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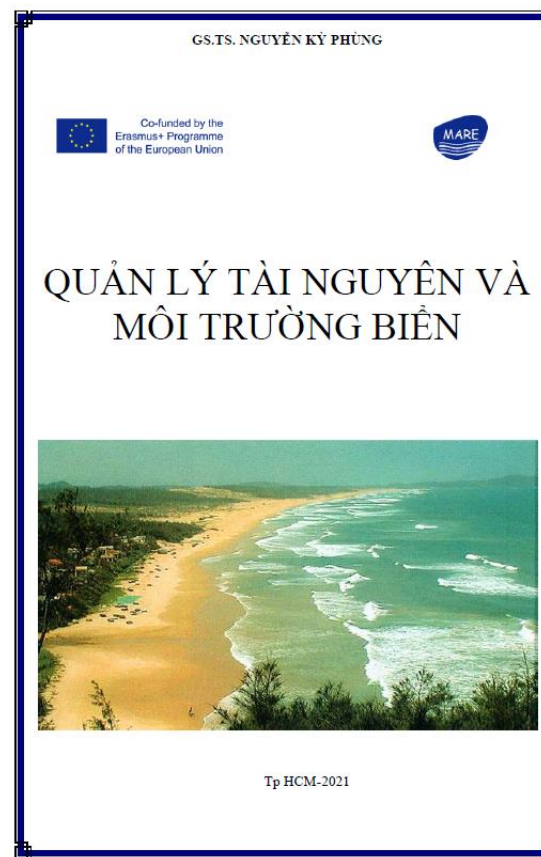
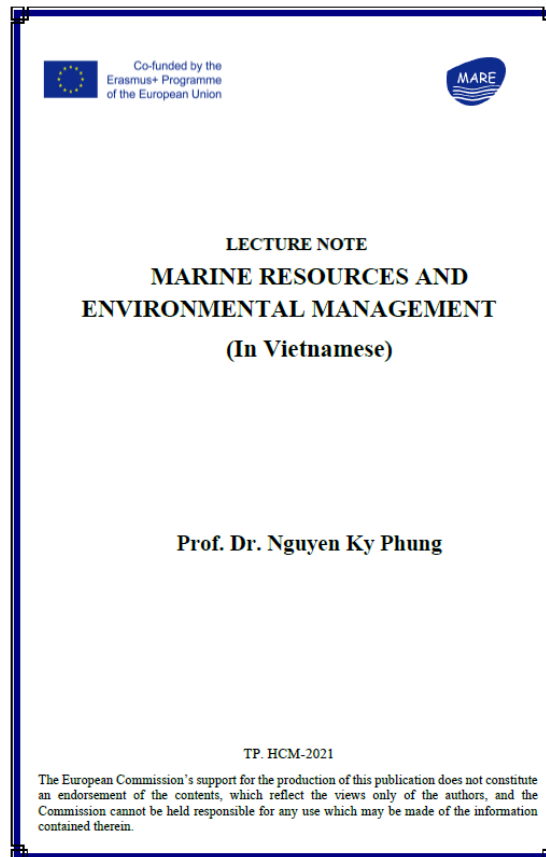


Innovative teaching and learning strategies in marine resources and environmental management for student
Project No. 610327-EPP-1-2019-1-DE-EPPKA2-CBHE-JP



Marine resources and environmental management (Text book)

Created by: Prof. Dr. Nguyen Ky Phung





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PREFACE

The marine environment is one of the important elements of the natural environment and it interacts with other factors such as air, land and coastal areas, rivers, lakes and bays. The sea plays an extremely important role in the biogeochemical cycle, creating elements for human life such as water, carbon, sulfur, phosphorus, oxygen and nitrogen. The sea acts as an oxygen supply machine for the atmosphere, it absorbs CO₂ emissions, is a constant and constant supply of fresh water. The sea is also a place to absorb and transform wastes produced during human activities. Every year, it is estimated that about 6.5 million tons of impurities are dumped into the sea. Without the sea, our planet would be flooded with garbage.

The modern development trend of the world has confirmed the great importance of the sea. When reaching the level of globalization and transitioning to the stage of knowledge-based economic development, the world economy is entering a new boom phase of development. The scarcity of raw materials and energy has become more acute than ever, leading to market competition, territorial disputes and frequent national conflicts. Meanwhile, the process of globalization itself and the transition to a knowledge economy create conditions for development thinking and technology to solve the problems posed. Reaching out to the sea, exploiting the ocean has become the world's strategic action slogan.

Human development is associated with the exploitation of natural resources. Along with the development of science and technology and the current population explosion are heavy pressures on natural resources and the environment. Resources become depleted, along with the degradation of environmental components. Like other environmental components, the hydrosphere, in particular the marine environment, is also in a state of degradation and pollution. Besides natural factors, human activities such as fishing, aquaculture, mining industry, shipping, tourism... are important factors that have been affecting the marine environment. Sea pollution directly affects the ecosystems and components of the sea, thereby affecting the socio-economic activities of people.



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In addition to the introduction, the textbook "Management of marine resources and environment" consists of 9 chapters with the following contents:

CHAPTER 1: SOME BASIC CONCEPTS ABOUT THE SEA AND OCEAN

CHAPTER 2: SEA RESOURCES

CHAPTER 3: NATURAL CHARACTERISTICS OF THE SEA ENVIRONMENT

CHAPTER 4: LAW OF THE SEA

The target audience are bachelor's level students, interested in marine resources and management.



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Biography of author

Professor Nguyen Ky Phung have been working as a Senior Lecturer – Faculty Leader of Faculty of Marine Resources Management, Ho Chi Minh City University of Natural Resources and Environment – HCMUNRE, Vietnam. Professor Nguyen Ky Phung completed his M.Sc. in Oceanography and then pursued a PhD in Oceanography at St. Petersburg Hydro-meteorological University, Russia in 1993, and he has held postdoctoral fellowships at the Russian state Hydro-meteorological Institute. For eight years, he was Vice Director of Department of Science and Technology – DOST, Ho Chi Minh City, Viet Nam and Director of Institute for Computational Science and Technology – ICST, Vietnam. He also was Board member of National Marine Science and Technology Program, Ministry of Science and Technology; Environmental Protection and Climate Change Program, Department of Science and Technology, HCMC, Vietnam; Water and Environment Association, HCMC, Vietnam and also served for 4 years on the Board of the Sub Institute of Hydro-meteorology and Environment of South Vietnam, Ministry of Resources and Environment; 8 years on the Board of Faculty of Environment, University of Science, VNU-HCM.

Professor Nguyen Ky Phung’s research interest is sustainable water resources management. His research focus on hydrodynamic in river estuary and sea; modelling sediment transportation in river and coastal area (waves, tides, distribution of salt); modelling and forecasting the distribution of pollution. He involves in a variety of national and international research and development projects, he was Project Coordinator of 49 research projects, author and co-author of 157 paper. He was also author of ten books: Characteristics of Hydro-meteorology in Ho Chi Minh City (2018); Coastal zone management in Southern Viet Nam (2016); Coastal resources and environmental management (2016); Environment statistics (2014); Hydro Meteorological Maps of Ho Chi Minh city (2014); Interaction of Land-Ocean in the South Viet Nam (2014); Climate Change and its Impacts on Ho Chi Minh City (2013); Calculation Methods in Environmental (2009); Ocean Resources and Environment, (2008); Modelling of surface water pollution (2007).