

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

Kunihiko Arai (Referee)

kunihiko_arai@kk-grp.jp

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[Impression]

(a) About tourism business The area where the starry sky is beautiful is a tourist spot. The Ministry of the Environment of Japan reports Achi Village in Nagano Prefecture as “a place suitable for observing Japan’s starry sky”. However, Achi Village is not ranked in the “Top 100 Municipal Rankings for Clean Air” in this study. An area with a beautiful starry sky can be a tourist attraction, but needs to be investigated to see if an area with beautiful air can become a tourist attraction. For example, in “sightseeing” or “business trips”, the demand for cleanliness of air becomes clear by conducting interviews and questionnaires to people who want to go to a clean city. Needs surveys

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such as questionnaire results will be a strong basis for claiming that CII is necessary for the tourism business.

(b) Insurance / real estate business In Southeast Asia such as Vietnam, Indonesia and Thailand, East Asia such as Mongolia and China, and South Asia such as India and Nepal, urban air pollution is severe. In cities and regions with severe air pollution, if the CII model can be used to set up medical insurance, it can be used for private use as evidence for insurance products. In some countries, the cause of death is air pollution. More certainty is required to use CII as an index for insurance companies. When considering foreign tourists (inbound), it can be used for indicators such as Japan x culture x nature x water and air. Persuasive power will increase if there are more specific data utilization cases. However, you need to be careful not to be criticized by the region.

(c) Corporate risk hedging The policy of increasing coal-fired power generation goes against the SDGs. In some cases, air pollution can lead to litigation issues. Dirty air can be a litigation risk for energy policies, power companies, construction companies, loan banks, etc. that have an environmental impact. In addition, these affiliates are at risk of being divested in ESG investments that are already spreading among investors. On the other hand, clean air is just an advertisement for local governments. Companies are also expected to invest ESG in activities that maintain and improve the clean air. CII is an effective index for measuring the potential of local brands and tourism resources. In countries and regions where there are few observation sites for air pollution, standardization of this CII model will lead to regional environmental assessment. In the future, it is possible that CII can be used as evidence for penal regulations for atmospheric environmental regulations in each urban area.

(d) Model expression ability In the future, the author expects to create not only Japan but also the global CII distribution. In that case, can the difference in seasonal change be correctly modeled in the mid-latitude and high-latitude zones, and in low-latitude zones, particularly in the rainforest, Indonesia, and the Amazon, forest fires, bushfire

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haze, and volcanoes? I think that there is a lot of room for further study on whether such effects can be correctly incorporated into the model. The scope of this study is still within Japan. In the future, it will be necessary to verify in other regions whether it can be applied worldwide.

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