



# MONTHLY CLIMATE REVIEW OVER KOREA (total 5 pages)

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|-------------|------------------------------------|
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## Monthly (March) 2014 Climate Summary

- ◇ The mean temperature (7.7 °C) for March 2014 nationwide was the second highest in a record extending back to 1973
- ◇ The monthly amount of precipitation (74.1 mm) was 126.9% of normal

- Climate features and long-term trends in March 2014 have been analyzed with the data collected at the 45 meteorological stations throughout Korea (national average) from 1973 to 2014 (1908-2014 for Seoul).

※ Normal : Average value of climatic element data collected from 1981 to 2010

- **The climatic characteristics in March 2014 are described as follows:**

o For Korea (whole country),

- The mean temperature (7.7 °C), the mean maximum temperature (13.5 °C) and the mean minimum temperature (2.2 °C) were 1.8 °C, 1.7 °C, 1.6 °C above normals, respectively.
  - The mean temperature was the second highest, the mean maximum temperature was the third highest, the mean minimum temperature was the highest in a record extending back to 1973.
- The nationally-averaged precipitation was 74.1 mm, which was 126.9% of normal. The number of the days of rain was 9.1 days, which was 1.0 days more than normal.
- The total number of the hours of sunshine was 212.3 hours, which was 109.4% of normal.

o For Seoul,

- The mean temperature (7.9 °C), the mean maximum temperature (13.1 °C), the mean minimum temperature (3.5 °C) were 2.2 °C, 2.7 °C, 1.9 °C above normals, respectively.
  - The mean temperature and the mean maximum temperature were the highest, the mean minimum temperature was the fourth highest in a record extending back to 1908.

- The amount of precipitation was 7.2 mm, which was 15.3% of normal.
- The number of the days of rain was 6.0 days, which is 1.4 days less than normal.
- The total number of the hours of sunshine was 214.7 hours, which was 113.6% of normal.

**Long-term trend in March 2014 climate**

o For Korea (whole country),

- The national mean temperatures in March 2000s (2001-2010) is 1.1 °C above those of the same month in 1970s.
- The nationally-averaged precipitation in March 2000s (2001-2010) is 1.8 mm more than that of the same month in 1970s.
- The number of the days of rain in March 2000s are 1.2 days more than those of the same month in 1970s.
- The total sunshine in March 2000s (2001-2010) is 15.5 hours less than that of the same month in 1970s.

o For Seoul,

- The mean temperatures in March 2000s (2001-2010) are 1.2 °C above those of the same month in 1970s.
- The precipitation in March 2000s (2001-2010) is 4.1 mm more than that of the same month in 1970s.
- The number of the days of rain in March 2000s are 1.9 days more than those of the same month in 1970s.
- The total sunshine in March 2000s (2001-2010) is 25.6 hours less than that of the same month in 1970s.

**Remarks**

|             | temperature difference<br>between the normal temperature (°C) |          | precipitation ratio<br>of the normal precipitation (%) |        |
|-------------|---|----------|--|--------|
|             | ten-day   | month    | ten-day  | month  |
| above(more) | >0.7  | >0.5     | >130   | >120   |
| nearly      | -0.7~0.7  | -0.5~0.5 | 50~130   | 70~120 |
| below(less) | <-0.7   | <-0.5    | <50  | <70    |

## Appendix 1 Climate features of March 2014 (Nationwide)

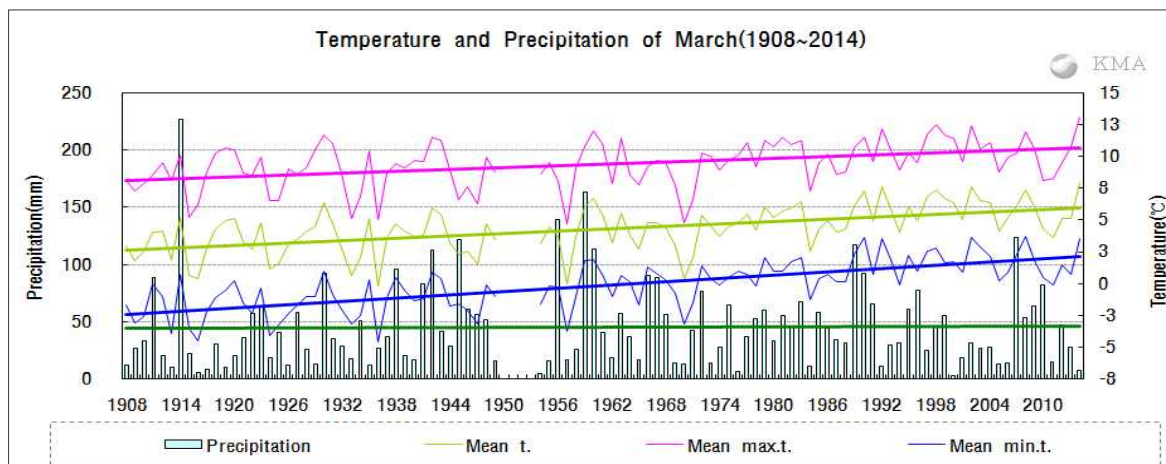


Fig 1. Temperatures (mean, mean maximum and mean minimum) and precipitation in South Korea during March (1973-2014).

### □ Average values of meteorological elements across Korea during March (1973-2014)

| Elements (whole country)                       | Mar. 2014(a) | Mar. 2013(b) | Normals of Mar. (1981-2010) (c) | a-b           | a-c           | Rank since 1973 (within 5th) |
|--|--------------|--------------|---------------------------------|---------------|---------------|------------------------------|
| Mean temperature (°C)                          | 7.7          | 6.6          | 5.9                             | 1.1           | 1.8           | the second highest           |
| Mean maximum temp. (°C)                        | 13.5         | 13.5         | 11.8                            | 0.0           | 1.7           | the third highest            |
| Mean minimum temp. (°C)                        | 2.2          | 0.2          | 0.6                             | 2.0           | 1.6           | the highest                  |
| Precipitation (mm)                             | 74.1         | 59.7         | 56.4                            | 14.4 (119.1%) | 17.7 (126.9%) |                              |
| Days of rain (day)                             | 9.1          | 7.4          | 8.1                             | 1.7           | 1.0           |                              |
| Sunshine duration (hour)                       | 212.3        | 240.9        | 194.0                           | -28.6 (88.1%) | 18.3 (109.4%) |                              |
| Asian dust days(day)                           | 1.6          | 1.5          | 1.8                             | 0.1           | -0.2          |                              |
| Mean cloud amount (1/10)                       | 4.3          | 3.6          | 4.8                             | 0.7           | -0.5          |                              |
| Days of minimum temperature less than 0°C(day) | 11.7         | 15.8         | 14.0                            | -4.1          | -2.3          |                              |

### □ Average values of meteorological elements across Korea during March for each decade (1973-2010)

| Year         | Mean temp. (°C) | Mean max. temp. (°C) | Mean min. temp. (°C) | Prep. (mm) | Days of rain (day) | Sunshine duration (hour) | Asian dust days(day) | Mean cloud amount (1/10) | Days of minimum temperature less than -10°C(day) |
|--------------|-----------------|----------------------|----------------------|------------|--------------------|--------------------------|----------------------|--------------------------|--|
| 1973-1980(a) | 5.2             | 11.2                 | 0.0                  | 51.0       | 7.2                | 206.3                    | 0.6                  | 4.7                      | 15.9   |
| 1981-1990(b) | 5.5             | 11.3                 | 0.3                  | 56.9       | 8.2                | 201.9                    | 0.5                  | 5.0                      | 14.7   |
| 1991-2000(c) | 5.9             | 11.9                 | 0.6                  | 59.5       | 7.7                | 189.2                    | 1.0                  | 4.8                      | 14.0   |
| 2001-2010(d) | 6.3             | 12.2                 | 0.8                  | 52.8       | 8.4                | 190.8                    | 3.8                  | 4.6                      | 13.3   |
| 2013(e)      | 7.7             | 13.5                 | 2.2                  | 74.1       | 9.1                | 212.3                    | 1.6                  | 4.3                      | 11.7   |
| d-a          | 1.1             | 1.0                  | 0.8                  | 1.8        | 1.2                | -15.5                    | 3.2                  | -0.1                     | -2.6   |
| d-b          | 0.8             | 0.9                  | 0.5                  | -4.1       | 0.2                | -11.1                    | 3.3                  | -0.4                     | -1.4   |
| d-c          | 0.4             | 0.3                  | 0.2                  | -6.7       | 0.7                | 1.6                      | 2.8                  | -0.2                     | -0.7   |
| e-d          | 1.4             | 1.3                  | 1.4                  | 21.3       | 0.7                | 21.5                     | -2.2                 | -0.3                     | -1.6   |

## Appendix 2 Climate features of March 2014 (Seoul)

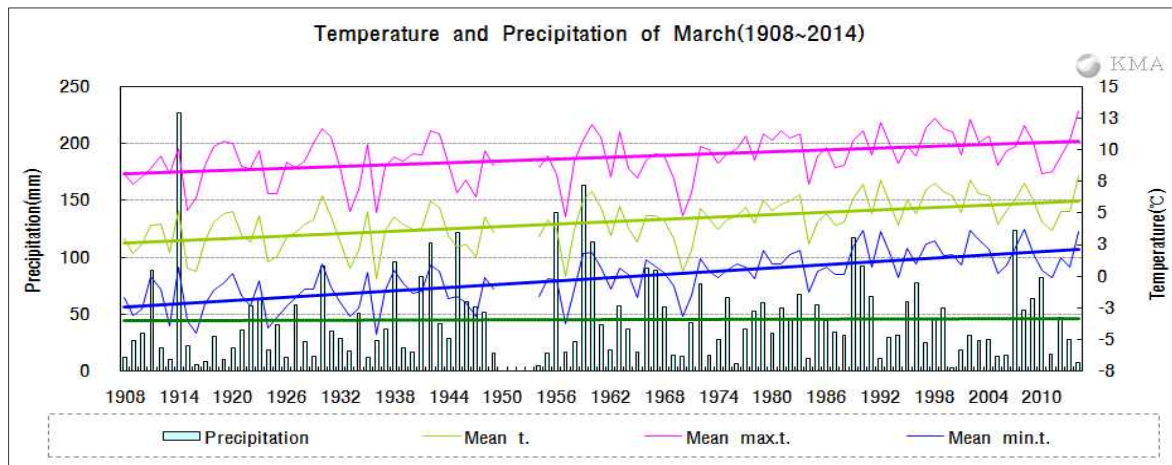


Fig 2. Temperatures (mean, mean maximum and mean minimum) and precipitation in Seoul during March (1908-2014).

### Average values of meteorological elements in Seoul during March (1908-2014)

| Elements (Seoul)                               | Mar. 2014(a) | Mar. 2013(b) | Normals of Mar.. (1981-2010) (c) | a-b           | a-c           | Rank since 1908 (within 5th) |
|--|--------------|--------------|----------------------------------|---------------|---------------|------------------------------|
| Mean temperature (°C)                          | 7.9          | 5.1          | 5.7                              | 2.8           | 2.2           | the highest                  |
| Mean maximum temp. (°C)                        | 13.1         | 10.8         | 10.4                             | 2.3           | 2.7           | the highest                  |
| Mean minimum temp. (°C)                        | 3.5          | 0.7          | 1.6                              | 2.8           | 1.9           | the forth highest            |
| Precipitation (mm)                             | 7.2          | 27.3         | 47.2                             | -20.1 (26.4%) | -40.0 (15.3%) |                              |
| Days of rain (day)                             | 6.0          | 8.0          | 7.4                              | -2.0          | -1.4          |                              |
| Sunshine duration (hour)                       | 214.7        | 256.3        | 189.0                            | -41.6 (83.8%) | 25.7 (113.6%) |                              |
| Asian dust days(day)                           | 2.0          | 3.0          | 1.9                              | -1.0          | 0.1           |                              |
| Mean cloud amount (1/10)                       | 3.9          | 3.3          | 4.6                              | 0.6           | -0.7          |                              |
| Days of minimum temperature less than 0°C(day) | 10.0         | 12.0         | 9.5                              | -2.0          | 0.5           |                              |

### Average values of meteorological elements in Seoul during March for each decade (1911-2010)

| Year         | Mean temp. (°C) | Mean max. temp. (°C) | Mean min. temp. (°C) | Prep. (mm) | Days of rain (day) | Sunshine duration (hour) | Asian dust days(day) | Mean cloud amount (1/10) | Days of minimum temperature less than -10°C(day) |
|--------------|-----------------|----------------------|----------------------|------------|--------------------|--------------------------|----------------------|--------------------------|--|
| 1911-1920(a) | 3.3             | 8.8                  | -1.6                 | 44.2       | 7.6                | 216.3                    | 0.3                  | 5.2                      | 20.6   |
| 1921-1930    | 3.5             | 8.9                  | -1.7                 | 41.8       | 7.6                | 210.0                    | 0.2                  | 5.0                      | 21.1   |
| 1931-1940(b) | 3.1             | 8.4                  | -1.5                 | 34.0       | 8.7                | 214.4                    | 0.0                  | 4.8                      | 19.5   |
| 1941-1949    | 3.6             | 8.9                  | -1.1                 | 63.5       | 9.0                | 214.6                    | 0.0                  | 5.2                      | 18.7   |
| 1954-1960    | 3.9             | 9.0                  | -0.4                 | 68.5       | 8.6                | 190.1                    | 0.3                  | 5.1                      | 16.0   |
| 1961-1970    | 3.8             | 8.8                  | -0.3                 | 43.2       | 6.7                | 208.4                    | 0.3                  | 5.0                      | 16.7   |
| 1971-1980(c) | 4.6             | 9.8                  | 0.5                  | 41.3       | 6.3                | 195.5                    | 0.5                  | 4.7                      | 12.4   |
| 1981-1990    | 5.1             | 10.0                 | 1.1                  | 55.7       | 7.3                | 208.1                    | 0.7                  | 4.8                      | 11.4   |
| 1991-2000    | 6.0             | 10.8                 | 1.8                  | 40.5       | 6.8                | 188.9                    | 0.9                  | 4.5                      | 8.3  |
| 2001-2010(d) | 5.8             | 10.3                 | 1.9                  | 45.4       | 8.2                | 169.9                    | 4.0                  | 4.6                      | 8.9  |
| 2013(e)      | 7.9             | 13.1                 | 3.5                  | 7.2        | 6.0                | 214.7                    | 2.0                  | 3.9                      | 10.0   |
| d-a          | 2.5             | 1.5                  | 3.5                  | 1.2        | 0.6                | -46.4                    | 3.7                  | -0.6                     | -11.7  |
| d-b          | 2.7             | 1.9                  | 3.4                  | 11.4       | -0.5               | -44.5                    | 4.0                  | -0.2                     | -10.6  |
| d-c          | 1.2             | 0.5                  | 1.4                  | 4.1        | 1.9                | -25.6                    | 3.5                  | -0.1                     | -3.5   |
| e-d          | 2.1             | 2.8                  | 1.6                  | -38.2      | -2.2               | 44.8                     | -2.0                 | -0.7                     | 1.1  |

