

Monitoring China's Coastal Zones and Adjacent Seas Under Global Change by Satellite Data

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Coastal zones are characterized by their significant socio-economic importance and intense human activity, and as such their resource utility and environmental condition are susceptible to global change. The world has seen high speed economic development of China, the coastal zone of which is experiencing important changes in a variety of aspects. In this project, China's coastal zones and their adjacent seas are taken as the study area. Monitoring and evaluation techniques will be developed for the land use/land cover, coastal wetlands, macro algae bloom, river plume by synergistic use of optical, infrared and microwave satellite data supported by airborne remote sensing and in situ observations. On this basis, the spatio-temporal changes of the ecological environment in the China coast and adjacent seas will be analysed in terms of its mechanism and implications. The research is supported by Coastal Zone Application Demonstration of HY-1B CZI, 863 project (2007AA092102), and NSFC (60602089) project.

全球变化下中国海岸带与邻近海域卫星遥感监测

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随着国民经济的快速发展，中国海岸带区域发生着显著变化，该区域人类活动频繁，资源环境脆弱，受全球变化影响显著，是研究全球变化区域响应的重要方面。本项目以中国海岸带及其临近海域为研究区，以海岸带土地利用/土地覆盖变化、滨海湿地变迁、大型浮游植物藻华、河口羽状流、海冰为主要研究对象，发展基于多源卫星遥感（光学、红外、微波）、航空遥感和现场观测资料的协同监测及评估技术，分析中国海岸带及临近海域生态环境的时空变化及其机制与影响，探讨其与全球变化的关系。该项研究受HY-1B CZI海岸带应用示范项目、863项目(2007AA092102)和国家自然科学基金项目(60802089)支持。