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GeoEducation and cooperation for sustainable development of the coast zone in East and Southeast Asia, a case demonstration for Geology 20+

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More than sixty percent of the world's population lives within 60 kilometres of the coast. Coastal zones represent a precious resource vital to the economy, habitation, wildlife, recreation and energy[1]. Sustainable economic growth, social development and environmental protection in the world's coastal zones are very important, and the geoscience community should act functionally since international cooperation in geoscience education and public communication are essential for confronting these worldwide challenges.

In the East and Southeast Asia region, almost all countries are bordered by the sea, with dense populations in coastal zones, benefiting from the coastal/ marine resources, but also suffering from the frequent occurrence of geohazards. The geo-hazards include: earthquake, tsunami, landslide, flooding, coastal erosion and land subsidence. These, together with climate change and rising sea-levels, cause enormous casualties and property losses. The impacts of coastal natural disasters and anthropogenic hazards have grown significantly over the last few decades and remain a considerable challenge with the unresolved question of how to manage the coastal zone wisely and properly? Deep understandings of local coastal geology, with an effective integration and interpretation of coastal-marine data, are critical to adequately addressing the requirements for effective coastal zone management.

In 2015 the Chinese government launched a China-ASEAN (China – Association of Southeast Asian Nations) Cooperation Project on Coastal Geoscience (CASE-Coast). This project aims to strengthen academic linkages between China and ASEAN member countries, through coastal geoscience cooperation, to improve understanding of natural coastal processes together with the anthropogenic impacts. Under the framework of cooperation, capacity-building, including training courses and workshops, will be organized in China and ASEAN member countries and the exchange of young scientists will be encouraged, including in postgraduate education. Representative coastal geohazard sites from both China and ASEAN countries will be selected for case study, including, but not limited to coastal erosion, land subsidence, salt water intrusion and flooding due to typhoons and tsunami. Regional assessment of coastal vulnerability and corresponding strategies are likely to be the main outcomes of the project.

The East and Southeast Asia countries are the largest developing communities in the world, so the challenges and countermeasures of coastal zone sustainable development are the best study cases for the world. We hope the CASE-Coast project can provide the Geology 20+ a good demonstration example of world-wide cooperation.

References:

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