



KMA'S BRIEFING ON CLIMATE CHARACTERISTICS

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Monthly (March 2011) Climate Summary

- ◇ Temperatures for March 2011 was below-normal and precipitation anomalies was below-normal.
- ◇ Sunshine durations for March 2011 was above-normal.

- Climate features in March 2011 and their long-term trends are analyzed using 48 meteorological stations over Korea (the national average) during 1973-2011 (1908-2011 for Seoul).
- The climatological features in March 2011 can be described as follows:
 - o Korea (whole nation)
 - The mean temperature (4.8 °C), the mean maximum temperature (10.6 °C), the mean minimum temperature(-0.6 °C) were 1.3 °C and 1.3 °C and 1.4 °C below normal, respectively
 - The monthly amount of precipitation (24.6 mm) was 42% of normal.
 - The average monthly days of rain (3.8 days) had less than 4.4 days of normal.
 - The average monthly sunshine duration (245.1 hours) was 128% of normal
 - o Seoul
 - The mean temperature (3.6 °C), the mean maximum temperature (8.3 °C), the mean minimum temperature(-0.1 °C) were 2.1 °C and 2.1 °C and 1.7 °C below normal, respectively
 - The monthly amount of precipitation (14.6 mm) was 31% of normal.
 - The average monthly days of rain (4.0 days) was less than 3.4 days of normal.
 - The average monthly sunshine duration (240.2 hours) was 127% of normal

□ **Long-term trend of March 2011 climate**

- National mean, mean maximum, and mean minimum temperatures of March 2000s (2001-2010) were 1.1°C, 1.1°C, and 0.9°C higher than those of the 1970s, respectively.
- For Seoul, days with minimum temperature below 0°C (8.9 days) during 2000s were 3.5 days and 10.6 days less than those of the 1970s and 1930s, respectively.
- The monthly sunshine duration of March 2000s decreased than those of the 1970s.

※ Normal: average from 1981 to 2010.

※ National average is used average values of 48 meteorological stations starting from 1973.

※ In Seoul, data are analyzed from 1908.

※ 1920s: average from 1921 to 1930

※ 1970s: average from 1973 to 1980

※ 2000s: average from 2001 to 2010

Appendix. March 2011 climate

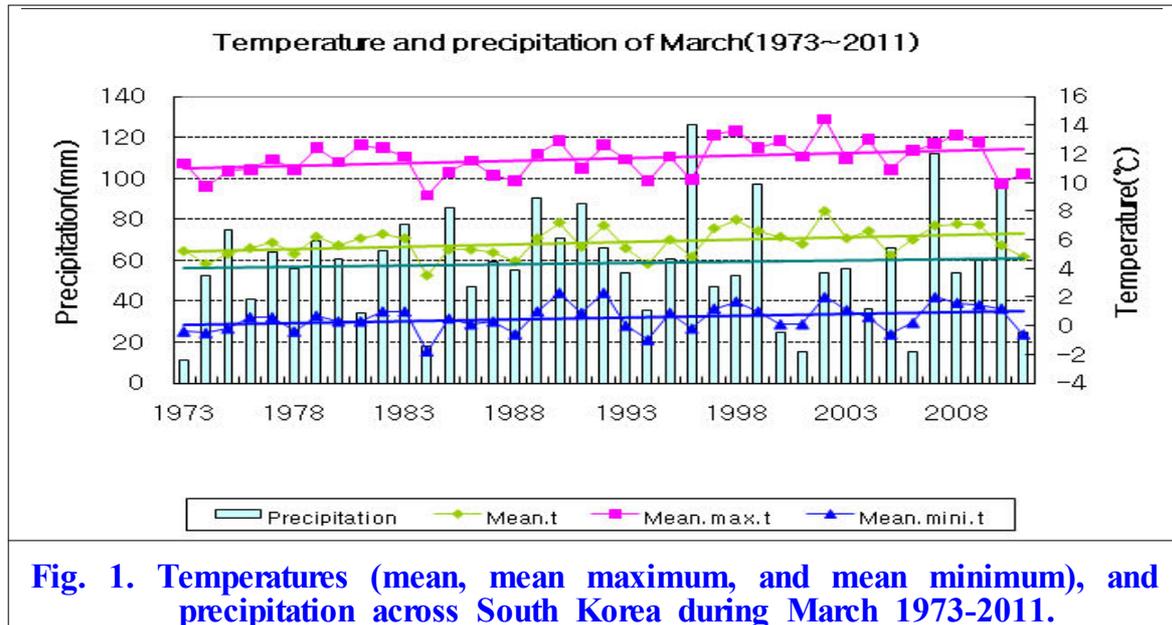


Fig. 1. Temperatures (mean, mean maximum, and mean minimum), and precipitation across South Korea during March 1973-2011.

□ Average values of meteorological elements across Korea during March (1973-2011)

elements (national) average	March 2011 (a)	normals of March (1981-2010) (b)	a-b	rank since 1973 (within 5th)
mean temperature (°C)	4.8	6.1	-1.3	5th lowest
mean maximum t (°C)	10.6	11.9	-1.3	
mean minimum t (°C)	-0.6	0.8	-1.4	3th lowest
days with maximum t below 0°C	18.9	13.5	5.4	
amount of precipitation (mm)	24.6	58.8	-34.2 (42%)	
rainy days	3.8	8.2	-4.4	1st lowest
hours of sunshine (hr)	245.1	192.0	53.1 (128%)	1st highest

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

year	mean temp (°C)	mean maximum temp. (°C)	mean minimum temp. (°C)	days with maximum temp. below 0°C	amount of rain (mm)	days of rain	hours of sunshine (hr)
1973-1980 (a)	5.4	11.2	0.2	15.3	52.6	7.3	205.6
1981-1990 (b)	5.6	11.4	0.5	14.2	58.9	8.4	199.5
1991-2000 (c)	6.1	12.0	0.8	13.5	62.6	7.8	186.3
2001-2010 (d)	6.5	12.3	1.1	12.8	55.0	8.5	189.4
d-a	1.1	1.1	0.9	-2.5	2.4	1.2	-16.2
d-b	0.9	0.9	0.6	-1.4	-3.9	0.1	-10.1
d-c	0.4	0.3	0.3	-0.7	-7.6	0.7	3.1

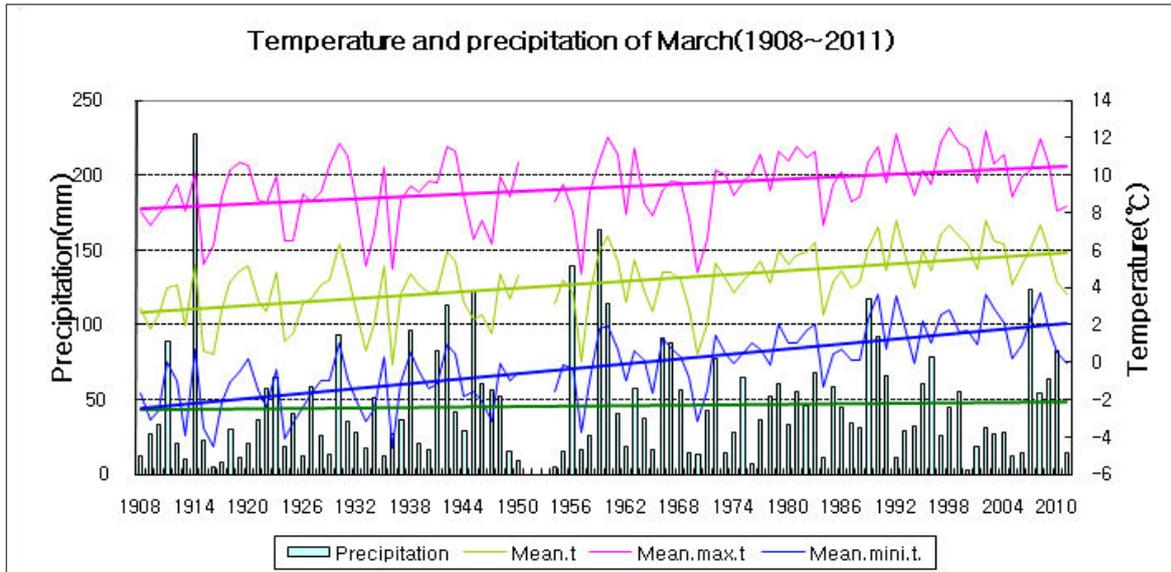


Fig. 2. Temperatures (mean, mean maximum, and mean minimum), and precipitation across Seoul during March 1908-2011

□ Average values of meteorological elements across Seoul during March (1908-2011)

elements (Seoul) average	March 2011 (a)	normals of March (1981-2010) (b)	a-b	rank since 1908 (within 5th)
mean temperature (°C)	3.6	5.7	-2.1	
mean maximum t (°C)	8.3	10.4	-2.1	
mean minimum t (°C)	-0.1	1.6	-1.7	
days with maximum t below 0°C	18.0	9.5	8.5	
amount of precipitation (mm)	14.6	47.2	32.6(31%)	
rainy days	4	7.4	-3.4	3th lowest
hours of sunshine (hr)	240.2	189.0	51.2(127%)	

□ Meteorological elements across Seoul during March for each decade (1911-2010)

year	mean temp. (°C)	mean maximum temp. (°C)	mean minimum temp. (°C)	days with maximum temp below 0°C	amount of rain (mm)	days of rain	hours of sunshine (hr)
1911-1920	3.3	8.8	-1.6	20.6	44.2	7.6	216.3
1921-1930	3.5	8.9	-1.7	21.1	41.8	7.6	210.0
1931-1940 (a)	3.1	8.4	-1.5	19.5	34.0	8.7	214.4
1941-1950	3.7	9.1	-1.0	18.7	58.1	8.5	218.1
1954-1960	3.9	9.0	-0.5	16.0	68.5	8.6	190.1
1961-1970	3.8	8.8	-0.3	16.7	43.2	6.7	208.4
1971-1980 (b)	4.6	9.8	0.5	12.4	41.3	6.3	195.5
1981-1990	5.1	10.0	1.1	11.4	55.7	7.3	208.1
1991-2000	6.0	10.8	1.8	8.3	40.5	6.8	188.9
2001-2010 (c)	5.8	10.3	1.9	8.9	45.4	8.2	169.9
c-a	2.7	1.9	3.4	-10.6	11.4	-0.5	-44.5
c-b	1.2	0.5	1.4	-3.5	4.1	1.9	-25.6