

CPEC CHALLENGES IN EARTH SCIENCE AND CHINA-PAKISTAN COOPERATION

Peng, CUI

Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, China

Abstract

Challenges in Earth Science

China-Pakistan Economic Corridor (CPEC), about 3000km in total, is one of the six biggest Economic Corridors for the Belt and Road Initiatives. It also is the key area of Pakistan national strategy. However, the area along CPEC suffers great from frequent natural hazards, fragile ecological environment and fragile ecosystem which pose great threats to CPEC. To benefit the livelihoods and societies along the CPEC and to ensure the CPEC construction safety, disaster risk analysis and reduction and orderly utilization of ecological and environmental resources for the regional sustainable development need to be promoted. Based on the challenges in hazards, environment, ecology, resources and development faced by CPEC construction, environment data collection and mining under complex topography, earth surface natural hazards and risk control mechanisms, tectonic movement and effects on resources and hazards, regional sustainable development theory and technical model, as well as other key scientific issues have urgent needs to be addressed through cooperation in earth science and to strengthen regional scientific cooperation to benefit livelihoods and promote CPEC construction.

Needs and Foundation for China-Pakistan Cooperation

There has been good research cooperation foundation between China and Pakistan for decades. The scientific cooperation between China and Pakistan has lasted for a long period of time and achieved great significances, with the major positive influence of CAS. In 1960-1970, the Cold and Arid Regions Environmental and Engineering Research Institute involved in the construction of China-Pakistan KKH by analyzing the impact of glacial activities to highway. Since 2006, Institute of Mountain Hazards and Environment has participated in the extension construction work of KKH continuously and solved a series of problems of disaster prevention for KKH. Besides above researches, many other Chinese institutions such as Tibet Plateau Institute, Institute of Atmospheric Physics and Institute of Geology and Geophysics, have carried out effective cooperation with Pakistan partners. Therefore, scientists from Pakistan Academy of Sciences, MoST, University of Peshawar, Pakistan Meteorological Department, Geological Survey of Pakistan and other universities have involved the China-Pakistan collaboration and expressed active supports for promotion and participation in China-Pakistan cooperation in earth science research.