



# KMA'S BRIEFING ON CLIMATE CHARACTERISTICS

(total 4 pages)

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## Monthly (January 2012) Climate Summary

- ◇ Mean temperatures during January was below-normal nationwide.
- ◇ Monthly precipitation in January (17.7 mm) was below-normal (58%) nationwide.

- Climate features of January 2012 and their long-term trends are analyzed using 45 meteorological stations in Korea  
(average of the mainland) during 1973-2011 (1908-2011 for Seoul).

※ Normal: average from 1981 to 2010.

※ National average indicates average values of 45 meteorological stations starting from 1973.

※ In Seoul, data are analyzed from 1908.

- **The climatological features in January 2012 can be described as follows:**

- o Korea (whole nation)

- The mean temperature (-1.2 °C), the mean maximum temperature (3.8 °C) and the mean minimum temperature (-5.7 °C) were 0.2 °C, 0.5 °C and 0.1 °C below-normal, respectively.
- The monthly average amount of precipitation (17.7 mm) was 58% of normal.
- The monthly average of rainy days (6.9 days) was 0.1 days more than that of the normal.

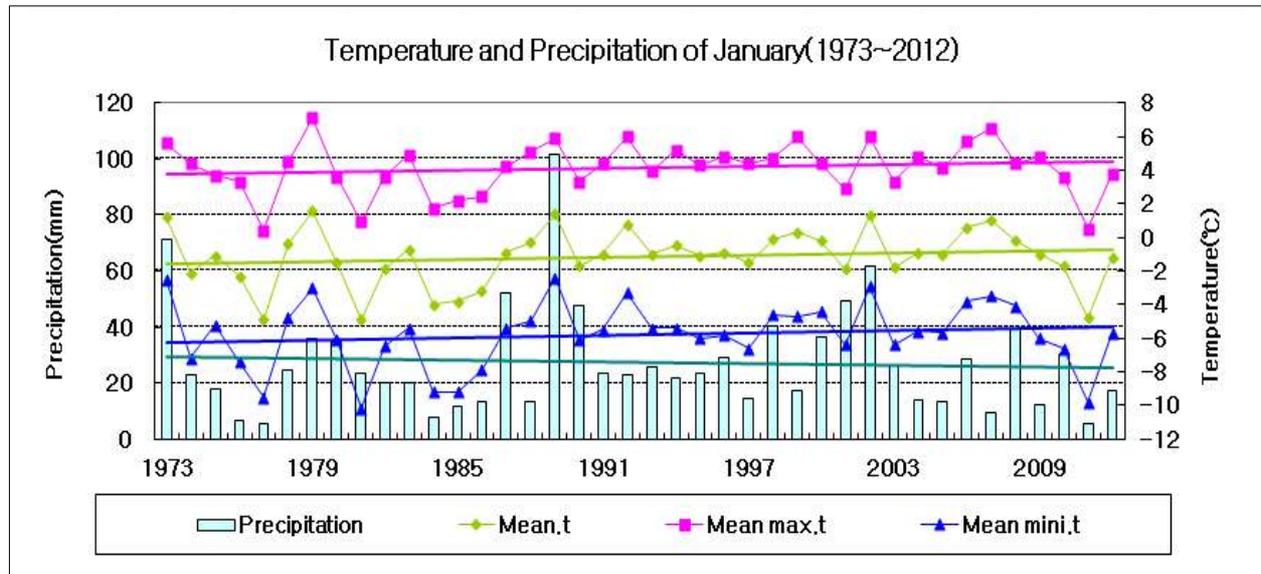
- o Seoul

- The mean temperature (-2.8 °C), the mean maximum temperature (1.3 °C) and the mean minimum temperature (-6.3 °C) were 0.4 °C, 0.2 °C and 0.4 °C below-normal, respectively.
- The monthly precipitation (6.7 mm) was 32% of normal.
- The number of rainy days (6.0 days) was 0.5 days smaller than that of normal.

□ **Long-term January climate trends**

- o The mean temperatures for January 2000's in Korea was 0.6 °C higher compared with the 1970's, exhibiting an upward trend.
  - o For Seoul, the mean minimum temperature of January 2000's were 2.8 °C and 0.4 °C higher than those of the 1920s and 1970s, respectively.
  - o The precipitation amounts for January 2000's in Korea was (0.7 mm) much than the corresponding values for the 1970's.
- ※ 1970's: average from 1973 to 1980  
※ 2000's: average from 2001 to 2010

## Appendix 1. Additional Climate Summary in January 2012



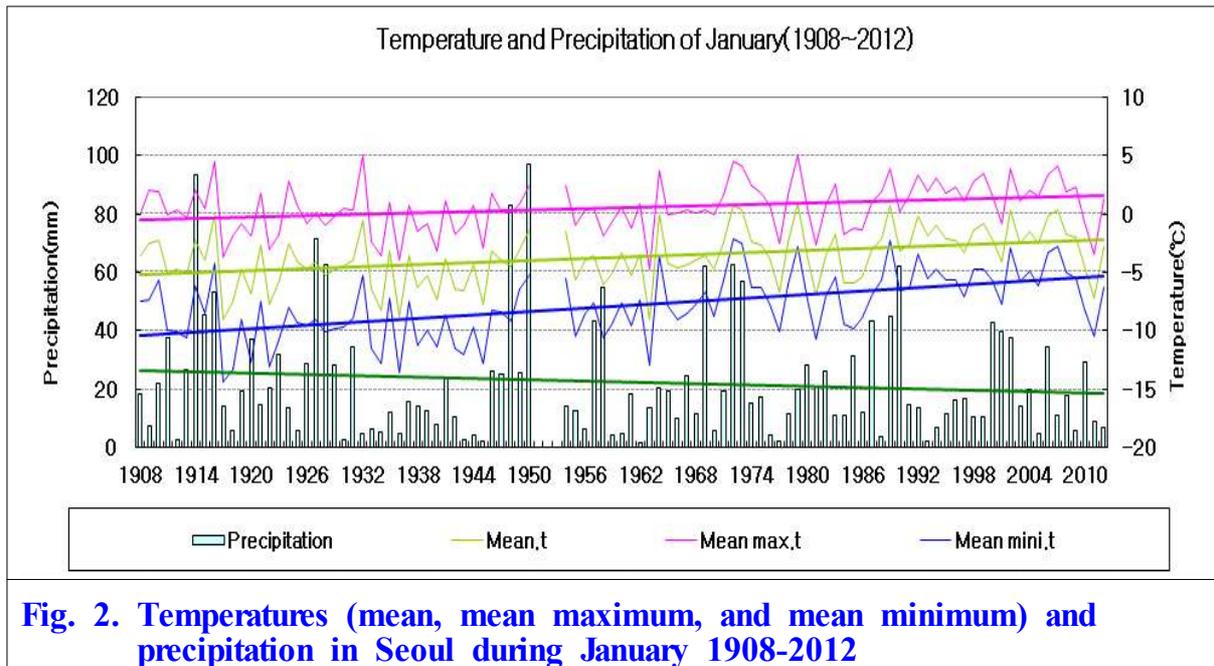
**Fig. 1. Temperatures (mean, mean maximum, and mean minimum), and precipitation in South Korea during January 1973-2012.**

### □ Average values of meteorological elements in Korea during January (1973-2012)

statistics for climate elements (national)	January 2011	January 2012(a)	Normals of January (1981-2010)(b)	a-b	rank since 1973 (within 5th)
Mean temperature (°C)	-4.8	-1.2	-1.0	-0.2	-
Mean maximum t (°C)	0.5	3.8	4.3	-0.5	-
Mean minimum t (°C)	-9.8	-5.7	-5.6	-0.1	-
Days with min. temp.( $<-10^{\circ}\text{C}$ )	14.2	6.1	5.7	0.4	-
Days with max. temp.( $< 0^{\circ}\text{C}$ )	13.0	4.8	4.8	0.0	-
Amount of precipitation(mm)	5.6	17.7	28.3	10.6(58%)	-
Days of rainy	4	6.9	6.8	0.1	-
Days with Max. New Snowfall.( $\geq 1\text{cm}$ )	2.5	1.8	2.4	-0.6	-

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

year	Mean temp (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Days with min. temp. ( $<-10^{\circ}\text{C}$ )	Days with max. temp. ( $< 0^{\circ}\text{C}$ )	Amount of rain (mm)	Days of rainy	Days with Max.New Snowfall ( $\geq 1\text{cm}$ )
1973-1980(a)	-1.2	4.1	-5.7	6.1	5.4	27.7	7.2	2.8
1981-1990(b)	-2.0	3.4	-6.7	7.7	6.9	31.3	7.1	2.6
1991-2000(c)	-0.5	4.8	-5.2	4.6	3.4	25.5	6.9	2.5
2001-2010(d)	-0.6	4.6	-5.1	4.9	4.1	28.4	6.6	2.6
d-a	0.6	0.5	0.6	-1.2	-1.3	0.7	-0.6	-0.2
d-b	1.4	1.2	1.6	-2.8	-2.8	-2.9	-0.5	0.0
d-c	-0.1	-0.2	0.1	0.3	0.7	2.9	-0.3	0.1



**Fig. 2. Temperatures (mean, mean maximum, and mean minimum) and precipitation in Seoul during January 1908-2012**

**□ Average values of meteorological elements in Seoul during January (1908-2012)**

statistics for climate elements (Seoul)	January 2011	January 2012(a)	Normals of January (1981-2010) (b)	a-b	rank since 1908 (within 5th)
Mean temperature (°C)	-7.2	-2.8	-2.4	-0.4	-
Mean maximum t (°C)	-3.4	1.3	1.5	-0.2	-
Mean minimum t (°C)	-10.5	-6.3	-5.9	-0.4	-
Days with min. temp.(<-10°C)	19	5	5.9	-0.9	-
Days with max. temp.< 0°C)	29	12	10.7	1.3	-
Amount of precipitation(mm)	8.9	6.7	20.8	-14.1(32%)	-
Days of rainy	5	6	6.5	-0.5	-
Days with Max. New Snowfall.(>=1cm)	3	2	2.6	-0.6	-

**□ Meteorological elements in Seoul during January for each decade (1911-2010)**

year	Mean temp (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Days with min. temp. (<-10°C)	Days with max. temp. (< 0°C)	Amount of rain (mm)	Days of rainy	Days with Max.New Snowfall (>=1cm)
1911-1920년	-4.9	-0.1	-9.9	15.1	14.5	33.5	7.8	-
1921-1930년	-4.6	-0.1	-9.7	15.4	14.4	28.0	7.0	-
1931-1940년	-5.4	-0.8	-9.9	17.0	17.3	11.7	6.6	-
1941-1949년	-4.8	-0.1	-9.7	15.7	15.4	22.5	6.7	3.2
1954-1960년	-4.1	0.1	-8.5	12.3	14.6	19.9	7.6	4.4
1961-1970년(a)	-4.3	0.0	-8.2	11.0	14.1	18.6	6.4	3.8
1971-1980년	-2.2	2.0	-5.7	5.9	9.9	23.7	7.1	3.1
1981-1990년	-3.7	0.4	-7.3	9.7	14.4	26.5	6.8	2.4
1991-2000년	-1.7	2.3	-5.3	3.6	8.2	14.5	7.3	2.8
2001-2010년(b)	-1.8	1.9	-5.2	4.4	9.5	21.3	5.5	2.5
b-a	2.5	1.9	3.0	-6.6	-4.6	2.7	-0.9	-1.3