

Seminar on Marine Geological Survey and Environmental Protection of Coastal Zone in Developing Countries

Name	Seminar on Marine Geological Survey and Environmental Protection of Coastal Zone in Developing Countries		
Organizer	Development Research Center of China Geological Survey		
Time	2024-08-30 -- 2024-09-12	Language for Learning	English
Invited Countries	Developing countries		
Number of Participants	25		
Requirements for the Participants	Age	Cadre of departmental directorship (≤ 50); cadre at division level (≤ 45)	
	Health	The candidates should be in good health, and provide health certificates or physical examination forms issued by local public hospitals. They should be free from diseases prohibited from entering China by Chinese laws and regulations, serious chronic diseases such as severe hypertension, cardiovascular and cerebrovascular diseases, diabetes, mental diseases or infectious diseases that may cause great harm to public health, and be beyond major postoperative recovery period and acute attack period, as well as non-severe physical disability, and non-pregnancy.	
	Language	Trainees should be able to listen, speak, read and write in the working language of the project	
	others	Candidates are not allowed to bring their spouses or relatives and friends to China for training.	
Host City	Beijing City	Local Temperature	Beijing 15°C-26°C
Cities to visit	Dongying City Shandong Province, Qingdao City Shandong Province	Local Temperature	Dongying City 19°C-25°C, Qingdao City 19°C-25°C
Notes	<p>(1) Please prepare a valid passport and visa in advance.</p> <p>(2) During the seminar, candidates are requested to attend on time and follow the rules, and your attendance record will be used as the basis for issuing the completion certificate.</p> <p>(3) Candidates shall prepare for the exchanges during the seminar.</p> <p>(4) In case that you cannot leave on time due to special circumstances, or there is flight delay during connecting flights, please contact the project contact person in time to inform you of the latest flight status, so as to arrange pick-up.</p> <p>(5) In principle, individuals are not allowed to change international air tickets. If necessary, please contact the business office to handle the ticket change according to the procedures. If the air ticket is changed without consent, the expenses and responsibilities arising therefrom shall be borne by the individual.</p> <p>(6) Please confirm whether you need to check your baggage again when connecting; After the flight lands and you pick up luggage, please wait patiently at the international arrival exit (or domestic arrival exit), and our staff will pick you up with the pick-up signboard with the organizer name on it. If you wait more than 15 minutes, please contact the project contact person.</p> <p>(7) If you need to register with the airline in case of lost checked baggage, please call the project contact person to confirm the baggage delivery address before filling out the registration form.</p> <p>(8) Please pay special attention to the weather of the destination and prepare your clothes</p>		

	<p>accordingly; You'd better prepare light footwear to facilitate outing visit and inspection; Formal or national costumes shall be required for the important occasions during the seminar.</p> <p>(9) Please prepare some drugs according to your physical conditions.</p> <p>(10) Please download VPN for international internet service before you arrive in China. You may be charged if you download after you arrive in China.</p>	
Contact of the Organizer	Contact Person(s)	Ms.Han Jiuxi
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About the Organizer	<p>The Development Research Center of China Geological Survey was formally established in 2002. It is a public institution directly under China Geological Survey. It mainly undertakes the research on geological work development strategy, Geological Survey management and socialized service, overseas geological survey strategy and policy research, national geological prospecting technical guidance, and serves the comprehensive business management of geological survey and the transformation, reform and development of geological industry. It has been granted with "National Geological Archive and Mineral Exploration Technical Guidance Center of Ministry of Natural Resources". It has been staffed with 249 employees, including 199 senior researchers (111 doctors and 88 masters), accounting for 78.7%; 159 employees with senior professional titles (63 of high professional titles and 96 of associate senior titles). Since its establishment, under the leadership of ministries and bureaus, it has worked out fruitful results in strategic research, information geological data services and special support. It undertakes two core journals, Geology in China and Geological Bulletin of China, and journal Geology in China (English Version).</p> <p>Under the unified leadership of the Ministry of Natural Resources and China Geological Survey, The Development Research Center of China Geological Survey has held 102 foreign-aid seminars by the end of 2023, including 2 ministerial seminars, 38 official seminars, 23 technical seminars, 7 overseas seminars and 32 online seminars. More than 4,000 experts, scholars and technicians from 104 countries and regions around the world have ever been in the seminars in English, French, Russian, Spanish and Portuguese.</p>	
Seminar Content	<p>1. About the Courses and Contents of the Seminar</p> <p>(I) Chinese National Conditions</p> <p>(1) Chinese national conditions and Chinese leaders' new thoughts, new ideas and new strategies in national governance: Introduce China's achievements since reform and opening up and China's development path. The concept of community with a shared future for mankind put forward by President Xi Jinping, the "Belt & Road Initiative", and the new theory of international relations.</p> <p>(II) Specialized Courses</p> <p>(1) Marine Regional Geological Survey and Research: Marine Regional Geological Survey is a basic public welfare marine geological work oriented by national needs, the most important approach to obtain marine information, and the most fundamental means to understand the ocean and the national conditions and background of marine geological resources and environment. At present, China Geological Survey has completed a survey at a small scale of 1:1,000,000 in the sea area under its jurisdiction, and is implementing the medium--large-scale survey at 1: 250,000 and 1: 50,000. With economic and social development, the contents and methods of marine regional geological survey have been continuously expanded and enriched, and the technical standards have been continuously updated and escalated. Marine regional geological survey describes the geomorphology of the sea in China, reveals the gravity and magnetic field characteristics of the sea areas in China, determines the stratigraphic system of the sea areas in China, puts forward a new scheme of tectonic unit division, and suggests the sedimentary evolution process of Late Quaternary of the sea areas in China. The achievements provide basic data for marine resources exploration, marine scientific research, major engineering construction, marine environmental protection and marine rights and interests maintenance. The Seminar introduces the background and course of marine regional geological survey in China, survey technology, methods and standards, data information system construction, important geological knowledge, scientific and technological innovation achievements and application examples.</p> <p>(2) Comprehensive Geological Survey and Research of Coastal Zone: Coastal zone is</p>	

located at the junction of land and sea, where hydrosphere, lithosphere, biosphere and atmosphere interact, and it is also the area where human activities are most concentrated, providing important material guarantee for human survival and economic and social development. This Seminar introduces the background and course of China Geological Survey, which is oriented at the important needs of coastal economic and social development and ecological civilization construction. With the resources and environment survey, coastal wetland survey and Qingdao urban geological survey carried out in key coastal areas such as Yangtze River Delta, Yellow River Delta and Bohai Rim as examples, this Seminar introduces the contents and technical methods of coastal comprehensive geological survey, and finds out the basic geological background, natural resources status, typical urban geological conditions, major engineering geological safety, ecological geological environment of important ecological areas and other important achievements in coastal areas, as well as providing geological scientific and technological support for environmental protection, ecological restoration, disaster prevention and mitigation in coastal areas.

(3) Marine Oil and Gas Geological Survey: It makes a part of the basic, public welfare and strategic work of China Geological Survey to carry out survey and evaluation for areas with low survey, high exploration risk and without commercial oil and gas discovery. With the survey of oil and gas resources in the South China Sea and the Yellow Sea where no commercial oil and gas discovery has been obtained by China Geological Survey as an example, this Seminar introduces the working ideas of expanding the survey of oil and gas resources in “new areas, new strata, new fields and new types”, innovating and developing seismic exploration techniques and data processing methods of “high coverage times, rich low frequency and strong source”, revealing the deep stratigraphic structure, obtaining new deep oil and gas discoveries, developing a new understanding of multi-source and multi-stage oil and gas accumulation model in large superimposed basins, deciding favorable areas of marine Mesozoic-Paleozoic oil and gas resources, working out scientific drilling well location suggestions, etc., and giving full play to professional advantages to carry out overseas oil and gas geological surveys, making important discoveries, and driving the exploration investment of Chinese commercial oil companies.

(4) Survey and Evaluation of Geological Sequestration of Marine Carbon Dioxide: Global warming is a slow-onset natural disaster. Scientists believe that climate warming is mostly caused by a large amount of greenhouse gases such as carbon dioxide emitted by human beings using fossil fuels. Geological sequestration of carbon dioxide is one of the important means to reduce greenhouse gas content and alleviate greenhouse effect. Geological sequestration of carbon dioxide in sea area refers to the process of injecting captured carbon dioxide into the deep geological structure below the seabed to realize long-term isolation from the atmosphere. It is characterized by great sequestration potential, high safety and low environmental risk, and has attracted great attention from many governmental authorities, industrial circles and academia. With the survey and research on the potential and suitability of the geological sequestration of carbon dioxide in the sea area under the jurisdiction of China Geological Survey as an example, this Seminar introduces the establishment of the technical system of marine geological carbon sequestration investigation and evaluation, the research on geological conditions and control factors of the geological sequestration of carbon dioxide in the sea area, and answers the questions such as the potential of marine geological sequestration, suitable basins, distribution, key targets, as well as the construction progress of marine geological carbon sequestration demonstration projects in economically developed coastal areas such as Guangdong, Shandong and Zhejiang.

(5) Coastal Zone Protection Technology: Coastal zone, as an interactive, connecting and transitional zone between ocean and land, is rich in natural resources, frequent in human activities and fragile in ecological environment. Internationally, the research and practice of coastal ecological restoration has a long history. Since the 21st Century, with the continuous degradation of marine ecosystem and the multiple threats of climate change and frequent natural disasters, the protection and restoration of coastal ecological system has received more attention.

2. Presentation of the Seminar

(1) Challenges facing global marine geological survey;

(2) Challenges facing coastal zone environmental protection;

3. Visits and Investigations

(1) Visit the State Key Laboratory of Natural Gas Hydrate, Key Laboratory of Coastal Wetland

Ecological Geology, Coastal Zone and Continental Shelf Geological Research Center and the Field Observation and Research Station of Qingdao Institute of Marine Geology, China Geological Survey.

(2) Visit the ecological protection area of the Yellow River estuary delta.

4. About the Presenters

(1) Liang Jie: Ph.D., senior researcher of Qingdao Institute of Marine Geology, China Geological Survey, has been engaged in basic marine survey, survey and evaluation of oil and gas resources in sea areas for a long time. He has made many achievements and understandings in the fields of deep seismic investigation technology in eastern China, marine oil and gas geological conditions in superimposed basins, and oil and gas resources survey in key waters of Indian Ocean. He has won 3 provincial and ministerial scientific and technological achievement awards and published more than 30 scientific and technological papers. He is now the Deputy Secretary-General of Marine Resources Professional Committee of China Society of Natural Resources, a master tutor of Ocean University of China and an adjunct professor of Hohai University.

(2) Zhang Yong: Ph.D., and Senior Research Fellow of Qingdao Institute of Marine Geology, China Geological Survey. He has been engaged in marine basic geological survey and coastal zone research for a long time, and has presided over more than 10 marine geological survey projects of National Natural Science Foundation of China, and ecological evaluation of coastal economic belt of Qingdao Institute of Marine Geology, China Geological Survey. He took the lead in completing the integrated research of regional geological surveys at the scale of 1:1,000,000 in the sea areas under China's jurisdiction, and innovatively put forward the theoretical model of "multi-circle interaction of East Asian ocean-land convergence zone". His systematic, regular and theoretic achievements have greatly promoted the research on major basic scientific issues in the marginal seas of the western Pacific Ocean. Now he is an expert in marine basic geological survey engineering of China Geological Survey, an outstanding geological talent and an adjunct professor of Ocean University of China.

(3) Liao Jing: Ph.D., former senior researcher of Qingdao Institute of Marine Geology, China Geological Survey, has been engaged in the research on gas hydrate for a long time, and has carried out in-depth research on gas hydrate accumulation model in low-angle sub-duction area.

5. Data to be prepared by trainees

In order to facilitate discussion and exchange with Chinese experts, please prepare exchange information related to seminar topics in your country.