



Environmental Protection and Management



Vivian Baldwin

TABLE OF CONTENTS

| | |
|--|------------|
| Preface | VII |
| Chapter 1 Introduction | 1 |
| • Environmental Protection | 1 |
| • Environmental Management | 4 |
| • Conservation of Biodiversity | 12 |
| • Sustainable Land Management | 16 |
| • Watershed Management | 22 |
| • Environmental Monitoring | 30 |
| • Globalization and its Impact on the Environment | 33 |
| • Environmental Engineering | 35 |
| • Environmental Technology | 38 |
| Chapter 2 Key Concepts in Environmental Protection and Management | 40 |
| • Tragedy of the Commons | 40 |
| • Environmental Issue | 41 |
| • Environmental Psychology | 49 |
| • Corporate Environmental Responsibility | 57 |
| • Sustainability and Environmental Management | 61 |
| • Ecosystem Services | 66 |
| • Habitat Conservation | 81 |
| • Secondary Spill Containment | 83 |
| • Life-cycle Assessment | 84 |
| • Waste Minimisation | 96 |
| • Environmental Management System | 101 |
| Chapter 3 Natural Resource Management | 106 |
| • Environmental Resource Management | 110 |
| • Wildlife Management | 117 |
| • Sustainable Forest Management | 122 |

| | |
|---|------------|
| • Planetary Management | 129 |
| • Natural Resource Economics | 130 |
| • Integrated Landscape Management | 138 |
| • Natural Farming | 144 |
| • Ecosystem-based Management | 149 |
| • GIS and Natural Resource Management | 164 |
| • Ways to Conserve Natural Resources | 168 |
| Chapter 4 Water and Soil Conservation | 173 |
| • Water Conservation | 173 |
| • Water Resource Management | 177 |
| • Rainwater Harvesting System | 181 |
| • Integrated Catchment Management | 183 |
| • Keyline Design | 184 |
| • Soil Conservation | 187 |
| Chapter 5 Environmental Pollution Management | 192 |
| • Pollution Control | 192 |
| • Air Pollution Control | 193 |
| • Sewage Treatment | 201 |
| • Industrial Wastewater Treatment | 216 |
| • Noise Pollution Control | 228 |

Permissions

Index

Environmental Protection and Management

The environment is degraded due to various reasons such as population growth, pollution, overconsumption, etc. The practices aimed at conserving and reducing these risks within the environment fall under environmental protection. Environmental management is a dynamic concept which is concerned with the management of environment using different tools and techniques such as environmental accounting, policy, auditing etc. Some of the goals of environmental protection are ensuring sustainable use of resources, conserving biological diversity, controlling land degradation, etc. The primary approaches to environmental protection and management are voluntary and international environmental agreements, and ecosystems approach. This book elucidates new techniques and their applications in a multidisciplinary approach. The topics included herein are of utmost significance and bound to provide incredible insights to readers. For all those who are interested in environmental protection and management, this textbook can prove to be an essential guide.

Vivian Baldwin attained his MSc in Environmental Protection and Management from The University of Edinburgh, United Kingdom. He has wide-ranging areas of academic interests, which include green engineering, water conservation, and impacts of pollution and its mitigation techniques. Baldwin has authored and edited a number of academic periodicals, journal papers, articles and books in the field of environmental protection and management. He has been an eminent speaker in seminars across Europe, United States, Canada and Middle Asia.

