

Subject index

Page references to UN agencies and international, regional, national and specialized organisations are not listed in this index. Instead, they appear in annex 2 (international, regional, national and specialized organisations) and annex 3 (UN agencies).

- A**
- adaptation
 - see climate, change
 - afforestation /reforestation 19, 28, 181, 182, 279, 300, 301, 306, 394
 - Afghanistan 51, 307, (annex 3, 83)
 - Africa 31, 98, 149, 200, 349
 - Agenda 21: 139, 301, 302, 309, (annex 4, 97, 102, 106)
 - agriculture (and farming) 14, 19, 26, 31, 51, 55, 58, 62, 83, 95, 106, 123, 146, 150, 166, 278, 305, 311, 351, 376, 391, 395
 - Agricultural Markets Information System 228
 - see United States
 - Honduran National Network for the Promotion of Ecological Agriculture (ANAFAE) 278
 - see Honduras
 - IGAD's agricultural production systems 152
 - Risk Management Program in the Agricultural Planning Secretariat 92
 - see Costa Rica
 - AIDS
 - see health: HIV/AIDS
 - Alafua declaration 164
 - see declarations
 - Albania 167, 174, 246, (annex 3, 83)
 - Algeria 5, 8, 98, 106, 120, 167, 168, 325, 337, (annex 3, 83)
 - see earthquakes
 - see floods
 - Alpine convention 302
 - see conventions
 - see mountains
 - American Samoa 165
 - America 91, 144
 - Angola 153
 - Antigua 370
 - Argentina 242, 247, 259, 261, 340, 352, (annex 3, 74)
 - Trabajar II Programme 352
 - Armenia 8, 169, 217, 277, 287
 - Asia 30, 82, 134, 158, 204, 249, 274, 348
 - Australia 5, 8, 22, 51, 68, 75, 160, 163, 164, 210, 240, 243, 258, 272, 273, 274, 284, 308, 312, 314, 315, 360, 368, 374
 - Australian Disaster Management Information Network (ADMIN) 210
 - see networks
 - AGSO Cities Project 68
 - see cities
 - AusDin 210
 - Australian Emergency Management Manual series 210
 - Community Risk in Cairns 68
 - see community action
 - Country Fire Authority 368
 - Disaster Loss Assessment Guidelines 72
 - 1992: National Drought Policy 51
 - see drought
 - Austria 3, 49, 173, 244, 258, 268, 351
 - avalanches 24, 39, 53, 65, 67, 110, 119, 172, 180, 181, 243, 262, 263, 269, 301, 315, 316,
 - Azerbaijan 168, 207
- B**
- Bangladesh 2, 6, 8, 46, 82, 88, 135, 160, 171, 177, 182, 183, 186, 188, 193, 240, 305, 307, 308, 310, 327, 328, 329, 349, 350, 354, 365, 377, 380
 - Bangladesh Coastal Greenbelt Project 305
 - Bangladesh Urban Disaster Mitigation Project 183
 - community-based approach to reduce the vulnerability of flood-prone communities in the Tongi and Gaibandha municipalities 182, 183
 - 2000-2002 comprehensive disaster management programme 82
 - Climate Forecasting Applications 377
 - Cyclone Preparedness Programme (CPP) 365
 - Flood Action Plan 6, 88, 310
 - Natural Disaster Management Plan 88
 - Standing Orders on Disaster 88
 - 2001: State of the Environment 305, 310
 - Barbados 358, (annex 3, 89)
 - 1994: Barbados Global Conference on the Sustainable Development of Small Island Developing States 358
 - Barbados Plan of Action (annex 3, 82), (annex 4, 106)
 - see Small Island Developing States
 - Belgium 3, 8, 40, 47, 48, 169, 195, 278, (annex 3, 89)
 - best practices 70, 72, 140, 141, 160, 226, 227, 275
 - best-practices earthquake evacuation 250
 - community-based regional initiative 147
 - database of Best Practices for Human Settlements, UN-HABITAT 226
 - see UN system initiatives
 - see ISDR/IATF Working Group 72
 - see human settlements
 - Dubai International Award for Best Practices to Improve the Living Environment 227
 - best practice guidelines 210
 - Programme for Best Practices and Local Leadership, UN-HABITAT 226
 - see UN system initiatives
 - Regional Workshop on Best Practices in Disaster Reduction 70
 - Bhopal, India, chemical accident 59, 232
 - see technological hazards
 - Bhutan 88, 160, 307, 372
 - biodiversity 39, 43, 57, 58, 108, 201, 229, 255, 290, 298, 301, 302, 303, 309, 310, 312, 313, 375
 - biological hazards 15, 37, 39, 44, 55, 56
 - see HIV/AIDS
 - see SARS
 - Bolivia 60, 94, 95, 128, 147, 247, 285, 302, (annex 3, 83)
 - 2002: comprehensive national policy for prevention and risk management 128
 - Local Risk Management Programme 94, 95
 - National Food Security Monitoring and Early Warning System 95
 - National Housing Subsidy Programme 95
 - National Plan for Prevention and Risk Mitigation 94
 - National policy for prevention and risk management 95
 - Prevention and Risk Mitigation Sub-Programme 95
 - Programme for Risk Prevention and Reduction 94, 95
 - Botswana 153, 284
 - Brazil 233, 247, 309, 330, 350, 374, (annex 3, 74, 85)
 - see trade corridors
 - Brazilian rainforest 188
 - see forests
 - Brundtland Commission, report (annex 4, 96)
 - building codes 25, 69, 98, 117, 121, 135, 141, 174, 269, 285, 304, 318, 326, 327, 328, 338, 344



Living with Risk: A global review of disaster reduction initiatives

- Bulgaria 168, 174, 261
Burkina Faso 157, 372
bushfires
 see wildfires
- C** Cambodia 30, 82, 88, 135, 161, 177, 239, 308, 349, 366, 367
 2002: Expert Meeting on Flood Forecasting and Early Warning Systems, Phnom Penh 367
 see floods
 Phnom Penh Regional Platform on Sustainable Development for Asia and the Pacific 30
 see sustainable development
- Cameroon 287
- Canada 4, 5, 69, 93, 110, 145, 160, 204, 265, 266, 277, 334, 373, 375, 376, (annex 3, 76)
 Canadian Natural Hazards Assessment Project (CNHAP) 93
 Fire Weather Information System of Forestry 373
 Health Canada 266, 375
 see health
 Local Authority Emergency Management Regulation 69
 National Disaster Mitigation Strategy (NDMS) 93
 1998: National Mitigation Workshop 93
 Provincial Emergency Program (PEP) 69
 Red River Floodway, Manitoba 93
 2001: Third Summit of the Americas 145
- capacity-building 74, 86, 103, 112, 132, 135, 146, 158, 159, 161, 177, 199, 205, 228, 236, 239, 244, 246, 251, 271, 331, 349, 350, 358, 362, 368, 370, 376, 383, 397
 ESCAP project to build capacity in disaster management in Asia and the Pacific (annex 3, 74)
 see UN system initiatives
- carbon dioxide emissions 45
 see greenhouse gas emissions
- Caribbean (the) 147
- CARICOM (Caribbean Community)
 see economic development
- CEPRENAC
 see in disaster reduction Central American Integration System (SICA)
- Chad 157, 305
- Chernobyl nuclear disaster 59, 112
 see technological hazards
- Chile 73, 140, 242, 247, 292, 332, (annex 3, 89)
- China 2, 5, 7, 46, 48, 56, 73, 84, 87, 88, 89, 160, 163, 209, 259, 267, 274, 284, 285, 287, 301, 302, 308, 329, 331, 349, 350, (annex 3, 74, 76)
 China National Wetlands Conservation Action Plan 302
 1998-2010: National Disaster Reduction Plan 87, 89, 209, 267
 Ninth Five Year Plan for National Economic and Social Development 87
 1999 Policy framework to promote ecological watershed management 56
 Province of Guangdong, Jiangxi, Yunnan, and Shanxi 88
 2010 Prospective Target Outline for national accomplishments 88
- cities 12, 19, 37, 54, 59, 60, 61, 68, 90, 95, 96, 107, 119, 125, 126, 127, 134, 139, 140, 141, 153, 185, 239, 249, 269, 270, 290, 315, 317, 326, 330, 331, 332, 336
 AGSO Cities Project 68
 see Australia
 Americas Cluster Cities Project 332
 2002: Americas Cluster Cities Workshop 332
 see Mexico
 see trade corridors
 Cluster Cities Project (CCP) 331, 332
 Cross-Cutting Capacity Development Program 331
 Earthquakes and Megacities Initiative (EMI) 140, 330, 331
 see earthquakes
- 1997: Earthquake and Megacities Workshop, Germany 331
 see Germany
 see earthquakes
- Euro-Mediterranean Cluster Cities Meeting 331
- Naga city 135, 136, 137
 see Philippines
- Oceania Cluster Cities Meeting 331
- Pacific City Project 164
 see islands
- Safer Cities MINNADE project 330
- civil society 172, 177, 202, 224, 225, 231, 271, 308, 366, 386, 393
 Public Private Partnership-2000 (PPP 2000) 232
 public-private partnership 138, 178, 232, 244, 354, 357, 377, 393, 394, 395
- Clean Development Mechanism 306 (annex 4, 99)
 see climate, change
- climate
 adaptation 166, 300, 303, 304, 305, 310, 313, 393
 Caribbean Planning for Adaptation to Global Climate Change (CPACC) 304
 Caribbean Risk Management Initiative (annex 3, 82)
 see UN system initiatives
 see risk reduction
 GEF activities related to adaptation 157 (annex 4, 99)
 IPCC working group II: impacts, vulnerability and adaptation (annex 4, 100)
- change 4, 11, 19, 29, 31, 32, 39, 45, 47, 51, 52, 53, 55, 56, 58, 76, 98, 107, 108, 109, 155, 161, 166, 214, 226, 241, 263, 266, 267, 268, 270, 275, 299, 300, 302, 303, 304, 305, 306, 308, 309, 310, 313, 372, 375, 381, 393, (annex 4)
- Clean Development Mechanism 306, (annex 4, 99)
- Climate Outlook Forums (RCOFs) 152, 369
- Climate Variability and Predictability Project (CLIVAR) 48
- Conference of the Parties (COP) 309, (annex 4, 98, 99, 100)
- Extreme Climate Events Programme, ECE 52, 214
- extreme climate events 52
- Global Environment Facility (GEF) 157, (annex 4, 98, 99, 101)
- Global Climate Observing System (GCOS) 375
- Greater Horn of Africa Climate Outlook Forums, 152
- Intergovernmental Panel on Climate Change (IPCC) 27, 47, 52, 53, 304 (annex 4, 98, 100, 102)
- International Geosphere-Biosphere Programme 259
- International Human Dimensions Programme on Global Environmental Change 27, 259
- IUCN/IISD/SEI project on climate change 304
- landmark Marrakesh Accords (annex 4, 98, 99)
- Pacific Island Climate Change Assistance Program (PICCAP) 109, 305
 see islands
- Regional Climate Change Work Program, Pacific 305
- Southern Africa Region Climate Outlook Forum (SARCOF) 154
- System for Analysis, Research and Training, Washington DC, (START) 244, 259
- US National Assessment of the Consequences of Climate Change and Variability 165
- World Climate Impacts Programme 304
- World Climate Programme (WCP), WMO 371
 see UN system initiatives
- World Climate Research Programme 48, 259
- variability 11, 27, 47, 51, 56, 58, 98, 145, 153, 161, 165, 166, 205, 261, 263, 270, 304, 369
- coastal and marine areas 12, 30, 39, 43, 49, 51, 57, 60, 82, 84, 160, 166, 290, 305, 318, 336
 Maldives 186
 Minimata disease 59

- oceans 37, 48, 60, 107, 154, 215, 258, 372, 374, 375
WMO project on natural disaster reduction in coastal lowlands (*annex 3, 91*)
see UN system initiatives
- coastal zone 29, 53, 60, 300, 304, 305, 318, 367
Integrated Coastal Zone Management in the Pacific Islands 305
- Colombia 5, 8, 19, 91, 94, 95, 128, 147, 242, 287, 292, 312, 329, 341, 348, 351, 396, (*annex 3, 73, 74, 75, 89*)
local environment action plan 128
National Development Plan 94
National Disaster Prevention and Management Plan 94
National Plan for the Prevention of Disasters 94
National System for Prevention and Response to Natural Disasters 91
strategy for the short and medium-term implementation of the national disaster prevention and management plan 128
- community action/participation 15, 17, 29, 46, 48, 64, 66, 68, 69, 72, 74, 75, 81, 86, 102, 108, 109, 123, 128, 129, 132, 134, 135, 136, 138, 139, 145, 159, 162, 164, 166, 170, 171, 177-189, 229, 248, 273, 345, 350, 355, 356, 359, 360, 361, 363, 364, 365, 366, 367, 368, 376, 380, 382, 387, 388, 390, 393, 395, 396
Central American Community Risk Management Network 186
Community Action Group for Floodwater in the Old Community of Rodenkirchen 183, 290
see Germany
see floods
community action programme, EU 170
community-based projects for disaster management, UNCRD (*annex 3, 73*)
see UN system initiatives
Community based regional initiative 147
Community Drought Mitigation Partners' Network 183
see Zimbabwe
see drought
Community Network for Risk Management, Central America 145
see networks
Community Risk in Cairns 68
see Australia
Comprehensive Hazard and Risk Management Project (CHARM) 164, 166, 256
see islands
see risk management
Conference of Heads of Government of the Caribbean Community (COHG) 147
First Action Plan for the Andean Community 172
Federation of Community Organizations, Central America 145
ICLEI-led partnership on Resilient Communities, UNESCO (*annex 3, 84*)
see UN system initiatives
Livelihood Options for Disaster Risk Reduction, project, South Asia 186
see disaster risk reduction
see Duryog Nivaran
Panchayati Raj, India, 86
Sixth community environment action programme 33
Strengthening of Local Structures for Disaster Mitigation (FEMID) 147
- Congo, Democratic Republic of 54, 98, 153, 277, (*annex 3, 83, 86*)
Nyamalagira volcano, Goma 54
Nyragongo volcano, Goma 54, 98
- construction 14, 62, 323-343
- conventions
1989: Alpine Convention 302
Convention on Biological Diversity 58, 302, (*annex 4, 97, 100, 101*)
Convention to Combat Desertification (UNCCD) 51, 58, 302 (*annex 4, 97, 100*)
Convention of the Protection and Use of Transboundary Watercourses and International Lakes (*annex 3, 75*)
Convention on Environment Impact Assessment in a Transboundary Context (*annex 3, 75*)
Convention on Long-range Transboundary Air Pollution (*annex 3, 75*)
1979: Convention on the Elimination of All Forms of Discrimination Against Women (*annex 4, 104*)
1971: Ramsar Convention on Wetland Preservation 302 (*annex 4, 97, 101*)
1998: Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations (*annex 3, 80*)
UN Framework Convention on Climate Change 58, 241, 302, 304, (*annex 4, 97, 102*)
- Cook Islands 69, 108, 328
National and Island Disaster Management Plans 108
Disaster Management Work Plan 108
Early Warning System for tropical cyclone (EMWIN) 108
see early warning
see tropical cyclones
Outer Island Development Projects 108
Rarotonga Tourism Vulnerability Pilot Project 108
see vulnerability
- coping capacity 41, 44, 62
definition 16
- Costa Rica 65, 92, 202, 242, 247, 283, 286, 287, 293, 312, 339, 340, (*annex 3, 81, 89*)
1999: Central American Presidential Summit 92
multi-hazard assessment in Turrialba, UNESCO 65
Risk Management Program in the Agricultural Planning Secretariat 92
see agriculture
see risk management
- Croatia 173, 174
- Cuba 277, 293, 317, 318, 319, 362, (*annex 3, 83, 86*)
see land use planning
- cyclones 46, 68, 89, 212, 227, 231, 305, 310, 363, 365, 380
1991: cyclone in Bangladesh 46, 327, 380
1999: cyclone in the Indian State of Orissa 84, 363
Cyclone Preparedness Programme (CPP) 365, (*annex 3, 90*)
- Czech Republic 4, 49, 172, 173, 287, 351
CEUDIP (Central European Disaster Prevention Forum) 172, 173
- D** data 192, 193, 194, 211, 212, 219, 220, 281, 393
database(s) 194
CAT-NET Swiss Re 196
database of Best Practices for Human Settlements, UN-HABITAT 226
see UN system initiatives
DESINVENTAR database, Latin America 72, 203, 255
Disaster Management Database (DISMAN) 207
EM-DAT database, CRED 3, 8, 40, 47, 48, 72, 195, 255
Global Resource Information Database (GRID), UNEP 212, 216, 217, 254, 375, 396
Project for Risk Evaluation, Vulnerability, Information and Early Warning (PREVIEW) 212
PREVIEW-IMS 212
PREVIEW-NET 213
LILACS Bibliographic Database 202
Monitoring, Mapping and Analysis of Disaster Incidents (MANDISA database) 208, 255
see South Africa
NatCat Service database, MunichRe 195
PreView Global Cyclones Asymmetric Wind Speed Profile 216
WVOdat 218
- debris flows
see landslides



Living with Risk: A global review of disaster reduction initiatives

- declarations
 - 1999: Alafua declaration 164
 - Millennium declaration, 32 (*annex 4, 94*)
 - 2000: Ministerial Declaration on Water Security (*annex 4, 102*)
 - 1998: Declaration at the Potsdam Early Warning Conference and the Early Warning Programme Action Plan 358
 - Rio declaration 20, (*annex 4, 97, 106*)
- deforestation 5, 27, 39, 56, 57, 58, 71, 119, 278, 289, 300, 303, 305, 310, 390, 394
- desertification 39, 51, 57, 58, 95, 106, 150, 151, 157, 168, 262, 300, 302, 303, 309, 393, 394, (*annex 4, 100*)
 - Subregional Action Programme to Combat Desertification in West Africa and Chad (SRAP) 157, 305, 306
 - 1977: UN Conference on Desertification (*annex 4, 100*)
 - Plan of Action to Combat Desertification (*annex 4, 100*)
- disaster(s)
 - definition 17
 - see databases
 - Global Identifier Number (GLIDE) 72, 196
 - International Space Charter on Major Disasters 207
 - natural disasters 2, 3, 7, 8, 9, 10, 24, 26, 29, 31, 32, 40, 44, 46, 47, 48, 65, 106, 122, 140, 173, 204, 242, 263, 345, 349, (*annex 4*)
 - see hazards
 - see avalanches
 - see cyclones
 - see drought
 - see earthquakes
 - see floods
 - see landslides
 - see snow
 - see storms
 - see tropical storms, tropical cyclones
 - see tsunamis
 - see typhoons
 - see volcanoes
 - see wildfires
- disaster risk reduction (disaster reduction)
 - definition 17
 - Andean Regional Programme for Risk Prevention and Reduction (PREANDINO) 32, 94, 95, 96, 97, 148, 149, 176, 256
 - ASEAN Regional Forum (ARF) 160
 - ASEAN Regional Programme on Disaster Management (ARPD) 160
 - Asian Urban Disaster Mitigation Programme (AUDMP), ADPC
 - see urban
 - Caribbean Mitigation project 329
 - Central American Integration System (SICA) 146
 - CEPREDENAC (Coordinating Centre for the Prevention of Natural Disasters in Central America) 145, 146, 176, 186, 202, 203, 293, 366
 - Central America community risk management network 186
 - CEPREDENAC's Regional Plan for Disaster Reduction 146
 - DESINVENTAR 203
 - 2001 Local Level Risk Management Programme 146
 - 1999-2003: Disaster Prevention Programme 146
 - Puebla to Panama Logistical Corridor 146
 - see trade corridors
 - Regional Action Plan for Central America 146
 - Regional Prevention and Mitigation Programme 146
 - 2001 Regional Programme for Risk Management and Disaster Reduction 146
 - RELSAT (Strengthening of local structures & early warning systems) 366
 - Times of Hurricanes 293
 - Central American Mitigation Initiative (CAMI) 228, 229
 - Disaster and Social Crisis Research Network 260
 - see networks
 - Disaster Loss Assessment Guidelines, EMA
 - see Australia
 - Disaster Management Database (DISMAN)
 - see database
 - Disaster Management Information Systems (DMIS), IFRC
 - see information systems
 - Disaster Mitigation for Sustainable Livelihoods Programme (DiMP)
 - see South Africa
 - Disaster Preparedness and Prevention Initiative (DPPI), Europe 174
 - Disaster Reduction Alliance (DRA) 272
 - disaster risk indexes
 - Disaster Risk Index, UNDP 71, 197, 254, 387, 396
 - ISDR/IATF Group 2 72
 - Global Environmental Vulnerability Index, SOPAC 256
 - Global Risk Vulnerability Index, UNDP 77
 - Guy Carpenter Catastrophe Index 354
 - Human Development Index, UNDP 197
 - Human Poverty Index, UNDP 197
 - Keetch-Byram Drought Index (KBDI) 367
 - 1999-2004: Five Year Plan for the Reduction of Vulnerability and Disaster Impacts, Central America 145
 - FORM-OSE Program 169
 - see education
 - see research
 - Livelihood Options for Disaster Risk Reduction, project, South Asia 186
 - see community
 - see Duryog Nivaran
 - multidisciplinary initiative to reduce natural disasters in Asia, Latin America and the Caribbean, ISDR/UNESCO 140
 - Radical Interpretation of Disaster Experience (RADIX) 338
 - 2001: Regional Programme for Risk Management and Disaster Reduction UNDP 146
 - Regional Programme on Disaster Management, ASEAN 160
 - South Pacific Disaster Reduction Programme (SPDR) 163, 164
 - see islands
 - South Pacific Disaster Reduction Project (SPDRP) 26, 163, 164
 - South Pacific Regional Environment Programme (SPREP) 305
 - see islands
 - see environment
 - Strengthening of Local Structures for Disaster Mitigation (FEMID) 147
 - see risk reduction/ risk management / practices
 - Djibouti 150
 - Dominican Republic 92, 293, 305, 307, 350
 - National Environment Policy Reform 305
 - drought 2, 4, 5, 6, 8, 27, 31, 32, 37, 47, 49, 50, 51, 55, 57, 58, 62, 71, 82, 85, 98, 106, 120, 147, 150, 152, 153, 154, 155, 159, 166, 183, 188, 200, 212, 216, 228, 229, 269, 275, 277, 299, 301, 352, 355, 358, 362, 374, 390, 394, 395, (*annex 4, 100*)
 - Community Drought Mitigation Partners' Network 183
 - see Zimbabwe
 - see community action
 - 1994-1995 and 1997-1998: droughts 50-51
 - 1984-1985 drought 150
 - 1984-1985: drought in Ethiopia 99
 - drought in Zambia 352
 - Integrated Strategy for Floods and Drought Management, SADC 155
 - see floods

- Keetch-Byram Drought Index (KBDI) 367
 see disaster risk indexes
- 1992: National Drought Policy 51
 see Australia
- 2001: severe drought in Central America (*annex 3, 75*)
- 1970-1974: Sudan-Sahel droughts 150
- 1980-1983, 1987-1988, 1991-1992, 1994-1995, 1997-1998
 periods of drought 51
- Southern African Drought Technology Network 183
 see network
- WMO drought preparedness and mitigation
 programme (*annex 3, 91*)
 see UN system initiatives
- WMO Sixth long-term plan (2004-2011)
 see UN system initiatives
- dryland areas (*annex 3, 82*)
 wetlands 27, 28, 166, 173, 299, 300, 301, 302, 303,
 311, 313, 314, 317, 318, 390, 394, (*annex 4*)
 China National Wetlands Conservation Action Plan 302
 see China
 Ramsar Convention on Wetland Preservation 302
 (*annex 4, 97, 101*)
 see conventions
- rivers and rivers basin: Attica basin 116; Bicol river 136;
 Danube river 28, 170, 173; Elbe river 2, 170, 173, 265;
 Geul rive 265; Mediterranean basin 167; Mekong river
 30, 82, 83, 367; Naga river 137; Oder river 172; Rimac
 river, 96; Rhine 129, 170, 184, 290; Somes and Tisa river
 basin 120, 246; Vltava river 173; Yangtze river basin 5,
 56; Yellow river basin 56, 246, 265; Zambesi river 155,
 201
- Duryog Nivaran 186, 226, 255
 Livelihood Options for Disaster Risk Reduction, project,
 South Asia 186
 see disaster risk reduction
 see community action
 see NGOs
 see networks
- E** early warning 6, , 7, 9, 10, 12, 14, 15, 54, 69, 99, 100, 103, 106,
 145, 151, 154, 155, 161, 167, 181, 186, 199, 267, 300, 348,
 358-381, 389, 393
 conferences:
 1998: 1st 358, 370
 2003: 2nd 392, 358, 362, 369, 370
 definition 17
 Early Warning and Response Network (EWARN), WHO
 see Sudan
 see UN system initiatives
 systems 358-383
 Early Warning System for tropical cyclone (EMWIN) 108
 see Cook Islands
 Famine Early Warning System Network (FEWSNET) 152
 see famine
 Global Information and Early Warning System (GIEWS),
 FAO 152, (*annex 3, 79*)
 see UN system initiatives
 National Food Security Monitoring and Early Warning
 System 95
 see Bolivia
 see food
 Regional Early Warning Programme, SADC 200
 Strengthening of Local Structures and early warning
 systems (RELSAT) 366
- earthquakes 2, 5, 8, 23, 32, 37, 53, 59, 65, 66, 68, 116, 126,
 137, 140, 141, 147, 172, 206, 212, 227, 231, 238, 244, 262,
 263, 267, 268, 269, 275, 276, 293, 315, 325, 326, 333, 353,
 355, 374, 375, 387
 1964: Alaska earthquake 258
 2003: Algiers, Algeria 98, 337
 1911: Almaty, Kazakhstan 119
 1988: Armenian earthquake 119, 277
 Asian Pacific Network of Centres for Earthquake
 Engineering Research (ANCER) 277
 see networks
 1999: Athens, Greece 116, 332
 2001: Bhuj earthquake 258, 346
 see also Gujarat earthquake
 2003: Bingol earthquake, Turkey 337, 338
 1970: Cajon de Huaylas, earthquake and avalanche,
 Peru 287
 1999: Chamoli earthquake, India 349
 1999: coffee belt of Colombia 94 (*annex 3, 75*)
 Earthquake and Megacities Initiative (EMI) 140, 330, 331
 education program 331
 Regional Centers project 331
 Earthquake Hazards Program, EHP/USGS, 217
 see United States
 2001: El Salvador earthquake 53, (*annex 3, 75*)
 see landslides
 1997: Earthquakes and Megacities Workshop 331
 see cities
 see Germany
 Global Earthquake Safety Initiative (GESI) 332
 1995: Great Hanshin-Awaji earthquake, Kobe, Japan 46,
 184, 232
 2001: Gujarat earthquake, India 30, 84, 87, 185, 186, 321,
 332, 355
 see also Bhuj earthquake
 Iran Earthquake Risk Mitigation Program (IERMP) 117, 118
 see Iran
 1999: Izmit earthquake, Turkey 258, 289, 325, 338, 350
 1986: Kalamata earthquake, Greece 333
 Kathmandu Valley Earthquake Risk Management
 Project (KVERMP) 70, 244
 see Nepal
 1993: Latur earthquake, India 84, 178, 329
 1989: Loma Prieta earthquake, United States 283
 1972: earthquake in Managua, Nicaragua (*annex 3, 75*)
 1990: Manjil earthquake, Iran 117
 1999: Marmara earthquake, Turkey 179, 354
 see Izmit earthquake
 1985: Mexico earthquake 32, 90, 270, 338
 2002: Molise earthquake, Italy 327
 National Earthquake Hazards Reduction Program,
 FEMA 217
 see United States
 1994: Northridge earthquake, United States 128, 232, 354
 Programme for Assessment and Mitigation of Earthquake
 Risk in the Arab Region (PAMERAR) 174
 Programme for Reducing Earthquake Losses in the
 Eastern Mediterranean (RELEMR) 174
 Risk Assessment Tools for Diagnosis of Urban Areas
 against Seismic Disasters (RADIUS) 71, 73, 140, 330
 see risk assessment
 see urban
 1995: Sakhalin earthquake 119
 School Earthquake Safety Initiative (SESI) 184
 Sismo School Programme 169
 see education
 1953: Suva earthquake 69
 Suva Earthquake Risk Management Scenario Pilot
 Project (SERMP) 69, 109
 see Fiji
 World Seismic Safety Initiative (WSSI) 330
- East Timor 246
- economics 3, 4, 23, 24, 25, 26, 311
 Black Sea Economic Cooperation Framework 174
- economic development 19, 139, 394, 395
 Andean Integration System 149
 CARICOM (Caribbean Community) 147
 MERCOSUR (Southern Common Market in
 South America) 309



Living with Risk: A global review of disaster reduction initiatives

- Southern African Development Coordination Conference (SADCC) 153
- United Nations regional economic commissions (*annex 3, 74*)
 - see UN system initiatives
- The World Bank Group (*annex 3, 87, 88*)
- economic impact 3, 4, 9, 23, 25, 26, 46, 48, 56, 70, 72, 73, 88, 91, 92, 99, 101, 116, 119, 124, 127, 129, 132, 135, 137, 139, 173, 174, 188, 205, 208, 210, 224, 232, 234, 245, 248, 257, 261, 262, 266, 288, 300, 301, 306, 310, 312, 332, 353, 375, 393
- 2002 Disaster Loss Assessment Guidelines, Australia 72
- 2001 Economic Cost of Natural Disasters in Australia 72
- ECLAC methodology to assess the impact of disasters on development (*annex 3, 75*)
- UN system initiatives
- Ecuador 24, 45, 61, 69, 70, 73, 96, 147, 215, 247, 277, 287, 293, 312, 331, 339, 341, 374, (*annex 3, 89, 90, 91*)
 - 1998: Guayaquil International Seminar 358
 - PRECUPA 24
 - Quito-Guayaquil corridor 60
 - see trade corridors
 - 2001: Third Americas Cluster Project Workshop 331
 - vulnerability evaluation and retrofitting of schools 341
- education 32, 42, 55, 111, 116, 144, 150, 158, 160, 185, 199, 206, 224, 236-252, 340, 341, 352, 389, 390, 394, 396
 - Ambassador Network on Education 239
 - see France
 - community-based flood disaster mitigation project 159
 - see Indonesia
 - EDUPLANhemisférico 340, 341
 - EMI (Earthquakes and Megacities Initiative) Training and Education Programme 331
 - FORM-OSE Program 169
 - see disaster reduction
 - see research
 - Latin America Social Science Faculty (FLASCO) 245
 - LIDERES 145
 - program on public education 109
 - see Vanuatu
 - Radio Progreso 293
 - see Honduras
 - Riskland 292
 - school educational programme for disaster reduction 159
 - see Philippines
 - Sismo School Programme 169
 - Time of Hurricanes radio drama 293
 - see hurricanes
- Egypt 325
- El Niño
 - see ENSO
- El Salvador 5, 53, 75, 145, 146, 202, 227, 229, 283, 292, 293, 303, 307, 312, (*annex 3, 75, 83*)
 - Lower Lempa Valley Risk Reduction Project 32, 307
 - emergency relief assistance/response 7, 13, 30, 106, 108, 346, 350, 351, 352
- Emergency Assistance Policy, ADB 348
 - emergency management 395
 - Ericsson Response Programme 198
- ENSO (El Niño Southern Oscillation) 374, (*annex 3, 84*), (*annex 4, 100*)
 - El Niño, 4, 12, 29, 30, 32, 37, 44, 45, 46, 47, 48, 52, 58, 61, 92, 94, 96, 145, 147, 149, 161, 166, 181, 214, 215, 257, 283, 301, 338, 358, 359, 367, 368, 372, 374, 380, 381 (*annex 4*)
 - El Niño Outlooks 48
 - El Niño project, UNU (*annex 3, 87*)
 - 1998: Guayaquil International Seminar 358
 - La Niña 32, 44, 47, 48, 58, 374, 381, (*annex 4*)
 - environment 19, 27, 29, 32, 106, 125, 132, 150, 151, 154, 156, 170, 183, 213, 229, 231, 375, 390, 395, 394, 396
 - African Ministerial Conference on the Environment 149
 - Caribbean Conservation Authority 302
 - Conference on Environment and Development, Southern Africa 31
- 2003: Earth Observation Summit 375
 - see United States
- ecosystems 12, 28, 29, 49, 56, 180, 226, 229, 262, 299, 390, 394
- Envirocast 213
- Environment Assessment Programme for Asia and the Pacific (EAPAP) 372
- environmental degradation 2, 19, 27, 28, 29, 37, 44, 50, 56, 57, 59, 145, 259, 298
- environmental impact assessment (EIA) 308, 309
- environmental legislation 301-303
- environmental management 297-313
- environmental policy 303-308
- environmental sustainability program, framework of Partnerships to Mitigate Natural Disasters 309
 - see Viet Nam
- Global Climate Observing System (GCOS) 375
- Global Environment Outlook (GEO), UNEP 375
 - see UN system initiatives
- Global Monitoring for the Environment and Security (GMES) 207, 264, 310
 - see security
- Global Terrestrial Observing System (GTOS) 375
- Integrated Coastal Zone Management in the Pacific Islands 305
- Integrated Global Observing Strategy (IGOS) 375
- International Human Dimensions Programmes on global environmental change 27
- International Network on Environment and Security 27
 - see networks
 - see security
- National Environmental Action Plan 303
- National Environment Action Plan
 - see Haiti
- National Environment Policy Reform
 - see Dominican Republic
- National Systems for Environmental Accounting (NSA) 311
- Natural and Environmental Disaster Information Exchange System (NEDIES)
 - see information systems
- Regional Environmental Programme, South Pacific 256
- Sixth Community Environment Action Programme 33
- State of the Environment in Southern Africa, SARD/IMERCSA 201
- State of the Environment 298
- 1972: Stockholm conference 306
- 1999: Strategy for the Reduction of Environmental Vulnerability in Central America when Faced with Natural Disasters: Environmental Management and the Evaluation of Vulnerability 29
- South Asia Cooperative Environment Programme 307
 - see Sri Lanka
- South Pacific Regional Environment Programme (SPREP) 205, 256, 305
 - see islands
- System for Environmental Economic Accounting (SEEA) 311
- Three Global Observing Systems (G3OS) 375
- environmental hazards 9, 15, 37, 151, 246, 264
 - see Exxon Valdez oil disaster
- Ethiopia 73, 99, 100, 150, 277, 287, (*annex 3, 76*)
 - 1970s famine 99
 - National Policy on Disaster Prevention and Management (NPDPM) 100
 - Woreda local level of coordination 100
- Eritrea 150, 277
- Europe 32, 110, 166, 206, 275
- EUR-OPA Major Hazards Agreement
 - see Hazards
- evacuation 7, 42, 54, 115, 129
- Exxon Valdez oil disaster 59
 - see environmental hazards

- F** famine 5, 6, 55, 82, 98, 99, 106, 150, 227, 277
 1874 Administrative Experience Recorded in Former Famines 5
 see India
 1895: Bengal Famine Code 6
 see India
 Famine Early Warning System Network (FEWSNET) 152, 228
 1883: Madras Famine Code 6
 see Madras State
 2002 Southern Africa famine 55
 Federated States of Micronesia 46, 165, 327
 Fiji 69, 108, 109, 287, 308, 351
 Ba Flood Preparedness 109
 1995 National Disaster Management Plan 109
 1998 Natural Disaster Management Act 109
 PICCAP (Greenhouse Gas Inventories and Vulnerability & Adaptation Assessments) 109
 Suva Earthquake Risk Management Scenario Pilot Project (SERMP) 69, 109
 Taveuni Volcano Risk Project 109
 see volcanoes
 Volcano Hazard Risk Mitigation 109
 finance (and resources) 393
 Catastrophe bonds
 see United States
 Catastrophic Risk Exchange
 see United States
 Fund for Natural Disasters (FONDEN)
 see Mexico
 Honduran Social Investment Fund (SIF)
 see Honduras
 Sonderfonds Aufbauhilfe
 see Germany
 tools 345-357
 Sector Facility for the Prevention of Natural Disasters, IADB 348
 Regional Disaster Policy Dialogue, World Bank 348, 357
 see UN system initiatives
 fires
 see wildfires
 floods 2, 4, 6, 8, 19, 27, 31, 32, 37, 47, 49, 55, 56, 57, 58, 64, 68, 82, 83, 98, 99, 101, 106, 109, 110, 119, 120, 121, 126, 127, 129, 130, 136, 143, 147, 150, 152, 153, 154, 155, 156, 166, 170, 171, 172, 173, 177, 188, 206, 212, 227, 239, 244, 262, 265, 268, 273, 275, 299, 300, 301, 310, 312, 317, 321, 351, 353, 360, 362, 363, 372, 375, 380, 390, 395
 analysis of the 1993/1995 Floods in Western Europe 265
 1997: Central and Eastern Europe floods 257
 Community Action Group for Floodwater in the Old Community of Rodenkirchen
 see Germany
 ECE guidelines on sustainable flood prevention (*annex 3, 75*)
 see UN system initiatives
 ESCAP Guidelines on Participatory Planning and Management for Flood Mitigation and Preparedness (*annex 3, 74*)
 see UN system initiatives
 2002: Expert Meeting on Flood Forecasting and Early Warning Systems, Phnom Penh 367
 see Cambodia
 Flood and Erosion Management in Alpine River Basins 265
 see mountains
 2001: Flood Mitigation and Management Plan, MRC, 366
 2001: floods in Algeria 5, 120, 289
 1999: floods in Austria, Germany and Switzerland 3
 1998: floods in Bangladesh 354
 1991-92, 1997-98: floods in China 46
 1993 floods in Cologne 129
 1998: floods in East Gippsland, Australia 75
 2002: floods in Europe 28, 49
 2002 floods in Germany 377
 2000: floods in Indonesia 380
 2002: floods in Kazakhstan 119
 floods in Kenya (1997-1998 El Niño) 101
 2000: floods in Mekong Delta 83, 161
 2000: floods in Mozambique 23
 2002: floods in Romania 19
 2000: floods in Southern Africa 102
 1994: floods in the Cape Flats, South Africa 102
 1998: floods in the Shire of East Gippsland, Australia 75
 2001: floods in the town of Grafton, Australia 360
 2003: floods in Sri Lanka 277
 1999: floods in Venezuela (*annex 3, 75*)
 2000: floods in Viet Nam and Cambodia 30
 1998: floods in the Yangtze river basin, China 301
 floodplains of Moravia 28
 Glacial Lake Outburst Flood (GLOF), Asia 372
 1999: Oder River floods 172, 378
 Guidelines for the prevention of flash floods 171
 Integrated Strategy for Floods and Drought Management, SADC 155
 see drought
 Operational Solutions for the Management of Inundation Risks in the Information Society (OSIRIS) 367
 Reduce the Risk of Floods in the River Geul Catchment, flood project 265
 1997: Red River floods, Canada 266
 1993, 1995: Rhine River floods 183
 1996: Saguenay floods, Canada 266
 1998: UK floods 257
 UN/HABITAT guidelines on settlement planning for flood-prone communities 136
 Vltava and Elbe floods 173
 food (security) 31, 94, 100, 102, 112, 150, 154, 227, 228, 300, 362
 Food Security Programme and related Regional Early Warning Programme 154
 National Food Security Monitoring and Early Warning System 95
 see Bolivia
 see early warning
 special programme for food security, FAO (*annex 3, 79*)
 see UN system initiatives
 forecasting 6, 115, 130, 136, 152, 156, 171, 257, 258, 263, 359, 373, 378, 381, 382, 393
 forests/forestry 7, 28, 43, 110, 173, 188, 229, 268, 269, 300, 301, 312
 Brazilian rainforest 188
 Collaborative Partnership on Forests fires 58
 see wildfires
 European Natural Hazards Project Forest Fire Risk 373
 see wildfires
 Global Forest Resources Assessment, FAO 58
 see UN system initiatives
 Integrated Forest Fire Management (IFFM) 367
 see wildfires
 Peten region of tropical forests, Guatemala 229
 Project for the Local Prevention and Control of Forest Fires (PRECLIF)
 see wildfires
 UN Forum on Forests 58
 see UN system initiatives
 framework for disaster risk reduction 11, 12, 15, 80-124, 192, 231, 254, 256, 391, 392, 393, 394, 395, 396, (*annex 3, 83, 84*)
 Framework of the Andean Community 94
 Framework Programme, European Commission, Directorate General on Research 170
 1996: Regional Disaster Management Framework, Pacific 164
 SADC Disaster Management Framework 154
 Strategic Framework for the Reduction of Vulnerability and Disasters in Central America 145



Living with Risk: A global review of disaster reduction initiatives

- Workshops on institutional frameworks and planning for disaster management
2002: Bangkok, Thailand 159
2002: Bali, Indonesia 70, 159
- France 4, 167, 168, 175, 211, 229, 239, 275, 290, 301, 319, 321, 351, 353, 368, (*annex 3*, 76, 83, 84)
Ambassador Network on Education 239
education 239
2002: Ninth Ministerial Session of the EUR-OPA Major Hazards Agreement 33, 167
Plan for the Prevention against natural Risks (PPR) 319, 321
Plan for the Soil Occupancy (POS) 319
Prim.net 211
- freshwater 166, 300, (*annex 4*, 102)
see water
see Un system initiatives
1992: UN International Conference on Water and the Environment (*annex 4*, 102)
Dublin Statement on Water and Sustainable Development (*annex 4*, 102)
2003: International Year of Freshwater 285 (*annex 4*, 103)
Water Forums
2003: third 31 (*annex 4*, 103)
2000: second (*annex 4*, 102)
World Water Vision (*annex 4*, 102)
- G** gender 9, 13, 27, 29, 30, 31, 42, 68, 132, 199, 227, 233, 295, 380, 382, 394 (*annex 4*, 103, 104)
2002: Asia Pacific Forum on Women, Law and Development 31
1995: Beijing Platform for Action (*annex 4*, 103)
2002: Expert Working Group Meeting, Ankara 199
see Turkey
1995: Fourth World Conference on Women (*annex 4*, 103)
Gender and Disaster Network 200, 227
see networks
Self-Employed Women's Association (SEWA) 355
see India
see insurance
- Geographic Information Systems (GIS) 64, 65, 66, 67, 69, 70, 71, 73, 86, 130, 136, 138, 153, 154, 192, 195, 198, 206, 208, 213, 221, 254, 269, 270, 363
see information systems
SADC Regional Remote Sensing Programme 154
- geological hazards 15, 53, 54, 66, 257, 269
see earthquakes, landslides, tsunamis, volcanoes
Eastern Asia Geological Hazards Map 66
see mapping
- Germany 3, 4, 49, 58, 110, 129, 150, 163, 172, 173, 183, 195, 216, 229, 246, 259, 268, 287, 351, 370, 372, 377, (*annex 3*, 75)
Cologne municipal flood management system 130
Community Action Group for Floodwater in the Old Community of Rodenkirchen 183, 290
see community action
see floods
1997: Earthquakes and Megacities Workshop 331
see cities
see earthquakes
- German Research Network for Natural Disasters (DFNK) 268
see research and networks
- conferences on early warning
see early warning
- MunichRe
see insurance
see mapping
- Sonderfonds Aufbauhilfe 351
- Ghana 31, 105
2002-2004 poverty reduction strategy 105
- Georgia 169
- globalization 61, 255
- Global Identifier Number (GLIDE) 196
see disaster(s)
- Greece 5, 116, 167, 168, 174, 175, 263, 277, 332, 333
Greek Seismic Design Code 332
- greenhouse gas (GHG) 109 (*annex 4*, 100, 102)
see carbon dioxide emissions
- Grenada 350
- Guadeloupe (France) 258
- Guam (USA) 165
- Guatemala 8, 69, 92, 229, 230, 242, 278, 279, 293, 307, 312, 370
National Risk Reduction System 92
National Poverty Reduction Plan 92
Peten region of tropical forests 229
see forests
PRECLIF 229
PREVOL Project 229, 230
see volcanoes
- H** habitats 67, 169, 188, 211, 227, 301, 334, (*annex 4*, agenda: 104)
see human settlements
see islands and SIDS
see mountains
see UN/HABITAT (*annex 3*, 4)
see urban
- Haiti 246, 304, 350, (*annex 3*, 83)
National Environment Action Plan 304
National risk and disaster management system 246
- hazards
classification: 39
see biological
see environmental
see geological
see hydrometeorological
see technological
definition 16
see disaster(s)
EUR-OPA Major Hazards Agreement 166, 167, 168, 169
natural hazards 2, 3, 7, 23, 32, 37, 59, 110, 112, 121, 137, 143, 144, 146, 162, 172, 211, 212, 240, 259, 263, 265, 272, 274, 301, 341
Natural Hazards Project, DG JRC 264
North American Map of Natural Hazards and Disasters
see mapping
see research
trends 44-62
- Hawaii 165, 206, 354
1993 Voluntary homeowner's catastrophe fund 354
- health 5, 15, 19, 29, 31, 32, 42, 144, 156, 166, 187, 201, 227, 253, 259, 263, 338, 339, 352, 375, 381 (*annex 4*)
Africa Malarial Control Programme 156
Emergency Prevention System (EMPRESS) for Transboundary Animal and Plant Pests and Diseases 375
FluNet 375
Global Public Health Intelligence Network (GPHIN) 375
Health Canada 266, 375
see Canada
HIV/AIDS 55, 56, 101, 133, 187, 290, 376
malaria 156
Severe Acute Respiratory Syndrome (SARS) 55
Southern Africa Malarial Control Programme, WHO 55, 156
see UN system initiatives
- HIV/AIDS
see health
see biological hazards
- Honduras 2, 8, 28, 146, 147, 202, 224, 229, 278, 292, 293, 350, 352, 362, (*annex 3*, 83)
Honduran National Network for the Promotion of Ecological Agriculture (ANAFEA) 278
Honduran Social Investment Fund (SIF) 352
Radio Progreso 293

- Hong Kong (province of China) 274, 379
 Contingency plan for natural disasters 89, 259
- human settlements(and informal) 5, 59, 107, 119, 120, 126, 128, 181, 229, 245, 327, 336, (*annex 3, 85, 86*), (*annex 4, 94, 95, 96, 97, 104*)
 database of Best Practices for Human Settlements, UN-HABITAT 226
 see UN system initiatives
 see best practices
 1996: UN Conference on Human Settlements, Istanbul (*annex 4, 104*)
 see Un system initiatives
- Hungary 49, 172, 173, 246, 368
- hurricanes 8, 32, 49, 212, 257, 301
 1992: hurricane Andrew 325, 354
 1998: hurricane Georges 29, 92, 145, 283, (*annex 3, 75*)
 2000: hurricane Keith (*annex 3, 75*)
 2001: hurricane Michelle 362
 1998: hurricane Mitch 2, 4, 28, 29, 30, 61, 92, 145, 146, 176, 201, 277, 278, 283, 298, 300, 352, (*annex 3, 75*)
 hurricane-resistant home improvement programme, St. Lucia 329
 guidelines 330
 Time of Hurricanes radio drama 293
 see education
- hydrology 216
 Hydrology and Water Resources Programme 371, (*annex 3, 91*)
 see Un system initiatives
 Hydrological Cycle Observing System (SADC/HYCOS) 156
 International Hydrological Programme, UNESCO
 see UN system
 Joint Operations Technical Committee, ZRA/Hidroeléctrica de Cabora Bassa
 see Zambia
 SADC Hydrological Cycle Observing System 156
 RANET (Radio & Internet for the Communication of Hydro-Meteorological & Climate Related Information for Rural Development) 376
- hydrometeorological hazards 15, 31, 37, 44, 47, 49, 55, 106, 147, 149, 150, 155, 171, 215, 244, 263, 364, 371
 see cyclones
 see drought
 see floods
 see hurricanes
 see storms
 see tropical storms
 see typhoons
- I 2000: IADB Action Plan 348
- Iceland 263
- India 5, 7, 8, 30, 59, 82, 84, 85, 87, 89, 140, 160, 175, 178, 182, 184, 185, 186, 187, 209, 217, 224, 227, 228, 231, 232, 233, 240, 243, 249, 277, 283, 287, 307, 308, 309, 321, 325, 328, 329, 332, 335, 336, 346, 349, 350, 351, 352, 355, 363, 364, 365, 374, (*annex 3, 74, 83, 88*)
 1874 Administrative Experience Recorded in Former Famines 5
 Disaster Resource Network (IDRN) 209
 2000: Drought Contingency Plan 89
 Fodder Security System 355
 2002: Fourth ADRC International Meeting, New Delhi 160
 National Contingency Action Plan 89
 National Disaster Response Plan 86
 National Land Use Policy Outline 321
 National Natural Disaster Management Knowledge Network 209
 National Watershed Development Project for Rainfed Areas 321
 Self-Employed Women's Association (SEWA) 355
 see gender
 see insurance
- State and provincial disaster reduction plans 89
 Sphere project 228
 Swayam Shiksam Prayong 178, 179
 State of Andhra Pradesh 352
 Cyclone contingency plan of action 89
 Vulnerability Reduction Fund 352
 State of Assam 86
 State of Bengal 6
 1895: Bengal Famine Code 6
 State of Bihar 86
 State of Gujarat 84, 86, 87, 89, 178
 Action plan for reconstruction 89
 Gujarat Rehabilitation Project 231
 State of Karnataka 86
 State of Madras 6
 1883: Madras Famine Code 6
 State of Madhya Pradesh 86
 State of Maharashtra 84, 178, 329, 336
 Action plan for reconstruction in earthquake 89
 Maharashtra Employment Guarantee Scheme 352
 Maharashtra Greater Mumbai Disaster Management Plan 336
 Risk Assessment and Response Plan 336
 State of Orissa 2, 84, 86, 363
 State of Uttar Pradesh 85, 86, 329, 349
 State of Uttaranchal 85, 86
 Patanka project 185
 see Land use planning
 vulnerability Atlas 85
- indicators 6, 241, 256, 267, 270, 357, 361, 365, 378, 392, 396
 see disaster indexes
 European Environment Agency's environment indicators 256
 IISD Consultative Group on sustainable development indicators 256
 OECD environment indicators 256
 SCOPE/UNEP work on sustainability indicators 256
 UN Millennium and Development Goals and related indicators 256
 UN/DESA and Commission on Sustainable Development work programme on indicators of sustainable development 256
 UN/HABITAT housing and urban indicators 256
 World Bank social indicators 256
 World Water Assessment Programme : indicators for integrated water assessment 256
- Indonesia 5, 8, 70, 73, 89, 135, 159, 184, 214, 243, 249, 274, 308, 367, 370, 380
 Bandung project 184
 community-based flood disaster mitigation project 159
 see education
 Flood early warning system 380
 Merapi volcano, Java 89
 see volcanic eruptions
 National Action Plan 89
 National Natural Disaster Management Coordinating Board 89
- information management systems 192-222, 394
 Disaster Management Information Systems (DMIS) 198
 see Geographic Information Systems (GIS)
 Eurasian Experimental Fire Weather information system 373
 Global Disaster Information System (GDIN) 198, 207
 Internet risk information broadcast (IRIS) 169
 Natural and Environmental Disaster Information Exchange System (NEDIES) 116, 171, 264
 Reliefweb
 see disaster risk reduction
 see UN system initiatives
 Russian System of Disaster Mitigation (RSDM) 210
 VENTEN geographical information system, ADRC 205
 Young Rescuer 241



Living with Risk: A global review of disaster reduction initiatives

- infrastructure 19, 42, 60, 81, 126, 158, 166, 283, 318, 349, 351, 352, 395
Infrastructure Damage Prevention, Assessment and Reconstruction following a Disaster (INFRAID) 264
insurance (and reinsurance) 3, 25, 45, 71, 353, 354, 355, 394
National Flood Insurance Program (NFIP) 354
see United States
Self-Employed Women's Association (SEWA) 355
see gender
see India
Turkish Catastrophe Insurance Pool 354
see Turkey
MunichRe 23, 25, 38, 45, 46
SwissRe 196
International Decade for Natural Disaster Reduction (IDNDR)
see UN system initiatives
International Strategy for Disaster Reduction (ISDR)
see UN system initiatives
Iran 8, 23, 51, 89, 117, 118, 217, 246, 254, 277, 325, 349, (annex 3, 76, 83)
Iran Earthquake Risk Mitigation Program (IERMP) 117, 118
see earthquakes
islands
see also Small Island Developing States 304, 305, 358
Comprehensive Hazard and Risk Management (CHARM) 109, 164, 165, 166, 256
Pacific City Project 164
see cities
Pacific islands 22, 26, 30, 31, 62, 107, 162, 163, 164, 188
Pacific Island Climate Change Assistance Program (PICCAP)
see climate change
1999: Pacific Island Forum 163
Pacific Small Island Developing States 26, 30, 107, 162, 164, 305
Programme of Action for Small Island Developing States 147
South Pacific Disaster Reduction Programme (SPDR) 163, 164
see disaster risk reduction
South Pacific Regional Environment Programme (SPREP) 305
see environment
US-affiliated islands 165
Italy 5, 8, 49, 167, 168, 173, 207, 208, 258, 287, 327, (annex 3, 78, 88)
Seveso Directive 171
- J** Jamaica 203, 242, 246, 286, 304
Japan 7, 8, 46, 48, 66, 89, 159, 160, 163, 184, 185, 205, 227, 232, 238, 240, 241, 249, 258, 259, 265, 271, 272, 290, 299, 307, 308, 325, 328, 329, 345, 370, 386, 388, (annex 3, 73, 85, 86)
Asia-Pacific Network for Global Change Research 307, 308
see networks
Disaster Countermeasure Basic Act 89
Disaster Reduction Alliance (DRA) 272
2003: Fifth ADRC International Meeting, Kobe 160
2002: Fourth ADRC Meeting, New Delhi, 160
Minimata disease
see coastal and marine areas
Mount Usu, Hokkaido 6, 299
see volcanic eruptions
2003: Third World Water Forum, Kyoto
see water
1994: World Conference of Natural Disaster Reduction, Yokohama
see International Decade for Natural Disaster Reduction (IDNDR)
see UN system initiatives
- 2005: World Conference on Disaster Reduction, Kobe-Hyogo
see UN system initiatives
- K** Kazakhstan 89, 119, 172, 175
National Plan 89
2000: Plan of Preparedness for Natural Disaster 119
Kenya 99, 101, 150, 176, 200, (annex 3, 73, 84, 85)
Arid Lands Resource Management Project 101
National Disaster Management Authority (NADIMA) 101
Korea, Democratic People's Republic, 8, 89, 277
Korea, Republic of 83, 84, 89, 160, 274, 308
Fifth Basic Disaster Prevention Plan 89
International Disaster Prevention Cooperation Seminar 84
Natural Disaster Countermeasures Act 84
1997: Kyoto Protocol (annex 4, 96, 98)
Kyrgyzstan 89, 172, (annex 3, 84)
- L** lahars
see landslides and volcanic eruption
La Niña 4
see El Niño
land degradation 31, 57, 58, 151, 188, 300
landslides 4, 5, 19, 27, 37, 53, 56, 57, 97, 119, 121, 128, 137, 138, 166, 172, 181, 212, 257, 262, 269, 293, 301, 315, 390, 394, 395
Casita volcano in Nicaragua (caused by Mitch) 4
2001: El Salvador (caused by earthquake) 5
International Consortium on Landslides (ICL) 53
International Program on Landslides (IPL) 53
1985: Nevado del Ruiz, Colombia 90, 91, 287
RUNOUT 258
Sironko landslide Mitigation Project
see Uganda
1999: Venezuela 53, 97
land-use 5, 12, 15, 25, 30, 41, 54, 58, 61, 62, 64, 65, 67, 68, 116, 122, 129, 136, 140, 145, 155, 161, 210, 267, 273, 314-322, 337, 390, 394, 395, 396
Switzerland : 317
United States: 317
planning 30, 41, 65, 135, 211, 273, 288, 302, 304, 306, 314-322, 331, 337, 350, 390, 394, 39
Australia planning for safer communities 315
case: Cuba 317
case: India 321
National Watershed Development Project for Rainfed 321
Patanka project 185
case: Nicaragua 319
case: France 211, 319
National Land Use Policy Outline
see India
Lao People's Democratic Republic 82, 89, 90, 135, 308, 366
Disaster Risk Management Plan 89
Latin America and the Caribbean 32, 347
Least Developed Countries (LDCs) 59, 70 (annex 4, 106, 107)
Programme of Action 2001-2010 (annex 4, 99, 107)
2001: Third conference (annex 4, 107)
Lebanon 167, (annex 3, 86)
legislation 15, 32, 80-124, 135, 159, 393
Lesotho 153
local authorities 81, 98, 125-143, 396
Local Authority Emergency Management Regulation
see Canada
Local Risk Management Programme
see Bolivia
Luxemburg 168, 206

- M** Macedonia, Former Yugoslav Republic of 73, 167, 168, 174
 Madagascar 246, (*annex 3, 83*)
 Malaysia 90, 308, 317
 Flood Action Plan 90
 National Haze Action Plan 90
 Malawi 153, 246, 350, (*annex 3, 83*)
 Maldives 90, 160, 186, 307
 Mali 157, 372
 Malta 167, 169, 206
 mapping 38, 65, 66, 67, 68, 69, 70, 74, 75, 85, 86, 105, 130, 135, 136, 138, 164, 195, 203, 263, 269, 270, 310, 320, 363
 2002-2003 Analysis Mapping 187
 Disaster Atlas for Mozambique 228
 see Mozambique
 Eastern Asia Geological Hazards Map 66
 Eastern Asia Natural Hazards Mapping Project (EANHMP) 66
 Global Burned Area Interactive Mapping Application 217
 Mapping and Analysis of Disaster Incidents in South Africa (MANDISA) 208
 see South Africa
 MunichRe Globe of Natural Hazards 195
 MunichRe World Map of Natural Hazards 38, 195
 see insurance
 North American Map of Natural Hazards and Disasters 204
 Sri Lanka Urban Multi-Hazard Disaster Mitigation Project 66
 Marshall Islands 165
 Mauritania 106, (*annex 3, 83*)
 Mauritius 153, 361, 379
 meteorology 126, 154, 215, 216, 224, 379
 METEOSAT project 157
 2000: SADC Sub-Sectoral Committee on Meteorology Meeting 154
 World Weather Watch Programme (WWW), WMO
 see UN system initiatives
 Merapi volcano, Java 89
 see Indonesia
 see volcanic eruptions
 MERCOSUR (Southern Common Market in South America)
 see economic development
 Mexico 2, 73, 91, 259, 270, 271, 292, 325, 332, 351, (*annex 3, 74*)
 2002: Americas Cluster Cities Workshop 332
 see cities
 Fund for Natural Disasters (FONDEN) 351
 Millennium declaration
 see declarations
 Millennium Development Goals 256, 362, 387, 392
 (*annex 4, 94, 95*)
 Moldova 168
 Monaco 167, 169
 Mongolia 5, 46, 74, 90, 160, 175, 308
 laws 90
 Montserrat 258
 Morocco 51, 106, 167, 168
 mountains 27, 37, 119, 159, 172, 265, (*annex 3, 84*)
 Alpine convention 302
 Hindu Kush Himalayan region 372
 2002: International Year of Mountains 285, (*annex 3, 84*)
 Flood and Erosion Management in Alpine River Basins 265
 see floods
 Mount Etna 258
 see volcanoes
 Mount Pinatubo 6, 360, 361, 380
 see Philippines
 see volcanic eruptions
 Mount Usu, Hokkaido 6, 299
 see Japan
 see volcanic eruptions
 Mozambique 23, 30, 61, 103, 104, 153, 156, 187, 224, 227, 228, 233, 234, 283, 284, 289
 1982-1994: complex national emergency 103
 Disaster Atlas for Mozambique 228
 see mapping
 2000: Extraordinary Summit for SADC Heads of State and Government 153
 Kariba Cabora Bassa reservoir 156
 National Disaster Management Authority (INGC) 284
 National Disaster Management Plan 104
 mudslides
 see landslides
 MunichRe 45
 see insurance
 see Germany
 see mapping
 municipalities 114, 116, 127, 129, 131, 142, 143, 146, 182, 183, 229, 285
 see local authorities
 Myanmar 75, 90
- N** Namibia 153
 national platforms 111, 268, 390
 natural disasters
 see disaster(s)
 natural hazards
 see hazards
 Nepal 70, 75, 90, 135, 140, 160, 184, 185, 186, 187, 240, 245, 249, 291, 292, 307, 308, 330, 372
 2002: Eleven Summit Meeting of SAARC, Kathmandu 161
 glacial lake outburst floods (GLOF) 372
 Kathmandu Valley Earthquake Risk Management Project (KVERMP) 70, 244
 see earthquakes
 National Action Plan for Disaster Management 90
 Netherlands 5, 65, 163, 179, 290, 304, 332
 networks 223-235, 390, 394
 Africa Knowledge Networks Forum (AKNF) 225
 Ambassador Network on Education 239
 see France
 see education
 Asia-Pacific Network for Global Change Research 307, 308
 see Japan
 Asian Disaster Reduction and Response Network (ADRRN) 205
 Asian Pacific Network of Centres for Earthquake Engineering Research (ANCER) 277
 see earthquakes
 Australian Disaster Management Information Network (ADMIN) 210
 see Australia
 Caribbean Disaster Information Network (CARDIN) 203, 204
 Citizen's Disaster Response Network (CDRN)
 see Philippines
 Central American Community Risk Management Network 145, 186
 Community Drought Mitigation Partners' Network
 see Zimbabwe
 Crisis and Prevention Network, UNDP (*annex 3, 83*)
 see UN system initiatives
 Disaster and Social Crisis Research Network, European Sociological Association 260
 Duryog Nivaran 186, 226, 255
 see NGOs
 Early Warning and Response Network (EWARN) 374
 see Sudan
 Educational Research Network of Eastern and Southern Asia 277
 Emergency Food Security Network 228
 EU-MEDIN 207, 208
 European Network of Specialized Centres 167



Living with Risk: A global review of disaster reduction initiatives

- German Research Network for Natural Disasters (DFNK) 268
 - see Germany
 - Gender and Disaster Network 200, 227
 - see gender
 - Global Applied Research Network (GARNET) 277
 - see research
 - Global Coral Reef Monitoring Network 274
 - Global Disaster Information Network (GLO-DISNET) 331
 - Global Public Health Intelligence Network (GPHIN) 375
 - see health
 - Honduran National Network for the Promotion of Ecological Agriculture (ANAFEA) 278
 - see Honduras
 - International Network on Environment and Security 27
 - see security
 - see environment
 - LA RED (Network for Social Study of Disaster Prevention in Latin America) 72, 144, 196, 203, 226, 229, 245, 247, 255, 256
 - see NGOs
 - MEDNET 207
 - Med-Safe Network 331
 - NANADISK-NET 209
 - National Natural Disaster Management Knowledge Network
 - see India
 - Natural-Hazards-Disasters Network 199
 - Network of State Hazard Mitigation Officers (NEMO)
 - see United States
 - NGOs network 199
 - see NGOs
 - Periperi network, 226
 - see NGOs
 - Regional Workshop on Networking and Collaboration among NGOs of Asian Countries in Disaster Reduction and Response 160
 - see NGOs
 - Rising Tide UK Network 226
 - see United Kingdom
 - Southern African Drought Technology Network 183
 - 2002: Stakeholder Forum for Our Common Future 199
 - see sustainable development
 - see NGOs
 - networking (and partnerships) 14, 17, 58, 72, 160, 194, 195, 223-225, 304, 368, 390, 394
 - New Partnership for Africa's Development (NEPAD) 158, 176, 303
 - "Resilient Communities" 139
 - New Zealand 22, 48, 51, 128, 129, 160, 163, 164, 227, 243, 272, 274, 308, 331, 353
 - Nicaragua 2, 4, 8, 92, 146, 186, 202, 229, 239, 242, 278, 279, 293, 307, 319, 320, 350, 352, (annex 3, 75, 83)
 - land-use planning 320
 - National Program for Risk Reduction 92
 - National Risk Reduction Plan 92
 - National System for Disaster Prevention, Mitigation and Attention 92
 - Niger 150, 157, 372
 - Niger Basin Authority 157, 306
 - NGOs
 - see non-governmental organizations
 - non-governmental organizations, 53, 69, 71, 72, 75, 83, 104, 134, 135, 147, 158, 160, 161, 165, 173, 177, 178, 179, 182, 183, 185, 188, 193, 196, 198, 199, 201, 204, 226, 231, 240, 248, 250, 255, 278, 291, 307, 340, 347, 364, 376, 393, 395, 397
 - Duryog Nivaran
 - see networks
 - LA RED
 - see networks
 - NGOs network 199
 - Periperi
 - see networks
 - Regional Workshop on Networking and Collaboration among NGOs of Asian Countries in Disaster Reduction and Response 160
 - see networks
 - 2002: Stakeholder Forum for Our Common Future 199
 - see networks
 - see sustainable development
 - Sustainable Environmental and Ecological Development Society (SEEDS) 185, 186, 332
- Northern Mariana Islands 165
 - Norway 180
 - Geiranger case 180, 181
 - Nyamalagira volcano, Goma 54
 - see Democratic Republic of Congo
 - see volcanic eruptions
 - Nyiragongo volcano, Goma 54, 98
 - see Democratic Republic of Congo
 - see volcanic eruptions
- O** oceans
 - see coastal and marine areas
 - Global Ocean Observing System (GOOS) 375ozone 126, 372
- P** Pacific (the) 31, 107, 274
- Pakistan 51, 90, 160, 186, 277, 307, 308
 - National disaster plan 90
 - Karachi emergency relief plan 90
 - Palau 165
 - Panama 146, 147, 293
 - Papua New Guinea 160, 187, 290
 - see tsunamis 290
 - Peru 5, 61, 75, 96, 147, 187, 247, 277, 287, 329, 339, 340
 - Ecociudad 75
 - National Civil Defence System (INDECI) 96
 - projects in the basin of the river Rimac 96
 - see trade corridors
 - Urban Mitigation Study Programme 96
 - Philippines 2, 5, 82, 90, 135, 159, 182, 188, 214, 240, 245, 261, 287, 308, 351, 361, 374, 378, 380
 - Capability and Hazard Identification Program 137
 - Citizen's Disaster Response Network (CDRN) 182
 - see networks
 - Core Shelter Construction Programme 245
 - Naga City Disaster Mitigation Project 135, 136, 137
 - Naga City Integrated Emergency Management System 137
 - Naga Kaantabay sa Kauswagan 136
 - National Calamities and Disaster Preparedness Plans 90
 - Mount Pinatubo
 - see volcanic eruptions
 - school educational programme for disaster reduction 159
 - see education
 - planning 7, 10, 12, 13, 20, 23, 25, 32, 33, 50, 54, 63, 67, 69, 77, 80, 84, 85, 87, 94, 95, 96, 97, 100, 101, 102, 104, 106, 107, 109, 110-121, 132, 133, 134, 135, 136, 139, 140, 147, 148, 152, 157, 159, 160, 163, 164, 165, 166, 167, 170, 172, 177, 178, 179, 181, 182, 184, 187, 188, 192, 206, 207, 208, 210, 223, 224, 233, 237, 241, 242, 285, 289, 299, 300, 301, 302, 303, 305, 307, 308, 326, 327, 368, 370, 393
 - land-use 30, 41, 65, 135, 211, 273, 288, 302, 304, 306, 314-322, 331, 337, 350, 390, 394, 396
 - contingency 101, 104, 155, 158, 239, 275, 286, 305, 361, 379, 391, 395
 - urban 17, 73, 140, 142, 174, 243, 276, 332, 333
 - Poland 4, 172, 173
 - pollution 5, 27, 43, 62
 - 2002: cyanide pollution of the rivers Somes, Tisa and Danube 119
 - policy 15, 7, 12, 13, 17, 18, 29, 56, 58, 64, 66, 80-124, 127, 128, 136, 139, 147, 148, 158, 162, 172, 173, 181, 182, 183, 189, 200, 216, 225, 242, 246, 255, 263, 264, 271, 280, 281, 283, 284, 298, 300, 304, 305, 309, 313, 321, 347, 348, 349, 362, 387, 389, 390, 393, 394, 395, 396

- Disaster Preparedness and Prevention Initiative (DPPI) 174
 First Action Plan for the Andean Community 171
 1992: National Drought Policy
 see Australia
 Regional Disaster Policy Dialogue 348
 Popocatépetl volcano, Mexico 271
 see volcanoes
 Portugal 112, 167, 168
 poverty reduction/alleviation 10, 15, 19, 27, 30, 31, 32, 44, 61,
 127, 132, 140, 226-295, 349, 380, 390, 396
 Asia Poverty Forum on Poverty 30
 National Poverty Reduction Plan
 see Guatemala
 PREANDINO (Andean Regional Programme for Risk Prevention
 and Reduction)
 see disaster risk reduction
 ProVention Consortium, World Bank, 223, 224, 225, 254, 256,
 259, 260, 261, 304, 357, 396
 Public awareness 126, 144, 213, 214, 244, 282, 389, 394
 RADIUS (Risk Assessment Tools for Diagnosis of Urban Areas
 against Seismic Disasters (RADIUS) 71, 73, 140, 330
 see risk assessment
 see urban
 see earthquakes
- R** RADIX (Radical Interpretation of Disaster Experience) 338
 see disaster reduction
 Ramsar Convention on Wetland Preservation
 see conventions
 see wetlands
 reconstruction 19, 20, 25, 82, 87, 89, 92, 94, 96, 97, 103, 110,
 111, 116, 145, 173, 178, 179, 186, 200, 201, 224, 231, 233,
 264, 309, 324, 333, 345, 346, 348, 349, 350, 351, 352, 355,
 357, 388, 393
 In-Focus Programme on Crisis Response and
 Reconstruction (IFP/Crisis), ILO (*annex 3, 79*)
 see UN system initiatives
 reconstruction projects 1980-2000, World Bank 346
 recovery 14, 18, 23, 25, 26, 43, 44, 51, 56, 80, 84, 93, 100, 103,
 123, 128, 135, 150, 155, 164, 173, 176, 178, 197, 203, 210,
 224, 232, 261, 331, 346, 348, 350, 351, 389, 390, 394, 395
 Reliefweb
 see information systems
 see UN system initiatives
 see disaster risk reduction
 remote sensing
 see Geographic Information Systems
 SADC Regional Remote Sensing Programme 154
 research 170, 205, 206, 253-281, 394
 Asia-Pacific Network for Global Change Research
 see Japan
 see networks
 1998-2002: European Commission hazards research
 projects 263
 earthquakes: EUROSEISTEST 263, VULPIP 263
 TOSQA 263
 floods: FRAMEWORK 263, RIBAMOD Concerted
 Action 263, FASTEX 263
 wildfires: MEGAFIRES 263, MINERVE 263,
 PROMETHEUS 263
 European Strategic Programme for Research and
 Information Technology (ESPRIT) 262
 FORM-OSE Program 169
 see disaster risk reduction
 see education
 German Research Network for Natural Disasters
 (DFNK) 267
 see Germany
 see networks
 Global Applied Research Network (GARNET) 277
 see networks
 Programme for European Cooperation in the Field of
 Scientific and Technical Research (COST) 262
 studies 258
 World Weather Research Programme (WWRP), WMO 371
 see UN system initiatives
 resilience/resilient 8, 11, 19, 21, 22, 25, 28, 42, 43, 44, 48, 74,
 75, 109, 129, 132, 139, 140, 141, 166, 184, 187, 224, 249,
 317, 326, 380, 396
 definition 16
 retrofitting 116, 318, 324, 326, 333, 341, 343, 394, 395
 see Venezuela 341
 see Ecuador 341
 Rio declaration
 see declarations
 risk reduction/risk management/practices 5, 7, 13, 14, 15, 134,
 224, 243, 343, 394, 395
 definition 17
 assessment 63-75, 106, 113, 142, 389, 393
 Global Disaster Risk Hotspots project 396
 methodologies 3, 31, 69, 72, 73, 74, 122, 201,
 247, 264, 330, 348, (*annex 3, 75*)
 Risk Assessment Tools for Diagnosis of Urban Areas
 against Seismic Disasters (RADIUS) 71, 73, 140, 330
 see earthquake
 see urban
 Caribbean Risk Management Initiative, UNDP (*annex 3, 82*)
 see UN system initiatives
 see adaptation in climate change
 CEPREDENAC's Local Level Risk Management
 Programme 146
 Comprehensive Hazard and Risk Management (CHARM)
 109, 164, 165, 166, 256
 see islands
 coping capacities 41, 44
 definition 16
 nature 36-43
 Programme for Risk Prevention and Reduction, UNDP 94
 see UN system initiatives
 2001: Regional Programme on Risk Management and
 Disaster Reduction, UNDP 146
 see UN system initiatives
 research 253
 Risk and Disaster Management Programme (RDMP),
 UN-HABITAT (*annex 3, 85*)
 see UN system initiatives
 Risk Management and Disaster Reduction Programme
 see Venezuela
 Risk Management Program in the Agricultural Planning
 Secretariat
 see Costa Rica
 Total Disaster Risk Management Strategy, Asia 158
 training 245
 vision 386-397
 vulnerability 41, 42
 see disaster risk reduction (disaster reduction)
 Romania 49, 119, 120, 173, 174, 246, 270, (*annex 3, 76*)
 Russian Federation 55, 112, 113, 114, 115, 116, 160, 169, 174,
 175, 206, 210, 211, 222, 269, 270, 298, 301, 308, 377, 379
 EMERCOM 112, 113, 114, 115, 116, 210, 211, 269, 270,
 377
 Russian System on Disaster Management (RSDM) 112,
 113, 114
 Rwanda 54, 98
- S** Sahel 62, 106, 150, 157, 200, 306
 San Marino 167, 168
 SARS (Severe Acute Respiratory Syndrome) 55, 56
 see health
 see biological hazards
 Sasakawa Award for Disaster Reduction (UN) 287
 see UN system initiatives



Living with Risk: A global review of disaster reduction initiatives

- sea levels (rising) 44, 49, 51, 119, 166, 300
 - security (human) 27, 42, 114, 207, 230, 246, 255, 259, 264, (annex 4)
 - Global Environmental Change and Human Security 27
 - see environment
 - International Network on Environment and Security 27
 - see networks
 - see environment
 - seismology 117, 174, 206, 207, 217, 269, 272, 359
 - see earthquakes
 - Senegal 105, 106
 - guidelines for prevention action 105
 - 2002: Jola Boat accident 105
 - 1999: ORSEC National Plan 105
 - Seychelles 153
 - SIDS
 - see Small Island Developing States
 - Singapore 5, 90, 159
 - Acts 90
 - Emergency or Contingency Pan 90
 - Slovakia 49, 172, 173
 - Slovenia 173, 174
 - Small Island Developing States 31, 197, 304, 305, 358, 369, (annex 4, 95, 106)
 - see islands
 - Alliance of Small Island States (AOSIS) (annex 4, 106)
 - Small Islands Voice initiative, UNESCO (annex 4, 106)
 - see UN system initiatives
 - Plan of Action 147, 304, 305
 - Pacific Small Island Developing States 26, 164
 - snow 268
 - Soil erosion/degradation 43, 57, 58, 62, 137, 262, 269
 - Somalia 150
 - South Africa 51, 58, 60, 61, 68, 102, 131, 132, 134, 153, 208, 227, 240, 248, 260, 261, 284, 290, 327
 - Disaster Management Act 102, 103, 133, 134
 - 2000: Disaster Management Bill 102, 103, 284
 - Disaster Mitigation for Sustainable Livelihoods Programme (DiMP) 208, 248
 - Green Paper on Disaster Management 102, 103
 - hazard mapping 68
 - Integrated Development Plan (IDP) 131, 132, 133
 - Monitoring, Mapping and Analysis of Disaster Incidents (MANDISA database 208, 255)
 - see databases
 - 2000 Municipal Systems Act 32 131, 133
 - National Disaster Management Framework 103
 - National Qualification Framework 248
 - South African Qualifications Authority 248
 - White Paper on Disaster Management 102, 103
 - space (outer) 206, 207, 211, 212, 222, 372, (annex 3, 75, 76)
 - see Un system initiatives
 - Spain 49, 167, 169, 173, 175, 206, 258, 293, 353
 - Sri Lanka 49, 66, 90, 135, 160, 186, 243, 277, 307, 308
 - Coastal environmental management plan 90
 - Major disaster contingency plan 90
 - National Disaster Management Plan 90
 - South Asia Cooperative Environment Programme 307
 - see environment
 - Urban - multihazard disaster mitigation project 66, 293
 - St. Kitts and Nevis 350
 - see SIDS
 - St. Lucia 329
 - hurricane-resistant home improvement programme (HRHIP) 329, 330
 - Integrated Watershed Management Project 305
 - see SIDS
 - 2003: National Research and Development Foundation (NRDF) Safer Housing Programme 330
 - St. Vincent and the Grenadines 258
 - see SIDS
 - storms 5, 8, 23, 37, 48, 55, 57, 68, 82, 106, 110, 111, 119, 143, 166, 267, 268, 363
 - 1998: ice storm, Canada 266
 - 1998-2000 storms in Maldives 186
 - 2000 severe waves 186
 - 1999: Western Europe 5, 111
 - structural measures 5, 30, 172, 244, 279, 306, 323, 324, 329, 395
 - Sudan 106, 150, 224, 277, 374, (annex 3, 88)
 - Early Warning and Response Network (EWARN), 374
 - see early warning
 - see networks
 - sustainable development 2, 7, 10, 15, 18-33, 63, 96, 111, 134, 139, 140, 149, 151, 166, 176, 189, 199, 206, 207, 211, 220, 226, 231, 235, 241, 242, 244, 256, 259, 262, 267, 280, 285, 298, 299, 302, 303, 305, 307, 308, 310, 311, 313, 316, 318, 344, 370, 381, 383, 386, 387, 388, 390, 392, 394, 396, (annex 3, 73), (annex 4)
 - African Ministerial Statement to the WSSD 31
 - see Barbados
 - DESA 's multidimensional programme (annex 3, 73)
 - see Un system initiatives
 - milestones for the sustainable development agenda (annex 4, 96)
 - Phnom Penh Regional Platform on Sustainable Development for Asia and the Pacific 30
 - see Cambodia
 - 2002: Rio de Janeiro Platform for Action on the Road to Johannesburg 32
 - 2002: Stakeholder Forum for Our Common Future 199
 - see networks
 - see NGOs
 - 2002: World Summit on Sustainable Development (WSSD) 30, 31, 32, 139, 149, 387, 389, 393
 - Johannesburg Plan of Implementation 20, 256, 387, 389, 392, 397
 - see UN system initiatives
 - Swaziland 153, (annex 3, 89)
 - Sweden 66
 - flood risk maps 66
 - Switzerland 3, 24, 65, 67, 110, 111, 227, 242, 243, 258, 268, 270, 275, 278, 290, 301, 316, 317, (annex 3, 80)
 - mapping risk 67
 - SwissRe
 - see insurance
 - Syria 187
- T**
- Taiwan (Province of China) 5, 8, 325
 - Tajikistan: 51, 90, 172, 246
 - Joint plan with Russia 90
 - Tanzania 153, (annex 3, 88)
 - Tearfund 347, 387
 - technological hazards 9, 15, 44, 59, 113, 119, 120, 166, 167, 170, 171, 174, 206, 230, 244, 246, 259, 262, 263, 270
 - 1984: Bhopal, India, chemical accident 59, 232
 - Central European Initiative (CEI) Cooperation Agreement on the Forecast, Prevention and Mitigation of Natural and Technological Disasters 173
 - 1996: Chernobyl nuclear disaster 59, 112
 - telecommunications 359, 380, (annex 3, ITU 80)
 - see conventions
 - Thailand 7, 82, 90, 135, 205, 240, 243, 308, 366, 372, (annex 3, 74, 76)
 - National Civil Defence Plan 90
 - Tonga 164, 107
 - see Small Island Developing States
 - trade corridors 61
 - Buenos Aires-Mendoza-Santiago-Valparaiso corridor 60
 - Brazilian coastal corridors 60
 - Central American Highway 60, 61

- Pan-American Highway, Andean region 60, 61
 Puebla to Panama Logistical Corridor 146
 Quito-Guayaquil corridor 60
 training 116, 129, 144, 165, 174, 185, 186, 206, 207, 214, 224, 229, 236-252, 329, 390, 394
 Disaster Management Training Programme, UNDP, 146, 246
 see UN system initiatives
 transportation 42, 44, 59, 60
 Trinidad and Tobago 242, 292, 340, (*annex 3, 74*)
 see Small Island Developing States
 tropical storms, tropical cyclones 37, 82, 127, 166, 257, 258, 329, 358, 379
 Early Warning System for tropical cyclone (EMWIN) 108
 see Cook Islands
 Global network of tropical cyclone monitoring, forecasting and warning systems 373
 PreView Global Cyclones Asymmetric Wind Speed Profile (database) 216
 1994: tropical storm Debbie 305
 Tropical cyclone programme 371, (*annex 3, 90*)
 see cyclones
 tsunamis 37, 39, 53, 60, 75, 108, 210, 212, 290, 374
 Pacific Tsunami Warning System, UNESCO 374
 see UN system initiatives
 1998: Papua New Guinea 290
 tsunami risk 258
 Turkey 5, 8, 73, 167, 168, 174, 179, 187, 199, 206, 217, 224, 258, 259, 275, 277, 287, 325, 335, 337, 338, 350, 354, (*annex 3, 88*)
 2002: Expert Working Group Meeting, Ankara 199
 see gender
 Turkish Catastrophe Insurance Pool 354
 see insurance
 Turkmenistan 51, 91, 172
 typhoons 6, 71, 136, 388
 typhoon Lingling 2
 2002: typhoon Rusa 84
- U** Uganda 150, 181, 182, 330
 Sironko landslide Mitigation Project 150, 181, 182, 330
 see landslides
 Ukraine 168, 246
 UN system initiatives
 Awareness and Preparedness for Emergencies at aLocal Level (APELL), UNEP 232, 233
 2001: APELL for Mining 233
 2000: TransAPELL, Guidance for Dangerous Goods Transport: Emergency Planning in a Local Community 233
 1996: APELL for Port Areas 233
 Caribbean Risk Management Initiative, UNDP (*annex 3, 82*)
 see risk reduction
 see adaptation *in climate change*
 community-based projects for disaster management, UNCRD (*annex 3, 73*)
 see community action
 Conference on Environment and Development, Southern Africa 31
 1996: Conference on Human Settlements, Istanbul (*annex 4, 104*)
 see human settlements
 Crisis and Prevention Network, UNDP (*annex 3, 83*)
 see networks
 database of Best Practices for Human Settlements, UN-HABITAT 226
 DESA 's multidimensional programme (*annex 3, 73*)
 see sustainable development
 Disaster Management Training Programme (DMTP) 146, 246, (*annex 3, 77*)
 see training
- El Niño project, UNU (*annex 3, 87*)
 see El Niño
 Early Warning and Response Network (EWARN), WHO
 see Sudan
 see early warning
 Emergency Prevention System (EMPRESS), FAO 375
 Forum on Forests 58
 Global Environment Outlook (GEO), UNEP 197
 Global Forest Resources Assessment, FAO 58
 Global Information and Early Warning System (GIEWS), FAO 151, (*annex 3, 79*)
 see early warning
 Global Resource Information Database (GRID), UNEP
 see databases
 Global Risk Vulnerability Index, UNDP
 see disaster indexes
 Human Development Index, UNDP 197
 see disaster indexes
 Human Poverty Index, UNDP 197
 see disaster indexes
 Hydrology and Water Resources Programme, WMO 371
 ICLEI-led partnership on Resilient Communities, UNESCO (*annex 3, 84*)
 see community action
 In-Focus Programme on Crisis Response and Reconstruction (IFP/Crisis), ILO (*annex 3, 79*)
 see reconstruction
 International Decade for Natural Disaster Reduction (IDNDR) 2, 9, 10, 55, 63, 65, 66, 71, 80, 102, 117, 135, 140, 163, 164, 171, 177, 186, 260, 266, 284, 285, 330, 358, 360, 386, 370, 381
 International Day for Disaster Reduction 285
 1999: IDNDR Programme Forum 80, 371, 392
 1994: World Conference of Natural Disaster Reduction, Yokohama, Japan 9, 80, 164
 see Yokohama Strategy and Plan of Action for Safe a World
 International Geological Correlation Programme, UNESCO (*annex 3, 83*)
 International Hydrological Programme, UNESCO (*annex 3, 83*)
 see hydrology
 International Strategy for Disaster Reduction (ISDR) 2, 11 (*annex 4*)
 Inter-Agency Task Force on Disaster Reduction and working groups 11, 12, 49, 50, 58, 71, 72, 167, 358, 392, 397 (*annex 4*)
 Man and Biosphere Programme, UNESCO (*annex 3, 83*)
 Management of Social Transformations Programme (MOST), UNESCO (*annex 3, 83*)
 2000: Millennium Summit, New York (*annex 4, 94*)
 Pacific Tsunami Warning System (PTWS), UNESCO 374
 see tsunamis
 Programme for Best Practices and Local Leadership, UN-HABITAT 226
 see best practices
 Programme for Risk Prevention and Reduction, UNDP 94
 see risk reduction
 reconstruction projects, World Bank (*annex 3, 88*)
 Reducing Disaster Risk: A challenge for development, UNDP 61
 2001: Regional Programme on Risk Management and Disaster Reduction (UNDP) 146
 Reliefweb, OCHA 49, 196, 205, 220, 221, 346
 see information systems
 see disaster risk reduction
 2001: Regional Disaster Policy Dialogue, World Bank 348
 risk and disaster management programme, UN/HABITAT (*annex 3, 85*)
 Sasakawa Award for Disaster Reduction 287
 Small Islands Voice initiative, UNESCO (*annex 4, 106*)
 see Small Island Developing States



Living with Risk: A global review of disaster reduction initiatives

- Southern Africa Malarial Control Programme, WHO 156
see health
- special programme for food security, FAO (*annex 3, 79*)
see food
- 1972: Stockholm Conference on the Human Environment 306
see environment
- UNESCO 's strategy for 2002-2007 (*annex 3, 83*)
- United Nations regional economic commissions (*annex 3, 74*)
see economic development
- ECE guidelines on sustainable flood prevention (*annex 3, 75*)
see floods
- ECLAC methodology to assess the impact of disasters on development 201, (*annex 3, 75*)
see economic impact
- ESCAP Guidelines on Participatory Planning and Management for Flood Mitigation and Preparedness (*annex 3, 74*)
see floods
- ESCAP project to build capacity in disaster management in Asia and the Pacific (*annex 3, 74*)
see capacity building
- UNDP's Disaster Risk Index
see disaster indexes
- 1999: UNISPACE III Conference, Austria 207
see space (outer) 206, 207, 211, 212, 222, 372, (*annex 3, 75, 76*)
- 2002: UN-WATER committee (*annex 4, 103*)
see water
- 1999: WFP strategy document Enabling Development (*annex 3, 88*)
- WFP's Vulnerability Assessment and Monitoring programme (VAM), 152, (*annex 3, 88*)
see vulnerability
- WHO guide on hospital mitigation (*annex 3, 90*)
- WMO drought preparedness and mitigation programme (*annex 3, 91*)
see drought
- WMO Hydrology and Water Resources Programme (*annex 3, 91*)
see hydrology
- WMO project on natural disaster reduction in coastal lowlands (*annex 3, 91*)
see coastal areas
- WMO Public Weather Services Programme (*annex 3, 91*)
- WMO Sixth long-term plan (2004-2011)
see disaster risk reduction
- WMO Tropical Cyclone Programme (*annex 3, 90*)
see cyclones
- 1994: World Conference of Natural Disaster Reduction, Yokohama, Japan
see International Decade for Natural Disaster Reduction (IDNDR)
- 2005: World Conference on Disaster Reduction, Kobe-Hyogo, Japan 11, 238, 370, 386, 392
- 2002: World Summit on Sustainable Development (WSSD), Johannesburg 20, 139, 149, 199, 244, 308, (*annex 4, 95, 96, 97,*)
Johannesburg Plan of Implementation 387, 389, 392, 397, (*annex 4, 95*)
African Ministerial Statement 31
- World Climate Programme (WCP), WMO 371
see climate change
- 1996: World Food Summit (*annex 3, 78*)
- World Water Assessment Programme, UNESCO (*annex 3, 83*), (*annex 4, 103*)
see water
- World Weather Research Programme (WWRP), WMO 371
see research
- World Weather Watch Programme (WWW), WMO 371
see meteorology
- United Kingdom 4, 25, 48, 127, 163, 216, 227, 241, 254, 257, 258, 275, 278, 287, 325, 345, 359
see education and training 241, 254, 257
see El Niño Outlook 48
see research 258, 275
Rising Tide UK Network 226
- United States 4, 8, 24, 45, 49, 83, 128, 137, 138, 149, 160, 163, 173, 204, 211, 216, 217, 227, 228, 230, 231, 238, 240, 241, 258, 259, 265, 266, 275, 276, 277, 278, 283, 284, 308, 317, 324, 325, 326, 332, 340, 345, 353, 354, 375, 377, (*annex 3, 74*)
Agricultural Markets Information System 228
see agriculture
Bermuda Commodities Exchange 354
California Earthquake Authority (CEA) 354
Catastrophe bonds 354
Catastrophic Risk Exchange 354
Chicago Board of Trade 354
Earthquake Hazards Program, EHP/USGS 217
see earthquakes
2003: Earth Observation Summit 375
Guy Carpenter Catastrophe Index 354
Hazards US (HAZUS) 73
National Earthquake Hazards Reduction Program, FEMA 217
National Flood Insurance Program (NFIP) 354
Network of State Hazard Mitigation Officers (NEMO) 230
Project Impact, FEMA 69, 137, 138, 230
- urban 59, 60, 126, 134, 136, 140, 142, 184, 188, 274, 318, 326, 332, 333, 336, 391
Asian Urban Disaster Mitigation Programme (AUDMT), ADPC 134, 135, 177, 183, 244, 256, 293
OAS School Protection Programme 340
retrofitting rural schools in Venezuela 341
Risk Assessment Tools for Diagnosis of Urban Areas against Seismic Disasters (RADIUS) 71, 73, 140, 330
see earthquakes
see risk assessment
seismic vulnerability analysis of school buildings 341
see Colombia
urban areas issues 120, 121, 126, 134, 324, 332, 397
Urban Mitigation Study Programme
see Peru
Urban Multi-Hazard Disaster Mitigation Project
see Sri Lanka 66, 293
urban planning
see planning
urban risks 11, 12, 128
case: Algeria 337
case: Turkey 337
vulnerability evaluation and retrofitting of schools 341
see Ecuador
- urbanization 19, 57, 53, 59, 60, 149, 126, 224, 325, 364
- Uruguay 286, 341, (*annex 3, 74*)
- Uzbekistan 51, 73, 91, 172, 184, 246, 249
Disaster Management Plan 91
- V** Vanuatu 108, 109
Community resilience programmes (CHARM) 109
Community-based volcanic risk reduction 109
Floods mitigation projects 109
National Disaster Management Act 109
Natural disaster management plan 109
plan for Ambae volcano 109
program on public education 109
see Small Island Developing States
- Venezuela 3, 4, 5, 8, 53, 97, 147, 242, 247, 289, 293, 340, 341, (*annex 3, 75*)

- disaster risk management policy 97
 - see landslides
- retrofitting rural schools in Venezuela 341
- Risk Management and Disaster Reduction Programme 97
- Viet Nam 2, 5, 7, 28, 56, 82, 83, 135, 158, 175, 214, 239, 308, 309, 362, 363, 366
 - emergency kindergartens 82
 - Environmental sustainability program, framework of Partnerships to Mitigate Natural Disasters 309
 - National Plan for the Environment and Sustainable Development 308
 - Strategy and Action Plan for Mitigating Water Disasters 91
 - strategy for inhabitants of the Mekong River Delta 82, 83
 - 20-year strategic plan for disaster risk management 82
- volcanology 218, 229, 359
- volcanoes 8, 212, 229, 230
 - projects: CARIB project 258; PREVOL 229, 230; Volcalert 258
 - Volcanism Programme 218
 - volcanic eruptions 37, 53, 54, 147, 262, 263, 293, 315, 326, 375
 - Ambae volcano, Vanuatu 109
 - Casita volcano, Nicaragua 4
 - Pinatubo volcano, Philippines 6, 360, 361, 380
 - Mayon volcano, Philippines 90
 - Merapi volcano, Indonesia 89
 - 2001: Mount Etna 258
 - 2000: Mount Usu, Japan 6, 299
 - 1985: Nevado del Ruiz, Colombia 90, 91, 287
 - 2000: Nyamagira volcano, Goma, Democratic Republic of Congo 54
 - 2002: Nyiragongo volcano, Goma, Democratic Republic of Congo 54, 98
 - Popocatepetl volcano, Mexico 271
 - Taal Volcano Island, Philippines 90
 - Taveuni volcano, Fiji 69, 109
- vulnerability 7, 9, 11, 13, 14, 15, 21, 32, 33, 36, 59, 61, 68, 70, 71, 72, 81, 92, 98, 129, 137, 139, 146, 155, 170, 185, 206, 224, 242, 255, 298, 333, 338, 339, 349, 381, 387, 389, 396
 - assessment techniques 72
 - definition 16
 - Five Year Plan for the Reduction of Vulnerability and Disaster Impact (1999-2004), Central America 145
 - Global Environmental Vulnerability Index, SOPAC
 - see disaster indexes
 - Global Risk Vulnerability Index, UNDP
 - see UN system initiatives
 - see disaster indexes
 - Rarotonga Tourism Vulnerability Pilot Project
 - see Cook Islands
 - Strategic Framework for the Reduction of Vulnerability and Disasters in Central America 145
 - see frameworks for disaster risk reduction
 - 1999: Strategy for the Reduction of Environmental Vulnerability in Central America when Faced with Natural Disasters: Environmental Management and the Evaluation of Vulnerability 29
 - see environment
 - Vulnerability Assessment and Monitoring programme (VAM), WFP 152, (annex 3, 88)
 - see UN system initiatives
 - Vulnerability Reduction Fund, Andhra Pradesh 352
 - see India
- W**
 - water 31, 32, 42, 47, 50, 51, 82, 106, 112, 122, 129, 154, 155, 156, 157, 173, 247, 300, 303, 339, 352
 - Dialogue on climate and water 304
 - see freshwater
 - see climate change
 - Integrated Water Resources Management (IWRM) 50
 - Integrated Watershed Management Project 305
 - see St. Lucia
 - National Watershed Development Project for Rainfed
 - see India
 - 2002: UN-WATER committee (annex 4, 103)
 - see Un system initiatives
 - Water Forums
 - 2003: third 31 (annex 4, 103)
 - 2000: second (annex 4, 102)
 - World Water Assessment Programme, UNESCO 396 (annex 3, 83), (annex 4, 103)
 - see UN system initiatives
 - Western Samoa 289
 - wetlands
 - see drylands
 - wildfires 4, 5, 11, 57, 58, 126, 166, 212, 216, 217, 229, 262, 269, 275, 372, 375, 381
 - bushfires 269, 368
 - 1997: bushfires in the Ferny Creek area, Australia 368
 - Eurasian Experimental Fire Weather Information System 373
 - European Natural Hazards Project Forest Fire Risk, EU 373
 - 1997-98: fire and smoke, Asia 301
 - Fire Weather Information System of Forestry, Canada 373
 - forest fires 8, 37, 175, 367
 - Integrated Forest Fire Management (IFFM) 367
 - International Forest Fire News (annex 3, 75)
 - MODIS Land Rapid Response System 217
 - Project for the Local Prevention and Control of Forest Fires (PRECLIF) 229
 - 1997: wildland fires around Melbourne, Australia 75
- Y**
 - 1994: Yokohama Strategy and Plan of Action for a Safer World 9, 10, 11, 63, 80, 160, 171, 256, 282, 299, 321, 358, 386, 388, 389, 390, 391, 392, (annex 4, 95)
- Z**
 - Zambia 58, 61, 153, 156, 240, 352
 - Joint Operations Technical Committee, ZRA/Hidroeléctrica de Cabora Bassa 156
 - Zambesi River Authority (ZRA) 156
 - Zimbabwe 58, 61, 153, 154, 156, 183, 200, 201, 240, 327
 - Community Drought Mitigation Partner's Network 183
 - see drought
 - see community action
 - see networks



Living with Risk:
A global review of disaster reduction initiatives