

NBS Good Practices from Chinese government

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Marine Atmospheric Greenhouse Gas Monitoring in Offshore

Since 2013, the National Center for Marine Environmental Forecasting has established four marine atmospheric greenhouse gas monitoring stations on Yongxing Island, Xisha, Beizhu Island, Shengshan Island, Yangtze Estuary and Yongshu Island, Nansha, respectively, to achieve high-precision continuous monitoring of atmospheric concentrations of carbon dioxide and methane over China's offshore oceans. Taking Xisha as an example, since 2013, the atmospheric carbon dioxide concentration in Xisha sea area has shown an obvious upward trend. At the end of 2017, the atmospheric carbon dioxide concentration has exceeded 420 ppm, which is obviously higher than the global average. The South China Sea (SCS) is an important marginal land sea in China. Coral reefs are abundant in resources and are more susceptible to ocean acidification. According to the IPCC report, the rapid growth of global atmospheric carbon dioxide concentration is mainly due to anthropogenic carbon dioxide emissions. Therefore, it is particularly important to distinguish between anthropogenic carbon dioxide emissions and natural carbon dioxide emissions in China's offshore atmosphere for grasping the carbon dioxide emissions of China and its surrounding countries, formulating China's energy saving and emission reduction policies, and formulating nature-based solutions.