

SUSTAINABLE BEACH RESORT DEVELOPMENT:

A DECISION FRAMEWORK FOR COASTAL RESORT DEVELOPMENT
IN EGYPT AND THE UNITED STATES

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(ABSTRACT)

In recent decades, coastal tourism has grown significantly bringing enormous economic benefits to host communities, and causing many environmental and social impacts to the coastal environment. Beach resort development faces problems due to an inability on the part of stakeholders to make sound decisions about sustainable design due, in part, to the complexity of the sustainability issues and the lack of a comprehensive decision-making tool to assist them. In Egypt, design and planning regulations have not changed for decades, resulting in non-sustainable beach resort development. This study provides a “decision framework,” a conceptual “Sustainable Design Model”, which shifts the focus of stakeholders from the application of traditional physical carrying capacity procedures to a comprehensive approach linking sustainability indicators and carrying capacities. This approach includes an array of acceptable capacities based on the ecological, social, psychological, physical, economic, and managerial capacity thresholds of a site. This framework assists stakeholders in making rational decisions about what is to be built, where it is located, and how to build it. To test the model, a survey was conducted at 10 beach resort destinations (5 American, 5 Egyptian) to measure the difference in perceptions between stakeholders concerning sustainability indicators and carrying capacities. The instrument was determined valid and reliable using a test/retest procedure. A total of 276 responses were obtained for data analysis. Statistical analyses included frequency distribution, t-tests, analysis of variance (ANOVA), factor analysis, and a stepwise multiple regression analysis. Sample demographic information was also collected. Results revealed a strong link between sustainability indicators and carrying capacity thresholds. While both Egyptian and American respondents recognized the importance of sensitive environmental developments, there were significant differences due to differences in culture, environment, regulations, and priorities. The American sample placed greater importance on the ecological indicators, while the Egyptian sample placed greater importance on the social, psychological, and managerial indicators. The American sample conveyed a positive attitude toward government regulations,

design, and management efforts to incorporate sustainability principles into the built environment, while the Egyptian respondents conveyed a more negative attitude. As a result of this study, future Egyptian policy may be better informed of the gap between the theoretical concepts of sustainability and real world coastal development implementation.

"The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction."

Rachel Carson (1954)

"We are now engaged in an epic battle to right the balance of our earth; the tide of this battle will turn only when the majority of people become sufficiently aroused by a shared sense of urgent danger to join an all-out effort."

Al Gore, 1992

"The reality of our understanding comes from practicing and making things work."

Aly Ahmed (1998)

"The difficulty lies not in the new idea, but in escaping from the old ones."

John Maynard Keynes (1936)

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

Aldo Leopold (1966)

"All things ... have their own will, their own way, and their own purpose; this is what is to be respected."

Healer Rolling Thunder (1995)

DEDICATION

I dedicate my research to the spirit of my father,

My mother,

My future sons and daughters, and

All whom I love and care for,

in hope that they may

enjoy life in an environment free from pollution.

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Finally, I am very grateful to my mother, sisters, and my brother for their support. I thank all of them for always believing in me, and I dedicate this dissertation to the memory of my father.

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TABLE OF CONTENTS

CHAPTER ONE: OVERVIEW

1.0. INTRODUCTION	1
1.1. THE RESEARCH PROBLEM.....	3
1.2. RESEARCH GOALS AND OBJECTIVES	4
1.3. RESEARCH QUESTIONS	6
1.4. RESEARCH DESIGN.....	7
1.4.1. Research Steps.....	8
<i>Step 1: Conduct Literature Review and Synthesize Information</i>	<i>8</i>
<i>Step 2: Implement Modified Delphi Procedure</i>	<i>8</i>
<i>Step 3: Develop Stakeholder Survey Instruments</i>	<i>8</i>
<i>Step 4: Test Validity and Reliability of Instruments.....</i>	<i>9</i>
<i>Step 5: Selection of Sample Sites and Participants.....</i>	<i>9</i>
<i>Step 6: Survey Stakeholder Groups</i>	<i>9</i>
<i>Step 7: Conduct Field Studies.....</i>	<i>10</i>
<i>Step 8: Develop a Conceptual Sustainable Design Model</i>	<i>10</i>
<i>Step 9: Analyze Field Study and Survey Data</i>	<i>10</i>
<i>Step 10: Apply Findings to Stakeholders Groups</i>	<i>10</i>
1.5. STUDY PREMISES	11
1.6. RESEARCH ORGANIZATION.....	12

CHAPTER TWO: TOURISM DEVELOPMENT AND COASTAL ENVIRONMENT

2.0. INTRODUCTION	14
2.1. HISTORICAL TIME LINE OF TOURISM MOVEMENT.....	14
2.2. TOURISM DEFINITION	16
2.3. TOURISM SUPPLY AND DEMAND	17
2.4. TOURISM GROWTH AND DEVELOPMENT.....	19
2.4.1. A Global View.....	19
2.4.2. Tourism Growth in the U.S.	25
2.4.3. Tourism Growth in Egypt	27
2.5. TOURISM DEVELOPMENT IN COASTAL ZONES.....	30
2.6. TOURISM DEVELOPMENT OBSTACLES	31
2.7. THE ENVIRONMENT	32
2.8. COASTAL ZONE GROWTH AND DEVELOPMENT	33
2.8.1. Coastal Zones in Egypt	35
2.8.2. Coastal Zones in the U.S.	37
2.9. TOURISM IMPACTS ON COASTAL ZONE.....	38
2.10. BEACH RESORTS	38
2.10.1. A Global View	38
2.10.2. Coastal Recreation Planning Patterns	39
2.11. TOURISM MAJOR IMPACTS.....	41
2.11.1. Economic Impacts	41
2.11.2. Social Impacts	42
2.11.3. Cultural Impacts	44
2.11.4. Environmental Impacts	45
2.12. CHAPTER SUMMARY	48

CHAPTER THREE: SUSTAINABILITY AND CARRYING CAPACITY

3.0. INTRODUCTION	49
3.1. SUSTAINABILITY	49
3.1.1. Sustainability Approaches.....	50
3.1.2. Defining Sustainability	51
3.1.3. The Need for Sustainable Development	52
3.1.4. Sustainability Background	57
3.1.5. Sustainable Tourism	58
3.2. CARRYING CAPACITY.....	60
3.2.1. The Concept of Carrying Capacity.....	60
3.2.2. Dimensions of Carrying Capacity	61
3.2.3. Tourism Carrying Capacity.....	62
3.2.4. Need for Carrying Capacity Policy.....	63
3.2.5. Carrying Capacity: The Determining Factors	65
3.2.5.1. <i>Excessive rate of growth or change</i>	65
3.2.5.2. <i>Tangible resource limits</i>	65
3.2.5.3. <i>Tolerance by the host population</i>	66
3.2.5.4. <i>Satisfaction of visitors</i>	66
3.2.5.5. <i>Capacity based on the evaluation of costs and benefits</i>	66
3.2.5.6. <i>Capacity based on services and activities management</i>	66
3.2.6. Carrying Capacity: Application Tool in Developing Countries.....	66
3.3. APPROACHES TO SUSTAINABLE TOURISM DEVELOPMENT	67
3.3.1. The Environmental Approach to Sustainability	69
3.3.1.1. <i>The Ecotourism Option</i>	70
3.3.1.2. <i>Eco-Tourism as an Option for Developing Countries</i>	72
3.3.1.3. <i>Linking Ecotourism to Carrying Capacity</i>	73
3.3.2. The Economic Approach to Sustainable Tourism Development	74
3.3.2.1. <i>Product Lifecycle Concept (PLC)</i>	77
3.3.2.2. <i>The Applicability of the PLC in Tourism Development</i>	79
3.3.2.3. <i>Linking PLC Concept to Carrying Capacity Implication</i>	81
3.3.3. The Social Approach to Sustainability	87
3.3.3.1. <i>Tourists and Host Community Interaction</i>	88
3.3.3.2. <i>Local Population Heterogeneity</i>	89
3.3.3.3. <i>Host-Tourist Relationships</i>	89
3.3.3.4. <i>Social Impact of Tourism on Host Communities</i>	90
3.3.3.5. <i>Adjustment Models to Tourism and Tourists</i>	94
3.3.3.6. <i>Linking Social Impacts to Carrying Capacity</i>	101
3.4. CHAPTER SUMMARY.....	104

CHAPTER FOUR: RESEARCH METHODOLOGY

4.0. INTRODUCTION.....	106
4.1. THE RESEARCH DESIGN.....	106
4.1.1. Step 1: Conduct Literature Review and Synthesize Information.....	107
4.1.1. Step 1: Conduct Literature Review and Synthesize Information.....	108
4.1.2. Step 2: Implement Modified Delphi Procedure	108
4.1.3. Step 3: Develop Stakeholder Survey Instruments.....	111
4.1.3.1. <i>Survey Content</i>	111
4.1.3.2. <i>Questions distribution</i>	113
4.1.3.4. <i>The Web Survey</i>	114
4.1.3.3. <i>Reducing Error</i>	116
4.1.4. Step 4: Test Validity and Reliability of Instrument.....	116
4.1.4.1. <i>Validity</i>	116
4.1.4.2. <i>Reliability</i>	117
4.1.5. Step 5: Selection of Sample Sites and Participants	120
4.1.5.1. <i>Egyptian Coastal Destinations:</i>	120
4.1.5.2. <i>American Coastal Destinations</i>	124
4.1.5.3. <i>Identification of Participants (Stakeholders)</i>	128
4.1.6. Step 6: Conduct Stakeholder Surveys.....	128
4.1.7. Step 7: Conduct Field Studies	128
4.1.8. Step 8: Analyze Field Study and Survey Data	129
4.1.9. Step 9: Develop a Conceptual Sustainable Design Model.....	130
4.1.10. Step 10: Apply Findings to Stakeholder Groups.....	131
4.2. CHAPTER SUMMARY.....	131

CHAPTER FIVE: RESULTS OF THE STAKEHOLDERS SURVEYS

- 5.0. INTRODUCTION.....132**
- 5.1. SURVEY PARTICPANTS.....132**
 - 5.1.1. Visitors 133
 - 5.1.2. Designer 159
 - 5.1.3. Managers 168
- 5.2. MANAGERS PROFESSIONALS 169**
- 5.3. EFFECTIVENESS REGULATIONS AND LAWS170**
- 5.4. INDIVIDUALS AND GOVERNMENT OFFICIALS CONTRIBUTION.....174**
- 5.5. UNDERSTANDING SUSTAINABILITY IMPLICATIONS179**
- 5.6. SUMMARY OF THE SURVEY RESULTS AND FINDINGS180**
 - 5.6.1. Visitors Attributes and Concerns180
 - 5.6.2. Beach Resorts Seasonality 182
 - 5.6.3. Designers and Managers Attributes and Concerns.....182
 - 5.6.4. Management Significant Issues 186
 - 5.6.5. Examples of Sound Actions187
 - 5.6.6. Management Obstacles 188
 - 5.6.7. Management Examples for Sustainability..... 190
 - 5.6.8. Obstacles for Sustainability Incorporation..... 191
 - 5.6.9. Beach resorts activities 192
 - 5.6.10. Visitors’ Environmental Concerns 194
 - 5.6.11. Suggestions for Improvement 195
- 5.7. PHYSICAL PATTERN OF BEACH RESORT DEVELOPMENTS.....199**
- 5.8. RESORTS PHYSICAL DEVELOPMENT GRAPH207**

CHAPTER SIX: SUSTAINABLE DESIGN MODELING

6.0. INTRODUCTION	213
6.1. SUSTAINABLE DESIGN GOALS	214
6.2. SUSTAINABILITY MAIN GOALS	214
6.2.1. Economic Goals	214
6.2.2. Societal Goals	215
6.2.3. Environmental Goals	215
6.3. SUSTAINABLE DESIGN INDICATORS	215
GROUP (I): NATURAL ENVIRONMENT (NATURAL RESOURCES)	216
6.3.1. ECOLOGICAL/BIOPHYSICAL INDICATORS	216
Indicator (1): Air Quality	218
Indicator (2): Water Quality and Supply	218
Indicator (3): Soil Quality	219
Indicator (4): Energy	219
Indicator (5): Biodiversity and Ecological Integrity	220
Indicator (6): Terrestrial Wildlife Preservation	221
Indicator (7): Aquatic Wildlife	221
Indicator (8): Natural Vegetation	221
Indicator (9): Surrounding Nature of the Site	222
Indicator (10): Climate Characteristics of the Site	222
Indicator (11): Natural Floods, Streams and Drainage Ways	223
Indicator (12): Coastal Sand Dune Conservation and Management	224
GROUP (II): CULTURAL ENVIRONMENT (HUMAN RESOURCES)	224
6.3.2. SOCIAL/CULTURAL INDICATORS	224
Indicator (13): Historic and Archeological Resources	225
Indicator (14): Indigenous Cultural	225
Indicator (15): Local Customs and Traditions	226
Indicator (16): Local Social and Healthcare	227
6.3.3. PSYCHOLOGICAL INDICATORS	227
Indicator (17): Local Community Identity	227
Indicator (18): Safety and Security, Crime, Law Enforcement	228
Indicator (19): Local Customs and Beliefs	229
Indicator (20): Local Architecture, Styles, and Form	229
Indicator (21): Efficient Use of Resources	230

GROUP (III): BUILT ENVIRONMENT.....	230
6.3.4. PHYSICAL INDICATORS	230
<i>Indicator (22): Waste Management</i>	<i>231</i>
<i>Indicator (23): Reuse and Recycling Building Materials.....</i>	<i>231</i>
<i>Indicator (24): Traffic and Transportation</i>	<i>232</i>
<i>Indicator (25): Pollution Control.....</i>	<i>233</i>
<i>Indicator (26): Toxic Products and Toxic Wastes</i>	<i>234</i>
6.3.5. ECONOMIC INDICATORS	235
<i>Indicator (27): Self-Reliance on Local Resources</i>	<i>235</i>
<i>Indicator (28): Consumption Lifestyle</i>	<i>236</i>
<i>Indicator (29): Development Integration (agriculture, housing stock)</i>	<i>236</i>
<i>Indicator (30): Workforce and Employment, Combating Poverty.....</i>	<i>237</i>
6.3.6. GROUP 6: MANAGERIAL INDICATORS	237
<i>Indicator (31): Public Participation</i>	<i>237</i>
<i>Indicator (32): Beach Services Quality and Organization.....</i>	<i>238</i>
<i>Indicator (34) Facilities, Services, and Activities.....</i>	<i>239</i>
6.4. SUSTAINABLE DESIGN MODELING	240
PHYSICAL DEVELOPMENT	247
6.4.1. Planning Phase	247
6.4.2. Building Design Phase.....	248
6.4.3. Construction Phase	249
6.4.4. Landscape Phase.....	251
6.4.5. Managerial and Operation Phase.....	252
6.5. TOURISM CARRYING CAPACITY (CC).....	257
6.6. SUSTAINABLE DESIGN MODEL	263
6.7. ANALYSIS OF THE SUSTAINABLE DESIGN MODEL.....	267
6.7.1. Reliability Analysis of the Instrument	268
6.7.2. Factor Analysis	269
6.7.3. Detection for Multicollinearity.....	282
6.7.4. Adjusted Sustainable Carrying Capacity (SCC).....	284
6.8. CHAPTER SUMMARY.....	291

CHAPTER SEVEN.....	292
RESEARCH SUMMARY AND CONCLUSIONS	292
7.0. SUMMARY OF RESEARCH.....	292
7.1. CONCLUSIONS.....	293
7.2. RECOMMENDATIONS FOR STAKEHOLDER GROUPS	300
7.3. RECOMMENDATIONS FOR GOVERNMENTIAL AGENCIES	305
7.4. MODEL USE.....	308
7.5. RECOMMENDATIONS FOR FURTHER STUDY	309
7.6. SUMMARY	310
REFERENCES	311
APPENDICES:	
(A): DELPHI SURVEY FORM AND COVER LETTER	330
(B): SURVEY PROTOCOL	336
(C): DESIGNERS' QUESTIONNAIRE	338
(D): MANAGERS' QUESTIONNAIRE	343
(E): VISITORS' QUESTIONNAIRE	348
(F): EGYPT / UNITED STATES, THE FACTS	352
(G): STATISTICAL TABLES AND DIAGRAMS	356
(H): SUSTAINABILITY CRITERIA, EXAMPLES OF IMPLEMENTATION	
GUIDELINES	396
VITA	405

LIST OF TABLES

Table (2-1): Historical Timeline of Tourism Movement	14
Table (2-2): Economic Impacts of Tourism.....	42
Table (2-3): Social Impacts of Tourism.....	44
Table (2-4): Cultural Impacts of Tourism.....	45
Table (2-5): Environmental Impacts of Tourism.....	47
Table (3-1): Sustainable Development Movement Timeline.....	58
Table (3-2): Positive and Negative Social Impacts of Tourism.....	88
Table (4-1): Delphi Procedure Results.....	110
Table (4-2): Test and Retest Analysis of the Instrument	118
Table (5-1): Survey Participants	133
Table (5-2) Individuals & Government Official Groups Concerns about Resort Development .	179
Table (5-3): Factors Visitors Like Best about Beach Resorts.....	193
Table (6-1): Sustainable Design Modeling	243
Table (6-2): Sustainability Indicator Categories	246
Table (6-3): Cronbach's Alpha Coefficient of Reliability Test.....	269
Table (6-4): Factor Analysis for Independent Variables, U.S. Model.....	271
Table (6-5): Factor Analysis for the Independent Variables, Egypt Model	273
Table (6-6): Factor Analysis for the Independent Variables.....	274
Table (6-7): Independent Variables by Group	277
Table (6-8): Ecological Carrying Capacity Modeling	278
Table (6-9): Social Carrying Capacity Modeling	279
Table (6-10): Psychological Carrying Capacity Modeling.....	280
Table (6-11): Physical Carrying Capacity Modeling	281

Table (6-12): Economic Carrying Capacity Modeling	282
Table (6-13): Managerial Carrying Capacity Modeling	282
Table (6-14): The Sustainable Design Model: Included Independent Variables.....	287
Table (6-15): Variable Frequencies	289

LIST OF FIGURES

Figure (2-1): Leisure, Recreation, and Tourism Definition.....	16
Figure (2-2): Tourism Industry Components	18
Figure (2-3): Growth of International Tourism	20
Figure (2-4): Regional Tourist Arrivals	21
Figure (2-5): Tourism Arrivals and Receipts by Regions, 1997.....	22
Figure (2-6): Top 10 Countries in Tourism Arrivals and Receipts, 1997.....	23
Figure (2-7): Tourism Spending Flows through the Economy	24
Figure (2-8): Queen Hatshepsut Tours to the Lands of Punt	27
Figure (2-9) Tourism Development in Egypt 1986-1997	28
Figure (2-10): Expected Tourism Growth in Egypt.....	28
Figure (3-1): World Population Growth Since 10,000 B.C.	53
Figure (3-2): Earth Resource Levels of Production and Consumption.....	54
Figure (3-3): Economic, Social, & Environmental Approaches to Sustainability.....	68
Figure (3-4): Product Planning and the Development Process	78
Figure (3-5): The Evolutionary Pattern for Tourist Destination.....	79
Figure (3-6): Proposed Evolution Model for Tourist Beach Resorts.....	83
Figure [3-7]: Doxey's Index of Tourist Irritation.....	95
Figure (3-8): Irridex Model.....	96
Figure (3-9): Attitudes and Behavioral Responses to Tourists.....	97
Figure (3-10): Tourist-Resident Relationships: Theoretical Modeling of Social Capacity.....	103
Figure (4-1): Organization of the Study.....	107
Figure (4-2): Survey Question Grouping	114
Figure (4-3): Beach Resort Projects, Egypt	123

Figure (4-4) California Coastal Regions	126
Figure (4-5): Beach Resort Projects, United States	127
Figure (5-1): Visitors' Frequency of Visits to the Same Beach Resort	138
Figure (5-2): Visitors' Satisfaction with Their Stay at Beach Resort.....	139
Figure (5-3): Level of Visitors' Attraction to Beach Resort	140
Figure (5-4): Visitors' Beliefs about the Importance of Environmentally Sensitive Development	141
Figure (5-5): Visitors' Beliefs about whether Current Beach Resorts are Developed Sensitively.....	142
Figure (5-6): Affect of "Size and Quality of Beach" on Visitors' Selection of Beach Resort Destination.....	144
Figure (5-7): Affect of "Opportunity to Visit Historic Sites" on Visitors' Selection of Beach Resort Destination.....	145
Figure (5-8): Affect of "Existence of Swimming Pool" on Visitors' Selection of Beach Resort Destination.....	146
Figure (5-9): Affect of "Cost" on Visitors' Selection of Beach Resort Destination.....	147
Figure (5-10): Affect of "Size and Quality of Accommodation Units" on Visitors' Selection of Beach Resort Destination.....	148
Figure (5-11): Affect of "Pleasant Landscape" on Visitors' Selection of Beach Resort Destination.....	149
Figure (5-12): Affect of "Opportunity to Visit with Others" on Visitors' Selection of Beach Resort Destination.....	150
Figure (5-13): Affect of "Visitors' Opportunity to View Wildlife and Nature" on Visitors' Selection of Beach Resort Destination	151
Figure (5-14): Affect of "Character of the Surrounding Area" on Visitors' Selection of Beach Resort Destination.....	152
Figure (5-15): Affect of "Opportunity for Privacy" on Visitors' Selection of Beach Resort Destination.....	153
Figure (5-16): Affect of "Quality of Local Shops and Restaurants" on Visitors' Selection of Beach Resort Destination.....	154

Figure (5-17): Affect of "Opportunity for Diving" on Visitors' Selection of Beach Resort Destination.....	155
Figure (5-18): Affect of "Opportunity for Swimming in the Ocean" on Visitors' Selection of Beach Resort Destination.....	156
Figure (5-19): Affect of "Character of Architecture" on Visitors' Selection of Beach Resort Destination.....	157
Figure (5-20): Affect of "Opportunity for Relaxation and Reflection" on Visitors' Selection of Beach Resort Destination.....	158
Figure (5-21): The National Application of Environmentally Sensitive Developments	163
Figure (5-22): The Significance of Sustainability Implementation in Solving Environmental Problems	164
Figure (5-23): The Current Design and Management of Beach Resorts Responses to Sensitivity of the Environment	165
Figure (5-24): Familiarity and Incorporation of Sustainability Design Principles and Management of Resorts	166
Figure (5-25): Effectiveness of Laws and Regulations in Protecting the “Natural Environment”	170
Figure (5-26): Effectiveness of Laws and Regulations in Protecting the “Cultural Environment”	171
Figure (5-27): Restriction of laws and Regulation on Designers/Managers’ Ability to Develop Successful Resorts (by coastal zones).....	172
Figure (5-28): Restriction of Laws and Regulations on Designers/Managers’ Ability to Develop Successful Resorts (by participant category)	173
Figure (5-29): The Mean Values of Perceptions of US and Egyptian Respondents - Role of Eight Stakeholders.....	178
Figure (5-30): Examples of Current Patterns of Beach Resort Design and Planning in Egypt ...	206
Figure (5-31): Total Beach Resort Built Area / Resort Physical Development.....	208
Figure (5-32): Ratio of Built Area to Total Site Area / Resort Physical Development	209
Figure (5-33): Land Area Designated Per Person / Resort Physical Development	210
Figure (5-34): Landscape Area Designated Per Person / Resort Physical Development	211
Figure (5-35): Shoreline Length Designated Per Person / Resort Physical Development	212

Figure (6-1): Natural Resources and Energy Cycle	217
Figure (6-2): Sustainable Design Model: Questioning	241
Figure (6-3): Indicator Categorization	245
Figure (6-4): The Concept of Sustainable Carrying Capacity	258
Figure (6-5): The Framework for the Sustainable Design Model.....	264
Figure (6-6): Building Design Responding to Environmental Considerations	266
Figure (6-7): Carrying Capacity Thresholds and Sustainability Indicators	285

PREFACE

Several years ago, I became concerned with the big boom of tourism development for recreation along the Egyptian coastal zones, and the quality of design, planning, construction, and operation of beach resorts. I witnessed shoddy developments destroying natural beauty and demolishing resources, an aggressive attitude of disregard toward nature; a general lack of public awareness concerning the value of our natural resources, degradation of natural and virgin coastal environmental qualities; loss of natural beauty where new tourism developments were being constructed; and careless pollution of air, water, and land. Moreover, the results were an over crowded development pattern that taxed the limits of the carrying capacity of the coastal environment. I felt a deep sorrow for the rapid degradation that was taking place in some developed parts of the Egyptian coastal zones that could be extended to other areas. I believe natural places should serve as sources of enjoyment and wonderment to human beings, and that they deserve respect and reverence. With the rapid growth of these careless developments nature can't sustain itself indefinitely. This research addresses a number of issues that have been on my mind for many years since I was participating in the design, planning, and construction of some beach resort projects in Egypt. I hope, with the implementation of sustainability principles and carrying capacity control, we are able to enhance the protection of these natural places.