

## Observations of Trace Gases and Methane at the Cape Verde Atmospheric Observatory: Evaluation of Methane “trend”

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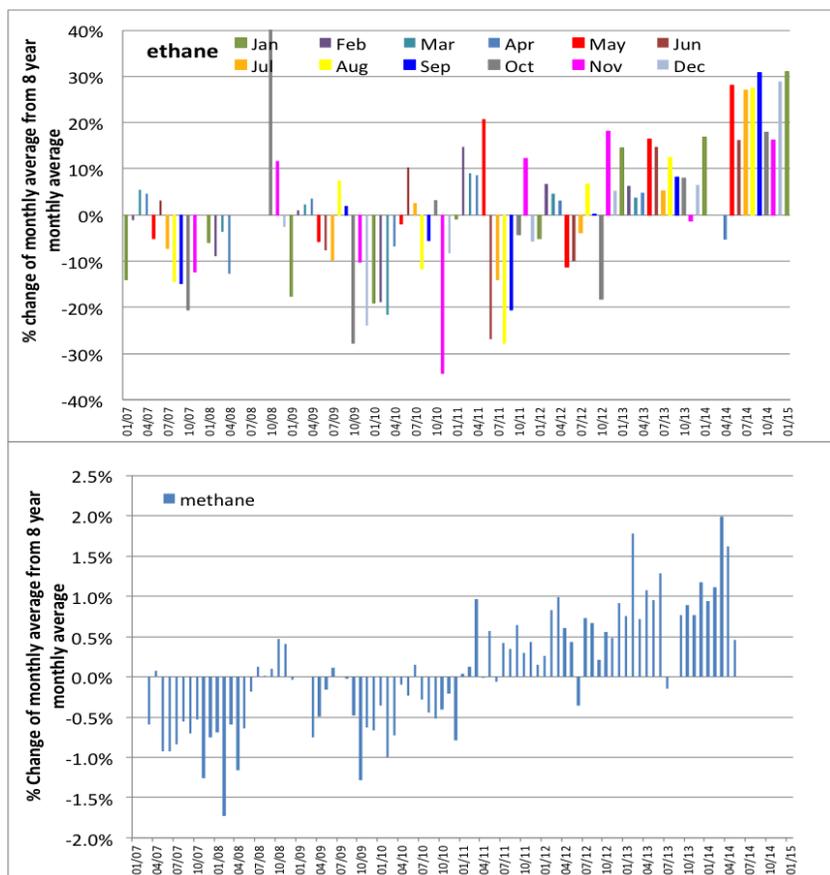
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The Cape Verde Atmospheric Observatory (CVAO) (16° 51' 49 N, 24° 52' 02 W) is ideally placed to assess changes in the background atmosphere, and observations of the trace gases; ozone, carbon monoxide, nitrogen oxides and VOCs have been made there since 2006. As it approaches its first decade of measurements, atmospheric trends begin to emerge from the datasets and some evaluation of these data with respect to possible atmospheric influences and future impacts will be included in this presentation. In particular observations of methane made at CVAO by the Max Planck Institute for Biogeochemistry Jena indicate that ambient levels are rising year on year which could be the result of increases in emissions from various sources including wetlands and natural gas mining or due to changes in the atmospheric lifetime of methane. Using concurrent measurements of VOCs (mainly ethane) allows us to evaluate the dominant pathways for the observed change in methane and they are also discussed here.



**Figure 1.** The figure shows the percentage change of the monthly average from the 8 year monthly average for each species, top: ethane, bottom: methane.