

Achievements and Prospects of the China Meteorological Administration / NOAA Bilateral Cooperation on GreenHouse Gases (GHGs)

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The China Meteorological Administration (CMA) represents the World Meteorological Organization (WMO) Commission for Atmospheric Sciences in China and is deeply involved in WMO's Global Atmospheric Watch (GAW) Program. CMA has a strong working relationship with the global measurement community within WMO/GAW, especially the Global Monitoring Division of NOAA's Earth System Research Laboratory. The long-standing relationship between the two laboratories supports a NOAA-CMA bilateral agreement, the United States and China's Strategic Economic Dialog, and WMO/GAW Program. A GHGs and tracers laboratory was initiated in Beijing with assistance from NOAA and Environment Canada and a number of background stations were developed in addition to the one at Mt. Waliguan, which is one of the 28 WMO/GAW baseline stations. The 20-year GHG record contributes to the World Data Centre for Greenhouse Gases, WMO's Greenhouse Gas Bulletin, GlobalView data products, Intergovernmental Panel on Climate Change assessments, and other key products. NOAA and CMA have been working cooperatively in recent years to increase the number of high quality observations of GHGs in China and to coordinate efforts on data management, quality control, and product development. In further cooperation with the Advanced Global Atmospheric Gases Experiment and other international groups, *in situ* and/or discrete air sampling high accuracy measurements of ambient GHGs by custom-designed systems have been added at five background stations (WLG, SDZ, LAN, LFS, XGL) in typical regions of China since 2009. Moreover, discrete air sampling started in succession at several contributing or cooperating sites. To serve the needs of expanding Chinese GHG measurement and application communities and better contribute to the global network, one of the CMA's efforts is to form a National Central Calibration Lab (CCL) with tight linkage to the WMO/CCLs, particularly the one for GHGs, which is operated by NOAA.

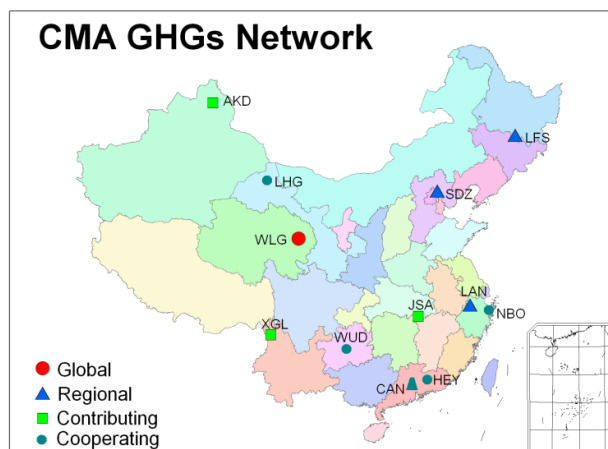


Figure 1. CMA GHGs network.

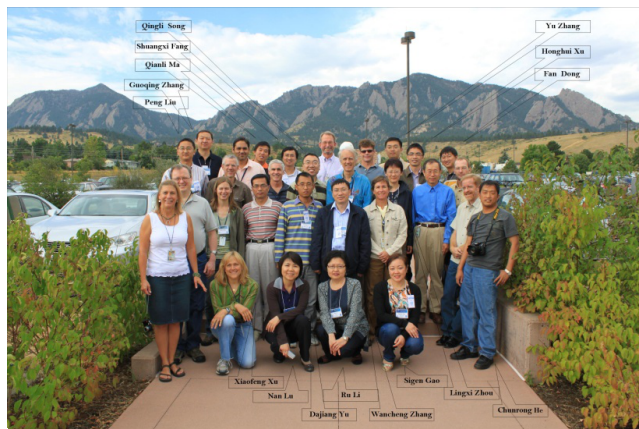


Figure 2. CMA GHGs delegation visit ESRL in 2010.