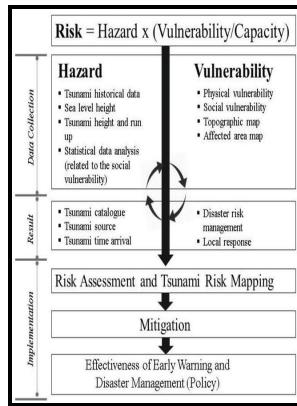


Natural disasters and their mitigation - a remote sensing and GIS perspective.

Indian Institute of Remote Sensing, National Remote Sensing Agency, Dept. of Space, Govt. of India - Role of Remote Sensing and GIS in Cyclone



Description: Contributed papers presented at a workshop organized by Indian Institute of Remote Sensing at Dehra Dun, India, Oct. 1999.

- Governors -- Puerto Rico -- Biography.

Muñoz Marín, Luis, 1898-

Labor unions -- Law and legislation -- Turkey.

Constitutional law -- Denmark.

Administrative procedure -- Denmark.

Geographic information systems -- Congresses.

Remote sensing -- Congresses.

Emergency management -- Planning -- Congresses.

Natural disasters -- Congresses. Natural disasters and their mitigation

- a remote sensing and GIS perspective.

-Natural disasters and their mitigation - a remote sensing and GIS perspective.

Notes: Includes bibliographical references.

This edition was published in 2000



Filesize: 59.92 MB

Tags: #Geoscience, #Remote #Sensing #and #GIS: #Geographic #Information #Systems #(GIS) #for #Disaster #Management

Remote Sensing for Disaster Response: A Rapid, Image

The Marshall Institute - Science for Better Public Policy. Rather, it is a book of ideas and examples that will show you what GIS is capable of doing for disaster management.

Role of GIS in Disaster Management

Due to the varying coastal bathymetry of the Indian coast, the severity of the storm surge created by the cyclones varies from place to place for the same intensity of the cyclone. With changing times, mitigation and main streaming of disaster risk reduction has become a crucial activity requiring government intervention.

Role of Remote Sensing and GIS in Cyclone

However, now in a decade of its existence, the division has built expertise in different aspect of geology and is involved in intense research and development activities in the region. Without the Coriolis force, the low pressure of the disturbance cannot be maintained.

Remote Sensing and GIS

Since the area is falling under high potential of landslide prone region, susceptibility map was generated and used during the process of vertical alignment in addition to the pre-defined criteria 20:1 provided by the user. Furthermore, although the adoption of GIS into disaster management practice continues, there is still much more that can be done with integrating GIS and disaster management. Data resources are crucial to early forecasting of cyclones.

Remote Sensing for Disaster Response: A Rapid, Image

TCWCs for the same cyclone. Jörg Szarzynski 139 Chapter Summary 144 Discussion Questions and Activities 145 Resources Notes 146 References 147 5 Geographic Information Systems and Disaster Planning and Preparedness 151 Chapter Objectives 151 Introduction 151 Technology and Dataset Planning and Preparation 153 Essential Disaster Management Map Layers 153 Additional Sources of Ideas for Essential Disaster Management Map Layers 153 Department of Homeland Security Geospatial Data Model 161 Technology Planning and Preparation 161 Organizational Perspectives 161 Using GIS to Support Planning and Preparation Activities 163 Spatial Perspectives on Broader Planning and Preparation Activities 163 Common GIS Tasks for Disaster Planning and Preparation Activities 164 Evacuation Route Planning 164 Evacuation Zone Planning 166 Scenario Modeling to Answer What-If Questions 170 Public Outreach and Citizen Participation 171 GIS and Disaster Management Planning: A United Nations Perspective 175 Interview with Lóránt Czárán 175 Summary 182 Discussion Questions and Activities 183 Resources Notes 184 References 184 6 Geographic Information Systems and Disaster Response 187 Chapter Objectives 187 Introduction 187 Disaster Response Policy in the United States 189 Geographical Aspects of Situation Awareness 192 Maps and Emergency Operation Centers 193 GIS and Disaster Warnings 194 Spatial Data Deluge 194 Thematic Maps 195 Spatial Statistics 195 Hot Spot Mapping 195 Density Mapping 199 Real-Time GIS 200 Disaster Response GIS Products 201 Online Disaster Response Geographic Data Streams 203 GIS and Damage Assessment 203 Field Data Collection and Mobile GIS 204 Public and Disaster Response Mapping—Crisis Mapping and Citizen Reporting 208 Chapter Summary 208 Discussion Questions and Activities 210 Resources Notes 211 References 211 7 Geographic Information Systems and Disaster Recovery 213 Chapter Objectives 213 Introduction 213 Geographical Aspects of Disaster Recovery 214 Using GIS to Support Disaster Recovery Tasks 215 Geocollaboration 215 Restoring Critical Infrastructure 218 Debris Cleanup 220 Recovery Planning 221 Transition from Recovery to Mitigation 223 Interview with David Alexander: US Federal Government Geospatial Technology Leader and Expert 225 Chapter Summary 230 Discussion Questions and Activities 230 Resources Notes 231 References 231 8 Geographic Information Systems and Disaster Mitigation 233 Chapter Objectives 233 Introduction 233 Vulnerability 234 Resilience 235 Disaster Mitigation Policy and International Perspectives on GIS 236 The United States National Mitigation Framework 236 International Perspectives on Disaster Mitigation: UNISDR 237 GIS Techniques for Disaster Mitigation 237 Spatial Indexing and Modeling of Risk and Vulnerability 238 Social Variables 238 Physical Variables 239 Using GIS to Develop Spatial Indexes of Vulnerability and Risk 240 Chapter Summary 244 Discussion Questions and Activities 247 Resources Notes 248 References 249 9 Special Topics: The Future of GIS for Disaster Management, Developing a GIS for Disaster Management Career, and Keeping Up with Current Trends 251 Chapter Objectives 251 Introduction 251 Special Topics 252 Visual Analytics 252 Big Data and Disaster Management 253 Serious Games for GIS and Disaster Management 254 Geographic Information Science and Disaster Management 256 The Future of GIS for Disaster Management 256 Interviews 256 Jen Zimeke, PhD, Crisis Mappers Chapter 1, Specialty: Crisis Mapping 256 Anthony Robinson, PhD, Penn State Chapter 2, Specialty: Cartography 260 Alan Leidner, Booz Allen Hamilton Chapter 4, Specialty: Private-Sector GIS 261 Antje Hecheltjen, UN-SPIDER Chapter 4, Specialty: Remote Sensing 265 Michael Judex, PhD, German Federal Office of Civil Protection and Disaster Assistance Chapter 4, Specialty: Federal Government GIS Germany 265 Scott McCarty, Monroe County GIS Chapter 4, Specialty: County Government GIS United States 266 Lóránt Czárán, United Nations Cartographic Section and Office for Outer Space Affairs Chapter 5, Specialty: Remote Sensing International GIS Organization, United Nation 267 David Alexander, US Federal Government Chapter 7, Specialty: Federal Government GIS United States 269 Research Agenda 270 Developing a GIS for Disaster Management Career 272 Interviews 272 Alan Leidner Chapter 4 272 Antje Hecheltjen Chapter 4 273 Michael Judex, PhD Chapter 4 274 Scott McCarty Chapter 4 275 Jörg Szarzynski, PhD Chapter 4 275 Lóránt Czárán Chapter 5 276 David Alexander Chapter 7 278 GIS for Disaster Management Career Summary Points 278 Staying Current in the GIS for Disaster Management Field 279 Organizations 279 Conferences 279 Journals and Magazines 279.

Geoscience, Remote Sensing and GIS: Geographic Information Systems (GIS) for Disaster Management

Damage Assessment During cyclone, Remote sensing data provide timely and detailed information that are required by the authorities to locate and identify the affected areas and to implement corresponding damage mitigation.

Related Books

- [Major opinions and other writings.](#)
- [On the real-time aspects of embedded expert systems.](#)
- [Protective labor legislation and its administration in Tennessee](#)
- [Trafalgar - over 50 first-hand accounts of the greatest sea battle in history](#)
- [Automatic and remote control - proceedings](#)