

Index

Note: Page references noted with an *f* are figures.

- Aboriginal epistemology, 315
acceptance, defiant. *See* defiant acceptance
acorns, loss of, 274
Acosta, Virginia, 98
actions in response to change, 150–53, 151*f*
activism, 1, 370
adaptation, 8, 167, 179; animal presence, 295 (*see also* animal presence); Aotearoa New Zealand (ANZ), 169; attitudes to responses, 148–50, 150*f*; climate, 249–51 (*see also* Elbe River Valley); climate change, 219; coastal hazard risk, 167, 168; Coromandel Peninsula, Aotearoa New Zealand, 180–92, 189*f*; defiant acceptance and, 263; institutional setting for, 173–77; narratives, 168 (*see also* Aotearoa New Zealand [ANZ]); responses, 172; strategies, 201; tourism, 230
affluence, 14
AFOLU sector (Kenya), 205
Africa, 201; global warming in, 201; Intergovernmental Panel on Climate Change (IPCC), 201, 202; vulnerability in, 201. *See also* East Africa
agriculture, rewilding strategies, 302
Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District (2015/2017), 277, 278
Aguayo, Don Miguel, 333
airline travel, COVID-19 effect on, 371–73
Airs, Waters, Places (Hippocrates), 3
Aisher, Alexander, 26
Alaska, 34
Aldrich, Daniel, 263
All Weather Snowmaker, 231, 238, 365
alpine cryosphere environments, 230; challenges in, 232–38; high alpine environments, 226–29; human-environmental dynamics, 224, 225; rock falls, 234
alternative world systems, 368–571
Amah Mutsun Tribe, 277. *See also* Tribal nations
Amazon: climate change in the urban, 92–93; Delta, 27
American Anthropological Association, 3
American Anthropologist, 359
American Community Survey, 142*f*
The Angry Earth: Disasters in Anthropological Perspective (Oliver-Smith/Hoffman), 8
animal populations, 272
animal presence: anthropology and rewilding, 304–6; ethnographies, 293–396; Faia Brava Reserve (Portugal), 292; reconstruction of a natural heritage, 306–10; reintroduction of predators, 299, 304, 307, 308, 309; rewilding concept, 297–99; Rewilding Europe network, 300–302, 303; rewilding strategies, 302–3
animism, 315
the Anthropocene, 2, 3, 9, 78, 223, 238, 298, 305, 306
anthropogenic climate change, 319–20
anthropology: climate, 6–8; climate change and, 342; contribution of, 4–6; of energy, 6; global diversity, 8–11; and rewilding, 304–6
Anthropology and Climate Change (Crate/Nutall), 7
anticipation, 8

- antisystemic movements, 369
- Aotearoa New Zealand (ANZ), 167–69; adaptation, 169, 180–92, 189f; beachfront property, 184f; climate change denial, 182–85; climate change leadership, 181–82; erosion, 185f; ethnographies, 169–71; geography of Coromandel Peninsula, 171–73; institutional setting for adaptation, 173–77; local and regional council collaboration, 191; management of, 178; natural hazards, 177–80; political economy in, 181
- apartheid, 39
- Arctic sea ice decline, 313
- Arizona (United States), droughts in, 273
- artificialization, 299, 306
- Arunachal Pradesh (India), 51, 54–56
- assemblage, 9
- Asset Management Plans, 176
- atmospheric pollution, 7
- atomic energy, 318
- attachment to place, 137–38, 144–48, 345
- attitudes to adaptation responses, 148–50, 150f
- Australia: coral reefs, 71; crown-of-thorns starfish (COTS) outbreak, 71, 72; disasters, 339; Great Barrier Reef, 76
- Australian Aborigines, 315, 316
- Austria: alpine cryosphere environments, 232–38; glaciers in, 223–25; high alpine environments, 226–29; human-environment interactions, 229–32; modernity and, 228; performing identity through snow, 228–29; Pitztal glacier ski resort, 226–28; retreating glaciers, 225; snowmaking in, 236, 237
- Austrian Alps, 223, 232. *See also* glaciers
- autonomy, 174
- Bachelard, Gaston, 50, 60
- Baer, Hans, 7, 8
- baixadas* (land occupation), 90
- Baldy, Cutcha Risling, 275
- Bangladesh, 366; access to livelihoods, 118–19; Chattogram, 115; climate change in, 113–14; Dhaka, 115; drinking water access, 122–23; electricity access, 122–23; Great Britain and, 124; growth hubs of, 126; housing, 119–22; migration and, 116–18; Natore, 116, 119, 123; Rajshahi, 116, 117, 119, 121, 123; sanitation access, 122–23; Sirajganj, 116, 120, 122
- Barnes, Jessica, 5, 8
- Barre regime (Somalia), 209, 210, 211
- Barriball, Philippa, 181
- barriers, symbolic, 9
- BASIS Collaborative Research Support Program, 202, 215, 217
- Bates, Henry Walter, 90, 103
- Bateson, Gregory, 6, 12
- Bauman, Zygmunt, 3, 359
- Beaton, Sheena, 188
- Beatty, Andrew, 60
- Beck, Ulrich, 3, 317, 318, 319
- behaviors: control, 156f, 160; outcomes, 157f; Perceived Behavioral Control, 160; Theory of Planned Behavior, 154, 160
- Belém, Brazil, 27; climate change in the urban Amazon, 92–93; disasters, nature, and culture, 97–98; environmental memory and disasters, 95–97; Una Watershed Project, 92, 93–95, 98, 100, 103; urban floods in, 92, 93, 98–103; urban transformations in, 90–92
- belief systems, 81. *See also* knowledge
- Biloxi-Chitimacha-Choctaw Native Americans, 353–57, 368
- Binnizálezos, 325, 326, 327, 328, 329, 330
- biomass energy, 278
- biophysical processes, 298
- birds of prey, 308
- Boulder, Colorado, flooding, 346–53
- Boyle, Robert, 316
- Brazil, 25, 27; Amazon Delta, 27; Belém, 90–92 (*see also* Belém, Brazil); Galo Channel, 100; Guajará Bay, 94; São Joaquim Channel, 100; Visconde de Inhaúma Channel, 101; water supplies, 91
- Breakthrough Institute, 305, 306
- Brondizio, Eduardo, 92
- Brown, Lester, 204
- Brundtland, Gro Harlem, 11
- building materials, 121
- calamities, vulnerabilities of, 341
- Calderón, Felipe, 314
- California tribes, 274, 277, 278, 279, 280. *See also* Tribal nations
- Camus, Albert, 51, 52
- Canada: Inuit in, 137; Labrador, 137

- canals, 100
- Canterbury earthquake sequence (2010–11), 175, 179
- capitalism, 5, 305, 306; climate, 364–66; disasters, 364; glaciers and, 230
- capitalist nature, 231
- Capitalocene, 305
- carbon, 8, 280; emissions, 11; footprints, 12; offsetting, 365
- carbon dioxide. *See* CO₂
- CARE-Somalia, 208, 211
- Carson, Rachel, 15
- Cartesian dualism, 6
- catastrophes, 342. *See also* disasters
- Central European floods, 251
- Centre de Recherches Insulaires et Observatoire de l'Environnement (CRIOBE), 70, 72, 75, 81
- channels, 102*f*
- Chattogram, Bangladesh, 115
- China, 7, 9, 10; airline travel, COVID-19 effect on, 371–73
- Choctaw, 353–57
- Christianity, 38–39
- Civil Defence Emergency Management (CDEM) Act 2002, 175
- civilizational collapse, causes of, 3, 4
- clan warfare, 58
- climate: adaptation, 249–51 (*see also* Elbe River Valley); disruption, 272; relationships and, 3; stressors, 270
- climate anthropology, 6–8
- climate capitalism, 364–66. *See also* capitalism
- climate change, 1; actions in response to change, 150–53, 151*f*; adaptation, 134–35, 179, 219 (*see also* climate change); anthropogenic, 319–20; anthropology and, 342; attachment to place, 137–38, 144–48; attitudes to adaptation responses, 148–50, 150*f*; atypical dangers in, 233–34; Bangladesh, 113–14; categories of, 2, 3; Coromandel Peninsula, Aotearoa New Zealand, 182*f*; COVID-19, 371–74 (*see also* COVID-19); definition of, 17; denial, 182–85; disasters, 339–42 (*see also* disasters); discussions, 158–60; displacement, 135–37; East Africa and, 201 (*see also* East Africa); Eastern Himalayas, 49–54 (*see also* Eastern Himalayas); ecological perturbations (*see* ecological perturbations); effects of location, 138–39; effects on tribes, 271–73; Elbe River Valley (*see also* Elbe River Valley); Ethiopia, 213–19; expectations about future change, 147–48, 158; future effects of on Tribal nations, 273–75; glaciers and, 223–25 (*see also* glaciers); global, 52; global topic of, 2; importance of stories, 59–60; inaction, 177; indigenuity responses, 275–80; intentions to move, 153, 154–58, 157*f*; Kenya, 203–7; lack of climate action, 13–16; leadership (New Zealand), 181–82; localizing, 131–39; migration, 135–37; mitigation, 92, 366; narratives of, 25–28; New Zealand, 167–69 (*see also* New Zealand); in Oaxaca, Mexico, 313–14 (*see also* Oaxaca, Mexico); political solutions to, 1; and progress, 2; research, 366; rewilding and, 292 (*see also* Faia Brava Reserve [Portugal]); rise in sea levels, 133–34; scientific knowledge of, 29; Shishmaref, Alaska, 253; social theory of governance and, 314–19; study designs, 139–41; study methods, 143–44; systemic changes to, 5; understanding of, 366–68; in the urban Amazon, 92–93
- Climate Change Attitude Survey (2015), 142
- Climate Change Response (Zero Carbon) Amendment Bill (2019), 188
- climate refugees, 207–13, 356. *See also* Tribal nations
- climate refugia, 50
- climatology, 26
- CO₂ (carbon dioxide): emissions, 11, 13, 314; increase of, 303
- Côa River Valley (Portugal), 294, 303
- coastal hazard risk, 167, 168, 169, 175, 182*f*, 186; management, 175; natural hazards, 177–80
- Coastal Hazards Policy, 186
- Coastal Management Strategy/Coastal Hazards Policy, 173, 186
- Coastal Protection and Restoration Authority, 356
- coastal tribes, 273. *See also* Tribal nations
- collaboration, 191, 366
- Collaborative Research for Moorea's Fishery, 70

- colonialism, 38, 179, 202, 204, 271, 274, 281, 317, 320. *See also* Indigenous communities
- Colorado disasters, 346–53. *See also* Boulder, Colorado
- commodities, 11
- communal lands (*ejidos*), 321
- communism, 334
- community, sense of, 346
- community-based natural resource management (CBNRM), 36
- Concow Maidu people, 270. *See also* Tribal nations
- conservation, 80
- consultation, Mexico and, 326–28
- consumption, 8, 13
- control, behaviors, 156*f*, 160
- conviviality, 59, 367
- coral bleaching, 77, 78
- coral reefs, 26; Australia, 71; crown-of-thorns starfish (COTS) outbreak, 70–73 (*see also* ecological perturbations); diversity in, 74; fish populations on, 74–76
- Coromandel Peninsula, Aotearoa New Zealand, 167–69; adaptation, 173, 180–92, 189*f* (*see also* adaptation); beachfront property, 172*f*, 184*f*; climate change, 182*f*; climate change denial, 182–85; climate change leadership, 181–82; decision-making processes, 183; erosion, 185*f*; ethnographies, 169–71; geography of, 171–73; institutional setting for adaptation, 173–77; local and regional council collaboration, 191; management of, 178. *See also* Aotearoa New Zealand (ANZ)
- corporate power, 1
- COVID-19, 342, 370, 371–74
- Crate, Susan, 7, 8
- credit market, carbon, 280
- crown-of-thorns starfish (COTS) outbreak, 65–68; culling, 72; effect on fish abundance, 74–76; eradication efforts, 73; glut, bloom, 76–79; knowledge spaces, 82–83; local ecological knowledge (LEK), 73–74; management, 80, 81; perceptions of, 76–79; start of, 70–73; tensions between fishers and scientists, 80
- Crutzen, Paul, 3, 305
- cryospheres, 224, 225. *See also* glaciers
- Cuba, 208
- Cultural Fire Management Council (CFMC), 276
- culture, 17, 97
- Cultures of Energy* (Strauss/Rupp/Love), 7
- Cyclone Cook (2017), 184
- Cyclone Oli, 76
- Daiichi Fukushima nuclear facility (Japan), 345
- damages: economy of repairs, 258–61; flooding, 251, 256 (*see also* flooding; insurance); reconstruction, 259
- Damara people (ǀnūkhoen), 34, 40. *See also* Namibia
- Darfur, Sudan, 202
- decision-making processes, 93, 183
- defiant acceptance, 249–51, 367
- deforestation in Kenya, 203
- democracy, 178
- demographics, 142*f*, 145*f*. *See also* populations
- denial, climate change, 182–85. *See also* climate change
- Denver, Colorado, 352. *See also* Boulder, Colorado
- depreciated habitats, 340
- Derg, the, 213, 214, 215
- Descola, Philippe, 97
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, 115
- development, 90; green development and Mexico, 322–26; megadevelopment projects, 320, 322; Mexico and, 314; Oaxaca, Mexico, 328–32. *See also* urban transformations
- Development Bank of Saxony (Sächsische Aufbaubank, SAB), 256
- Dhaka, Bangladesh, 115
- Diamond, Jared, 4
- dikes, protests against, 254
- Diné, 272. *See also* Tribal nations
- disasters, 50, 339–42; Biloxi-Chitimacha-Choctaw Native Americans, 353–57, 368; Boulder, Colorado, 346–53; capitalism, 364; definitions, 342–46; environmental memory and, 95–97; examples of, 346–57; human dwellings and, 344; nature, and culture, 97–98; slow-onset, 344; socionatural, 91; triggers for, 343; vulnerabilities and, 340, 343

- displacement, 1, 8, 135–37
 disruption, climate, 272
 ditches, 102
 diversity, 8–11, 18
 dogs (in Portugal), 295
 Douglas, Mary, 102
 Dove, Michael, 8
 drainage, 93, 95, 98, 102*f*. *See also* flooding
 Dresden, Germany, 251. *See also* Elbe River Valley
 drinking water, access to, 122–23
 DRM (Direction des Ressources Marines), 72, 73
 droughts, 339; in Arizona (United States), 273; in Ethiopia, 213–19. *See also* disasters
 Dulu-Kungu Dojung, 56, 58
 Dust Bowl (United States), 206
- earthquakes, 27, 175, 179. *See also* disasters
 East Africa, 201; Ethiopia, 204, 205, 213–19; Kenya, 203–7, 219; Somalia, 207–13, 219; Sudan, 204, 205
 Eastern Himalayas: climate change in, 49–54, 51–54; genealogy of a storm, 56–59; significance of climate change in, 52; storms in, 54–56; weather in, 53
 Ebola, 342
 ecological modernization, 364
 ecological perturbations, 65–68; COTS effect on fish abundance, 74–76; crown-of-thorns starfish (COTS) outbreak, 70–73 (*see also* crown-of-thorns starfish (COTS) outbreak); differences in local ecological knowledge (LEK), 79–81; glut, bloom (COTS), 76–79; knowledge spaces, 82–83; local ecological knowledge (LEK), 73–74; Moorea (French Polynesia), 68–70; tensions between fishers and scientists, 80
 ecology, 6
 economic costs, flooding, 251
 economic development, 296
 economic liberalism, 316
 economic systems, 2
 eco-socialism, 363; climate capitalism, 364–66; COVID-19 and, 371–74; understanding of climate change, 366–68; world systems, 368–571
 ecosystems, health of, 299. *See also* animal presence
 education, 340
- effects of location, 138–39
ejidos (communal lands), 321
 Elbe River Valley, 249–51, 367; defiant acceptance, 261–64; economy of repairs, 258–61; floods and climate change in, 251–54; protests against dikes and walls in, 254; uncertainty and flooding, 254–58
 electricity access, 122–23
 Eliot, Charles, 203
 El Niño, 7, 339
 emissions, 18; airplanes, 371–73; carbon, 11; CO₂, 11, 13, 314
 employment in Pitztal glacier ski resort, 226–28
 energy, 278; anthropology of, 6; atomic, 318; exploitation of, 4; renewable, 322; sources, 364; wind, 320–22; wind power, 364
 energy sacrifice zones, 270, 271
 English language, 332
 environmental degradation, 1
 environmental memory and disasters, 95–97
 environmental pluralism, 19, 26, 29–31, 367; definitions of, 33–34; linking ways of knowing, 32–33; northwestern Namibia, 34–36; patterns of, 41–42
 environments, connections to, 344
 epidemics, 342
 Eriksen, Thomas, 340, 341, 363
 erosion, 121, 185*f*
 estuaries, 172
 Ethiopia, 202, 204, 205, 213–19. *See also* Africa
 ethnographies, 15, 293–396
 Europe: Austria, 223 (*see also* Austria); flooding in, 252; rural exodus in, 304
 European Commission (EC), 12
 European Environment Agency, 252
 European Union (EU), 207, 230
 European Union's Emissions Trading Scheme (EUETS), 365
 evacuations, 140. *See also* storms
 evolution, 14
 excessive success, 14
 exploitative treatment, 67
 exports, oil, 12
 exposure, 167
 extreme weather, 1
- Fagan, Brian, 3

- Faia Brava Reserve (Portugal), 292;
 anthropology and rewilding, 304–6;
 ethnographies, 293–396; navigation
 of, 296–97; reconstruction of a natural
 heritage, 306–10; rewilding concept,
 297–99; Rewilding Europe network,
 300–302, 303; rewilding strategies,
 302–3
- famine, 213–19, 339. *See also* disasters;
 Ethiopia
- Figueira de Castelo Rodrigo (Portugal),
 293
- fire, 99; outbreaks, 293; Serra da Estrela
 Natural Park (Portugal), 294; use of to
 resist climate change, 276
- Firestorm Inc., 276
- Fischer, Ernst, 253
- fishing, 67; COTS effect on fish
 abundance, 74–76; food fisheries, 78;
 Moorea (French Polynesia), 69, 70;
 strings of fish, 75f; tensions between
 fishers and scientists, 80
- flooding, 67, 121; Belém, Brazil, 90–92,
 98–103 (*see also* Belém, Brazil); Boulder,
 Colorado, 347–53; Central European
 floods, 251; control systems, 94;
 defiant acceptance, 261–64; economy
 of repairs, 258–61; Elbe River Valley,
 249–51 (*see also* Elbe River Valley);
 Europe, 252; flood-proofing, 151;
 hurricanes, 138; insurance, 256, 258–61;
 inundation zones, 254, 257, 264; living
 close to rivers, 254; management,
 258, 261; management of, 27; New
 Zealand, 175; preparation for, 252, 253;
 reconstruction, 259; Una Watershed
 Project, 98 (*see also* Una Watershed
 Project); uncertainty and, 254–58;
 US Army Corps of Engineers, 355;
 vulnerable populations and, 95, 96.
See also disasters
- flood-prone areas, living in, 254–58. *See
 also* flooding
- Florida (United States), 135, 137
- food: caravans, 203; fishing (*see* fishing);
 in Namibia, 41; security, 273, 281;
 sovereignty risks, 273; traditional
 foods of Tribal nations, 271, 274, 281
- food-for-work scheme, 209
- footprints, carbon, 12
- forests: conservation, 207; management,
 292, 293
- Fortress World, 370
- fossil fuel, revolution of, 4
- Foucault, Michel, 51, 314, 319, 335
- Four Corners region (southwest US), 271
- France, 70, 71. *See also* French Polynesia
- Fransfontein, Namibia, 26, 35, 36, 40, 41
- French Polynesia, 26. *See also* Moorea
- future change, expectations about, 147–48,
 158
- Galaal, Muusa H. I., 212
- Galo Channel (Brazil), 100
- Gedge, Ernest, 203
- gender, 8
- genealogies, 50, 51, 56–59
- General Law of Climate Change (Mexico),
 314
- Georgia (United States), 132; coastal
 map of, 133f; coastal residents, 132;
 Hurricane Matthew (2016), 132,
 134, 139f, 143, 145; intentions to
 move, 153, 154–58, 157f; migration,
 140; populations, 141f; reasons for
 migration, 146–47, 147f; reasons people
 live on the coast, 144, 144f
- geotextiles, 234
- geothermal, 278
- German Democratic Republic (GDR), 259
- Germany: colonial rule in Namibia, 34–35;
 Elbe River Valley, 249–51 (*see also* Elbe
 River Valley)
- giant spider conch, 74
- giant triton, 74
- Gila River Indian Community Water
 Rights Settlement Act (2004), 273
- Gill, Peter, 216
- Gizaw, Shumete, 216
- glaciers, 29, 54; alpine cryosphere
 environments, 232–38; Austria, 223–25
 (*see also* Austria); capitalism and, 230;
 high alpine environments, 226–29;
 human-environment interactions, 229–
 32; modernity and, 228; performing
 identity through snow, 228–29;
 Pitztal glacier ski resort, 224f, 225,
 226–28; reliability of, 234–38; removing
 textiles, 236f; retreating, 225; rock falls,
 234; ski resorts, 223–25; snowmaking,
 236, 237; vanishing, 232
- global capitalism, 5
- global climate change, 52, 223
- Global Climate Coalition, 364

- global diversity, 8–11
 globalization, 69, 181; of markets, 340;
 modernity and, 228
 global population, 15
 Global South, 11, 12, 93, 365
 global warming, 79, 137; in Africa, 201;
 increase of carbon dioxide, 313; in
 India, 51
*Global Warming and the Political Ecology of
 Health* (Baer/Singer), 7
 God, role of, 41, 42. *See also* religion
 Goudie, Sandra, 184, 187, 188
 governance, social theory of, 314–19
 Great Barrier Reef (Australia), 76
 Great Barrier Reef Marine Park Authority,
 71
 Great Britain: Bangladesh and, 124; floods
 (2015–16), 339; Kenya and, 203, 204,
 206; New Zealand and, 173, 174
 Great East Japan Earthquake (2011), 339
 Green Capitalism, 305
 green development and Mexico, 322–26
 green economy, Oaxaca, Mexico and,
 332–34
 green growth, 15
 green neoliberalism, 364
 Green Party, 175
 green revolution, 318
 green technology, 15
 Guajar Bay (Brazil), 90, 94. *See also*
 Belm, Brazil
 Gump Research Station, 70
- habitats, depreciated, 340
 Haitian Earthquake (2010), 339
 Haraway, Donna, 50, 81
 Hardin, Garrett, 205, 211
 Harper, Mary, 209
 Harris, Marvin, 16
 Hastrup, Kirsten, 8
 Hau’ofa, Epeli, 66
 Hauraki Coromandel Climate Action
 (HCCA), 188
 Hazard Mitigation Plans, 176
 hazards, definitions of, 343, 344. *See also*
 disasters
 health of ecosystems, 299. *See also* animal
 presence
 hegemonies, 330
 heritage communities, 357. *See also* Tribal
 nations
 high alpine environments, 226–29
 Himalayas, 25, 26; climate change in,
 49–54 (*see also* Eastern Himalayas)
 Hippocrates, 3
 Hiran Refugee-Reforestation Project, 208
The History of Mexico (Diego Rivera), 334,
 335f
 Hoffman, Susanna, 99, 363
 holistic leadership by Tribal nations,
 269–70. *see also* Tribal nations
 holistic research, 16
 holistic worldviews, 31
 Hopi, 272. *See also* Tribal nations
 Hornborg, Alf, 8
 housing, 119–22
 Hughes, David McDermott, 359
*Human Choice and Climate Change: An
 International Assessment* (Malone/
 Rayner), 7
 human dwellings and disasters, 344
 human-environmental dynamics, 224
 human-environment interactions, 34,
 229–32
 human industrialization, 313
 humanitarianism, 212
 human rights abuses, 215
 humidity, 52
 hunting, 309
 Hurricane Gustav (2008), 355
 Hurricane Katrina (2005), 135, 136, 137,
 339, 355
 Hurricane Matthew (2016), 132, 134, 139f,
 143, 145, 339
 Hurricane Mitch (1998), 339
 hurricanes, 78, 131. *See also* disasters
 Hurricane Sandy (2012), 135, 138, 339, 345
 hybridization, 98
 hydroelectric construction projects, 321
 hydroelectric storage infrastructure, 270
 hydrographic basins, 100
- IAUES World Congress, 99
 Iberian colonizers, 317
 Iberian lynxes, 308
 Iberian Peninsula, 292
 Ice Age, 7
igarap (natural entity), 102
 Imperial British East Africa Company
 (IBEAC), 203
 imports, 11
*In Business as in Life—You Don’t Get What
 You Deserve You Get What You Negotiate*
 (Karrass), 322

- Independent Commission on International Humanitarian Issues (1985: 82), 209
- India: Arunachal Pradesh, 51, 54–56; climate change in, 51–54; global warning in, 51; Kurung Kumey, 51
- Indian Ocean, 52
- Indigenous and Traditional Knowledges (IK/TKs), 269, 275
- Indigenous communities, 269; indigeneity responses, 275–80; population of, 270, 271; racialization of, 322. *See also* Tribal nations
- indigenous issues, 1; New Zealand, 173, 174 (*see also* Māori); Tribal nations (*see* Tribal nations)
- indigenous knowledge, 31, 32, 65
- individualism, 6
- Industrial Revolution, 15, 341, 370
- inequality, 1, 2
- inequity: mitigation, 332; Oaxaca, Mexico, 328–32
- Institute for Nature and Biodiversity Conservation/Institute for Nature Conservation and Forests (ICNB/ICNF), 292
- insurance, flooding, 256
- integrated approach, 32
- Intentional Labor Organization, 323
- Interamerican Development Bank (IDB), 94, 95
- Intergovernmental Panel on Climate Change (IPCC), 11, 59, 113, 201, 202, 313, 366
- International Displacement Monitoring Centre (IDMC), 113
- International Labor Organization's Indigenous and Tribal Peoples Convention (Mexico [1989]), 322
- International Monetary Fund (IMF), 321
- Inuit in Canada, 137
- Iñupiat, 34
- IPCC AR5 Working Group II assessment (2013–14), 183
- IRD (Institut de Recherche pour le Développement), 71
- Ireland floods (2015–16), 339
- Isle de Jean Charles band of Biloxi-Chitimacha-Choctaw Native Americans, 353–57, 368
- Isthmus of Tehuantepec (Mexico), 320, 323
- Iwi Management Plans, 176, 178
- Jansson, Kurt, 214
- Japan: Daiichi Fukushima nuclear facility, 345; postdisaster communities in, 263
- Jemze Pueblo (New Mexico, US), 279
- jobs, 118. *See also* livelihoods
- Johannes, R. E., 65
- Kaika, Maria, 101
- Karrass, Chester, 322
- Karuk, 276. *See also* Tribal nations
- kaumātua* (elderly Māori of standing), 170
- Kenya, 202, 203–7, 219. *See also* Africa
- Kenya Land Commission, 206
- key informant interviews (KIIs), 116
- Khoekhoegowab language, 34, 35
- Kiage, Lawrence, 205
- Kikuyu highlands (Kenya), 203, 204, 205
- Klein, Naomi, 1
- knowledge: coexistence of, 36; indigenous, 31, 32, 65; Indigenous and Traditional Knowledges, 269; lack of information, 32; linking ways of knowing, 32–33; local ecological knowledge (LEK), 65, 66, 67, 68; Māori, 193; *Mātauranga Māori* (ancestral Māori knowledge), 169; models, 66; modern, 330; scientific, 30, 34; traditional, 275; traditional ecological knowledge (TEK) (*see* traditional ecological knowledge [TEK]); ways of knowing, 30
- Kunene region (Namibia), 34. *See also* Namibia
- Kurung Kumey (India), 51
- Kyoto Protocol (1997), 10, 11
- labor force, reasons for migration, 118
- labor movements, 370
- Labrador, Canada, 137
- land degradation, 214
- Land Information Memoranda, 175
- land occupation (*baixadas*), 90
- landowners (Mexico), 325, 326, 327, 332
- languages: Damara people (ǀnūkhoen), 40; Khoekhoegowab, 34, 35; Ovaherero people (Namibia), 40
- La Niña, 339
- Latif, Abdul, 117
- Latour, Bruno, 9, 97
- Lauer, Matthew, 26
- laws: flooding insurance, 261; General Law of Climate Change (Mexico), 314

- Leach, Glenn, 182
- Lévi-Strauss, Claude, 5
- Likert scale, 143
- lime juice fight, 71. *See also* crown-of-thorns starfish (COTS) outbreak
- livelihoods, 124; access to, 118–19; loss of due to flooding, 251; in Pitztal ski resort, 226–28
- Living in Denial* (Norgaard), 7
- local, primacy of, 16–17
- local ecological knowledge (LEK), 65, 66, 67, 68; claims of, 82; crown-of-thorns starfish (COTS) outbreak, 73–74; differences in, 79–81; discrepancies between fishers and scientists, 79; Polynesian fishers, 77 (*see also* crown-of-thorns starfish (COTS) outbreak)
- Local Government Act (LGA), 175
- Local Government Funding and Financing Productivity Commission draft report (2019), 188
- localizing climate change, 131–39; actions in response to change, 150–53, 151*f*; attachment to place, 144–48; attitudes to adaptation responses, 148–50, 150*f*; discussions, 158–60; expectations about future change, 147–48, 158; intentions to move, 153, 154–58, 157*f*; study designs, 139–41; study methods, 143–44
- local weather patterns, 30
- location, effects of, 138–39
- logging, 355
- long-term cycles, 25
- Long Term Plan (LTP [2018–28]), 186
- Lutheran Protestants, 38. *See also* religion
- MacNeice, Louis, 59
- maintenance, ski resorts, 233
- maladaptation risks, 202
- Maldives, 136
- Malone, Elizabeth, 7
- management: coastal hazard risk, 175; crown-of-thorns starfish (COTS) outbreak, 80, 81; flooding, 27, 258, 261; forests, 292, 293; resource, 10, 204; watersheds, 317
- manufacturing, 341, 342
- Māori, 169, 170; *kaumātua* (elderly Māori of standing), 170; knowledge, 193; local action from, 180; *Mātauranga Māori* (ancestral Māori knowledge), 169; relationships with, 178, 190; rights, 193; settlement in New Zealand, 173, 174; Waitangi Tribunal (1975), 174. *See also* Aotearoa New Zealand (ANZ); New Zealand
- Ma'ow, Hussein, 210, 212
- Maren, Michael, 209
- marginalization, 340
- Marino, Elizabeth, 253
- markets: carbon, 8; globalization of, 340; systems, 370; treating nature as, 359
- Marx, Karl, 334
- Marxism, 204, 334
- Mātauranga Māori* (ancestral Māori knowledge), 169
- Mayan empire, 4
- Mayer, Helena, 187, 187*f*
- McNeill, John, 3
- Mead, Margaret, 6
- Mean Higher High Water (MHHW), 143, 159
- megacities, 115. *See also* Bangladesh megadevelopment projects, 320, 322
- Mendes, Paulo, 363
- Mengistu Haile Mariam, 213
- Mesoamerican people, 315, 316, 317
- Mexican Constitution, 321
- Mexico: anthropogenic climate change and, 319–20; climate change and, 313, 314; consultation and, 326–28; General Law of Climate Change, 314; green development and, 322–26; Isthmus of Tehuantepec, 320, 323; landowners, 325, 326, 327; National Palace, 334, 335; North American Free Trade Agreement (NAFTA), 321, 322; Oaxaca (*see* Oaxaca, Mexico)
- Micronesia, 66
- Middle Ages, 314
- middle-class, 2
- migration, 1, 8; access to livelihoods, 118–19; climate change, 135–37; cycles of, 116; drinking water access, 122–23; electricity access, 122–23; Georgia (United States), 140; housing, 119–22; Hurricane Katrina (2005), 137; intentions to move, 153, 154–58, 157*f*; poverty as reason for, 125; reasons for, 146–47, 147*f*; responses, 138; rural-to-urban, 116; sanitation access, 122–23; social motivations for, 117; surveys, 142; urban, 340

- Millennium Development Goal (MDG):
 Bangladesh Progress Report 2008, 116
 mitigation, 8; in Bangladesh, 113–14;
 climate change, 92, 366; inequity, 332;
 Mexico and, 314; rural flow, 116
- Moapa River Indian Reservation (Nevada,
 US), 279
- models, knowledge, 66. *See also*
 knowledge
- modernist epistemology, 316, 317, 318
- modernity, 90, 94, 101, 318; tourism and,
 228
- modernization, 27, 90; ecological, 364
- modern knowledge, 330
- Monga*, 115
- monoculture planting, 272
- monsoons, 53
- Montesquieu, 3
- Moore, Jason, 305
- Moorea (French Polynesia), 67, 68; crown-
 of-thorns starfish (COTS) outbreak,
 73–74 (*see also* crown-of-thorns
 starfish (COTS) outbreak); ecological
 perturbations, 68–70; knowledge
 spaces, 82–83; map of, 69*f*; tensions
 between fishers and scientists, 80
- Moorea Coral Reef LTER, 70
- Mora, Don Ricardo, 331
- mother-places (*aaney-nyoku*), 57
- mountain landscapes, 229. *See also* glaciers
- Mount Kenya (Kenya), 203, 205, 206
- movements: antisystemic, 369; labor, 370
- multispecies assemblages, 60
- Namibia, 9, 19, 25; environmental
 pluralism, 29–31 (*see also*
 environmental pluralism); food
 in, 41; Fransfontein, 26, 35, 36, 40,
 41; northwestern, 34–36; patterns
 of pluralism in, 41–42; rain in, 41;
 weather in, 29; *llgamo!nâb*, 36
- narratives: adaptation, 168 (*see also*
 Aotearoa New Zealand [ANZ]); of
 climate change, 25–28; oral, 59
- Naso*, 74, 75, 78
- National Center for Atmospheric
 Research (NCAR), 347
- National Climatic Data Center, 273
- National Geographic*, 208
- National Hazard Center, 347
- National Institute of Ecology and Climate
 Change (INECC), 314
- nationalism, 2
- National Oceanic and Atmospheric
 Administration (NOAA), 143, 347
- National Palace (Mexico), 334, 335
- The National Republican Guard (GNR),
 294
- National Science Foundation, 73
- national voter identity card (ID), 120, 123
- Native American communities, 364. *See*
also Tribal nations
- Natore, Bangladesh, 116, 119, 123
- natural disasters, 343. *See also* disasters
- natural entity (*igarapé*), 102
- natural hazards, 181; adaptation to,
 249–51; Aotearoa New Zealand (ANZ),
 177–80. *See also* disasters
- natural heritage, reconstruction of, 306–10
- naturalization, 299. *See also* animal
 presence; rewilding
- natural resources, 16, 366
- nature, 97
- Nature Conservancy Fire Learning
 Network, 276
- nature reserves, 295. *See also* animal
 presence; Faia Brava Reserve
 (Portugal)
- Navajo Nation, 271, 272, 277. *See also*
 Tribal nations
- neoliberalism, 180, 181, 340, 364
- neo-Malthusianism, 205
- Nepal, 9, 54. *See also* Eastern Himalayas
- Nepalese earthquake (2015), 339
- networks, social, 32
- New Ireland, 74
- New Mexico tribes, 275. *See also* Tribal
 nations
- New Orleans, Louisiana, 135, 136. *See also*
 Hurricane Katrina (2005)
- New York Times*, 76
- New Zealand: adaptation, 180–92, 189*f*;
 beachfront property, 184*f*; climate
 change denial, 182–85; climate change
 leadership, 181–82; Coromandel
 Peninsula, Aotearoa, 167–69;
 erosion, 185*f*; ethnographies, 169–71;
 geography of Coromandel Peninsula,
 171–73; institutional setting for
 adaptation, 173–77; local and regional
 council collaboration, 191; natural
 hazards, 177–80; storms, 183
- New Zealand Coastal Policy Statement
 (NZCPS [2010]), 175, 176*f*, 181

- New Zealand First, 175
 New Zealand National Party, 174
 New Zealand Transport Agency (NZTA), 186
 Njega of Ndia, Chief, 206
 nongovernmental organizations (NGOs), 72, 73, 74, 77, 92, 300, 365, 366
 Norgaard, Kari, 7
 North American Free Trade Agreement (NAFTA), 321, 322
 Northern California Indian Development Council, 276
 Norway, 11–13
 Nuttall, Mark, 7, 8
 Nyishi, 51, 57
- Oakland, California, 99
 Oaxaca, Mexico, 313–14; anthropogenic climate change and, 319–20; consultation and, 326–28; development and inequity, 328–32; green development and, 322–26; green economy and, 332–34; social theory of governance and, 314–19; before turbines, 320–22
 occupationscapes, 224, 225, 229. *See also* ski resorts
 Oceania, 66
 ocean temperatures, 77, 79
 Ogaden War (Somalia), 208, 211
 oil: exports, 12; platforms (Norway), 13. *See also* fossil fuel, revolution of
 One-Way Analysis of Variance, 143
 oral narratives, 59
 Orlove, Ben, 7, 8
 Oromiya Zone (Ethiopia), 216, 217
 outbreaks, fire, 293
 outcomes of behaviors, 157f
 Ovaherero people (Namibia), 40
 overheating, impact of, 363
Overheating: An Anthropology of Accelerated Change (Eriksen), 340
- Pacific islands, 66
 Pacific Ocean populations, 173
 Paiute, 273, 274, 279. *See also* Tribal nations
 Palauan fishers, 65
 Panama Beach, Florida, 135, 137
 pandemics, 17
 Pankhurst, Atula, 213
 Paris Agreement at Conference of the Parties 21 (COP21), 365
 parrotfish, 74
 pastoralists, 39, 207–13
 path dependence, 13
 patronage networks, 210
 Pauli, Julia, 35
 Pentecostal churches, 38. *See also* religion
 Peralta, Don Ricardo, 330
 Perceived Behavioral Control, 160
 permafrost, 232–38. *See also* glaciers
 permanent residency (Bangladesh), 119–22
 pesticide, 73
 petroleum industries, 271
 Philippines, 65
 photographic safaris, 309
 physical planes, altercations to, 344, 345
 pine nut populations, 272
 Pitztal glacier ski resort, 224f, 225, 226, 238; employment in, 226–28; snowmaking, 237
 place, attachment to, 144–48, 345
 Pleistocene rewilding, 297, 298. *See also* rewilding
The Poetics of Space (Bachelard), 50
 policy of villagization (Ethiopia), 215
 political movements, 1
 political solutions to climate change, 1
 pollution, 7, 345
 Polynesia, 25, 26; ecological perturbations in, 65–68; Moorea (French Polynesia), 67 (*see also* Moorea [French Polynesia])
 populations, 90; animal, 272; animal presence, 293 (*see also* animal presence); Bangladesh, 113 (*see also* Bangladesh); Colorado disasters, 349, 350; emergence of human, 314, 315; Georgia (United States), 141f; global, 15; growth, 4; inequity among, 320; movements, 340 (*see also* migration); Pacific Ocean, 173; pine nut, 272; postlogging effects, 272; pre-Columbian, 315, 316
 Portugal, 11–13, 368; anthropology and rewilding, 304–6; dogs in, 295; Faia Brava Reserve, 292 (*see also* Faia Brava Reserve [Portugal]); Figueira de Castelo Rodrigo, 293; renaturalization, 302, 306; Rewilding Europe network in, 303; Serra da Estrela Natural Park, 294
 postdisaster solidarity, 263
 postlogging effects, 272
 poverty, as reason for migration, 117, 125

- pre-Columbian populations, 315, 316
 predators, reintroduction of, 299, 304, 307, 308, 309. *See also* wolves
 Prescribed Fire Training Exchange (Trex), 277
 Principal Components Analysis (PCA), 143, 154
 Private Protected Area (Portugal), 292
 products of knowledge practices, 82
 progress, climate change and, 2
 protection, flood, 261–64. *See also* flooding; insurance
 protests, 187*f*
 public understanding of science (PUS), 32
 purification, 97, 98
 Pyramid Lake Paiute Tribe, 274
- Qualtrics Panels, 140
 Quiroste Valley Cultural Preserve, 277
- racialization of Indigenous communities, 322
 racism, 67
 racist exclusion, 1
rahui organizations, 80, 81
 rain, 37, 41, 98. *See also* flooding; weather
 Rajshahi, Bangladesh, 116, 117, 119, 121, 123
 Ramos, Don Oscar, 328, 329
 rapid disturbances, 78
 Rayner, Steve, 7
 REDD (Reducing Emissions from Deforestation and Forest Degradation), 11, 12, 280, 365
 Reef Check Polynésie, 72
 Refugee and Migratory Movements Research Unit (RMMRU), 115
 refugees, 50; climate, 208 (*see also* Somalia); United Nations High Commission for Refugees, 209
Le regard éloigné (Lévi-Strauss), 5
 regions, 18
 reintroduction of predators, 299, 304, 307, 308, 309
 reliability, snow, 231, 234–38
 religion: Christianity, 38–39; role of, 41, 42
 renaturalization, 298, 302; in Portugal, 306; support of, 307. *See also* animal presence; rewilding
 renewable energy, 322
 repairs, economy of, 258–61. *See also* flooding
- repopulation programs, 293
 Republic of Somaliland, 212
 research, climate change, 366
 resettlement, 213–19, 342
 residency (Bangladesh), 119–22
 resilience, 8, 18
 resource management, 10, 204
 Resource Management Act 1991 (RMA), 175, 177
 Resource Management (Energy and Climate Change) Amendment Act (2004), 181
 responses, migration, 138
 restoration, rewilding, 292. *See also* Faia Brava Reserve (Portugal)
 retrofitting buildings, 364
 returns on investments in energy (EROI), 4
 revitalization movements, 331
 rewilding, 230, 296; anthropology and, 304–6; concept of, 297–99; strategies, 302–3
 Rewilding Europe network, 292, 296–97, 300–302; in Portugal, 303; rewilding strategies, 302–3
 rights, Māori, 193
 risks, 8; adaptation to, 249–51 (*see also* adaptation); flood inundation zones, 254; food sovereignty, 273; inundation zones, 264; society, 319, 320
 Rivera, Diego, 334, 335*f*
 river erosion, 121
 rivers, living close to, 254. *See also* flooding
 RMA Regional Policy Statements (RPS), 176
Road to Survival (Vogt), 15
 rock falls, 234
 Rocky Mountains (United States), 351. *See also* Boulder, Colorado
 Roman empire, 4
 Rosa, Hartmut, 3
 Routledge, W. Scoresby, 203, 204
 Royal HaskoningDHV, 186
 Ruedas, Antonio, 332
 rural exodus in Europe, 304
 rural-to-urban migration, 116
- SADC (Southern African Development Community), 40
 safe havens, 57
 safety of ski resorts, 233
 Sahelian nomads, 9

- Samoa, 74
- Sanchez, Don Eugenio, 324, 325
- Sanchez, Kathy, 275
- sand dune mobility, 272
- sanitation, 27, 93, 95, 122–23. *See also* flooding
- Santa Ynez Band of Chumash Indians, 279. *See also* Tribal nations
- São Joaquim Channel (Brazil), 100
- Savannah, Georgia, 134, 140. *See also* Georgia (United States)
- Saxony, Germany, 249–51. *See also* Elbe River Valley
- Schnegg, Michael, 26
- Schneider, Dieter, 258
- science, claims of, 82
- scientific discourses, 39–41
- scientific knowledge, 34
- sea ice decline, 313
- sea levels, 29, 67, 92, 103; adaptation to changes in, 134–35; in Georgia (United States), 132; intentions to move, 153, 154–58, 157*f*; in New Zealand, 172; rise of, 147, 148*f*, 213, 313
- seawater, warming, 341. *See also* global warming
- Secretariat of Energy (SENER [Mexico]), 327
- security, food, 273, 281
- sedentarization, 95
- SEMARNAT (Secretariat of Environment and Natural Resources), 324
- septic tanks, 94
- sequestration, carbon, 8, 280
- Serra da Estrela Natural Park (Portugal), 294
- settlements (Bangladesh), 119–22, 125
- settler colonization, 270
- severe acute respiratory syndrome (SARS), 372
- sewage, 27
- Sewage Company of Pará, 94
- sexism, 67
- shanties, 120, 125. *See also* housing shelter, types of, 121. *See also* housing
- Shishmaref, Alaska, 253
- Shoreline Management Plans (SMPs), 186
- Siberia, 79
- Silent Spring* (Carson), 15
- Singer, Merrill, 7, 8
- Sirajganj, Bangladesh, 116, 120, 122
- Sisk, Calleen, 278
- ski resorts, 365; alpine cryosphere environments, 232–38; glaciers, 223–25 (*see also* glaciers); human-environment interactions, 229–32; maintenance, 233; modernity and, 228; performing identity through snow, 228–29; Pitztal glacier ski resort, 224*f*, 226–28; removing textiles, 236*f*; retreating glaciers, 225; snowmaking, 236, 237
- slavery, 40, 132
- slow-onset disasters, 344
- smog, 7
- smoke, 7
- snow, 234; All Weather Snowmaker, 231, 238, 365; alpine cryosphere environments, 232–38; performing identity and, 228–29; reliability, 231, 234–38; snowmaking, 236, 237; tourism, 229 (*see also* ski resorts); as white gold, 228
- snowmaking, 236, 237
- social institutions, relationship to climate and, 3
- social life, relationship to climate and, 3
- social networks, 32
- social norms, 155*f*, 160
- social theory, perspectives from, 3–4
- social theory of governance and climate change, 314–19
- social welfare, 12
- Society for Applied Anthropology (SfAA), 8
- sociocultural approach, 32
- sociocultural disasters, 91
- soil erosion, 54
- solar wind, 278
- solidarity, postdisaster, 263
- Solomon Islands, 74
- Solukhumbu District (Nepal), 54
- Somalia, 202, 219; climate refugees, 207–13; food-for-work scheme, 209. *See also* Africa
- Southeast Asia fires and smog (2015 and 2016), 339
- southwestern United States: climate change effects on tribes, 271–73; Four Corners region of, 271; future effects of climate change on, 273–75; population of Indigenous communities, 270, 271; Tribal nations, 269–70 (*see also* Tribal nations). *See also* United States
- South Wollo Zone (Ethiopia), 217

- Soviet Union, 208
- Spanish language, 330
- spatiality, 14, 138
- spearfishers, 78
- Srinivas, M. N., 25
- starfish. *See* crown-of-thorns starfish (COTS) outbreak
- State Water Resources Control Board (CA-SWRCB), 278
- Steffen, Will, 3
- Steingraber, Sandra, 213
- Stern, Nicholas, 366
- Steward, Julian, 6
- Stoermer, Eugene, 3
- Stoltenberg, Jens, 12
- stories, importance of, 59–60
- storms, 339; anxiety and, 50; in the Eastern Himalayas, 49–54, 54–56 (*see also* Eastern Himalayas); genealogies of, 56–59; hurricanes, 131, 138; New Zealand, 183. *See also* disasters
- strategies: adaptation, 201; eco-socialism, 363 (*see* eco-socialism); rewilding, 302–3
- study designs, 139–41, 140*f*
- study methods, 143–44
- Sudan, 204, 205, 339
- surveys, migration, 142
- sustainability, 10, 11
- Sustainable Development Goals (SDGs), 126
- swine flu, 342
- Switzerland, 238
- Syria, 339
- Tahiti, 69, 75
- Tainter, Joseph, 3
- Talum village, 56, 57, 60
- TAMA (There Are Many Alternatives), 5
- taramea*. *See* crown-of-thorns starfish (COTS) outbreak
- technological disasters, 343. *See also* disasters
- technonature, 231
- Tegg, Dennis, 191
- temperament, relationship to climate and, 3
- temperatures: Boulder, Colorado, 346–53; effects on southwestern US, 271, 272; global warming and, 137; impact of overheating, 363; increase in carbon dioxide, 313; rising ocean, 77; shifting weather patterns (Ethiopia), 216; Ilgamo!nâb Namibia, 36, 37
- temporality, 14
- Tesque Pueblo (New Mexico, US), 276
- Tewa Women United, 275
- textiles, removing, 236*f*
- Thames-Coromandel District Council (TCDC), 168, 176, 177, 183, 187, 187*f*, 188, 192, 193
- themes, 18
- Theory of Planned Behavior, 154, 160
- This Changes Everything* (Klein), 1
- thousand-year floods, 353. *See also* flooding
- Thunberg, Greta, 14, 366
- tilapia, 101
- Time* magazine, 76
- timescales, weather conditions and, 31
- TINA (There Is No Alternative), 5
- Tohono O'odham Nation, 277. *See also* Tribal nations
- tourism, 223; adaptation, 230; alpine cryosphere environments, 232–38; definitions of, 230; employment in Pitztal glacier ski resort, 226–28; modernity and, 228; rewilding strategies and, 302; snow, 229 (*see also* ski resorts). *See also* glaciers
- traditional ecological knowledge (TEK), 26, 27, 275, 276, 367. *See also* knowledge
- traditional foods of Tribal nations, 281
- traditions, 81
- Transhumance and Nature Association (ATN), 292
- trenches, 102
- Tribal nations, 269–70; Choctaw, 353–57; climate change effects on tribes, 271–73; future effects of climate change on, 273–75; indigenuity responses, 275–80; Isle de Jean Charles band of Biloxi-Chitimacha-Choctaw Native Americans, 353–57; population of Indigenous peoples, 270, 271; Pyramid Lake Paiute Tribe, 274; traditional foods of, 271, 274, 281
- Trump, Donald, 365
- tsunamis, 345. *See also* disasters
- Tuvalu, 67
- 2018 Fourth United States National Climate Assessment (NCA), 269
- Tybee Island, Georgia, 132. *See also* Georgia (United States)

- Typhoon Haiyan (2013), 339
 Typhoon Megi (2016), 339
- Una Basin, 27, 90. *See also* Belém, Brazil
 Una River, 91. *See also* Belém, Brazil
 Una Watershed Project, 92, 93–95, 98, 100, 103, 367
 uncertainty, 8
 uncertainty and flooding, 254–58
 UN Food and Agriculture Organization (FAO), 214
 UN Framework Convention on Climate Change (UNFCCC), 364, 365
 United Nations (UN), 11; Clean Development Mechanism, 365; Declaration on the Rights of Indigenous Peoples, 278; Framework Convention on Climate Change (UNFCCC), 322; High Commission for Refugees, 209; Reducing Emissions from Deforestation and Degradation (REDD), 365
 United States, 6; budget for climate change, 357; Colorado (*see* Boulder, Colorado); Dust Bowl, 206; Florida, 135, 137 (*see also* Florida [United States]); Georgia, 132 (*see also* Georgia [United States]); North American Free Trade Agreement (NAFTA), 321, 322; slavery, 132; Tribal nations, 269–70, 355 (*see also* Tribal nations); wildfires, 339
 United States Agency for International Development (USAID), 208, 209
 upward social mobility, 321
 urban migration, 340
 urban planning, 103
 urban transformations (Belém, Brazil), 90–92
 urban vulnerability: access to livelihoods, 118–19; in Bangladesh, 113–14; drinking water access, 122–23; electricity access, 122–23; housing, 119–22; migration and, 116–18; overview of, 114–15; sanitation access, 122–23
 US Army Corps of Engineers, flooding, 355. *See also* flooding
 US Centers for Disease Control and Prevention
 US Forest Service, 276
 US Geological Survey (USGS), 143
 varimax rotation, 143
 Vetlesen, Arne Johan, 16
 Vietnam, 34
 Viliui Sakha, 79
 villagization, policy of (Ethiopia), 215
 Visconde de Inhaúma Channel (Brazil), 101
 Vogt, William, 15
 von der Leyen, Ursula, 12
 voter identity card (ID), 120, 123
 vulnerabilities, 8, 50, 167, 179, 193; access to livelihoods, 118–19; in Africa, 201; of calamities, 341; disasters and, 340, 343; drinking water access, 122–23; electricity access, 122–23; forms of, 114–15; housing, 119–22; migration and, 116–18; sanitation access, 122–23; urban, 113–14 (*see also* Bangladesh)
- Waikato Regional Council (WRC), 176, 183
 Waitangi Tribunal (1975), 174
 walls, protests against, 254
 water: access to drinking, 122–23; retention basins, 254; storage infrastructure, 270; supplies (Brazil), 91. *See also* flooding
 watershed management, 317
 The Water Tower of Asia, 51–54
 ways of knowing, 29–31; and environmental pluralism, 33–34 (*see also* environmental pluralism); linking, 32–33; weather changes, 36–41. *See also* knowledge
 weather: climate change (*see* climate change); conditions and timescales, 31; destabilization of, 341; in the Eastern Himalayas, 53; El Niño, 7; extreme, 1; forecasting, 34; local weather patterns, 30; in Namibia, 29; shifting weather patterns, 216; uncontrollability of, 31; ways of knowing, 29–31; ways of knowing weather changes, 36–41
 well-being, 13
 wells, water, 122
 wetlands, draining, 94
 White, Leslie, 6, 16
 white gold, snow as, 228
 white sand, 173
 Wildavsky, Aaron, 102
 wildfires, 339
 Wilhite, Hal, 8

- Wilson, Edward O., 341
wind power, 364
wind turbine installations, 320–22, 327,
331
Winters v. US (1908), 277, 278
Wolf, Edward, 204
wolves, 294, 308, 309. *See also* animal
presence
World Bank, 207, 321
world systems, 368–571
World War II, 6
Yazzie, Melanie, 275
Yurok, 276, 277. *See also* Tribal nations
Yurok Forestry/Wildland Fire, 276
Zapotec language, 328, 330, 331, 332, 333
Zwaan, Eric, 187f
Zwaan, Nancy, 187f