



## **Atmospheric processes and environment monitoring Plan on the Tibetan Plateau**

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The Tibetan Plateau is often called the “Third Pole” Because of its significance parallel with Antarctica and the Arctic. As a unique geological and geographical unit, the Tibetan Plateau dramatically impacts the world’s environment and especially controls climatic and environmental changes in Asia or even in the Northern Hemisphere. Tibetan Plateau, therefore, provides a field laboratory for studying global climate change. Long-term operation and research on the Tibetan Plateau have shown that the giant prominence exert thermal effects on the atmosphere, thus greatly influencing circulations over China, Asia and even the global. Due to its topographic character, the plateau surface absorbs a large amount of solar radiation energy and undergoes dramatic seasonal changes of surface heat and water fluxes. The lack of quantitative understanding of interactions between the land surface and atmosphere makes it difficult to understand the complete energy and water cycles over the Tibetan Plateau and their effects on the Asian Monsoon system by numerical models. Therefore, The Institute of Tibetan Plateau Research (ITP) of the Chinese Academy of Sciences (CAS) is establishing a Field Monitoring and Research Platform (FMRP) for atmospheric processes and environment on the Tibetan Plateau. The establishing and monitoring plan of long-term scale (10 years) and short-term scale (3-5 years) of the FMRP will be introduced in this paper