



KMA'S BRIEFING IN CLIMATE CHARACTERISTICS

(total 5 pages)

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April, 2009 Climate

- ◇ National Mean temperature is 0.6°C higher than normal.
- ◇ Precipitation for the national average is 64% relative to normal.

- Climate characteristics of April 2009, and their long-term trends are analyzed based on 60 Korean meteorological stations (national average) for the period 1973–2009 (1908–2009 in Seoul).
- April, 2009 climate is as follows:
 - o For the national average,
 - the mean temperature (12.6°C) is 0.6°C higher than normal.
 - the mean maximum temperature (19.3°C) is 1.0°C higher than normal.
 - the mean minimum (6.3°C) temperature is 0.3°C higher than normal.
 - the amount of precipitation (61.5mm) is 64% relative to normal.
 - the average rainy days (6.5 days) are 1.8 day smaller than normal.
 - the average precipitation intensity (amount of precipitation/rainy days) (9.5mm/day) is reduced 2.0mm/day compare to that of the normal.
 - the average duration of sunshine (228.9 hours) is 13.9 hours greater than normal.
 - the number of asian dust days (0.3 days) is 1.6 days shorter than normal.

- o For Seoul,
 - the mean (12.7°C), mean maximum (18.0°C), and mean minimum (8.1°C) temperatures are 0.6°C, 0.4°C, and 0.8°C higher than normal, respectively.
 - the amount of precipitation (66.5mm) is 86% relative to normal.
 - the average rainy days (7.0 days) are 1.0 days shorter than normal.
 - the number of asian dust days (0.0 days) is 2.5 days shorter than normal.

- For the national average, mean temperature of April 2000s is 0.8°C, 0.6°C, and 0.4°C higher than during the April of 1970s, 1980s, and 1990s respectively.

- ※ Normal: average from 1971 to 2000.
- ※ National average is used average values of 60 meteorological stations starting from 1973.
- ※ In Seoul, data are analyzed from 1909.
- ※ 1910s: average from 1911 to 1920
- ※ 1970s: average from 1973 to 1980
- ※ 2000s: average from 2001 to 2009

Appendix

Fig. 1. Time series of April temperatures (mean, mean maximum, and mean minimum), and precipitation across the South Korea for the period 1973–2009.

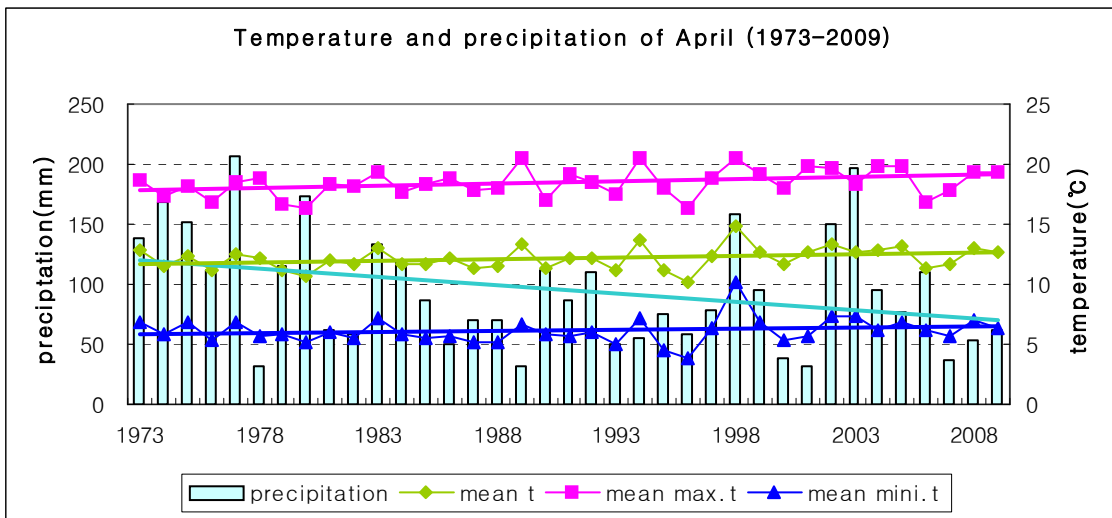


Fig. 2. Time series of April temperatures (mean, mean maximum, and mean minimum), and precipitation in Seoul for the period 1908–2009.

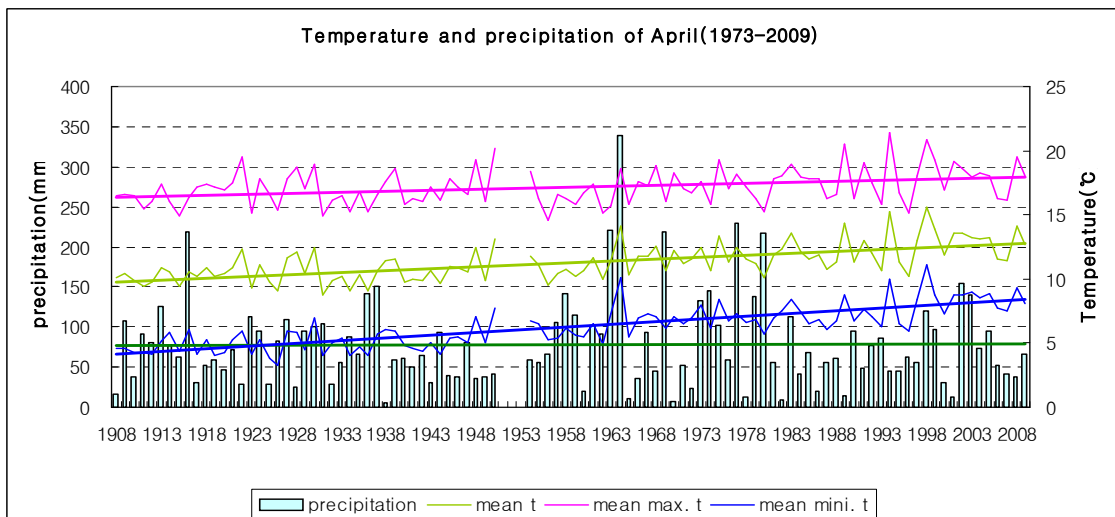


Table 1. National average values of April meteorological elements (1973–2009)

| Elements (National) average) | April 2009 (a) | Normals of April (1971-2000) (b) | a-b | rank since 1973 (within 5th) |
|-------------------------------------|-------------------|--|------------|------------------------------------|
| mean temperature(°C) | 12.6 | 12.0 | 0.6 | - |
| mean maximum t (°C) | 19.3 | 18.3 | 1.0 | - |
| mean minimum t(°C) | 6.3 | 6.0 | 0.3 | - |
| amount of precipitation (mm) | 61.5 | 95.5 | -34.0(64%) | - |
| rainy days | 6.5 | 8.3 | -1.8 | - |
| precipitation intensity (mm/day) | 9.5 | 11.5 | -2.0 | - |
| diurnal temperature range (°C) | 13.0 | 12.3 | 0.7 | - |
| sunshine duration(hours) | 228.9 | 215.0 | 13.9 | - |
| cloud amounts (among 10) | 4.0 | 5.0 | -1.0 | second lowest |
| relative humidity(%) | 57.1 | 64.3 | -7.2(89%) | - |
| Asian dust days | 0.3 | 1.9 | -1.6 | - |

Table 2. Average values of April meteorological elements in Seoul (1908-2009)

| Elements (Seoul) | April 2009 (a) | Normals of April (1971-2000) (b) | a-b | rank since 1973 (within 5th) |
|-------------------------------------|-------------------|--|------------|------------------------------------|
| mean temperature(°C) | 12.7 | 12.1 | 0.6 | - |
| mean maximum t (°C) | 18.0 | 17.6 | 0.4 | - |
| mean minimum t(°C) | 8.1 | 7.3 | 0.8 | - |
| amount of precipitation (mm) | 66.5 | 77.0 | -10.5(86%) | - |
| rainy days (days) | 7.0 | 8.0 | -1.0 | - |
| precipitation intensity (mm/day) | 9.5 | 9.6 | -0.1 | - |
| diurnal temperature range (°C) | 9.5 | 10.3 | -0.8 | - |
| sunshine duration(hours) | 204.5 | 210.7 | -6.2 | - |
| cloud amounts (among 10) | 4.1 | 4.8 | -0.7 | - |
| relative humidity(%) | 54.4 | 59.3 | -4.9(92%) | - |
| Asian dust days | 0.0 | 2.5 | -2.5 | - |

Table 3. National average values of April meteorological elements in each decade (1973–2009)

| Year | Mean t (°C) | Mean Maximum t (°C) | Mean Minimum t (°C) | Precipitation (mm) | rainy days | Precipitation intensity (mm/day) | asian dust days |
|--------------|-------------|---------------------|---------------------|--------------------|------------|----------------------------------|-----------------|
| 1973-1980(a) | 11.8 | 17.7 | 6.1 | 137.1 | 9.3 | 14.7 | 1.5 |
| 1981-1990(b) | 12.0 | 18.4 | 5.9 | 79.3 | 8.3 | 9.5 | 1.4 |
| 1991-2000(c) | 12.2 | 18.7 | 6.1 | 80.5 | 7.6 | 10.5 | 2.9 |
| 2001-2009(d) | 12.6 | 19.0 | 6.5 | 90.2 | 7.9 | 11.4 | 2.9 |
| d-a | 0.8 | 1.3 | 0.4 | -46.9 | -1.4 | -3.3 | 1.4 |
| d-b | 0.6 | 0.6 | 0.6 | 10.9 | -0.4 | 1.9 | 1.5 |
| d-c | 0.4 | 0.3 | 0.4 | 9.7 | 0.3 | 0.9 | 0.0 |

Table 4. April meteorological elements in Seoul in each decade (1973–2009)

| Year | Mean t(°C) | MeanMaxi.t (°C) | Mean Mini.t (°C) | Precipitation (mm) | rainy days | Precipitation intensity (mm/day) | asian dust days |
|--------------|------------|-----------------|------------------|--------------------|------------|----------------------------------|-----------------|
| 1911-1920(a) | 10.2 | 16.5 | 4.8 | 84.6 | 9.7 | 8.3 | - |
| 1921-1930 | 10.9 | 17.4 | 5.1 | 74.9 | 7.5 | 9.6 | - |
| 1931-1940 | 10.1 | 16.3 | 5.0 | 76.1 | 7.6 | 10.2 | - |
| 1941-1950 | 10.8 | 17.3 | 5.4 | 50.9 | 7.2 | 7.5 | - |
| 1954-1960 | 10.6 | 16.4 | 5.9 | 80.3 | 8.9 | 9.4 | - |
| 1961-1970 | 11.7 | 17.1 | 6.9 | 116.5 | 9.2 | 10.7 | - |
| 1971-1980 | 11.6 | 17.0 | 6.9 | 111.2 | 9.1 | 11.8 | 1.4 |
| 1981-1990 | 12.1 | 17.8 | 7.2 | 53.2 | 7.2 | 6.9 | 1.6 |
| 1991-2000 | 12.7 | 18.1 | 7.9 | 66.6 | 7.8 | 9.1 | 4.5 |
| 2001-2009(b) | 12.9 | 18.0 | 8.5 | 74.9 | 8.2 | 9.1 | 4.2 |
| b-a | 2.7 | 1.5 | 3.7 | -9.7 | -1.5 | 0.8 | - |