Supplementary Material for "Uncertainty analysis of projections of ozone-depleting substances: Mixing ratios, EESC, ODPs, and GWPs"

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Table S1 Effect of uncertainties on the year EESC returns to pre 1980-levels for mid-latitude and Antarctic conditions and the change in integrated EESC above the 1980 level. Shown are the median and uncertainty ranges (95% CI) as difference from the median. Also, shown for comparison, are cases of zero production and zero emission starting in 2014.

	Mid-latitude conditions		Antarctic conditions		Integrated EESC mid-latitude conditions	
Base run model (median)	2048		2075			
Production up to 2008	-0.5	+0.5	-0.6	+0.6	-1%	+1%
Bank sizes of 2008	-1.5	+1.3	-2.2	+2.0	-2%	+2%
Emission factors	-0.8	+0.5	-0.5	+0.5	-2%	+1%
Lifetimes (possible range)[a]	-7.9	+13.4	-13.4	+25.7	-9%	+16%
Lifetimes (most likely range)[a]	-5.9	+10.5	-8.8	+13.5	-8%	+14%
Fractional releases	-2.9	+3.0	-3.0	+3.5	-10%	+11%[b]
Factor α (Br efficiency)	-2.8	+2.4	-3.1	+2.8	-7%	+6%[b]
Mean age-of-air	-4.6	+5.1	-7.9	+7.5	-15%	+18%[b]
Surface factor (F_{surf})	-1.1	+1.1	-1.4	+1.4	-2%	+2%
Observed mixing ratios	-0.4	+0.5	-0.3	+0.4	-1%	+1%
All of above combined						
Possible lifetime range [a]	-9.8	+15.8	-16.1	+28.3	-21%	+29%[b]
Most likely lifetime range [a]	-8.6	+12.7	-12.8	+16.9	-21%	+28%[b]
Zero production 2014 onward	-3.1		-2.7		-5%	
Zero emissions 2014 onward	-11.6		-12.5		-13%	

a) Correlation coefficient γ of 0.9 is applied.

b) Calculated using the normalized EESC.

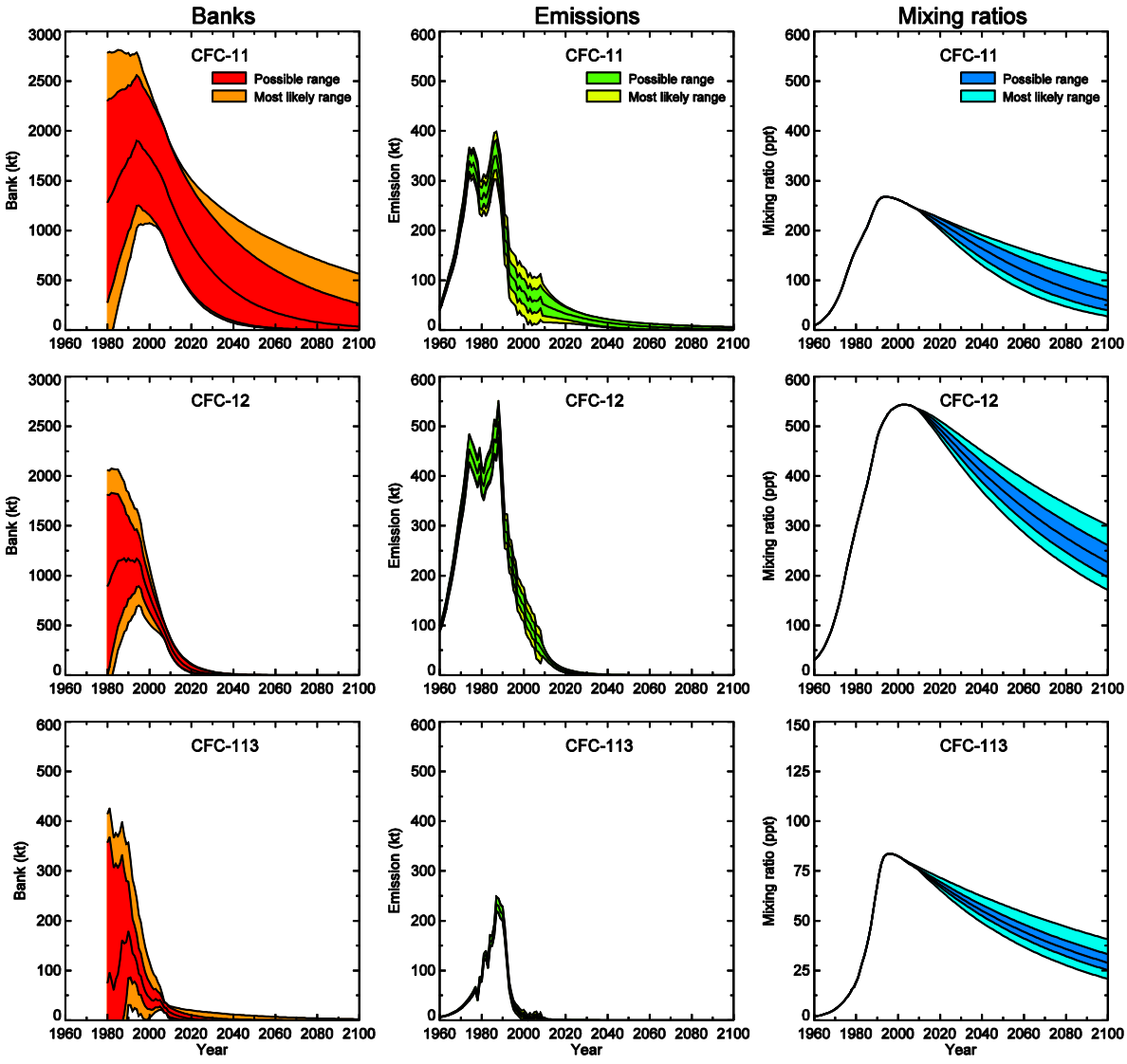

Figure S1 Banks, emissions, and mixing ratios of ODSs from 1960 to 2100 with uncertainties applied to all parameters. Shown are the median values and 95% CI based on the possible (light colors) and most likely (dark colors) uncertainty ranges in lifetimes.

Figure S1 continues

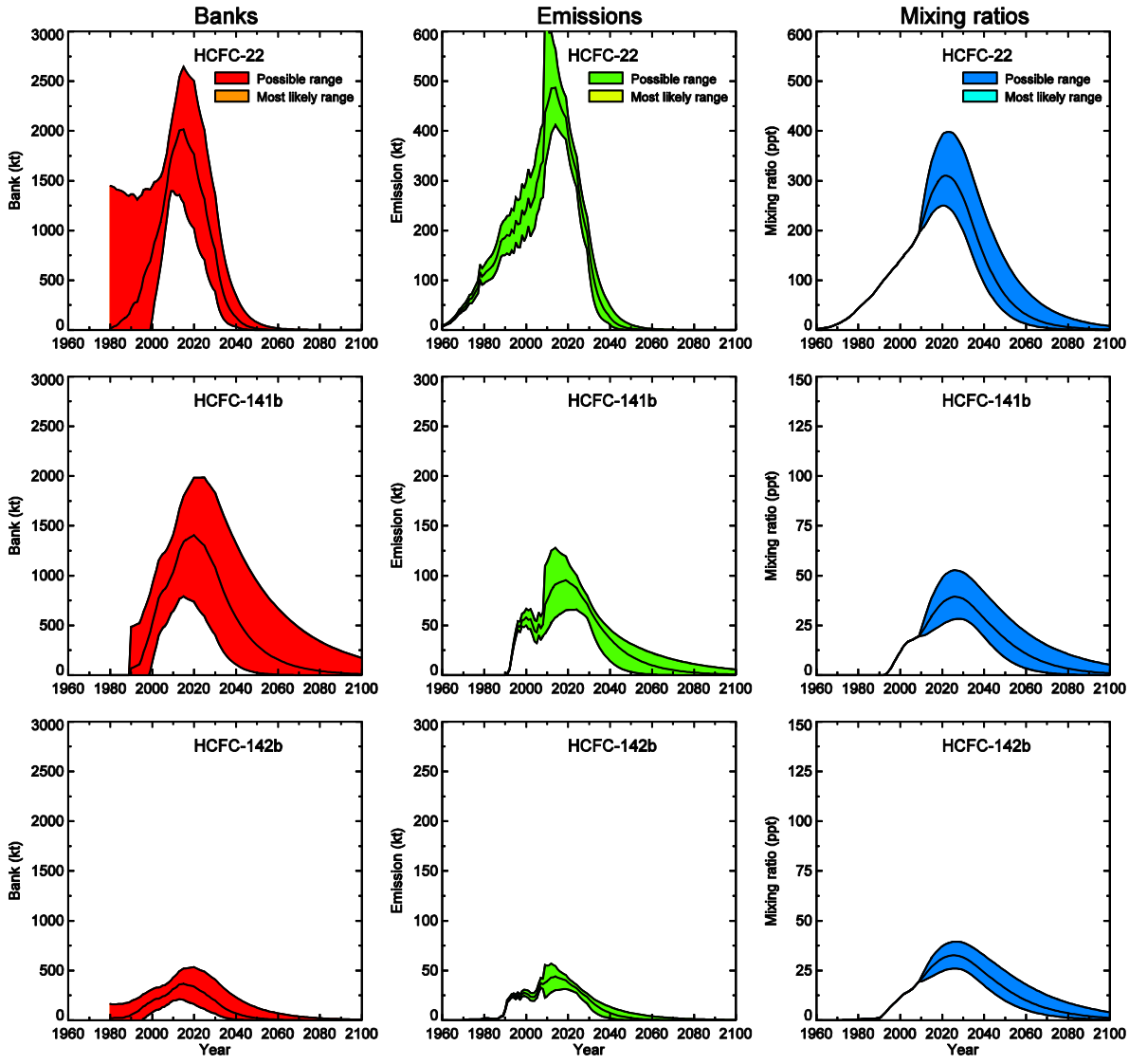

Figure S1 continues