

The current manuscript titled “**Emissions of Methane from Coal, Thermal power plants and Wetlands and its implications on Atmospheric Methane across the South Asian Region**” by Mahalakshmi et al., carried out a detailed study on atmospheric column CH₄ using the satellite data and bottom-up emission inventory data. This work is well executed and importantly carried out an extensive analysis over different source type of methane which is an important approach. The content is well-written and structured. The study looked into the effects of changes Emissions of Methane from Coal, Thermal power plants and Wetlands and its implications on Atmospheric Methane across the South Asian Region. Author (s) could use potentially the S5P/TROPOMI observations to map the point level sources. The present study has many important points in which it highlights the emission source versus concentrations in the IGP region. Also they carried out methane emissions variability in the agroclimatic zones.

Therefore, I believe this paper may be accepted with the following minor corrections.

1. In the title capitalisation of every letter of the word may not be required.
2. 205: Is there any references supporting this statement “higher concentrations of CH₄ were observed in the Indo-Gangetic Plain (IGP) and northwest (NW) areas of India, southeast of China, and NW of China. Southern China and north China are marked with wetlands and rice paddy fields, which are the primary sources of CH₄”
3. Figures 5c adjust the x axis scale accordingly with the Fig. 5(a) and (b)
4. There is a typo in the caption of Figure 7, indi. “Figure 7. S5P/TROPOMI XCH₄ gridded to 0.05° × 0.05° over **Indi** and XCH₄ over wetland, coal, and thermal power plant sites with a radius of 100 km”
5. Significant high emissions of CH₄, as shown in Figure 7c, but there is no Figure 7c it is missing.
6. Figures 7 and 8 are described differently than their respective figures. Furthermore, the description of Figure 8 comes before that of Figure 7.