

ธรณีวิทยาสภาวะแวดล้อมของบริเวณแนวชายฝั่งทะเลด้านตะวันออก  
ของอ่าวไทยตอนบน



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ENVIRONMENTAL GEOLOGY OF AN AREA  
ALONG THE EASTERN COAST, UPPER GULF OF THAILAND

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หัวข้อวิทยานิพนธ์	ธรณีวิทยาสภาพแวดล้อมของบริเวณแนวชายฝั่งทะเลด้านตะวันออกของอ่าวไทยตอนบน
ชื่อนิสิต	นายสัญญา สราภิรมย์
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#### บทคัดย่อ

ด้วยปรากฏว่าบริเวณชายฝั่งทะเลภาคตะวันออกในเขตจังหวัดชลบุรีและระยองอยู่ในพื้นที่โครงการพัฒนาชายฝั่งทะเลภาคตะวันออกของประเทศไทย ซึ่งกำลังมีแนวโน้มว่าจะเป็นพื้นที่สำหรับรองรับการพัฒนาต่าง ๆ หลายโครงการ อาทิ โครงการพัฒนาสิ่งอำนวยความสะดวกพื้นฐาน โครงการอุตสาหกรรมการผลิตโซดาแอซ การผลิตปุ๋ยเคมี การผลิตเหล็กและเหล็กกล้า การแยกก๊าซธรรมชาติ อุตสาหกรรมเปโตรเคมี และการจัดตั้งนิคมอุตสาหกรรม ตลอดจนโครงการพัฒนาด้านอุตสาหกรรมการท่องเที่ยว ดังนั้นการศึกษาในครั้งนีจึงมีจุดมุ่งหมายที่จะจัดทำ วิเคราะห์ และประเมินผลสรุปข้อมูลทางด้านธรณีวิทยาสภาพแวดล้อมของบริเวณดังกล่าว สำหรับผู้กำหนดนโยบายและนักวางแผนที่เกี่ยวข้องจะได้เข้าใจสภาพพื้นที่อย่างแท้จริง และใช้ข้อมูลพื้นฐานตลอดจนผลวิเคราะห์สรุปนี้ สำหรับประกอบการพิจารณาเพื่อวางแผนและตัดสินใจในการใช้ที่ดินและทรัพยากรธรรมชาติได้อย่างถูกต้อง มีประสิทธิภาพ รวมทั้งธำรงรักษาสภาพแวดล้อมทางธรรมชาติไว้โดยเหมาะสม

ข้อมูลทางด้านธรณีวิทยาสภาพแวดล้อม ครอบคลุมถึงลักษณะภูมิประเทศ ความลาดชัน และสภาพการใช้ที่ดินในปัจจุบัน ลักษณะทางธรณีวิทยา สภาพทรัพยากรธรณีและวัสดุก่อสร้าง สภาพแหล่งสะสมของตะกอนผิวดิน สภาพอุทกวิทยาและอุทกธรณีวิทยา หรือสภาพแหล่งน้ำธรรมชาติทั้งน้ำผิวดินและน้ำบาดาล สภาพธรณีวิทยาทางทะเล ตลอดจนสถานที่พักผ่อนหย่อนใจหรือศักยภาพของแหล่งท่องเที่ยวในพื้นที่ นอกจากนี้ขอบเขตของการศึกษายังครอบคลุมถึงสภาพเศรษฐกิจและสังคมโดยสังเขปของจังหวัดชลบุรีและระยอง



วิธีการศึกษาวิจัยประกอบด้วย การศึกษารวบรวมข้อมูลพื้นฐานของบริเวณดังกล่าวจากรายงานการศึกษาที่เคยปรากฏมาก่อน และเก็บรวบรวมข้อมูลเพิ่มเติมจากการศึกษาในภาคสนาม และในห้องปฏิบัติการสำหรับส่วนที่ขาด การประเมินผลและการวิเคราะห์สภาพธรณีวิทยาสภาวะแวดล้อม รวมถึงการกำหนดพื้นที่ที่มีขีดจำกัดหรือที่ต้องระมัดระวังเป็นพิเศษต่อการพัฒนาที่จะเกิดขึ้น หลังจากนั้นได้ทำการวิเคราะห์และประเมินผลข้อมูลทั้งหมด พร้อมทั้งเสนอผลสรุปในรูปของการกำหนดพื้นที่เพื่อแสดงศักยภาพของการพัฒนาใน ๓ แนวทาง อันได้แก่ พื้นที่สำหรับพัฒนาเป็นที่อยู่อาศัยและการพาณิชย์ พื้นที่สำหรับการพัฒนาอุตสาหกรรมหนัก พื้นที่สำหรับการพัฒนาเกษตรกรรม นอกจากนี้ข้อมูลธรณีวิทยาสภาวะแวดล้อมที่ได้จากการศึกษารุ่นนี้ ยังสามารถอำนวยประโยชน์อย่างมากต่อการศึกษาและวิเคราะห์การพัฒนาเฉพาะแต่ละโครงการอีกด้วย .

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#### ABSTRACT

Parts of the coastal areas of Chon Buri and Rayong, or presently known as Thailand's Eastern Seaboard area in the sense of development planning, are the target areas for numerous development projects, namely, infrastructures, soda ash, fertilizers, sponge iron, steel, petroleum refinery and petrochemical industries, as well as the industrial estates. Therefore, the present investigation aims at presenting some environmental geological considerations for planners and decision makers to understand the area so that the efficient use of land and resources could be harmoniously achieved with minimum or no environmental impact.

The relevant parameters of the environment geological study cover almost all of the physical characteristics within the area, namely, physiographical and geological setting, mineral resources, surficial deposits, water resources, marine geological conditions including tourist and recreational resources. In addition, the socio-economic background of Chon Buri and Rayong provinces are reviewed for understanding the basic social environment of the area. The approach

to those parameters includes the following basic tasks : collection, compilation and review of existing information, maps and reports describing various features of the studied area as well as adjacent areas; conducting field investigations, surveys, samplings and laboratory analyses for additional required data to describe, identify and quantify the existing condition of environmental geology as well as the socio-economic background of the area; evaluating the environmental geological conditions of the area in terms of the development potential and limitation as related to the proposed development plan; and providing the recommendations for future development programmes on the basis of detailed investigation and evaluation of existing environmental and geological conditions.

Various aspects of environmental geology previously analyzed are integrated and synthesized in terms of the development potential for residential, heavy industrial, and agricultural purposes. In addition, tourist resorts and recreational values as well as other sensitive environmental resources and restricted areas have been carefully identified and located so that appropriate precautionary measures can be taken to avoid or minimize the environmental problems that might occur. It is also anticipated that the detailed data base on various aspects of environmental geology available from the present study should be beneficial for any other specific development planning purposes.

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## CONTENTS



	Page
ABSTRACT.....	iv
บทคัดย่อ.....	vi
ACKNOWLEDGEMENT.....	viii
CHAPTER I : INTRODUCTION.....	1
1.1 Fundamental Concepts of Environmental Geology.....	1
1.2 Objectives of the Present Investigation.....	5
1.3 Location of the Studied Area.....	6
1.4 Previous Investigation.....	6
CHAPTER II : SOCIO-ECONOMIC BACKGROUND AND FUTURE DEVELOPEMENT	
PROSPECTS OF THE STUDIED AREA .....	11
2.1 Population.....	11
2.2 Economics.....	14
2.2.1 Agricultures.....	17
2.2.2 Whole Sale and Retailled Trade.....	22
2.2.3 Industries.....	23
2.3 Social Conditions.....	29
2.3.1 Institutions.....	29
2.3.2 Educational and Health Services.....	30
2.3.3 Transportation and Communication.....	33
2.3.4 Electricity.....	35
2.3.5 Water Supply.....	36
2.3.6 Occupation and Life Style.....	37

	Page
2.4 Future Development Prospects.....	37
2.4.1 Infrastructure Projects.....	37
2.4.2 Industrial Proposed Projects.....	45
2.4.3 Tourism or Recreation Projects.....	47
2.4.4 Water Resources Proposed Projects.....	49
<b>CHAPTER III : METHODS OF STUDY .....</b>	<b>51</b>
3.1 General Investigation Methodology.....	51
3.2 Physiographical Studies.....	52
3.2.1 Climate .....	52
3.2.2 Drainage.....	53
3.2.3 Geomorphology and Landform.....	53
3.2.4 Land Use and Land Cover.....	54
3.3 Geological Investigation.....	54
3.4 Mineral Resources Investigation.....	55
3.5 Water Resources Evaluation.....	56
3.6 Marine Geology Study.....	56
3.7 Socio-Economic Background Study.....	57
3.8 Recreation and Aesthetic Resources Evaluation....	57
3.9 Terrain Evaluation Techniques.....	58
3.10 Study Programme.....	59
<b>CHAPTER IV : ENVIRONMENTAL GEOLOGY.....</b>	<b>60</b>
4.1 Physiographic setting.....	60
4.1.1 Climatology.....	60
4.1.2 Drainage of the Studied Area.....	63
4.1.3 Geomorphology.....	68

	Page
4.1.4 Slope .....	73
4.1.5 Existing Land Use and Land Cover Within the Studied Area .....	78
4.2 Geological Setting of the Studied Area .....	84
4.2.1 Precambrian (?) Basement Complex .....	88
4.2.2 Paleozoic Sedimentary Rocks and Their Metamorphic Equivalents .....	90
4.2.3 Quaternary Deposits .....	92
4.2.4 Triassic Granites .....	93
4.3 Mineral Resources .....	95
4.3.1 Previous Investigation .....	95
4.3.2 Metallic Minerals .....	96
4.3.3 Nonmetallic Minerals .....	110
4.3.4 Construction Materials .....	134
4.3.5 Fossil Fuels .....	144
4.4 Surficial Deposits .....	153
4.4.1 Beach and Dune Deposits .....	154
4.4.2 Estuarine and Tidal Flat Deposits .....	155
4.4.3 Old Tidal Flat and Marsh Deposits .....	158
4.4.4 Floodplain and Channel Deposits .....	159
4.4.5 Alluvial Fan/Terrace and Valley Fill Deposit.....	161
4.4.6 Residual/Landslide and Talus Deposits (Sediments and Metasediments as Parent Materials).....	163



4.4.7	Residual/Landslide and Talus Deposits (Quartz (Mica) Schist and Quartzite as Parent Materials).....	166
4.4.8	Residual/Landslide and Talus Deposits (Granitic and Gneissic Rocks as Parent Materials).....	166
4.5	Water Resources .....	170
4.5.1	Surface Water.....	170
4.5.2	Groundwater.....	175
4.5.3	Water Resources Development.....	182
4.6	Marine Geology.....	185
4.6.1	The Coastline of the Studied Area.....	185
4.6.2	Bathymetry.....	189
4.6.3	Temperature and Salinity.....	193
4.6.4	Tides and Currents.....	194
4.6.5	Winds and Waves.....	205
4.6.6	Bottom Sediments and Sediment Transportation.....	209
4.6.7	Marine Geochemistry and Pollution Problems	217
4.7	Recreations .....	228
CHAPTER V : CONCLUSION.....		232
REFERENCES .....		246
BIODATA .....		259

## LIST OF TABLES

		Page
Table 2.1	Population of Easternpart of Thailand.....	12
Table 2.2.1.1	Crops Productivity of Eastern Part of Thailand, Chon Buri and Rayong Between 1973-1976.....	19
Table 2.2.1.2	Quantity of Marine and Fresh Water Animals Fishing in the Area from the Year 1968-1976.....	20
Table 2.2.1.3	Livestocks of Chon Buri and Rayong (1976).....	21
Table 2.2.1.4	Forest Reserved and Actual Forest Area of Easternpart of Thailand.....	23
Table 2.2.3.2	Mineral Productions in Chon Buri and Rayong During the Year 1969-1980.....	25
Table 2.2.3.3	Number of Tourists with Various Nationalities Visiting to Pattaya in Year 1973-1975.....	28
Table 2.3.2.1	Number of Schools and University, Students, Teachers and Instructors of Chon Buri and Rayong...	31
Table 2.3.2.2	Number of Hospitals and Health Service Centers of Chon Buri and Rayong in Year 1978.....	32
Table 2.3.6	Number of Monasteries, Priests and Novices of Chon Buri and Rayong.....	38
Table 4.1.1	Climate in Chon Buri and Rayong.....	64
Table 4.1.4	Critical Slope Categories.....	75
Table 4.1.5	Land-Use and Land-Cover Classification System Within the Studied Area.....	79

	Page
Table 4.3.2.1	Iron Deposits Within the Studied Area and Relevant Neighbouring Areas ..... 98
Table 4.3.2.2	Antimony Deposits Within the Neighbouring Areas.... 102
Table 4.3.2.3	Copper Deposits Within the Neighbouring Areas..... 103
Table 4.3.2.4	Gold Deposits Within the Studied Area and Neighbouring Area..... 105
Table 4.3.2.5	Manganese Deposits Within the Studied Area and Neighbouring Area..... 106
Table 4.3.2.6	Molybdenum Deposits Within the Neighbouring Area... 108
Table 4.3.2.7	Tin and Heavy Mineral Deposits at Rayong Bay..... 109
Table 4.3.3.1	Characteristics of Clay Deposits Within the Studied Area and the Adjacent Area..... 112
Table 4.3.3.2	Gem Deposits Within the Neighbouring Area..... 115
Table 4.3.3.3	Silica Sand Deposits Within the Neighbouring Area.. 117
Table 4.3.3.4	Dickite Deposits Within the Neighbouring Area..... 119
Table 4.3.3.4-a	Chemical Composition of Dickite at Khao Cha Ngok Deposit..... 120
Table 4.3.3.7	Drilling Log Information of Potash and Rock Salt Deposits at Bamnet Narong and Non Sung Districts... 125
Table 4.3.3.8-a	Chemical Composition of Marls in Saraburi and Lopburi..... 128
Table 4.3.3.8-b	Schematic Chart Showing the Nomenclature of Carbonate Rocks Defined to Fit Industrial Use Categories ..... 129

Table 4.3.3.8-c	Chemical Composition of Carbonate Rocks at Ko Sichang, Khao Chi Chan and Khao Chi On, Sattahip, Chon Buri.....	132
Table 4.3.3.8-d	Chemical Composition of Carbonate Rocks Within Khao Khad Formation.....	133
Table 4.3.4.2	Gradation of Sand and Gravel Deposits within the Studied Area.....	141
Table 4.3.4.3-a	Identification of Laterite, Lateritic Soil and Nonlateritic Materials.....	139
Table 4.3.4.3-b	Engineering properties of Laterite and Lateritic Soil, Tested by Vallentine, Laurine & Davies R.O.P. ....	145
Table 4.3.4.3-c	Engineering properties of Some Laterite Deposits, Tested by Chachoengsao Highway Engineering Division, Highway Department.....	146
Table 4.3.5.1	Generalized Stratigraphic Section of the Gulf of Thailand.....	149
Table 4.3.5.2	The Company Receiving Exploration Concessions and Natural Gas Reserves in the Gulf of Thailand.....	151
Table 4.4.1	Soil Properties of Beach and Dune Deposits.....	156
Table 4.4.2	Soil Properties of Estuarine and Tidal Flat Deposits.....	157
Table 4.4.3	Soil Properties of Old Tidal Flat and Old Marsh Deposits.....	160
Table 4.4.4	Soil Properties of Floodplain and Channel Deposits	162



Table 4.4.5	Soil Properties of Alluvial Fan/Terrace and Valley Fill Deposits.....	164
Table 4.4.6	Soil Properties of Residual/Landslide and Talus Deposits (Sediments and Metasediments as Parent Materials).....	165
Table 4.4.7	Soil Properties of Residual/Landslide and Talus Deposits (Quartz (Mica) Schist and Quartzite as Parent Materials).....	167
Table 4.4.8	Soil Properties of Residual/Landslide and Talus Deposits (Granitic and Gneissic Rocks as Parent Materials).....	169
Table 4.5.1	Quality of Surface Water Within Studied Area.....	174
Table 4.5.3	Characters of Existing, Planned and Potential Reservoirs Within the Studied Area.....	184
Table 4.6.4.1	Detailed Information of Tides at Ao Phai.....	203
Table 4.6.4.2	Characteristics of Tides at Ko Sichang.....	203
Table 4.6.4.3	Characteristics of Tides at Sattahip and Map Ta Phut.....	204
Table 4.6.7.1	The BOD Amount from Different Sources Drained into the Inner Gulf of Thailand and Rayong Coastal Zone.....	219
Table 4.6.7.2-a	Physio-Chemical Characteristics of Seawater in the Off-shore Zone Within Laem Chabang, Ko Sichang, Sattahip and Rayong; During 1977-1980.....	221

<b>Table 4.6.7.2-b</b>	<b>Physio-chemical Characteristics of the Seawater in the Near Shore Zone Within Eastern Coast, Upper Gulf of Thailand, During 1977-1980.....</b>	<b>226</b>
<b>Table 5.1</b>	<b>Weighted Capability Values of Environmental Factors for Residential Land-Use Potential.....</b>	<b>235</b>
<b>Table 5.2</b>	<b>Weighted Capability Values of Environmental Factors for Heavy Industrial Land-Use Potential....</b>	<b>239</b>
<b>Table 5.3</b>	<b>Weighted Capability Values of Environmental Factors for Agricultural Land-Use Potential.....</b>	<b>203</b>

## LIST OF FIGURES AND PLATES

	Page
Figure 1.3	Location of the Studied Area ..... 7
Figure 2.1.1	Historical Population (1960 -1977) of Easternpart of Thailand, Lower Easternpart, Chon Buri and Rayong ..... 13
Figure 2.1.2	Administrative boundaries of Changwat and Amphoe... 15
Figure 2.1.3	Population in Amphoe and King Amphoe in year 1979.. 16
Figure 2.2.3.2	Value of Crushed Rock Produced in Chon Buri, during 1976-1973 ..... 27
Figure 2.4.1.1	Transportation System ..... 40
Figure 2.4.1.3	Electrical Power System ..... 42
Figure 2.4.1.5	Reservoirs and Water Pipeline ..... 44
Figure 2.4.2.5	Petroleum Industry..... 48
Figure 4.1.1	Climate in Chon Buri and Sattahip..... 66
Figure 4.1.2	Drainage of the Studied Area..... 67
Figure 4.1.3	Geomorphologic Units Within the Studied Area..... 69
Plate 4.1.4	Slope Map
Plate 4.1.5	Existing Land-use and Land-cover Map
Plate 4.2	Geological Map
Plate 4.2.2	Tentative Lithological Columnar Sections of the Western Coast of the Studied Area
Plate 4.3	Mineral Resources Map
Figure 4.3.3.7-a	Location of Drill Hole, Bamnet Narong District.... 123
Figure 4.3.3.7-b	Location of Drill Hole, Non Sung District..... 124

Figure 4.3.4	Construction Materials.....	140
Figure 4.3.5.1	Generalized Stratigraphic Cross-section of the Gulf of Thailand.....	150
Figure 4.3.5.2	Petroleum Exploration Blocks and the Significant Structures in the Gulf of Thailand.....	152
Plate 4.4	Surficial Deposit Map	
Plate 4.5.1	Surface Water Map	
Figure 4.5.1	Average Monthly Runoff at Bang Phra, Khlong Yai, Nong Pla Lai and Dok Krai Basins.....	173
Plate 4.5.2	Hydrogeological Map of the Studied Area	
Figure 4.6.1.1	Types of Coast Within the Studied Area.....	187
Figure 4.6.2.1	The Head of the Gulf of Thailand.....	191
Figure 4.6.3.1	Temperature at the Sea Surface in Southwest Monsoon Season.....	195
Figure 4.6.3.2	Temperature at the Sea Surface in Northeast Monsoon Season .....	196
Figure 4.6.3.3	Salinity at the Sea Surface in Southwest Monsoon Season .....	197
Figure 4.6.3.4	Salinity at the Sea Surface in Northeast Monsoon Season.....	198
Figure 4.6.4.1	Current at Various Depths, During March and April (1979).....	199
Figure 4.6.4.2	Movement of Currents and Average Wind in the Inner Gulf of Thailand.....	201



	Page
Figure 4.6.4.3	Different Kinds of Tides Occuring in the Gulf of Thailand ..... 202
Figure 4.6.5.1	Wind Roses in Chon Buri and Sattahip ..... 206
Figure 4.6.6.1	Origin of Sediments in the Gulf of Thailand..... 210
Figure 4.6.6.2	Median Diameter of the Sediments in the Gulf of Thailand..... 211
Figure 4.6.6.3	General Sediment Chart of the Gulf of Thailand... 213
Figure 4.6.6.4	Water Movement in the Gulf of Thailand Inferred from Sediments..... 214
Figure 4.7.1	Recreational Facilities..... 229
Plate 5.1	Map of Land-Capability Ratings for Residential Development.
Plate 5.2	Map of Land-Capability Ratings for Heavy Industrial Development
Plate 5.3	Map of Land-Capability Ratings for Agricultural Development