



KMA'S BRIEFING ON CLIMATE CHARACTERISTICS

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Monthly (January 2011) climate Summary

- ◇ Temperature averaged 3.7°C below normal during January 2011
- ◇ Precipitation anomalies are 18.8% of normal during January 2011

- Climate characteristics of January 2011 and their long-term trends are analyzed, based on 48 meteorological stations over Korea (national average) for the period of 1973-2011 (1908-2011 for Seoul).
- **The climatological characteristics in January 2011 can be described as follows:**
 - o Korea (whole nation)
 - The mean temperature (-4.4 °C), the mean maximum temperature (0.7 °C), the mean minimum temperature(-9.3 °C) were 3.7 °C and 3.8 °C and 4.0 °C below normal, respectively
 - Days with minimum temperature below -10°C or equal (13.9 days) and days with maximum temperature below 0°C (12.2 days) had 8.3 more day and 7.7 more day compared to normal, respectively.
 - The amount of precipitation (5.6 mm) was 18.8% of normal.
 - The average days of rain (4.3 days) had 2.7 less days compared to normal.
 - o Seoul
 - The mean temperature (-7.2 °C), mean maximum (-3.4 °C), and mean minimum (-10.5°C) temperatures were 4.8 °C, 4.9 °C, and 4.6 °C below normal, respectively.
 - Days with minimum temperature below -10°C or equal (20.0 days) and days with maximum temperature below 0°C (29 days) had 14.0 more day and 18.3 more day compared to normal, respectively.
 - The amount of precipitation (8.9 mm) accounted for 42.8% of the normal precipitation.
 - The average days of rain (5.0 days) had 2.0 less days compared to normal.

□ **Long-term trend of December and the 2010 climate**

- o Korea's mean, mean maximum, and mean minimum temperatures from 2001 to 2010 were 0.6°C, 0.6°C, and 0.6°C higher than those of the 1970s, respectively.
- o For Korea, days with minimum temperature below -10°C or equal (4.8 days) and days with maximum temperature below 0°C (3.9 days) during 2001 and 2010 were 1.1 days and 1.2 days less than those of the 1970s, respectively.
- o For Seoul, days with minimum temperature below -10°C or equal (4.5 days), days with maximum temperature below 0°C (9.5 days) during 2001 and 2010 were 1.5 days and 1.7 days less than those of the 1970s, respectively.

※ Normal: average from 1981 to 2010.

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

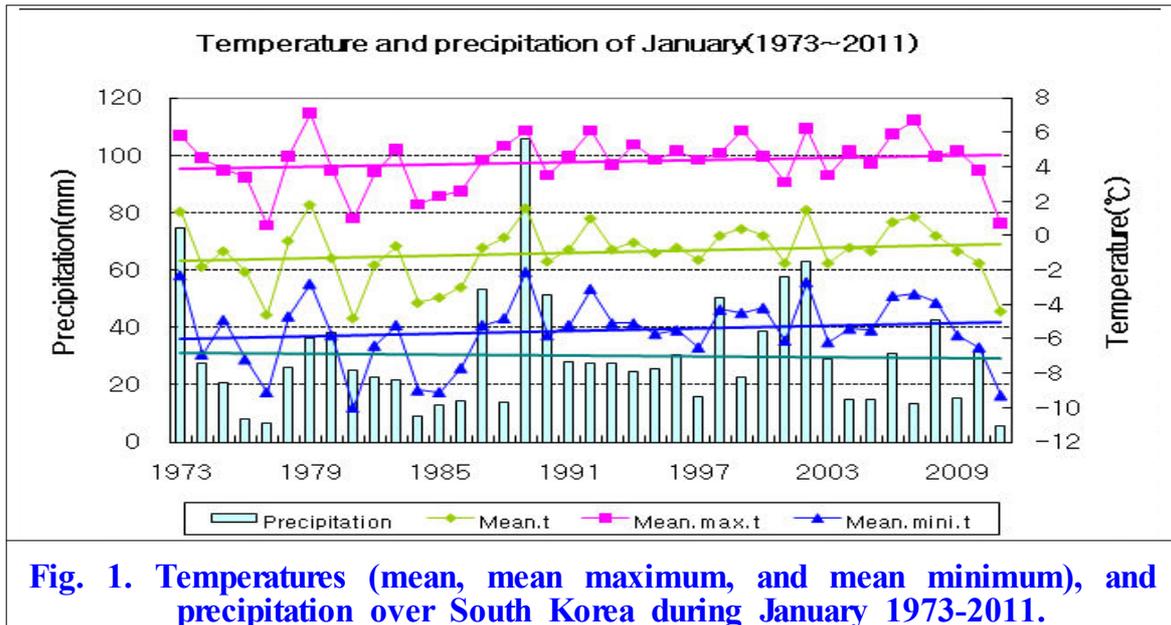
※ In Seoul, data are analyzed from 1908.

※ 1920s: average from 1921 to 1930

※ 1970s: average from 1973 to 1980

※ 2000s: average from 2001 to 2010

Appendix. January 2011 climate



□ Average values of meteorological elements over Korea during 1973-2011

Elements (National) average	January 2011 (a)	Normals of January (1981-2010) (b)	a-b	rank since 1973 (within 5th)
mean temperature (°C)	-4.4	-0.7	-3.7	3th lowest
mean maximum t (°C)	0.7	4.5	-3.8	first lowest
mean minimum t (°C)	-9.3	-5.3	-4.0	2th lowest
days with minimum t below -10°C	13.9	5.6	8.3	first highest
days with maximum t below 0°C	12.2	4.5	7.7	2th highest
amount of precipitation (mm)	5.6	29.8	-24.2(18.8%)	first lowest
rainy days	4.3	7.0	-2.7	3th lowest

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

Year	Mean T (°C)	Mean Maximum T (°C)	Mean Minimum T (°C)	Days with minimum t below -10°C	Days with maximum t below 0°C	Precipit- ation (mm)	rainy days
1973-1980 (a)	-0.9	4.3	-5.3	5.9	5.1	28.7	7.3
1981-1990 (b)	-1.7	3.7	-6.3	7.5	6.5	32.0	7.1
1991-2000 (c)	-0.2	5.0	-4.8	4.6	3.2	27.4	7.0
2001-2010 (d)	-0.3	4.9	-4.7	4.8	3.9	30.2	6.9
d-a	0.6	0.6	0.6	-1.1	-1.2	1.5	-0.4
d-b	1.4	1.2	1.6	-2.7	-2.6	-1.8	-0.2
d-c	-0.1	-0.1	0.1	0.2	0.7	2.8	-0.1

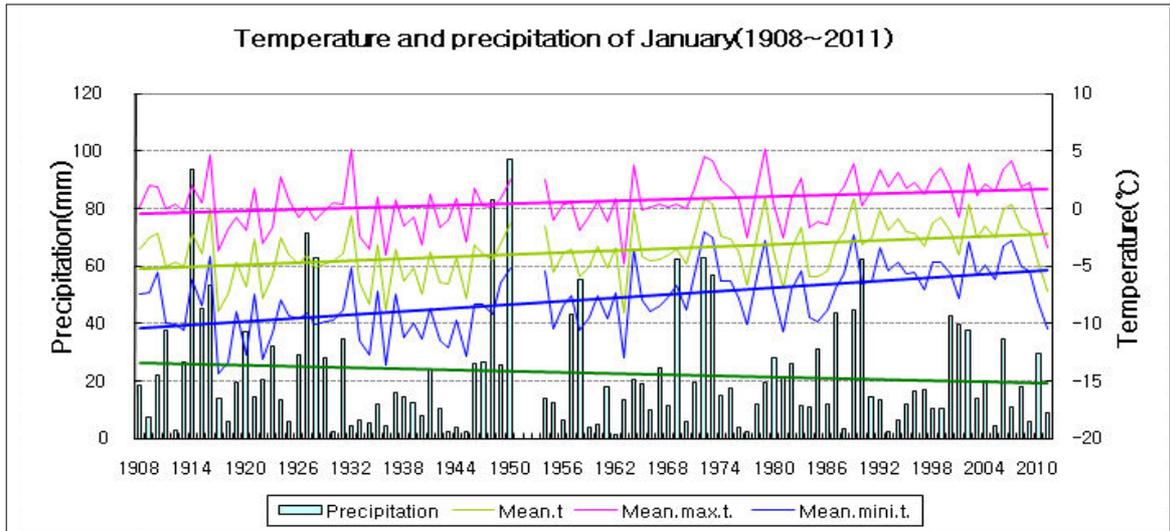


Fig. 2. Temperatures (mean, mean maximum, and mean minimum), and precipitation over Seoul during 1908-2011

□ Average values of meteorological elements over Seoul during 1908-2011

Elements (Seoul) average	January 2011 (a)	Normals of January (1981-2010) (b)	a-b	rank since 1908 (within 5th)
mean temperature (°C)	-7.2	-2.4	-4.8	-
mean maximum t (°C)	-3.4	1.5	-4.9	5th lowest
mean minimum t (°C)	-10.5	-5.9	-4.6	-
days with minimum t below -10°C	20	6.0	14.0	-
days with maximum t below 0°C	29	10.7	18.3	first highest
amount of precipitation (mm)	8.9	20.8	-11.9(42.8%)	
rainy days	5.0	6.5	-2.0	-

□ Meteorological elements over Seoul during December for each decade (1911-2010)

Year	Mean t (°C)	Mean Maximum t (°C)	Mean Minimum t (°C)	Days with minimum t below -10°C	Days with maximum t below 0°C	maximum depth of fresh snow cover (cm)	Precipitation (mm)	rainy days
1911-1920	-4.9	-0.1	-9.9	15.3	14.5	-	33.5	7.8
1921-1930	-4.6	-0.1	-9.7	15.8	14.4	-	28.0	7.0
1931-1940 (a)	-5.4	-0.8	-9.9	17.3	17.3	-	11.7	6.6
1941-1950	-4.5	0.2	-9.3	14.9	15.1	13.2	30.1	7.0
1954-1960	-4.1	0.1	-8.5	12.4	14.6	20.8	19.9	7.6
1961-1970	-4.3	-0.1	-8.2	11.2	14.1	17.3	18.6	6.4
1971-1980 (b)	-2.2	2.0	-5.7	6.0	9.9	10.4	23.7	7.1
1981-1990	-3.7	0.4	-7.3	9.8	14.4	16.2	26.5	6.8
1991-2000	-1.7	2.3	-5.3	3.8	8.2	9.0	14.5	7.3
2001-2010 (c)	-1.8	1.9	-5.2	4.5	9.5	12.6	21.3	5.5
c-a	3.5	2.7	4.7	-12.8	-7.8	-	9.6	-1.1
c-b	0.4	-0.1	0.5	-1.5	-1.7	2.2	-2.4	-1.6