

# Contents

|                       |     |
|-----------------------|-----|
| Preface .....         | v   |
| Acknowledgments ..... | vii |

## UNIT I

### Understanding How Hazards Turn into Disasters

|          |                                                    |    |
|----------|----------------------------------------------------|----|
| LESSON 1 | Basic Concept of Hazard .....                      | 5  |
| LESSON 2 | Vulnerability and Exposure .....                   | 21 |
| LESSON 3 | Basic Concepts of Disaster and Disaster Risk ..... | 39 |

## UNIT II

### Understanding and Mitigating Natural Disasters

|          |                                    |     |
|----------|------------------------------------|-----|
| LESSON 4 | Potential Earthquake Hazards ..... | 66  |
| LESSON 5 | Volcano Hazards .....              | 97  |
| LESSON 6 | Geological Hazards .....           | 133 |
| LESSON 7 | Hydrometeorological Hazards .....  | 157 |
| LESSON 8 | Fire Hazards .....                 | 197 |

## UNIT III

### Managing Disasters: Concepts, Policies, and Programs

|                  |                                                                            |     |
|------------------|----------------------------------------------------------------------------|-----|
| LESSON 9         | Key Concepts, Principles, and Elements of<br>Disaster Risk Reduction ..... | 228 |
| LESSON 10        | Community-Based Disaster Risk Management .....                             | 243 |
| LESSON 11        | Disaster Risk Reduction Laws and Policies .....                            | 265 |
| References ..... |                                                                            | 294 |
| Appendix .....   |                                                                            | 308 |