



Current Activities and Future Plans for Climate Change Observations in KOREA



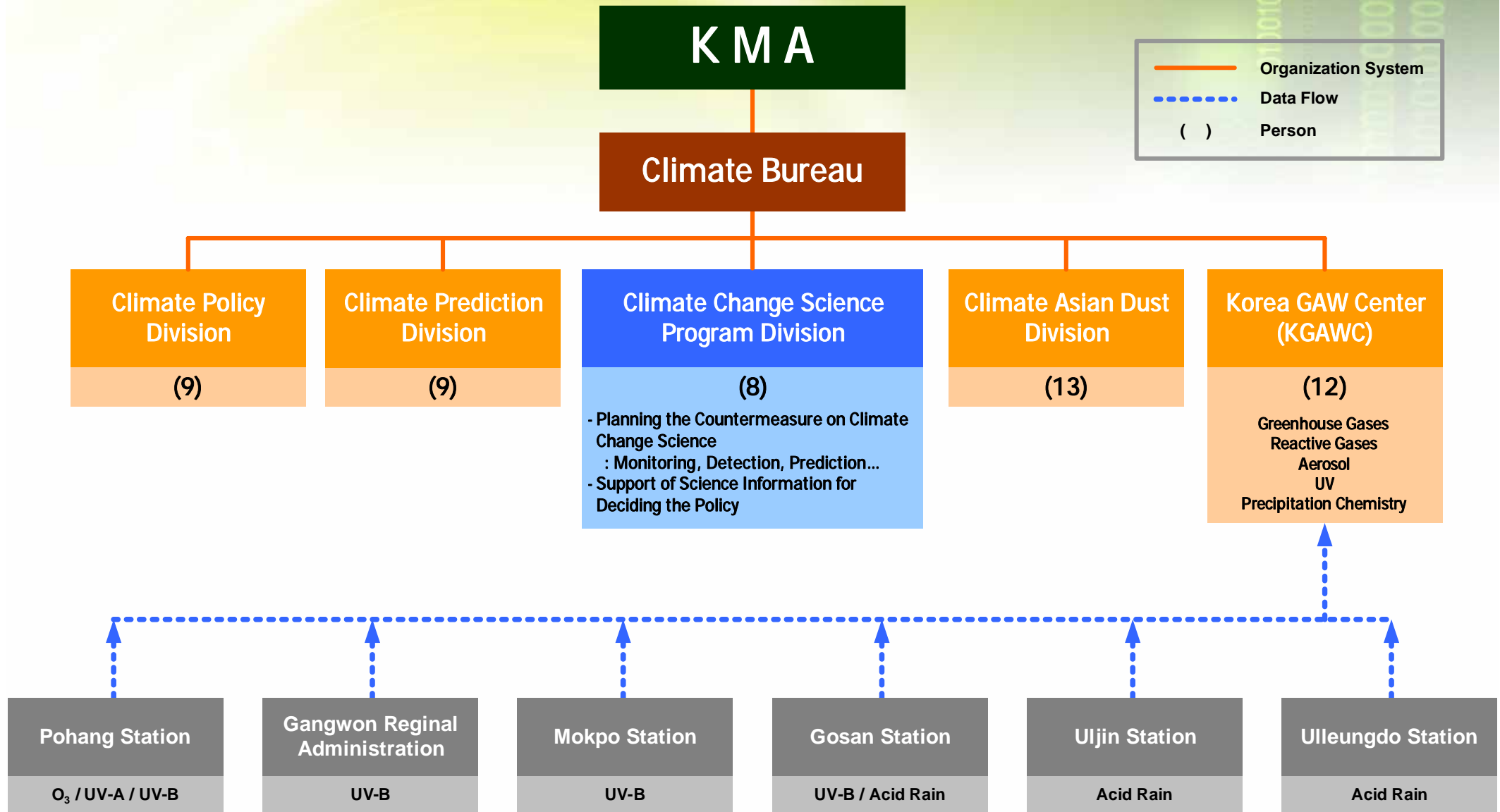
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Climate Change Science Program Division (CCSPD)
Korea Meteorological Administration (KMA)

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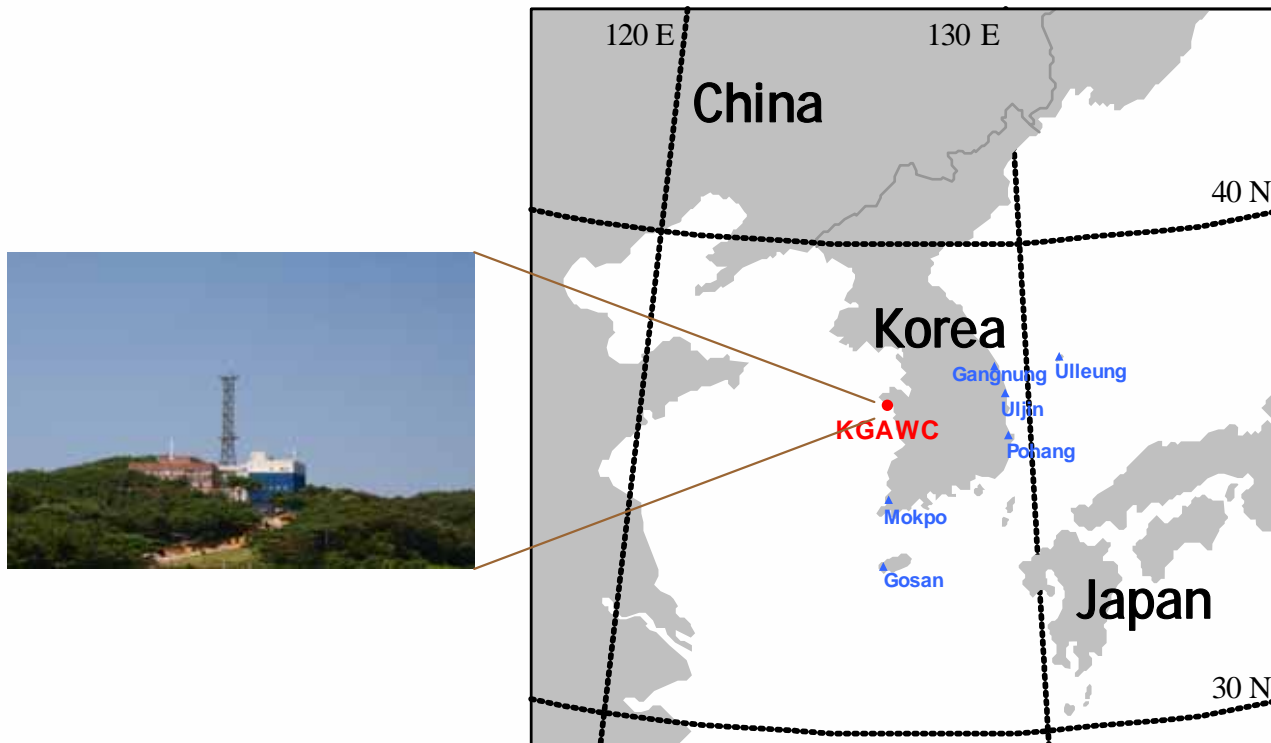
Organization Related to the CC



Current Activities for CC Observation

- **Implementation of GAW Program : KMA (KGAWC)**

- ▶ Observation Elements : GHGs, Aerosol, Reactive Gases, Radiation, O₃, Precipitation Chemistry, and so on.
- ▶ 1 Regional Site (Anmyeon-Island), 6 Support Sites

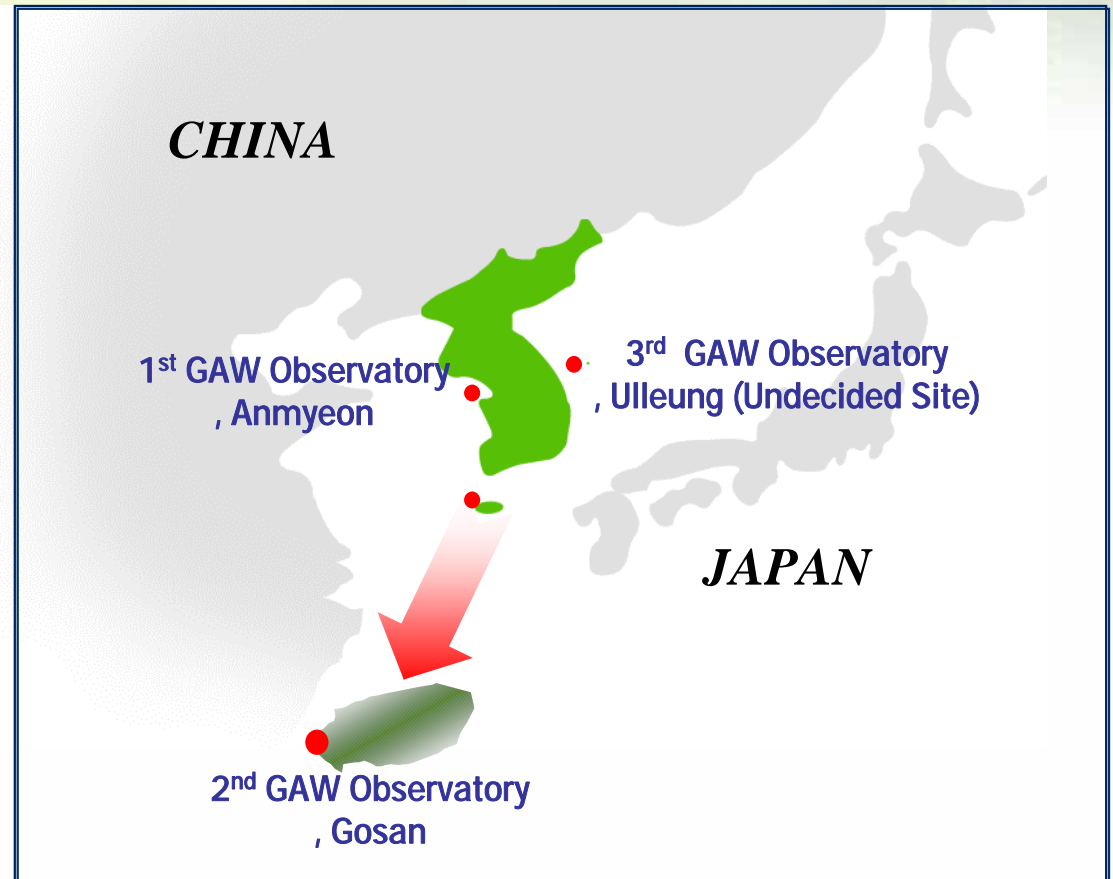


Current Activities for CC Observation

- **Monitoring Arctic/Antarctic for CC : Korea Polar Research Institute, KORDI (Korea Ocean Research & Development Institute)**
 - ▶ Paleoclimatic Change, Ozone Layer, Marine Ecosystem & Environmental Change, Biological Science, and so on.
- **Carbon Flux Observation : Academies**
 - ▶ Soil and Forest Flux

Future Plans for CC Observation

- Operation of the 2nd GAW observatory at the southern part in KOREA, Jeju Island (2008)
- Establishment of the 3rd GAW observatory at the eastern part in KOREA (2012)



Future Plans for CC Observation

- **Construction of 3 dimensional observation system for CC**
 - ▶ Establishment of Tall Tower for GHGs measurements at Jeju island (about 200m, 2009 -)
 - ▶ Upper GHGs measurement by Flight (KAL, 2009 -)
 - ▶ GHGs measurement by ship (Gisang 2000, 2010 -)
- **Development of monitoring technology for CC by using the satellite remote sensing**
- **Development of Carbon tracker technology**

Future Plans for CC Observation

- **Enhancement of observation network for land-ocean ecosystem and flux**
 - ▶ Cooperation with organization related to the Agriculture, Forest, and KORDI
- **Long term monitoring for GHGs Circulation**
 - ▶ Cooperation with KORDI, NIES, Academies and so on
- **Establishment of KACCO (KOREA Alliance for CC observation)**

International Cooperation

- **Enhancement of observation network to Asia – Pacific region through the international cooperation with KACCO and JACCO**
 - ▶ Flight (utilizing KAL and JAL) and Ship (Gisang 2000)
 - ▶ Standards for measurement
 - ▶ Standards for data exchange
 - ▶ Standards for end-products

International Cooperation

WIGOS : WMO Integrated Global Observed System

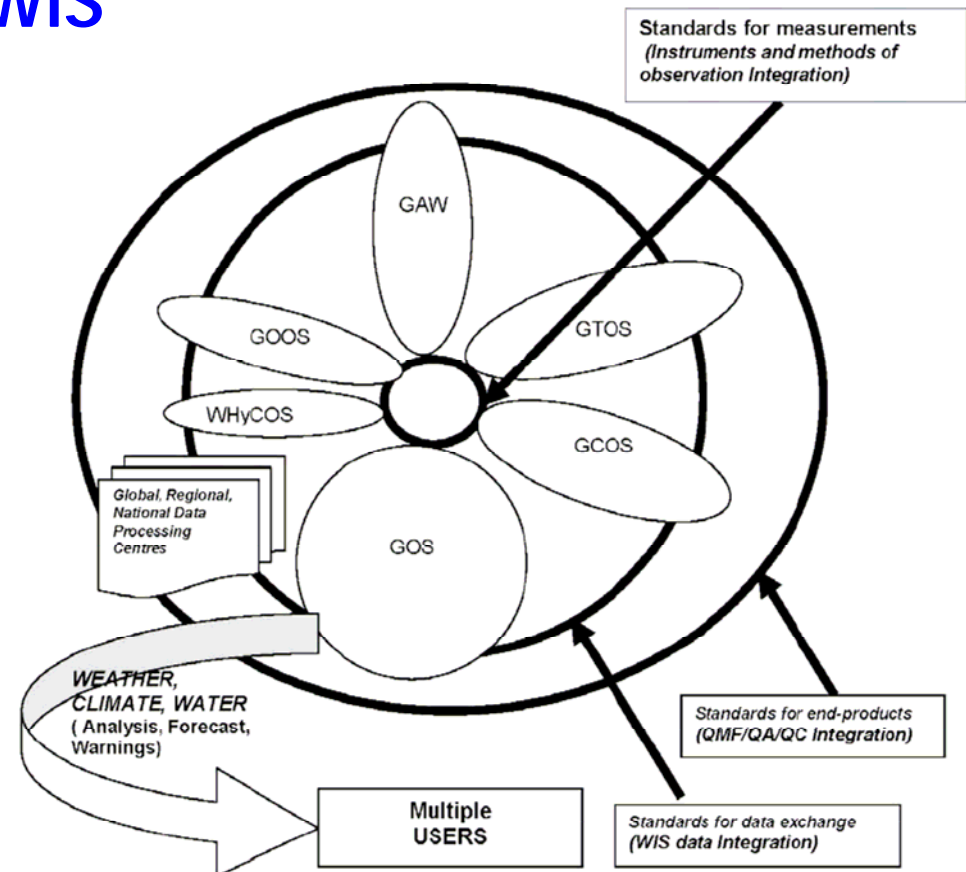
WIS : WMO Information System

● Implementation of KMA WIGOS/WIS

▶ Aims of WIGOS

Ensure the availability of all required information produced within the various WMO observing systems and co-sponsored systems (e.g. GCOS, GOOS, GTOS, etc.)

▶ WIGOS Levels of Integration



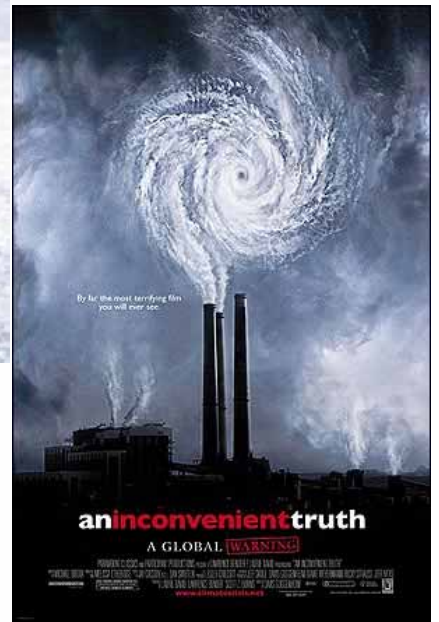
International Cooperation

► Pilot Projects (5)

- Joint GOS-GAW Pilot Project to accelerate implementation of WIGOS/WIS.
- Initiation Global Hydrological Network addressing a GCOS Requirement
- Integration of AMDAR into WIGOS
- Elaboration of the underpinning/crosscutting role and responsibilities of the instruments and Methods of Observation Programme in the context of WIGOS
- Integration of Marine Meteorological and other appropriate Oceanic Observations into the WMO Global Observing Systems

► Demonstration Projects at NMHSs :

- RA 1 (Kenya, Namibia)
- RA 2 (Republic of Korea)
- RA 3 (Brazil)
- RA 4 (United States of America)
- RA 5 (Australia)
- RA 6 (Russian Federation)



Thank you!