

## Index

- acid rain, 2, 7–8; fear of, 25
- AFBF. *See* American Farm Bureau Federation
- Africa; caloric intake in, 45n16;  
deforestation in, 92, 98–99; poverty in,  
68. *See also* sub-Saharan countries
- agricultural commerce, trade and, 123
- agricultural production, carbon  
sequestration and, 186–87; human well-  
being and, 150; meteorological conditions  
and, 17; population growth and, 148–59
- agricultural yields, xviii, 15, 34, 72, 74
- agriculture, carbon emissions, and, 177–78
- AIDS, 61, 70–71, 75, 76, 129
- air pollution, 103n4; criteria for, 99; GDP  
and, 93; in London, 21; measurement of,  
102–3n3; in *The Skeptical Environmentalist*, 37–38
- air quality, xiv, xv, xix, 104n5;  
environmental Kuznets curve and, 87–90,  
93–94, 98, 101, 102; GDP and, 88–89;  
improvement of, 95; political power and,  
102; trade and, 120, 123–24
- alcoholism, in Russia, 60
- Aldrich, Mark, 9–10, 45n8
- American Farm Bureau Federation  
(AFBF), 26, 29
- Antweiler, Werner, 120, 123, 137
- appropriation, institutional quality and, 97
- arable land, 14
- Argentina, forests in, 11
- Asia, deforestation in, 92, 98–99; poverty  
in, 68
- Asimov, Isaac, on Easter Island, 18–19
- Ausubel, J. H., 63
- Bandopadhyay, Sushenjit, 89, 104n6
- Baron, Sal, 30
- Barro, Robert, 159
- Bates, J. M., 95–96, 97
- Bayer, Joseph, 41
- Becker, Gary, 159
- BERI. *See* Business Environmental Risk  
Intelligence
- Bhagwati, Jagdish, 121, 127, 129, 130
- Bhattarai, Madhusudan, 98; findings on  
institutional quality of, xvii

- biodiversity, 13; in *The Skeptical Environmentalist*, 34–37
- birth rates, 144
- Bongaarts, John, 33–34
- Boserup, Esther, 144
- Boyce, James K., 102
- Brazil, deforestation in, 10; species extinction in, 36–37
- Brazilian Society of Zoology, 36
- Bredsdorff, Niels, 13
- Brown, Lester, 5, 15, 144
- bureaucracy, institutional quality and, 97
- Bush administration, free trade and, 114
- Business Environmental Risk Intelligence (BERI), 98
- Calvinism, environmental fears and, 30
- Canada, forest cover of, 7
- capital, globalization and, 126, 128
- capital mobility, benefits of, 132
- capitalism, protesters against, 130–32
- carbon, economic growth and, 191
- carbon dioxide emissions, 39, 41
- carbon emissions, xv, 182–85; forests and, 179–81; income and, 191; international rates of, 194–96, 197. *See also* carbon sequestration; gross emissions; methane emissions; net carbon emissions
- carbon equivalent, 199n7
- carbon flux, 190
- carbon sequestration, 175–76, 185–90; agricultural production and, 186–87; in forests, 180–81; in forests in United States, 188; income and, 186, 198n5; population growth and, 190
- carbon sink, 175, 181, 188, 189; United States as, 192
- carbon sources, 175
- carbon uptake, 198n4
- Carson, Richard T., 103n4
- cattle, methane emissions and, 177–78, 199n16
- Census of Manufacturers, U.S., 90, 105n7
- Center for Institutional Reform and the Informal Sector (IRIS), 98
- Chakravorty, Ujjayant, 124
- Chapman, Duane, 91
- child labor, 65
- China, education in, 64; food production in, 56–57; GDP and, 62–63; infant mortality in, 61; life expectancy in, 59; trade policy in, 112
- civil liberties, environmental quality and, 102, 104n6
- clear-cutting, 180
- climate, environmental quality and, 93
- climate change, 16, 173; in *The Skeptical Environmentalist*, 39
- coal resources, 37–38, 124, 177
- Cole, M. A., 95–96, 97
- commodities, pricing of, xix
- comparative advantage, principle of, 110, 138–39n1
- computer models, 40; flaws in, 13
- Confederation of British Industry, 27
- conservation, of finite resources, xxi
- Conservation Reserve Program, U.S., 187
- consumption, 68–69, 148
- contracts, enforceability of, 98, 119; fertility rates and, 163; institutional quality and, 97
- “The Cooling World,” 17
- Copeland, Brian R., 120, 123, 137
- corruption, government, institutional quality, and, 97
- creative destruction, 102n2
- cropland, in United States, 187
- Cropper, Maureen, 91
- currency, conversion of, 77n5, 77n7
- de Soto, Hernando, 130
- De Vany, Arthur, 161
- Deacon, Robert T., 118, 119
- deaths, from cold, 45n15; in Russia, 60
- debt-for-nature swaps, 118–20
- deforestation, 10–11, 44n5–6, 45n7–8, 104n5; on Easter Island, 18–19; environmental Kuznets curve and, 91–92; environmental quality and, 93–94, 149, 151; institutional quality and, 99; per-

- capita income and, 91–92; political/civil liberties and, 104–5n6; population growth and, 147–48, 156; in Puerto Rico, 37; rule of law and, 165. *See also* forest cover
- Denmark, Greenpeace in, 13
- dependency ratios, 148
- Derrida, Jacques, 130
- direct trading, of environmental goods, 118–20
- diseases, 129; food production and, 72
- displacement phenomenon theory, 91
- distribution of income, human well-being and, 129; trade and, 125–30
- Doha agreement, 115, 116, 129
- Dollar, David, 68, 74
- Earth Day, 19
- Easter Island, as environmental model, 18–19
- Eastern European countries, Human Development Index for, 65; life expectancy in, 60, 75; privatization and, xvi
- Eaton, Jonathan, 113
- ecological collapse, models of, 18–19
- economic activity, global warming and, 174
- economic development, benefits of, 74–75; environmental development and, 22, 117–18; human well-being and, 55, 62–64
- economic freedom, 152; by country, 66, 171; criteria for, 153; economic growth and, 152; fertility rates and, 160–61; gaps in, 167n5; human well-being and, 55, 65, 164–65; population growth and, 156–58; rates of, 154
- Economic Freedom of the World Index, 165
- economic growth, 74; carbon emissions and, 184, 191; environmental quality and, xv–xvi, xxi; fertility rates and, 159–60; free-market discipline and, xvi; pollution and, 122; scarcity and, xiv; tree planting and, 178
- economic institutions, definition of, 145; fertility rates and, 159–63; human well-being and, 151, 153–54; population growth and, 155–58; poverty and, 163
- economic performance, income levels and, xiv–xv
- ecosystem, worth of, 12
- education, 74; by country, 65; fertility rates and, 159; human well-being and, 55, 64–65; income and, 64; life expectancy and, 72
- Ehrlich, Anne, xviii, 20
- Ehrlich, Paul, xviii–xix, 19–20, 46n18
- electricity, 73
- emission targets, Kyoto Protocol in, 119–20
- emissions, 124
- employment, globalization and, 128; trade and, 127
- The End of Affluence* (Ehrlich and Ehrlich), 20
- endowment, environmental quality and, 93
- energy, in *The Skeptical Environmentalist*, 37–39
- energy consumption, 12; in United States, 184, 186
- Energy Information Administration, United States, 8
- Energy Policy*, 26
- energy requirement, of Food and Agriculture Organization, 56
- energy resources, 177
- engineering, 73
- England, grain production in, 17; life expectancy in, 63
- enteric fermentation, 177–78
- environmental degradation, examples of, 149–50; measurements of, 172
- environmental development, economic development and, 22, 117–18
- environmental Kuznets curve, xiv, 85–87, 96, 191; air quality and, 87–90, 93–94, 98, 101, 102, 103n4; deforestation and, 91–92; for net carbon emissions, 192; turnings points on, 95, 97, 98
- environmental models, 44n3

- environmental organizations, 29;  
 environmental fears and, 25–28, 43  
 environmental problems, complexity of, 24  
 Environmental Protection Agency, U.S.,  
 90, 105n7  
 environmental quality, 54; determinants of,  
 93; economic growth and, xv–xvi, xxi;  
 fears about, 23–31; free markets and, xvi;  
 free trade and, 111; future of, xxii;  
 income and, xiv, 117–18, 191;  
 institutional quality and, xvii, 102; myths  
 regarding, 1–23, 43, 46n18; per-capita  
 income and, 101; property rights and,  
 84–86, 97–98, 102; technology and,  
 120–24; trade and, 116, 117, 120–21,  
 137. *See also* environmental Kuznets  
 curve  
 environmental regulations, technological  
 change and, 120–24  
 environmental sustainability, xiv, xx. *See  
 also* sustainable development  
 environmental sustainability index, of  
 World Bank, xiv  
 Europe, per-capita income and, 68  
 European Union, farm policy in, 116;  
 tariffs and, 114, 122  
 extinction, of world's species, 13, 35–37
- factor endowments, 110  
 factor-price-equalization theorem, 125, 127  
 Fairhead, James, 10  
 FAO. *See* Food and Agriculture  
 Organization  
 farm policy, 137; in European Union, 116;  
 in United States, 115–16  
 Farm Security and Rural Investment Act,  
 115  
 farms, fertility rates and, 162; in United  
 States, 178–79, 187  
 fast-track authority, 114–15, 137  
 fears, of environmental problems, 23–31,  
 43–44  
 fertility rates, 19; economic institutions  
 and, 159–63; institutional reform and,  
 164–65
- finite resources, conservation of, xxi  
 fire suppression, 180  
 fisheries, depletion of, 20  
 floor, 180  
 Food and Agriculture Organization (FAO),  
 4, 34; energy requirement of, 56;  
*Production Yearbook* of, 5; *State of the  
 World's Forests* of, 7  
 food production, 2, 3, 12, 56; diseases and,  
 72; on Easter Island, 18–19; scarcity in,  
 15, 16–17; technology and, 71–73  
 food supply, 74; by country, 57; human  
 well-being and, 54, 56; income and, 58,  
 76–77n3  
 forest acreage, income and, 185  
 forest cover, 5, 7, 45n7, 45n9; index of, 11;  
 WWF estimates of, 10. *See also* Living  
 Planet Index  
 forest fires, 9, 180  
 forest zones, 11  
 forests, carbon emissions and, 179–81;  
 carbon sequestration in, 185, 187  
 fossil fuels, 2, 40; carbon emissions and,  
 12, 177  
 France, education in, 64; food supply in,  
 72  
 Fraser Institute, 152  
 free-market discipline, economic growth  
 and, xvi  
 free markets, environmental quality and,  
 xvi  
 free trade, Bush administration and, 114;  
 criticism of, 124–36; environmental  
 quality and, 111; GDP and, 111–12;  
 income and, 110, 113, 136, 138; labor  
 and, 125–27  
 freshwater species, 11  
 Friedman, Milton, privatization and, xvi  
 funding, of research, 23–24, 26
- garbage, 189  
 Gardner, Gary, 144  
 GATT (General Agreement on Tariffs and  
 Trade), 111, 115, 135  
 GDP (gross domestic product), 76–77n3;

- air quality and, 88–89, 103n4; carbon emissions and, 183–84; by country, 63; energy consumption in United States and, 186; in environmental Kuznets curve, 86; environmental quality and, 101; fertility rates and, 162; food supply and, 57; free trade and, 111–12; human well-being and, 55; life expectancy and, 59–60; net carbon emissions and, 192; toxic intensity and, 90
- GEMS (Global Environmental Monitoring Systems), 88, 93, 95, 97, 103n3, 105n10
- General Agreement on Tariffs and Trade.  
*See* GATT
- Germany, acid rain research in, 25
- Global 2000 Report* (Barney), 38, 53, 54
- Global Environmental Monitoring Systems.  
*See* GEMS
- global warming, 2, 16, 17–18, 26, 43, 173–74, 199n9; economic activity and, 174; in *The Skeptical Environmentalist*, 39–42
- globalization, 69–71, 114; benefits of, 74–75; criticism of, 124–36, 133; definition of, 110; employment and, 128; protests against, 130–32; taxes and, 126; technology and, 73
- Globerman, Steven, 121–22
- Goklany, Indur M., xv, 91, 99
- Gore, Al, 44n1
- government. *See* limited government
- grain yields, 15, 74; in England, 17; in Russia, 60
- Grant, Lindsey, 145
- graves, 200n17
- greenhouse gases, xv, xix, 17, 103n4, 175
- Greenpeace, 5, 6, 13–14, 26; in *The Skeptical Environmentalist*, 32
- Griffiths, Charles, 91
- gross domestic product. *See* GDP
- gross emissions, 175
- Grossman, Gene M., 87–89, 91, 93, 95–96
- Grbler, A., 63
- Gulf War, Greenpeace on, 15
- Gwartney, James, 153
- Halweil, Brian, 144
- Harvey, Jeff, 31, 36
- HDI. *See* Human Development Index
- Heckscher, Eli F., 121
- Heckscher-Ohlin theorem, 110
- Hettige, Hemamala, 89–91, 105n7
- Holdren, John P., 37–38
- Human Development Index (HDI), human well-being and, 55, 65–67
- Human Development Report (1999)*, 67
- Human Development Report (2001)*, 66
- human ingenuity, xx; model of, xix; productivity and, xiv
- Human Poverty Index, 149, 172
- human well-being, distribution of income and, 129; economic freedom and, 164–65; economic institutions and, 151, 153–54; improvements in, 74–76; indicators of, 54–71, 149–51; population growth and, 144, 150, 155–56
- Hume, David, 30, 44n2
- hunger, 56–58, 65. *See also* food production; food supply; starvation
- hydroponic food, 15
- IMF. *See* International Monetary Fund
- import substitution policies, 112
- incentive structures, for human ingenuity, xxi
- income, 63; air quality and, 88–89; carbon emissions and, 185, 191; carbon sequestration and, 186, 198n5; deforestation and, 98–99; environmental quality and, 86–88, 117–18, 191; fertility rates and, 160; food supply and, 58; forest acreage and, 185; free trade and, 110, 113, 136, 138; health and, 72; infant mortality and, 62; liberty and, 111; net carbon emissions and, 197; population growth and, 143, 147; property rights and, 86; tree planting and, 178. *See also* environmental Kuznets curve; GDP (gross domestic product); per-capita income
- income-elastic good, xv

- income levels, economic performance and, xiv–xv; environmental quality and, xiv  
*Index of Economic Freedom*, 152
- India, education in, 64; food production in, 56–57; gross domestic product and, 62–63; infant mortality in, 61; life expectancy in, 59
- Indonesia, forest fires in, 9
- infant mortality, 65, 72, 77n6; by country, 61; human well-being and, 55
- ingenuity. *See* human ingenuity
- institutional quality, 152; deforestation and, 99; environmental quality and, xvii, 102; indicators of, 97
- institutional reform, fertility rates and, 164–65; population growth and, 163–66
- Intergovernmental Panel on Climate Change (IPCC), 26, 39, 40–41, 44n6, 46n18
- international debt, 8
- International Monetary Fund (IMF), 4; criticism of, 125, 132–36; protests against, 130, 131
- international standard industrial classification (ISIC), 105n7
- Internet, research on, 4–5
- IPCC. *See* Intergovernmental Panel on Climate Change
- Iraq, 74
- IRIS. *See* Center for Institutional Reform and the Informal Sector
- Irwin, Douglas A., 135–36
- ISIC. *See* international standard industrial classification
- J-curve, xiv–xv
- Japan, education in, 64; tariffs and, 114
- Jeon, Yongil, 103n4
- Keefer, Philip, 97, 98, 152
- Knack, Stephen, 97, 98, 152
- Kortum, Samuel, 113
- Kraay, Aart, 68, 74
- Krueger, Alan B., 87–89, 91, 93, 95–96
- Kuznets curve. *See* environmental Kuznets curve
- Kyoto Protocol, 26, 175; on carbon emissions, 191, 197–98; emission targets in, 119–20; in *The Skeptical Environmentalist*, 40–42
- labor, free trade and, 125–27
- landfills, 188, 189, 200n17; carbon emissions and, 175
- Latin America, deforestation in, 92, 98–99; poverty in, 68
- law, rule of. *See* rule of law
- Lawson, Robert, 153
- Leach, Melissa, 10
- liberty, income and, 111
- life expectancy, 72, 74; by country, 59; gaps in, 69–71; human well-being and, 54–55, 58–61
- life hours, 63, 77n8
- limited government, human ingenuity and, xiv
- Limits to Growth* (Meadows et al.), 19, 38
- Lindsey, Brink, 115
- literacy, 64–65, 149, 151, 158
- livestock, carbon emissions and, 177–78
- Living Planet Index, 11–12
- Living Planet Report 2002* (WWF), 12
- loans, to developing countries, 133–34
- Lomberg, Bjørn, 54, 74–76, 84, 86, 102n1, 109, 117, 122, 128, 137, 139n2, 144; on Kyoto Protocol, 119–20; research techniques of, 4–5, 31–32; scarcity and, xiii–xix, xvi, xvii–xx
- Lovejoy, Thomas, 34–36
- Lucas, Robert E. B., 89–91, 105n7
- lumber industry, 115
- malaria, 70–71
- Malthus, Thomas, xxii, 56, 143
- manufacturing sector, toxic intensity in, 89–91
- marine ecology, population growth and, 148
- marine species, 11

- Martin, Claude, 9
- McCubbin, Donald R., 103n4
- media, environmental fears and, 28–31, 43
- medicine, 72
- Meltzer, Allan, 134
- meteorological conditions, 45n14;  
agricultural production and, 17
- methane emissions, 177–79, 189, 199n9;  
wetlands and, 179
- Mexico, fertility rates in, 161
- NAFTA and, 87
- Middle Ages, infant mortality in, 61; life  
expectancy in, 59
- milk production, 178
- Mohamad, Mahathir, 131
- monitoring stations, 105–6n10
- mortality rates, 144
- municipal waste, 188
- Murphy, Paul, 118, 119
- Myers, Norman, estimate of, 35
- NAFTA (North American Free Trade  
Agreement), 87, 121; impact of, 112
- National Farmers Union, 27
- National Federation of Independent  
Business (NFIB), 26, 27
- natural gas, 177
- natural resources, measurement of, xx;  
myths regarding, 2–20. *See also* resources
- Nature*, 36; on *The Skeptical  
Environmentalist*, 31–32, 34
- Nature Conservancy, 118
- neo-Malthusian vision, xxii, 53, 56, 143–  
44, 145, 146–51, 167n2
- net carbon emissions, 174–82, 191–96;  
income and, 197; tillage intensity and,  
187–88; in United States, 191–92
- NFIB. *See* National Federation of  
Independent Business
- Nordhaus, William, 41
- North American Free Trade Agreement.  
*See* NAFTA
- Norway, acid rain research in, 25;  
Greenpeace in, 14
- nutrition, 73; population growth and, 156
- oceans, 198n4; carbon emissions and, 176
- OECD. *See* Organisation for Economic  
Co-operation and Development
- Office of the Trade Representative, 137
- Ohlin, B., 121
- oil prices, 8
- oil reserves, xxi
- old growth forests, 180
- Onchocerciasis Control Program, 72–73
- Organisation for Economic Co-operation  
and Development (OECD), 69–70, 92,  
96, 105n7
- organizations. *See* environmental  
organizations
- overpopulation, 20
- Panayotou, Theodore, 92, 96–98, 161;  
findings on institutional quality of, xvii
- per-capita income, 74, 76–77n3; air quality  
and, 103n4; deforestation and, 91–92;  
environmental indicators and, 96;  
environmental quality and, 93, 101; gaps  
in, 67–71; human well-being and., 55;  
life expectancy and, 59–60. *See also* GDP  
(gross domestic product)
- pesticides, 73, 75, 123
- petroleum, 177
- physics, 73
- phytoplankton, carbon emissions and, 176
- Pimm, Stuart, 31, 36
- plantations, 11, 45n11
- plastics, 73
- political freedom, human well-being and,  
55, 65
- political liberties, environmental quality  
and, 102, 104n6
- political power, air quality and, 102
- Political Risk Services, 152, 167n3
- pollution, 2; economic growth and, 122
- pollution-emission rights, 118
- pollution-haven theory, 91
- pollution intensity, 90
- population growth, alleged adverse effects  
of, 146–49; carbon dioxide emissions  
and, 183; carbon sequestration and, 190;

- population growth (*continued*)  
 by country, 171; economic institutions and, 155–58; fears of, 144, 145; gaps in, 167n6; human well-being and, 144; income and, 143; institutional reform and, 163–66; rates of, 8, 150–51; in *The Skeptical Environmentalist*, 33–34. *See also* birth rates; fertility rates; mortality rates
- poverty, decline in, 68–69; economic institutions and, 163; measurements of, 149, 172; population growth and, 147; property rights and, 130; reduction of, 2; in *The Skeptical Environmentalist*, 33–34; trade liberalization and, 129–30
- precious metals, 19
- predictions, flaws in, 14–20, 40
- pricing, of commodities, xix; of food commodities, 58
- privatization, xvi; rule of law and, xvi  
*Production Yearbook* (FAO), 5
- productivity, human ingenuity and, xiv
- progress, cycle of, 71–74
- property rights, xiii–xxii, xxi, 91, 152;  
 decentralization of, 87; environmental quality and, 84–86, 97–98, 102; fertility rates and, 162–63; income and, 86; poverty and, 130
- prosperity, natural resources and, xviii
- protectionism, 114
- public health, 72–73
- public policy, environmental quality and, 93
- Puerto Rico, deforestation in, 37
- Qin, Xiang Dong, 98
- raw materials, scarcity of, xviii
- Rayner, A. J., 95–96, 97
- reform. *See* institutional reform
- regulations, environmental organizations and, 27. *See also* environmental regulations
- Reinhardt, Kenneth, 112
- renewable energy, 13, 16, 40
- research, environmental fears and, 23–25, 43
- resource stocks, xvii
- resources, population growth and, 147–48; scarcity of, xiii–xxii. *See also* finite resources
- Ricardo, David, 110
- Ridley, Matt, 83–84, 86
- river blindness, 72
- Rodrik, Dani, 126
- Roland-Holst, David, 112
- Roumasset, James, 124
- rule of law, 152; by country, 172; debt-for-nature swaps and, 119; deforestation and, 165; environmental quality and, 84; fertility rates and, 160–61; gaps in, 167n5; human ingenuity and, xiv; institutional quality and, 97; population growth and, 156–58; privatization and, xvi; rates of, 154
- Rushford, Greg, 130–31
- Russia, Human Development Index for, 65; life expectancy in, 60, 75
- Sachs, Jeffrey, 111
- Sala-i-Martin, Xavier, 68–69
- Sanchez, Nicolas, 161
- sanitation systems, 74
- savanna ecosystems, 181
- savings, human well-being and, 150; population growth and, 148, 151; reform and, 165–66
- scarcity, debate over, xiii–xxii; in food production, 15, 16–17; population growth and, 148; of raw materials, xviii; trade and, 117
- Schiells, Clinton, 112
- Schneider, Stephen, on *The Skeptical Environmentalist*, 32, 39–42  
*Scientific American*, on *The Skeptical Environmentalist*, 31, 32, 34–35, 37, 39
- Seldon, Thomas M., 93
- Shafik, Nemat, 89, 93–94, 104n6
- Simon, Julian, 53–54, 84, 102n1, 139n2, 144; scarcity and, xiii–xiv, xvi, xviii–xx



- sinks. *See* carbon sink
- The Skeptical Environmentalist* (Lomborg), 1, 2, 28, 30, 84, 117; debate over, 31–42
- Smith, Adam, 110, 138
- soil erosion, population growth and, 147–48
- soil resources, xvii–xviii
- soils, 179; carbon in, 182
- solar energy, 124
- Solow, Robert, xx, 147
- Song, Daqing, 93
- source, definition of, 175
- starvation, 2, 3, 20
- State of the World, 5
- State of the World* (Worldwatch Institute), 7, 84
- State of the World's Forests* (FAO), 7
- The State of Humanity* (Simon), 53
- steel tariffs, 114
- Stiglitz, Joseph, 131, 133
- Stolper-Samuelson theorem, 125, 127
- sub-Saharan countries, food supply and, 57; Human Development Index for, 65; income in, 70; life expectancy in, 60, 75
- Suri, Vivek, 91
- sustainability. *See* environmental sustainability
- sustainable development, xvii–xxii
- Taiwan, trade policy in, 112
- tariffs, 114, 122; on labor-intensive goods, 125
- taxes, globalization and, 126
- Taylor, M. Scott, 120, 123, 137
- technology, benefits of, 74–75; carbon emissions and, 198n5; environmental quality and, 93, 120–24; food production and, 71–73; food supply and, 57–58; infant mortality and, 62; trade and, 113
- temperature changes, 39
- terrestrial systems, carbon and, 175–76, 190
- terrorism, trade and, 114
- textile industry, 115, 116
- tillage intensity, 187–88
- tornadoes, 17
- Torras, Mariano, 102
- toxic intensity, indexes of, 105n7; in manufacturing sector, 89–90; trade policy and, 90–91
- TPA. *See* trade promotion authority
- trade, 73–74; agricultural commerce and, 123; air quality and, 120, 123–24; benefits of, 75–76; distribution of income and, 125–30; employment and, 127; environmental quality and, 87, 116, 117, 120–21, 137; scarcity and, 117; technology and, 113; terrorism and, 114. *See also* direct trading; free trade; NAFTA
- trade liberalization, 137–38; benefits of, 112; criticism of, 133; environmental standards and, 121–23; poverty and, 129–30; trade promotion authority and, 115
- trade policy, in China, 112; in Taiwan, 112; toxic intensity and, 90–91
- trade promotion authority (TPA), 114–15; trade liberalization and, 115
- transportation, 73
- tree planting, income and, 178
- trees, 179; carbon emissions and, 175
- tropical environments, population growth in, 156–57
- Tse, Kinping, 124
- tuberculosis, 70–71, 75–76
- turning points, 103n4; on environmental Kuznets curve, 95, 97, 98
- understory, 179–80
- UNDP. *See* United Nations Development Programme
- UNEP. *See* United Nations Environment Programme
- unions, on free trade, 125–27
- United Kingdom, climate in, 17, 45n15; organizations in, 27. *See also* England
- United Nations, agencies of, 32; Human Poverty Index of, 149, 172; Intergovernmental Panel on Climate

- United Nations (*continued*)  
Change (IPCC) of, 26, 39, 40–41, 44n6, 46n18; water assessment of, 16; World Meteorological Organization of, 26
- United Nations Development Programme (UNDP), 4; Human Development Index of, 55, 66–67; *Human Development Report (1999)* of, 67; *Human Development Report (2001)* of, 66
- United Nations Environment Programme (UNEP), 4, 88
- United States, burn areas in, 181; carbon emissions in, 182–83, 184, 193; carbon sequestration in, 185; education in, 64; energy consumption in, 177, 184, 186; farm policy in, 116; farmland in, 187; GDP and, 62–63; infant mortality in, 61; life expectancy in, 59; net carbon emissions in, 191–92, 194; as net carbon sink, 192; per-capita income and, 68; as polluter, 194–96, 197; technology and, 73
- Warner, Andrew, 111
- water pollution, population growth and, 148, 156
- water quality, xv, 103n5; environmental quality and, 93–94, 149; improvement of, 95; population growth and, 151
- water resources, 16
- water supply, 74
- WCMC. *See* World Conservation Monitoring Centre
- wealth creation, environmental improvement and, 87
- West Africa, deforestation in, 10–11
- wetlands, methane emissions and, 179
- Wheeler, David, 89–91, 105n7
- WHO. *See* World Health Organization
- Wiin, Nielsen, Aksel, 26
- Wildavsky, Aaron, 84, 86–87
- Wilson, Edward O., xviii, 35
- wood harvesting, 180–81
- World Bank, 4, 122, 128; environmental sustainability index of, xiv; protests against, 130, 131
- World Conservation Monitoring Centre (WCMC), 9–10, 11, 45n8
- World Health Organization (WHO), 4, 88
- World Meteorological Organization, 26
- World Resources Institute, 56–58
- World Trade Organization (WTO), 115; criticism of, 125, 132–36; protests against, 130, 131; rules on environmental quality of, 135–36, 137
- Worldwatch Institute, 5, 6–9, 14–16, 26; on Easter Island, 18; *State of the World* of, 7, 84
- WTO. *See* World Trade Organization
- WWF, 5, 6, 9–13, 26, 45n8, 118
- Yandle, Bruce, 122–23
- Zambia, 75