

I recommend publication of the manuscript after minor revisions.

#### Abstract

Please specify the period that is used to define the lifetimes such as ozone season (May-September).

#### Introduction

Lines 18 and 19 in first page of the introduction section  
data is → data are

#### 2.3 Uncertainties

Lines 28-29

the uncertainty of tropospheric NO<sub>2</sub> TVCDs (30%)

→ Provide the reference for this estimation in the main text. Do you suggest that users of the satellite NO<sub>2</sub> retrieval refer to this number in your manuscript for their study?

#### 3.3 Uncertainties

Lines 24-28

Information here is useful. I do not think this estimation is conservative.

My experience with regional scale model using MEIC for year 2010 clearly shows a factor of 1.5 to 2 overestimation compared to the ground-based observations as well as satellite and MAX-DOAS NO<sub>2</sub> data collected for the same period. This also affects substantially the biases in the model-simulated ozone to the observations.