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Particulate matter source apportionment in Malaysia using source tagging modeling approach to quantify transboundary air pollution: a comparative analysis between haze and non-haze periods

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Particulate matter source apportionment in Malaysia using source tagging modeling approach to quantify transboundary air pollution: a comparative analysis between haze and non-haze periods



Transboundary air pollution (TAP) in the South East Asian (SEA) region is an issue mainly dominated by discussion on haze episodes both in the scientific and policy communities. However, TAP is not episodic and quantifying its contribution is crucial for understanding the effect of anthropogenic and natural forcing on pollutant variability when formulating national and regional level actions plans for improving air quality. The aim of this study is to quantify source contributions to determine the relative significance between local emissions and TAP to ambient particulate matter (PM) concentration in Malaysia during both haze and non-haze periods and communicate the scientific output with relevant policy communities in Malaysia. A source tagging modelling (WRF-CAMx/PSAT) approach will be used for PM source apportionment to determine source contribution. The results are expected to provide different quantified shares between local emission sources and TAP during haze and non-haze periods. Identifying the severity of local emission and TAP will subsequently allow more distinctive recommendations to be shared with the policy community. Successful model application and engagement with policymakers within Malaysia is expected to highlight potential uses of models with predictive capability for

Activity area/s

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source tagging modelling

Project details

Reference number

CRECS2020-05SY-Amil

Year started

2021

Duration

1 year

Countries involved

[Indonesia](#), [Malaysia](#)

Partner organization

[Universiti Sains Malaysia](#)

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