

General comments, mostly small textual and grammatical comments or suggestions, along with a few scientific clarifications.

Expand your notation e.g. , “1960~1990”, by spelling it out i.e., “the period 1960 to 1990” or “the period ca. 1960 to 1990”. It reads more smoothly and clearly that way.

Page 1 line 24
~~Benefitting from~~
As a benefit of

Line 26
continuously

Page 2 line 1
Delete “band”

Line 3
~~weaker dispersion abilities~~
and thus stronger inversions and reduced dispersion capability

line 4
~~harder~~
increased

line 12
~~employment of sulfur emission control measures have~~
employment of emission control measures for sulfur, nitrogen, hydrocarbon compounds and particulate material have

line 20
~~sunny day visibilities~~
visibilities on clear days

~~1960~1990 all over~~
the period 1960 to 1990 over all of China

line 21
~~were not coherent~~
have not been consistent

line 22
~~variation of~~
decrease in

Page 3, line 1
~~variation trend~~
trends

line 5
~~could be the~~
could thus be responsible

line 16
~~large~~
moderate to strong

line 21

~~was~~
were

line 23

~~could~~
can
~~formations~~
formation

line 27

dust storms, smoke, snow storms, etc.

Page 4 line 1

~~total occurrences~~
occurrence

line 2

~~3 events~~
three types of events

OMI level 3 SO2

Define or reference this method.

line 6

~~variation~~ trends

This pair of word is redundant. I suggest using only the word trend (or trends) here and where this term occurs later in the manuscript.

line 8

~~occurrence frequencies~~

frequency of occurrence

Replace this term here and where it occurs later in the manuscript.

In English two nouns are sometimes used in pairs, one pretending as an adjective. But this is just a shortcut for a proper adjective, noun , combination or a prepositional phrase.

line 17

impacts ~~on~~

line 18

~~count~~
number

line 30

~~counts~~
occurrences

Page 5 line 1

~~respectively~~

line 8

~~which has led to poor~~

which leads to poor

line 11

~~distribution of the count of haze days, which~~
distribution frequency of haze days, and which

line 14

~~The count of fog days show a very distinct distribution to that~~
The distribution of fog days is very distinctly different than that

line 18

~~not limited the existence~~
not limited to the presence

line 28

~~also differ from each other~~
is also different

line 29

~~under various count ranges of low visibility~~
within various count ranges of low visibility,

Page 6 line 1

~~Although haze events can be very frequent, its impact is constrained~~
Although haze events can be very frequent, their impact is largely constrained

line 18

~~in hope to improve the air quality.~~
in the hope of improving the air quality there.

line 22

~~moving average occurrence count of low~~
moving average of the occurrence of low
Occurrence and counts is redundant; occurrence is the better term.

line 24

~~the~~ increasing energy consumption has led to

Page 7 line 1

~~the decline of visibility and haze days~~
increased visibility and a decline in the number of hazy days.

line 3

~~The 10-year moving linear slopes of low visibility, haze and fog occurrence days~~
The slope of the linear fits to the 10-year moving averages of low visibility, haze and fog occurrences
This is a complex statement. I think I understood the math. Check if you understand and agree with my suggestion.
Change the wording in your caption to figure 3 also.

line 6

~~been mostly~~
been generally

line 7

~~fog occurrences displays discontinuous decreasing trends. Major~~
~~decreases happened during the periods of 1990 ~ 1999 and~~
fog occurrences show a variable but generally decreasing trend. Major

decreases occurred during the periods 1990 to 1999 and

line 9

~~The count of low visibility days were increasing~~
The count of low visibility days increased

line 14

~~Under the effort of SO2~~
Due the effect of SO2

line 15

~~years, occurrence frequencies~~
years, occurrences
In some cases its ok to simply use the one word.

line 23

~~and most rare~~
and least common

line 26

~~summertime haze occurrence frequencies has been~~
summertime haze occurrence frequency has been

line 28

~~heating processes during winter has~~
residential and commercial heating during winter has

line 30

emissions ~~by~~ from heating processes

Page 8 line 5

~~most rarely~~
least frequently

line 10, 11

Low visibility events during summertime ~~has~~ have been continuously

while those during spring, autumn and winter ~~has~~ have been
decreasing ~~after~~ since 2000.

line 15

Is there a trend toward more electrical power usage and power production (with increased sulfur oxide and nitrogen oxide emissions) in summer due to increasing air conditioning loads? I expect that may contribute to the winter cf. summer trend differences.

line 20, 21

dispersion ~~abilities~~ capability.
emissions is ~~prohibited~~ limited.

line 27

~~the way of the~~

page 9 line 2

Average wind speeds at 14h (LT) decreases

line 3

corner, ~~reaching~~ decreasing to below 3 m s⁻¹,

line 8

5, the ~~geographic~~ the Taihang Mountains ~~is higher~~ are higher in the north and lower in the south,

line 15

~~than the mountain areas and distinctively lower than the polluted region~~
than in the mountain areas and distinctively lower than over the polluted region

line 18

~~emissions and is under relatively weak dispersion conditions.~~
emissions and is subject to conditions that lead to relatively weak dispersion.

line 23

with ~~large~~ high average wind speeds

line 27

dispersion ~~abilities~~ has weakened throughout the

line 28

even ~~harder~~ more extreme efforts to control emissions

Section 3.3.2, line 4

~~an orographic wind convergence line~~

an orographically generated, boundary layer, wind convergence line
After this instance leave use only "convergence" rather than "wind convergence"

line 20

Chen et al. (2012) suggest that, under RH<80%, visibility is highly dependent on dry aerosol volume concentrations, only under high aerosol loadings does the hygroscopic growth become important for visibility impairment. While for RH greater than 80%, the hygroscopic growth of aerosols can greatly affect visibility, even under average aerosol pollution levels.

The discussion is not entirely logical to me. Check the following to see if it states your ideas correctly.

Chen et al. (2012) suggest that, under RH<80%, visibility is highly dependent on dry aerosol volume concentrations; only under high aerosol loadings does the aerosol become important for severe visibility impairment. However, at RH levels greater than 80%, the hygroscopic growth of aerosols can greatly reduce visibility, even under average air pollution conditions and aerosol loading levels.

line 24

The distribution of the ~~count~~ number of days

Also replace count later in the line and paragraph.

page 11 line 3 The low visibility events in the vicinity of Shijiazhuang, however, ~~was~~ were not only caused

line 22 This indicates that aerosol loadings during winter ~~has~~ have declined, which

line 31

The RH associated with haze events ~~are~~ is typically higher

Page 12 line 19

heating season in the past ~~3~~ three decades.

Figure 1

Some geographical place names on the map would help those who are challenged regarding Asian geography. If possible put labels on the Bohai Sea, NCP and the mountain ranges that you mention.