

KMA'S BRIEFING ON CLIMATE CHARACTERISTICS

(total 4 pages)

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# April, 2010 climate

◇ The mean temperature for April was the lowest on record since 1973.
◇ The mean precipitation for April was equal to normal.

□ Climate characteristics of April 2010 and its long-term trends are analyzed based on 60 meteorological stations across Korea (national average) for the period of 1973-2010 (1908-2010 for Seoul).

□ The climatological characteristics in April 2010 can be described as follows:

- o For Korea (whole nation),
  - The mean temperature  $(9.9^{\circ}\text{C})$ , mean maximum  $(15.4^{\circ}\text{C})$ , and mean minimum (4. 5°C) temperatures were 2.1°C, 2.9°C, and 1.5°C lower than normal, respectively.
  - The mean, mean maximum temperature was the highest on record since 1973
  - The amount of precipitation (101.7mm) was similar to normal.
  - The average number of rainy days (11.4 days) had 3.1 more day compared to normal.
  - The amount of sunshine duration (176.5 hours) was 82% of normal.
- o For Seoul,
  - The mean temperature  $(9.5^{\circ})$  and mean minimum temperature  $(5.6^{\circ})$  were  $2.6^{\circ}$  and  $1.7^{\circ}$  lower than normal, respectively, and the mean maximum temperature  $(14.0^{\circ})$  was  $3.6^{\circ}$  lower than normal, making it the lowest temperature on record since 1908.
  - The amount of precipitation (62.8mm) was 82% of normal.
  - The number of rainy days (11 days) had 3.0 more day compared to normal.
  - The amount of sunshine duration (166.3 hours) was 79% of normal
  - The asian dust days (1 day) was 1.5 less day compared to normal.

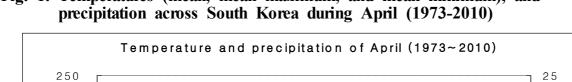
#### □ Long-term trend of APRIL 2010 climate

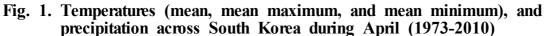
- o Korea's mean, mean maximum, and mean minimum temperatures from 2001 to 2010 were  $0.5^{\circ}$ ,  $0.9^{\circ}$ , and  $0.2^{\circ}$  higher than those of the 1970s, respectively.
- o The amount of precipitation, the amount of sunshine duration and the number of rainy days both for Korea and for Seoul during 2000s decreased than those of the 1970s.

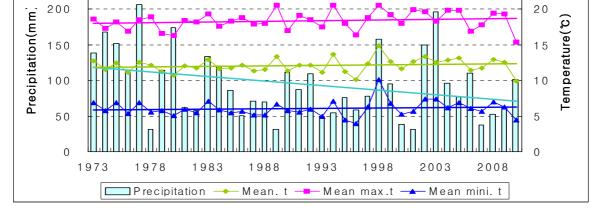
- \* National average is used average values of 60 meteorological stations starting from 1973.
- \* In Seoul, data are analyzed from 1908.
- \* 1930s: average from 1931 to 1940
- \* 1970s: average from 1973 to 1980
- \* 2000s: average from 2001 to 2010

<sup>\*</sup> Normal: average from 1971 to 2000.

Appendix April, 2010 climate







### □ Average values of meteorological elements across Korea (1973-2010)

Elements (National) average	April 2010 (a)	Normals of April (1971-2000) (b)	a-b	rank since 1973 (within 5th)	
mean temperature ( $^{\circ}C$ )	9.9	12.0	-2.1	lowest	
mean maximum t (°C)	15.4	18.3	-2.9	lowest	
mean minimum t (℃)	4.5	6.0	-1.5	second lowest	
amount of precipitation (mm)	101.7	95.5	6.2(106.5%)	-	
rainy days	11.4	8.3	3.1	third highest	
sunshine duration (hours)	176.5	215.0	-38.5(82.0%)	fourth lowest	
asian dust days	0.9	1.9	-1.0	-	

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

Year	Mean t	Mean Maximum t (°C)	Mean Minimum t (℃)	Precipitation (mm)	rainy days	sunshine duration (hours)	asian dust days
1973-1980 (a)	11.8	17.7	6.1	137.1	9.3	210.7	1.5
1981-1990 (b)	12.0	18.4	5.9	79.3	8.3	217.4	1.4
1991-2000 (c)	12.2	18.7	6.1	80.5	7.6	214.9	2.9
2001-2010 (d)	12.3	18.6	6.3	91.4	8.2	202.7	2.7
d-a	0.5	0.9	0.2	-45.7	-1.1	-8.0	1.2
d-b	0.3	0.2	0.4	12.1	-0.1	-14.7	1.3
d-c	0.1	-0.1	0.2	10.9	0.6	-12.2	-0.2

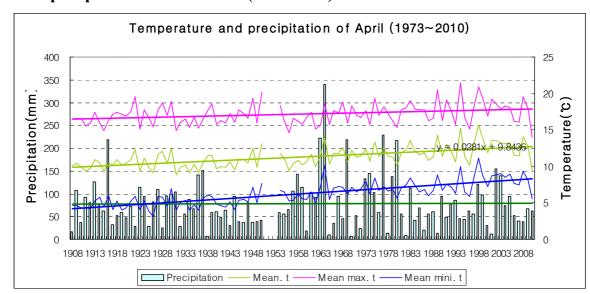


Fig. 2. Temperatures (mean, mean maximum, and mean minimum), and precipitation across Seoul (1908-2010)

Average values of meteorological elements across Seoul during April (1908-2010)

Elements (Seoul) average	April 2010 (a)	Normals of April (1971-2000) (b)	a-b	rank since 1973 (within 5th)
mean temperature (°C)	9.5	12.1	-2.6	-
mean maximum t (°C)	14.0	17.6	-3.6	lowest
mean minimum t (°C)	5.6	7.3	-1.7	-
amount of precipitation (mm)	62.8	77.0	-14.2(81.6%)	-
rainy days	11	8.0	3	-
sunshine duration (hours)	166.3	210.7	-44.4(78.9%)	-
asian dust days	1	2.5	-1.5	-

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

Year	Mean t	$\begin{array}{c} Mean\\ Maximum\\ t \ (^{\circ}\!\!C) \end{array}$	Mean Minimum t (°C)	Precipitation (mm)	rainy days	sunshine duration (hours)	asian dust days
1911-1920	10.2	16.5	4.8	84.6	9.7	232.1	-
1921-1930	10.9	17.4	5.1	74.9	7.5	227.8	-
1931-1940 (a)	10.1	16.3	5.0	76.1	7.6	226.2	-
1941-1950	10.8	17.3	5.4	50.9	7.2	244.2	-
1954-1960	10.6	16.4	5.9	80.3	8.9	207.3	-
1961-1970	11.7	17.1	6.9	116.5	9.2	196.9	-
1971-1980 (b)	11.6	17.0	6.9	111.2	9.1	196.1	1.4
1981-1990	12.1	17.8	7.2	53.2	7.2	222.8	1.6
1991-2000	12.7	18.1	7.9	66.6	7.8	213.1	4.5
2001-2010 (c)	12.6	17.6	8.2	73.7	8.5	179.3	3.9
c-a	2.5	1.3	3.2	-2.4	0.9	-46.9	-
c-b	1.0	0.6	1.3	-37.5	-0.6	-16.8	2.5