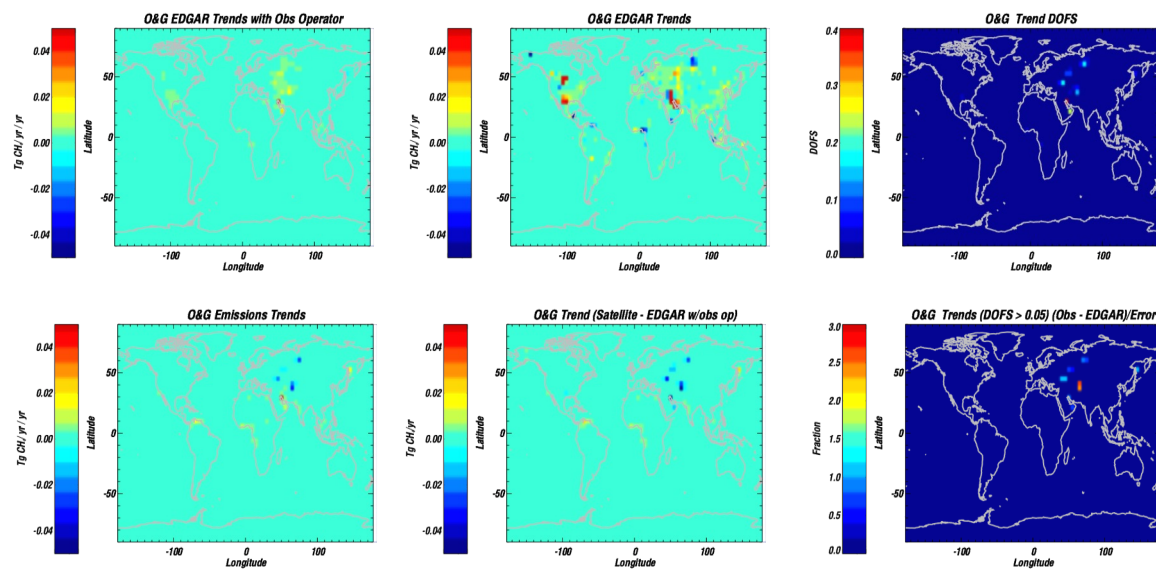


Fig. S4: Same as Figure S1 but for O&G trends and DOFS criteria for bottom-right figure changed to 0.05

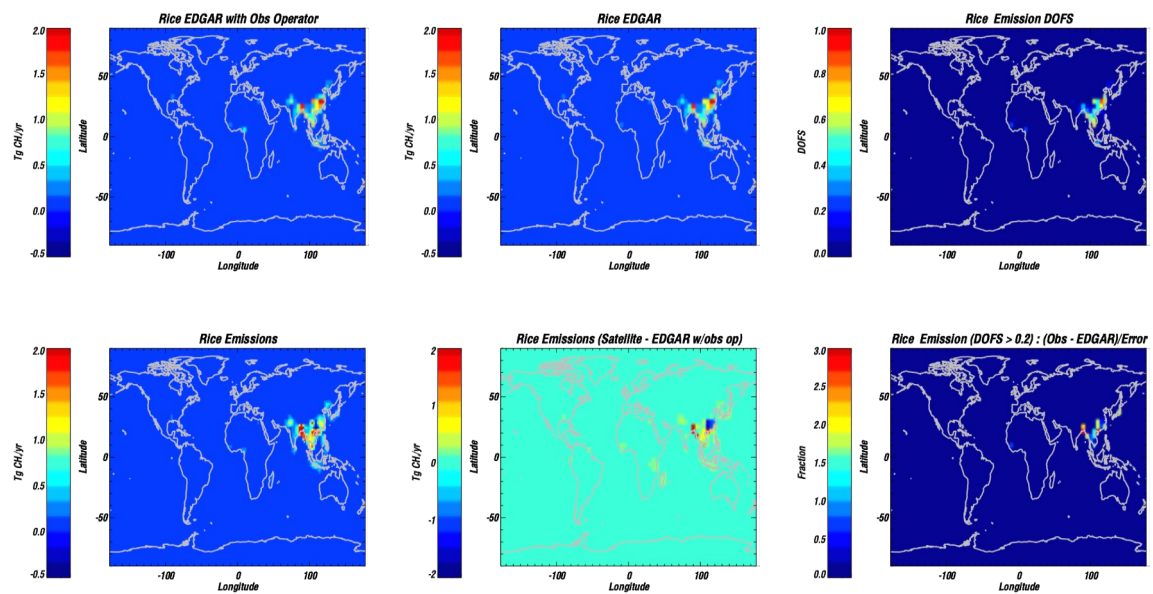


Fig. S5: Same as Figure S1 but for Rice emissions

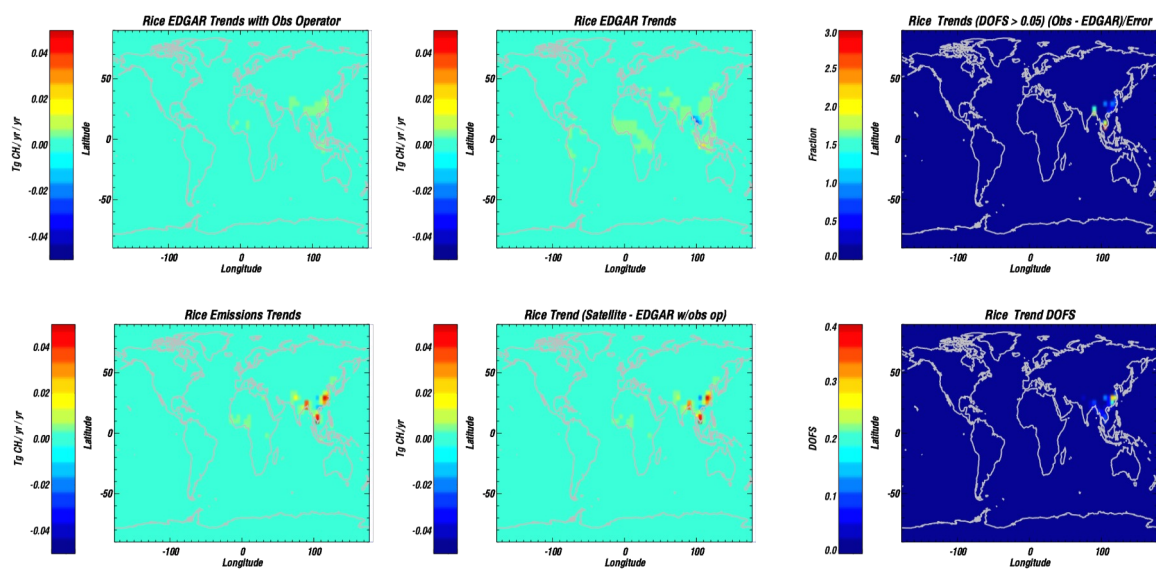


Fig. S6: Same as Figure S1 but for rice emission trends and DOFS criteria for bottom-right figure changed to 0.05

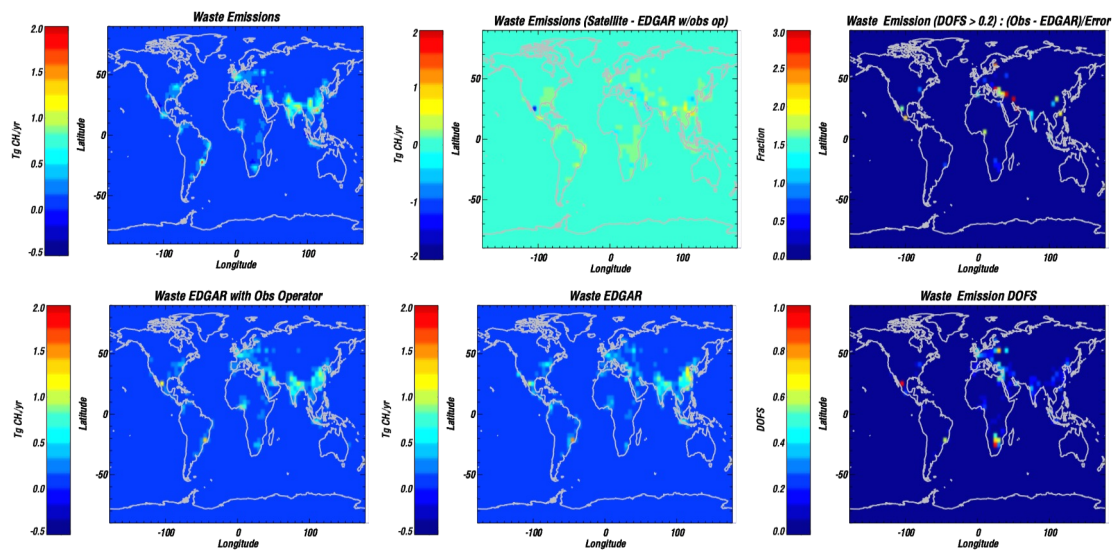


Fig. S7: Same as Figure S1 but for waste emissions



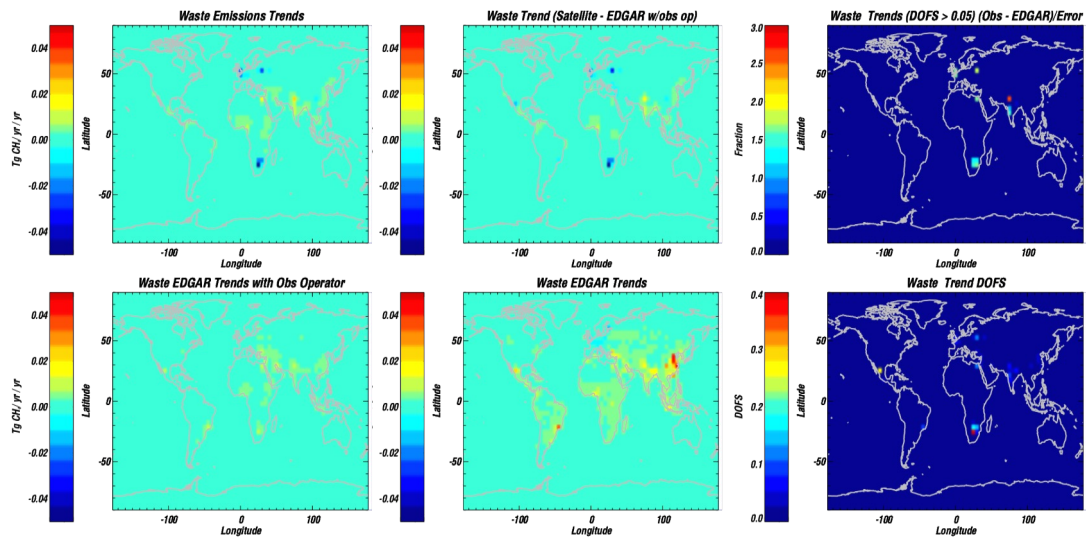


Fig. S8: Same as Figure S1 but for waste emission trends and DOFS criteria for bottom-right figure changed to 0.05



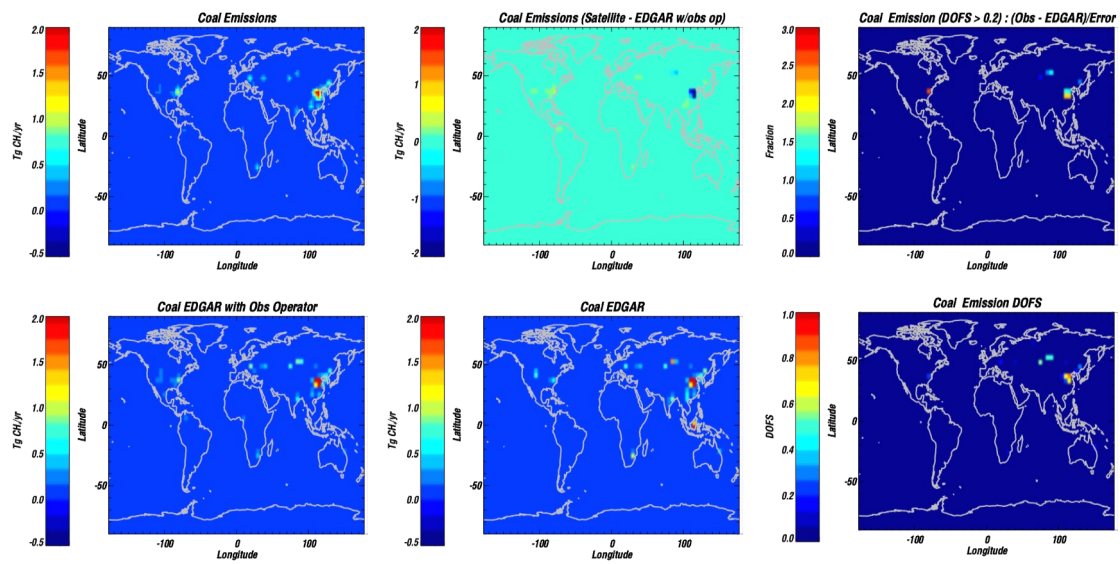


Fig. S9: Same as Figure S1 but for coal emissions

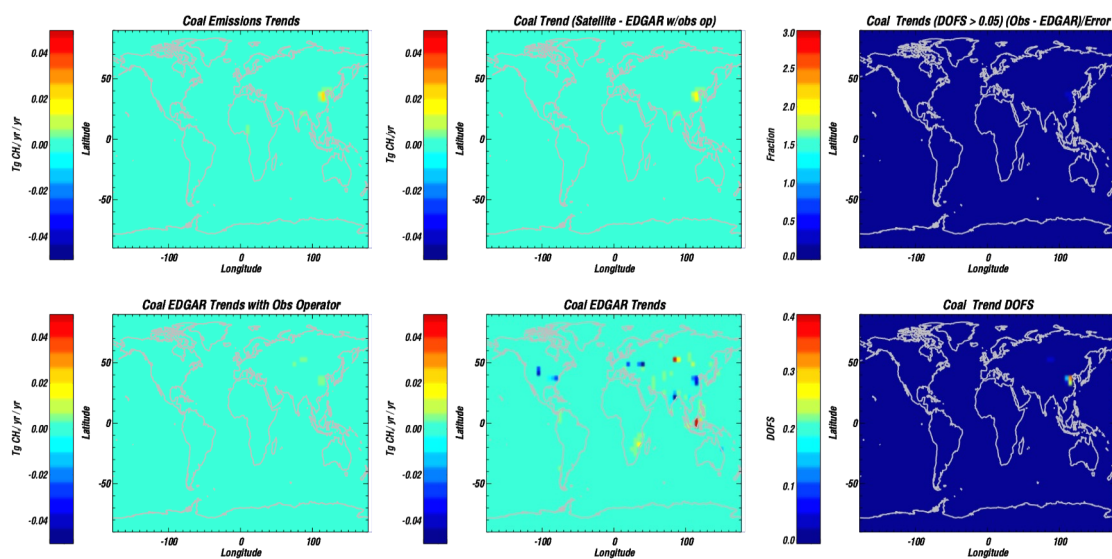


Fig. S10: Same as Figure S1 but for coal emission trends and DOFS criteria for bottom-right figure changed to 0.05