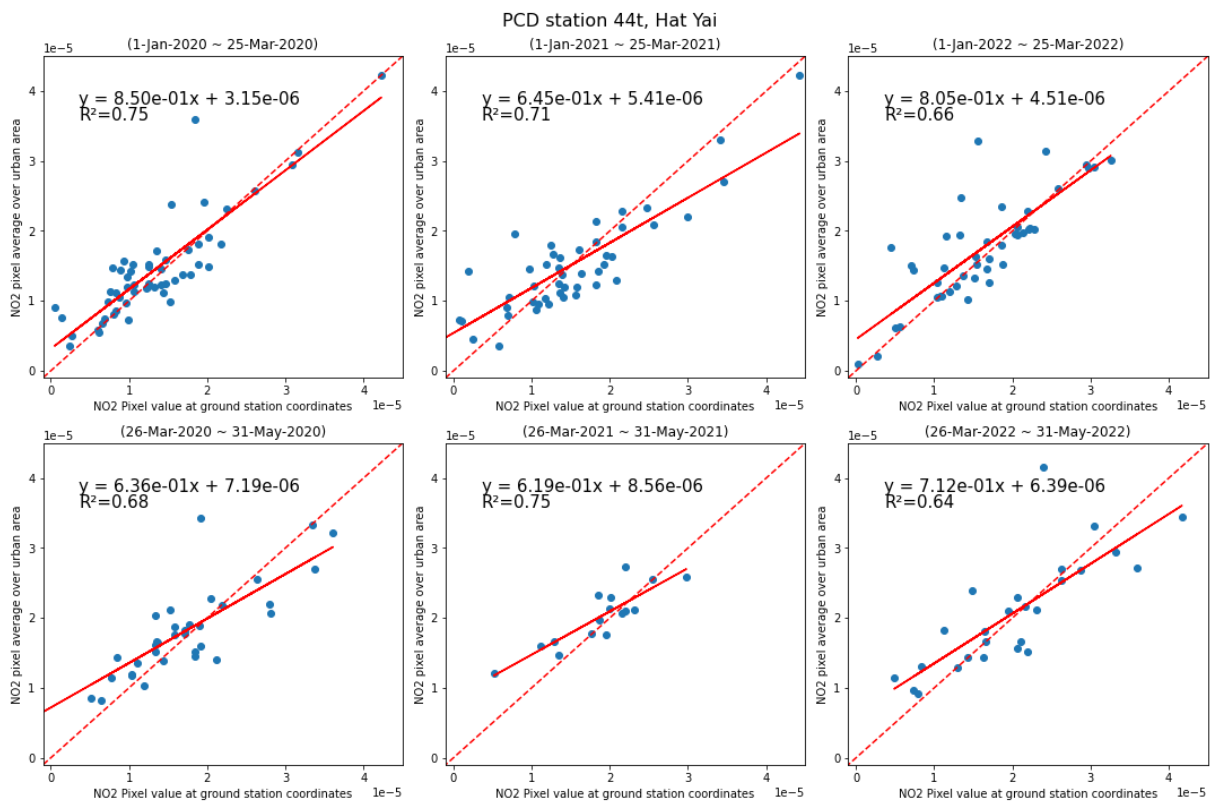


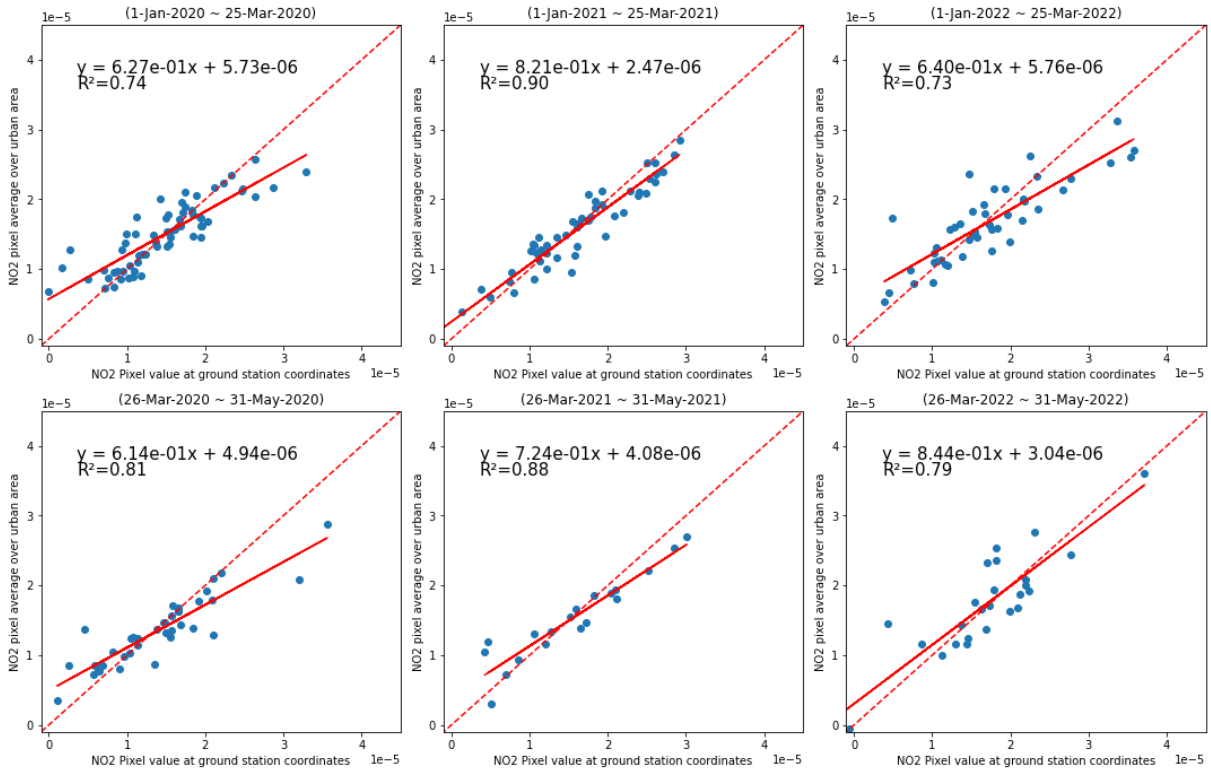
Supplementary Materials

Figure 1. Correlation between Sentinel-5P NO₂ pixel value over the ground station and average of pixel values enclosed by the extent of each small-sized urban area for NO₂ for each reporting period

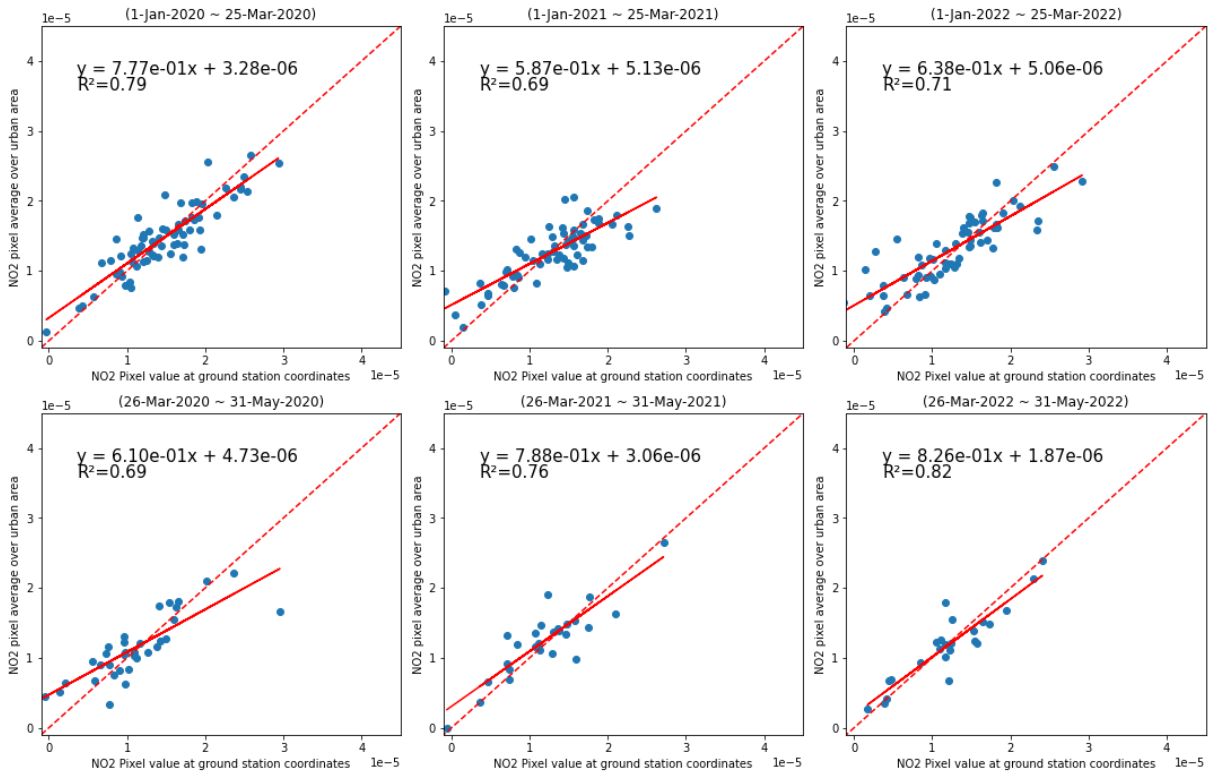
Each graph corresponds to a single surface station with the red solid line representing the regression line.



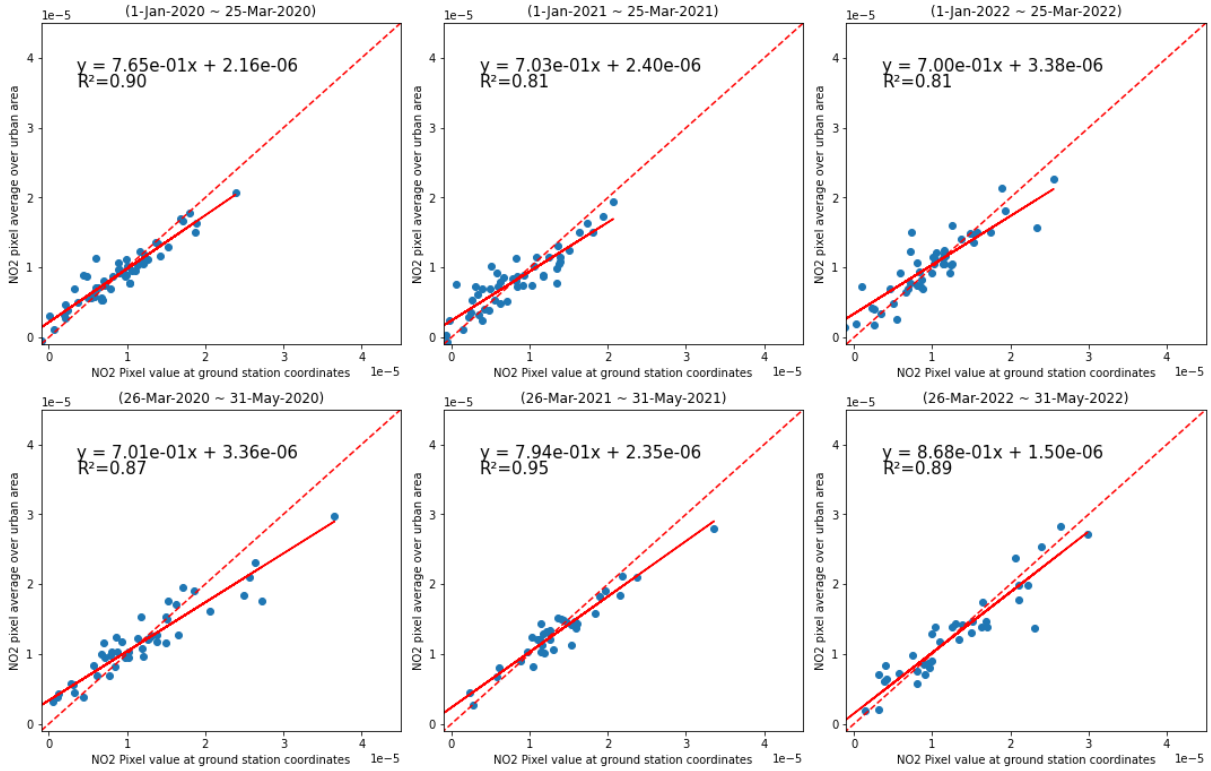
PCD station 42t, Surat Thani



PCD station 43t, Mueang Phuket



PCD station 62t, Mueang Narathiwat



PCD station 63t, Mueang Yala

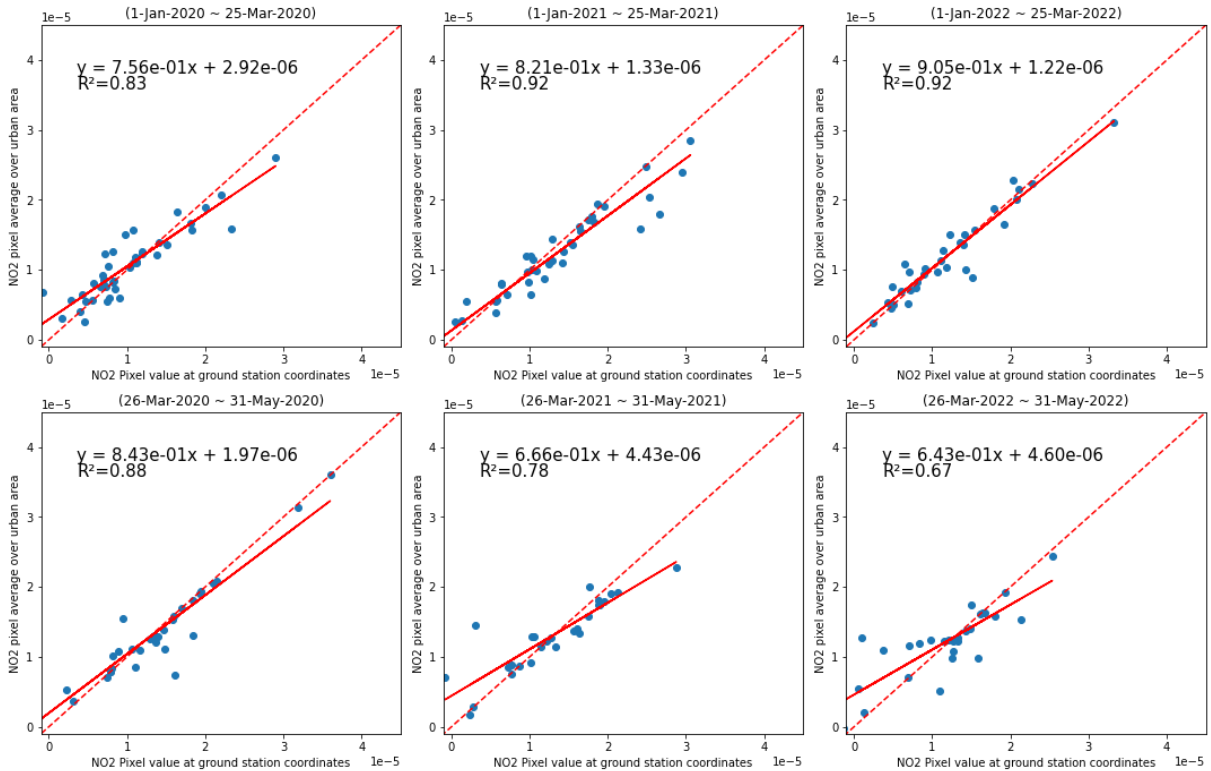


Figure 10 displays six scatter plots showing the relationship between the NO₂ pixel average over urban area (Y-axis) and the NO₂ Pixel value at ground station coordinates (X-axis) for different periods. Each plot includes a solid red regression line and a dashed red 1:1 line. The plots are for the following periods:

- (1-Jan-2020 ~ 25-Mar-2020): $y = 7.47e-01x + 2.90e-06$, $R^2 = 0.90$
- (1-Jan-2021 ~ 25-Mar-2021): $y = 8.55e-01x + 2.28e-06$, $R^2 = 0.88$
- (1-Jan-2022 ~ 25-Mar-2022): $y = 7.39e-01x + 2.92e-06$, $R^2 = 0.89$
- (26-Mar-2020 ~ 31-May-2020): $y = 7.32e-01x + 3.28e-06$, $R^2 = 0.91$
- (26-Mar-2021 ~ 31-May-2021): $y = 8.26e-01x + 2.49e-06$, $R^2 = 0.93$
- (26-Mar-2022 ~ 31-May-2022): $y = 6.91e-01x + 2.94e-06$, $R^2 = 0.75$

PCD station 80t, Mueang Satun

