

## ***Interactive comment on “Novel index to comprehensively evaluate air cleanness: the “Clean air Index”” by Tomohiro O. Sato et al.***

**Tomohiro O. Sato et al.**

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Dear Anonymous Referee #3

Overall comment from Referee: It is of great significance to develop the local and global air quality index for providing informative information to policy maker and citizen. The authors propose a simple index for qualifying air cleanness, “Clean air Index (CII)” and evaluate the air quality in Japan by using the CII. This work is challenging but the CII has critical problems for applying globally and locally. Additionally, the evaluation of CMAQ is too insufficient to analyze the air cleanness in Japan. This reviewer would recommend the publication of this manuscript after major revisions responding to following comments.

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Author’s response: We greatly appreciate your efforts to help us improve our manuscript. We answered your valuable comments point by point as the attached files. We improved abstract and introduction to state the purpose of this study, i.e., CII, and also a validation of our WRF-CMAQ calculation was much improved by comparing with the all AEROS observation sites. We hope that our manuscript is suitable for publication in GC.

Sincerely yours,

Tomohiro Sato National Institute of Information and Communications Technology

Please also note the supplement to this comment:

<https://www.geosci-commun-discuss.net/gc-2019-16/gc-2019-16-AC4-supplement.pdf>

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Interactive comment on Geosci. Commun. Discuss., <https://doi.org/10.5194/gc-2019-16>, 2019.

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