

Index

- Abu Dhabi, 44, 225
 adaptation
 to climate change. *See* climate change
 adaptation
 human capacity for, 25
 in systems, 88
 Afghanistan, 220
 Alliance of Small Island States (AOSIS), 255,
 258–261
 Amazonia, 33, 143
 Angola, 212
 Anthropocene, 25, 317
 Antigua and Barbuda, 140, 259
 Arctic, 26, 50
 ‘death spiral’, 33–37
 Armenia, 220
 Australia, 121, 227

 Belize, 227, 258
 Bhutan, 55, 174
 biodiversity
 and adaptation actions, 214, 251, 306
 and bioprospecting, 314–315
 and the ‘dying planet’ index,
 26–27
 as information in living systems,
 84–85, 87
 and the Leaders’ Pledge for Nature, 27
 and tipping points, 33
 Bolivarianism, 139–140
 Bolivia, 48, 177, 207, 275
 aid and development in, 128–131
 Danish aid in Bolivia, 131–134, 146
 indigenous land titling, 135–137,
 140–141
 indigenous lands resist deforestation,
 143–145
 indigenous territorial management,
 137–138
 ‘Living Well’ policy, 141–142
 Monteverde indigenous territory, 54
 Pilon Lajas indigenous territory, 144
 Verdens Skove programme in, 143

 Borneo, 33
 Botswana, 220
 Brazil, 144, 274
 Brexit, 79
 Bulgaria, 253
 Burkina Faso, 268–272, 318

 Cabanes, Valérie, 66
 Cambodia, 177
 Prey Lang Wildlife Sanctuary, 54
 Canada, 36, 134
 Central African Republic, 273
 chaos, 93
 and climate, 62
 and entropy, 61–62, 91
 and systems, 88, 199
 Chávez, Hugo, 139
 Chile, 232, 275, 319
 growth in systems thinking, 234
 cities
 and climate change, 251
 Covenant of Mayors, 248
 and environmental footprints, 176–177
 and self-organising local networks,
 179–182
 and sustainability, 177–179
 citizens’ assemblies, 48–49
 climate, 62
 breakdown, 50
 chaos, 23, 32, 41–42, 64, 94, 99
 emergency, 56
 emergency declarations, 46
 science, 38–41
 strike, 42, 46
 climate change, 4–5, 7, 63, 195
 and anthropology, 70–72
 and biodiversity, 210, 214, 251
 and capitalism, 63, 67–68, 74, 142
 and cities, 175, 251
 and ecology, 72–74, 300, 303, 313
 and economics, 68–69, 74
 and ecosystems, 27, 214, 251
 and employment, 253

- and extreme weather, 27, 83, 99, 209, 248
- and fisheries, 250
- and food security, 213, 249
- and forests, 54–55, 94, 215, 249
- and human health, 210, 214, 252
- and law, 6, 66–67, 74, 258
- and oceans, 35, 209
- and physics, 64–65
- and religion, 69–70, 74
- and socialism, 67, 74
- and the cryosphere, 248
- and the oceans, 247
- and water security, 210, 213, 247, 249, 272
- and wildfires, 27, 33, 36, 83, 249
- climate change adaptation, 16–17, 26
 - in Africa, 266–274
 - and the aid sector, 197–200
 - algorithms of, 106–107
 - in the Americas, 274–276
 - changing ideas of, 185–193
 - community-based, 226–232
 - definition, 15–17
 - ecosystem-based, 219–225
 - new approaches, 23
 - principles of, 74–84
 - research on, 194–196
 - in small islands, 255–266
 - synthesis, 75
 - system-based, 233–245
 - as a Type III issue, 311–312
- climate change mitigation, 7
 - dated mitigation value, 51–53
 - ecological, 306–307
 - entanglement with adaptation, 203–205
 - mid-century deadline, 49–54
 - precautionary investment, 54–55
 - Rio Climate Markers, 186
 - temperature goal, 13
 - as a Type I issue, 308
 - as a Type II issue, 308–310
- complexity, 33
 - and climate systems, 38, 105
 - and the SDGs, 10
 - in social and ecological systems, 91–98
- Convention on Biological Diversity (CBD), 4
 - and grand strategy, 29
 - and levels of biodiversity, 85
 - as a top-down treaty, 6
- Costa Rica, 48, 55, 220, 227, 309, 314–316
- Covid-19, 20, 56–57, 81, 125, 145, 180
- Croatia, 253
- Cuba, 140, 217
- culture, 25, 70
 - conservative tendencies, 76–80, 99–100
 - as information in social systems, 87
 - language, 97
 - trajectories of change, 124, 126
- Denmark, 49, 113, 121, 124
- disaster preparedness, 91, 180–182, 188, 198
- disaster risk reduction, 188, 215
- Dominica, 38–40, 140, 220, 227
- Dominican Republic, 221
- Dunbar groups, 83, 90–91
- ecocide, 49, 66
- Ecuador, 140, 275
- Egypt, 217
- England, 78
 - Bath, 179–180
- entitlement myths, 30, 176, 283, 312
- Eritrea, 212
- Estonia, 248, 253
- Eswatini, 266, 318
 - adaptation in, 269–270
- Ethiopia, 227, 273
- European Commission, 7, 10, 221
- European Union (EU)
 - adaptation scorecards, 18, 255–257
 - adaptation strategy, 246–255
 - climate diplomacy, 7
 - Covenant of Mayors, 248
 - European Green Deal, 49
 - Global Climate Change Alliance (GCCA), 273–274
 - vulnerability to climate change, 246
 - Water Framework Directive, 8–10, 79, 218
- evaluating adaptation, 279
 - adaptive performance, 294–304
 - comparing projects and portfolios, 291–294
 - contribution stories, 289–291
 - criteria of design and performance, 294–297
 - criteria of system health, 100–101
 - design quality, 279
 - perfect design, 283–288
 - realism, 193–194

376 INDEX

- evaluating adaptation (cont.)
 recognising system values, 282–283
 scoring design and performance, 284–288
 sustainable development, 302–305
 theory of change, 279–280
- experimentalist governance, 7–8
 and the European Union, 8–10, 79, 255, 309
 and the Paris Agreement, 13, 44, 100
 and peace with nature, 316
 and the SDGs, 10
- Extinction Rebellion, 29, 42, 45–48, 313
- Fauna & Flora International (FFI), 54
- Fiji, 19, 219–226, 228, 321
- Finland, 36, 113, 151, 155, 293
 Institutional Cooperation Instrument (ICI), 160–161
- France
 Elysée Palace climate initiative, 44
 Fridays for the Future, 42, 46
- genocide, 91
- Germany, 8, 173, 221
- Ghana, 134, 221, 228, 318
 adaptation in, 267–268
- glacial lake outburst floods, 209
- good governance, 297, 300
- Greece, 253
- green ‘new deal’, 310
- greenhouse gases, 3–4, 14
- Greenland, 37, 134
- Grenada, 221, 226, 319
- Guinea-Bissau, 228, 259
- Higgins, Polly, 66
- Holy Roman Empire, 8, 66, 78
- hope and purpose, 313–314
- Iberian Peninsula, 247
- Iceland, 53, 78
 Christianisation of, 77
- indigenous peoples, 134–135
 in Bolivia, 131, 139, 146
 Danish policy on, 135–136
 knowledge systems, 16–17, 65
- Indonesia, 55, 306
 Central Kalimantan, 93
 Java, 176
 marine pollution in, 176
 Sumatra, 33
- Intergovernmental Panel on Climate Change (IPCC), 26, 89, 203
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 26
- International Work Group for Indigenous Affairs (IWGIA), 135, 144
 6th Assessment Report, 6
- Iran, 212
- Iraq, 212
- Ireland, 228
- Jamaica, 222
- Kenya, 222, 228
 keystone species, 95, 104
- Kiribati, 229, 258–259, 261, 318
 adaptation in, 263–266
- Kuwait, 44
- Lao PDR, 222
- Latvia, 253
- Leaders’ Pledge for Nature, 27–28
- leadership, 80–82, 283, 300
- Least Developed Countries (LDCs), 17, 44, 274
- Lesotho, 229
- levels of society, 103–106
- Libya, 212
- Lithuania, 253
- Living Planet Index (LPI), 26, 318
- Madagascar, 222
- Maldives, 259
- Mali, 218, 319
- Marshall Islands, 258, 260–261
 adaptation in, 262–263
 growth in systems thinking, 234
- methane, 3, 26, 36, 64
- Mexico, 140, 222
- Millennium Ecosystem Assessment, 26
- Moldova
 growth in systems thinking, 234
- Morales, Evo, 139, 145
- Morocco, 217, 222
- Mozambique, 151
- Myanmar, 222–223
- Namibia, 55, 223, 229, 232, 275, 319
 adaptation in, 270–271
- Nauru, 258, 318

- Nepal, 198–199, 223, 229
 aid and development, 113–115
 air quality in Kathmandu, 163–175
 building democracy, 123–125
 community forestry, 119–120, 280–282, 289–291
 Danish aid in Nepal, 113–118, 126–127
 escape from fatalism, 122–123, 125
 forest recovery, 120–121, 125
 geography and people, 111
 history, 111–112
 palace coup, 121–122
- Network for Greening the Financial System (NGFS), 45
- New Zealand, 44, 53
- Nicaragua, 140, 314
- Nigeria, 230, 322
- Norway, 44, 77, 218, 223, 246
- Palestine, 223, 230
- Paraguay, 275
- Paris Agreement, 13–17, 43–44, 66, 100, 169, 194, 310
 adaptation goal, 15–16, 18
 and the aid agenda, 200–203
 global stocktake, 13, 18, 212
 mitigation goal, 13–15, 42, 50
 Talanoa Dialogue, 19, 44, 49
- payments for ecosystem services (PES), 217, 237, 315
- peace with nature, 28, 48, 309, 314–317
 constitutional provision, 316
- peat, 4, 36, 241
- permafrost, 4, 36
- Peru, 144, 275
- Placencia Ambition Forum, 44, 258–261
- Portugal, 78, 247
- Qatar, 44, 125
- racism, 3, 99, 137, 312
- REDD+, 163, 186, 272
- Rights of Mother Earth, 48, 139, 142, 207
- Rio Climate Markers, 185–186
 for adaptation, 186–189
 for mitigation, 186
- risks, 27
 climate, 44–45, 198, 200
 corporate, 45
 ecological, 30, 36
 existential, 258
 global, 31–32, 57, 190
 local, 38
- Romania, 253
- Russia, 134
 Siberia, 36
- Rwanda, 230
- Saint Lucia, 224, 260
- Saint Vincent and the Grenadines, 140
- Saudi Arabia, 44
- Scandinavia, 36, 247
- Scotland, 49, 53, 316
 Edinburgh, 180, 312
- Senegal, 218
- Seychelles, 224, 319
- Sharp, Granville, 66
- Singapore, 57, 258, 260
- slavery, 66, 309, 312
- small island developing states (SIDS), 44, 151, 255, 259–261, 274
- social and ecological systems, 88, 101, 106
 adaptive capacity and qualities, 299–304
 key features, 298–299
- social cost of carbon, 49
- Solomon Islands, 230, 258, 261, 318
- South Africa, 203
- South America, 135, 139, 275
- South Sudan, 212, 225, 231, 321
- south–south cooperation, 216, 274
- Spain, 78, 139, 146
- stability of governance, 115
- strength of systems, 89, 297–298
 flexibility, 89
 homeostats and foundations, 104
 origins of strength and weakness, 102
 resilience, 89, 92
 resistance, 89
- strengthening systems, 101–107
 co-benefits of, 301–307
- Suriname, 226, 230, 319, 321
 growth in systems thinking, 234
- Sustainable Development Goals (SDGs), 10–11, 51, 198, 279
- Swaziland. *See* Eswatini
- Sweden, 196
- Switzerland, 121, 293

378 INDEX

- syndemic disease, 56
 systems thinking, 12, 71, 219, 305
- Tanzania, 147–148, 151, 291
 Thunberg, Greta, 42, 46
 tipping points, 31–37, 50, 54, 105, 310
 Tonga, 231, 321
 top predators, 95, 104
 Trinidad and Tobago, 55, 261
 trophic structure, 95
 Turkey, 212, 218
- United Arab Emirates (UAE), 225
 United Kingdom (UK), 49, 121, 231, 309
 United Nations Environment Programme (UNEP), 6, 26, 182
 United Nations Framework Convention on Climate Change (UNFCCC), 5–7, 17, 29, 40, 185, 203, 309
 Adaptation Committee, 6, 18, 56
 adaptation communications, 18–19, 44, 212, 219
 Bali Conference (CoP 13), 5
 Cancún Adaptation Framework, 6
 Copenhagen Conference (CoP 15), 7, 79
 Glasgow Conference (CoP 26), 5, 20
 Kyoto Protocol, 7
 Nairobi Work Programme, 6
 Nationally Determined Contributions (NDCs), 17–18, 207, 212
 Paris Conference (CoP 21), 5, 12, 205
 Secretariat, 6, 16, 20, 207, 272, 318
 United States of America, 42, 173, 274
 Alaska, 36, 134
 Hawaii, 77–78
 Maine, 93
 Uruguay, 225
- Venezuela, 131, 139
 Vietnam, 225, 231
 growth in systems thinking, 234
- water, 96
 Well-being Economy Alliance (WEAll), 53–55
 World Agroforestry Centre (ICRAF), 306–307
- Yemen, 212
- Zanzibar, 175, 291
 adaptation readiness, 161–162
 coastal ecosystems and economy, 149–151
 coastal planning institutions, 152–157
 history, aid and development, 148–149
 Mwambao Coastal Community Network (MCCN), 159–160
 State University of (SUZA), 152, 157–159
 ZAN-SDI project, 151–152
Zeitgeist shift, 31, 43–44, 55, 203, 311