

中国森林生态系统定位研究网络

Chinese Forest Ecosystem Research Network (CFERN)



中国森林生态系统定位研究网络管理中心

Chinese Forest Ecosystem Research Network

Management Center

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CFERN体系 About CFERN

国家林业局生态系统观测与研究网络由中国森林生态系统定位研究网络（简称森林生态站网）、中国湿地生态系统定位研究网络（简称湿地生态站网）、中国荒漠生态系统定位研究网络（简称荒漠生态站网）构成，是国家林业局科技司管辖的国际著名大型生态系统观测与研究网络之一。

The Observatory and Research Network of the State Forestry Administration, which includes Chinese Forestry Ecosystem Research Network (CFERN), Chinese Wetland Ecosystem Research Network (CWERN), Chinese Desert Ecosystem Research Network (CDERN), Which is a renowned scientific research network directed by the Technology Department of the State Forestry Administration.

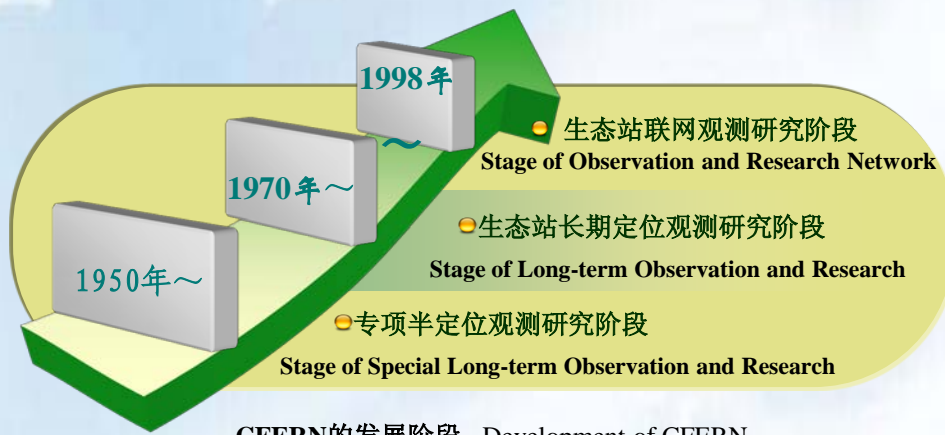
中国森林生态系统定位研究网络由分布于全国典型森林植被区的若干森林生态站组成。而森林生态站是通过在典型森林地段，建立长期观测点与观测样地，对森林生态系统的组成、结构、生物生产力、养分循环、水循环和能量利用等在自然状态下或某些人为活动干扰下的动态变化格局与过程进行长期观测，阐明生态系统发生、发展、演替的内在机制和自身的动态平衡，以及参与生物地球化学循环过程等的长期定位观测站点。

Chinese Forestry Ecosystem Research Network (CFERN) is formed by several forestry ecosystem research stations across the country. A forestry ecosystem research station is a long-term positioning observatory station which studies the formation, structure, biological productivity, nutrient and hydrologic cycle, energy utilization of the forestry ecosystem both in the natural state and under circumstances of human activities in dynamic change. Its purpose is to see the internal mechanism of the originating, developing, and succession of an ecosystem and its biogeochemical cycle in a scientific view.

生态站发展历程 Development

20世纪50年代末，国家结合自然条件和林业建设实际需要，在川西、小兴安岭、海南尖峰岭等典型生态区域开展了专项半定位观测研究，并逐步建立了森林生态站，这标志着中国生态系统定位观测研究的开始。

In the late 1950s, China began specialized observatory research programs in typical ecological regions, some of which are western Sichuan, Xiaoxing'anling mountains and Hainan jianfengling, which marked the beginning of the country's ecosystem positioning observatory research process.



Distribution of Existed Ecosystem Research Stations in Chinese Terrestrial Ecosystem Research Network, SFA

目前CFERN已发展成为横跨30个纬度、代表不同气候带的由73个森林生态站组成的网络，基本覆盖了中国主要典型生态区，涵盖了中国从寒温带到热带、湿润地区到极端干旱地区的最为完整和连续的植被和土壤地理地带系列，形成了由北向南以热量驱动和由东向西以水分驱动的生态梯度的大型生态学研究网络。一些森林生态站被GTOS收录，并且与ILTER、ECN、AsiaFlux等建立了合作交流关系。

CFERN, which has 73 stations across the country, now covers more than 30 latitudes and China's major typical ecological regions, from the cool temperate zone to tropical zone, from humid areas to extreme arid areas, and has become a network of ecology studies driven by heat from north to south and driven by water from east to west. Some stations of the network are included by GTOS and have established partnerships with ILTER, ECN and AsiaFlux.

发展目标 Objects

按照分阶段、分层次建设的目标，建成布局合理、类型齐全、条件完备、机制完善，能够为林业生态工程建设提供服务，满足林业发展需求，回答生态环境与林业建设过程中重大科学问题的生态站网；培养、吸引和稳定一定数量的基层技术骨干、在本领域具有较大影响和发展潜力的科技人才、国内外具有重要影响的学术带头人；建立起创新能力突出、达到世界先进水平的中国森林生态系统定位研究网络观测与研究平台。

To establish a well-planned and diversified ecosystem research station network which contributes to the scientific development of forestry ecological projects. To train and attract certain amount of technical staff and talents who show great influence and promise. To bring the network to the new level of higher innovation ability and advanced world standards.

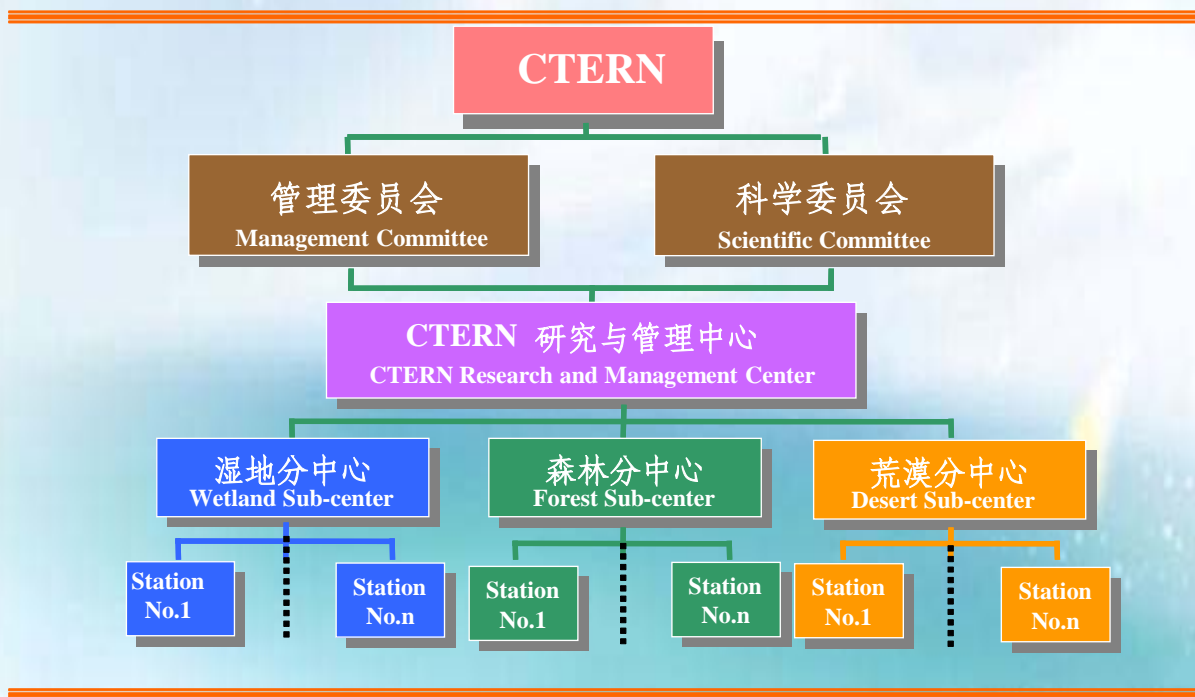


Planning Distribution of Chinese Forest Ecosystem Research Network ,SFA

组织体系
Organization

国家林业局对生态站网实行指导管理，设立陆地生态系统野外观测研究管理委员会（以下简称管理委员会）和陆地生态系统野外观测研究科学委员会（以下简称科学委员会），以及国家林业局陆地生态系统野外观测研究与管理中心（以下简称管理中心）。管理中心下设森林、湿地和荒漠3个管理分中心，分别负责相应研究网络生态站的管理工作。

CFERN is directed by the state Forestry Administration, with Management Committee on Terrestrial Ecosystem Field Observatory Research, Scientific Committee on Terrestrial Ecosystem Field Observatory Research and Field Observatory Research and Management Center (3 branches: Forestry, wetland and desert) on Terrestrial Ecosystem of the State Forestry Administration as its subordinates.



CTERN 组织机构图
Organization System of CTERN

研究任务 Research Tasks

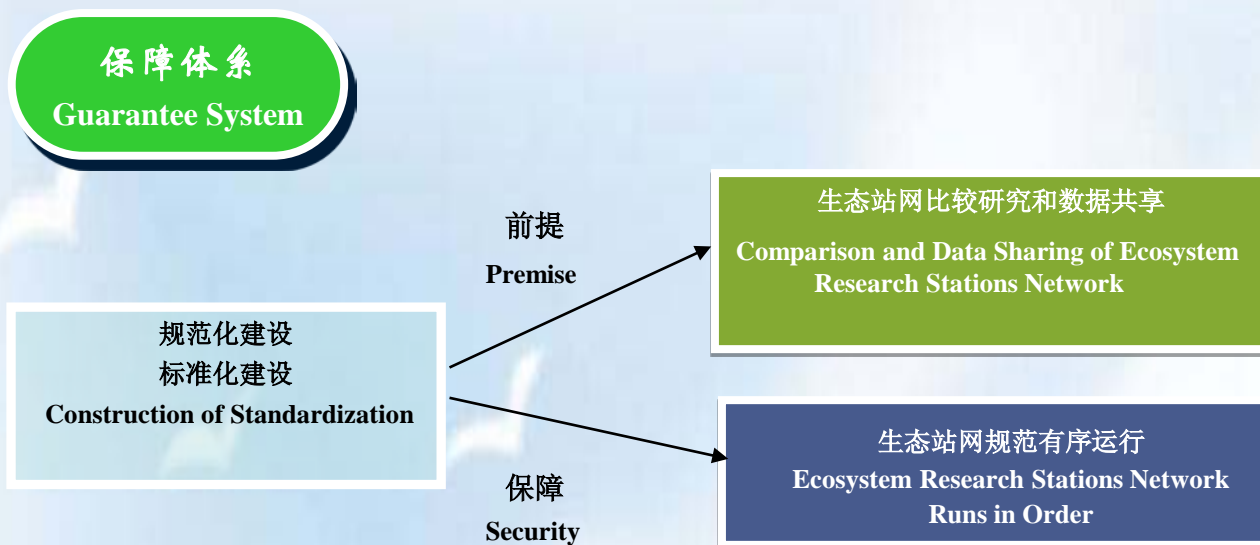
生态站网作为国家林业科技研究的基础平台，在完成陆地生态系统水分要素、土壤要素、气象要素和生物要素基本观测的基础上，以系统性、集成性和可操作性的科学问题为纽带，以国家需求为导向，按照“多站点联合、多系统组合、多尺度拟合、多目标融合”的发展思路，针对森林类生态系统，开展大流域、大区域、跨流域、跨区域的重大专项科学研究。

The basic tasks are observations of the fundamental factors of the terrestrial ecosystem such as moisture, soil and meteorological conditions. The advanced tasks are major projects for science and technology, mainly aiming at the ecosystem of forest, wetland and desert, based on the association of the stations, the combination of various systems, the summary of different measures and the blending of several targets, led by the country's demand and requirement.



生态站重大研究项目规划过程

Some Significant Progress of Project Program



经过多年的建设和完善，CFERN就管理、标准、数据共享等方面开展了一系列工作，并取得一定进展。《森林生态系统定位研究站建设技术要求(LY/T 1626-2005)》、《森林生态系统定位观测指标体系(LY/T 1606-2003)》、《森林生态系统长期定位观测方法(LY/T 1952-2011)》、《森林生态系统定位研究站数据管理规范(LY/T 1872-2010)》和《森林生态系统服务功能评估规范(LY/T 1721-2008)》等相关系列生态功能评估标准相继颁布。

Over the past years, CFERN has made effective progress in management, standards and data sharing, some of which are *Constructions Standard for long-term Research of Forestry Ecosystem (LY/T 1626-2005)*, *Indicators System for long-term observation of Forestry Ecosystem (LY/T 1606-2003)*, *Observation methodology for long-term forest ecosystem research(LY/T 1952-2011)*, *Specifications for data management of forest ecosystem long-term research station(LY/T 1972-2010)*and *Specifications for assessment of forest Ecosystem services in China (LY/T 1721-2008)*.



CFERN规范和标准
Specifications and Standards of CFERN

