Index

AB 32 see cap-and-trade programs, in California
abalone industry see Marine Park protection via market-based instruments (South Australia)
Abalone Industry Association of South Australia 14
absolute volume caps see carbon markets and social justice, in EU/US
ACEEE (American Council for an Energy-Efficient Economy) 66
Acre, Brazil see REDD+ programs, in Brazil
ad valorem and ad unit taxes see tax burden shifting and Pigovian principle, in EU
Advisory Opinion on the Responsibilities and Obligations in the Area (ITLOS) 185–186
Africa see subsidy reform and renewable energy, in African/Indian Ocean island states
agricultural sector
water depletion due to fracking 79
water shortages 95–96, 98
see also carbon price incentives, in Australian land sector; tax incentives/penalties and water resource protection, in US
air pollution
due to drought in California 97–98
due to natural gas emissions 74–76
air transport emissions 227, 228
Amazon forest see REDD+ programs, in Brazil
Annex I/Non-Annex I States division 204–209
see also Emissions Trading Scheme (ETS) linkage and Paris Agreement; IMO economic instruments and CBDRRRC principle
anti-corruption measures 30
aquifer depletion see hydraulic fracturing and water resources, in US
Australia
Agriculture, Food and Fisheries, Ministry of 10–11, 14
Carbon Credits Act (2011) 36, 37, 38, 41, 42
Carbon Farming Initiative (CFI) 42–43
Carbon Pollution Reduction Scheme (2008) 43
Clean Energy Act (2011) 42
Climate Change Authority 42
conditional targets as incentivisation 212
Direct Action Plan 35, 39
Fisheries Management Act (2007) (SA) 5, 8
Henry Review of the Australian Taxation System 133–135
Income Tax Assessment Act (1997) 41
Marine Park Local Advisory Groups (MPLAGs) 6–7
Marine Parks Act (2007) (SA) 5–6, 8, 9, 10, 14
National Greenhouse Gas Inventory 35
National Packaging Covenant (1999) 128
National Pollutant Inventory 131
National Waste Minimisation and Recycling Strategy 127
Market instruments and the protection of natural resources

Productivity Commission 127
Product Stewardship Act (2011) 128
see also carbon price incentives, in Australian land sector; environmental taxation and e-waste, in Australia; Marine Park protection via market-based instruments (South Australia)
awareness-raising strategy see subsidy reform and renewable energy, in African/Indian Ocean island states
backward shifting of tax burden see tax burden shifting and Pigovian principle, in EU
Bergman, U.M. 144
bilateral agreements see Emissions Trading Scheme (ETS) linkage and Paris Agreement
border (tax) adjustments see carbon markets and social justice, in EU/US
Brazil
adopts voluntary emission reduction targets 207
constitutional guidelines 24, 29
ratifies UNFCCC 213
relationship to Kyoto Protocol 206, 213
treaty power 29
see also REDD+ programs, in Brazil
Brazilian National Institute of Space Research 24
Brundtland Report (UN) 222–223
Buchanan, J.M. 150
Cabo Verde, Republic of 116–117, 118
California see cap-and-trade programs, in California; incentives to support water conservation and ecosystems, in California
Canada
carbon tax in British Columbia 160, 166–167
carbondioxide emissions see carbon price incentives, in Australian land sector; greenhouse gas emissions (GHG); IMO economic instruments and CBDRRC principle; REDD+ programs, in Brazil
carbon leakage risk see sectoral allocation, in EU ETS
carbon markets and social justice, in EU/US 220–234
overview 220–221
absolute volume caps 224, 227–228
border (tax) adjustments 226–227
carbon market design and social justice 223–227
equality principle 222–226
EU ETS carbon market 220–221, 227–230
high quality offsets 225
monitoring and penalties 226
scarcity rent caps 224
Sky Trust proposal 225
social justice concepts 221–223
summary conclusion 231

concerns regarding Doha Amendment 209
Western Climate Change Initiative 20–21, 165
withdrawal from Kyoto Protocol 206
Canadian Chemical Producers Association
Responsible Care Code 132
Cancun Agreement (UNFCCC) 208, 213
cap-and-trade programs, in California 98–99, 232
overview 19
Administrative Procedure Act 23
California Air Resources Board (CARB) 22
linkage provisions 23, 25–26
location of reduction projects 22
offset credits 22
ROW’s recommendations 27–29
sector-based offset credits 22–23, 25–26
carbon dioxide emissions see carbon price incentives, in Australian land sector; greenhouse gas emissions (GHG); IMO economic instruments and CBDRRC principle; REDD+ programs, in Brazil
carbon leakage risk see sectoral allocation, in EU ETS
carbon markets and social justice, in EU/US 220–234
overview 220–221
absolute volume caps 224, 227–228
border (tax) adjustments 226–227
carbon market design and social justice 223–227
equality principle 222–226
EU ETS carbon market 220–221, 227–230
high quality offsets 225
monitoring and penalties 226
scarcity rent caps 224
Sky Trust proposal 225
social justice concepts 221–223
summary conclusion 231
US RBBI carbon market 220–221, 230–231
carbon price incentives, in Australian land sector 35–48
agricultural sector 40–41
Australian Carbon Credit Unit, per tonne 35–36
benchmark price 38
carbon pricing options 42–44
certificates of entitlement 37
Clean Energy Regulator 37–38, 39, 42, 44
conservation covenants 41
Emissions Reduction Fund (ERF) 35–36
ERF and land sector entities 37–42
ERF reverse auctions 38, 44
limitations on least-cost abatement 39–40
limitations on rewards for sustainable land use 40–41
risk of perverse outcomes 41–42
sequestration offsets 37–38
summary conclusion 44–45
carbon trading vs. carbon taxes, in China 157–172
overview 157–158
advantages of carbon taxes 159–160
advantages of carbon trading 158–159
allowance allocation 162
cap setting 161, 162
carbon price variability 162, 164
challenges of carbon trading market 164–165
disadvantages of carbon taxes 160
disadvantages of carbon trading 159
emissions coverage pilot programs 161–162, 163
feasibility of carbon tax 165–168
fraud and corruption 167–168
Measuring, Reporting and Verification (MRV) mechanisms 163–164
National Development and Reform Commission (NDRC) 161, 168
pilot programs 160–165
summary conclusion 169–171
Chicago Climate Futures Exchange 231

China
adopts measure for voluntary targets 207–208
bilateral emissions reduction agreement with US (2014) 211–212
Clean Development Mechanism (CDM) 169, 213
Clean Air Act/Acid Rain Program 157
commitment to Copenhagen Accord 160–161
conditional targets as incentivisation 212
Environmental Taxation Act draft 168
Individual Income Tax Act 165–166
National Development and Reform Commission (NDRC) 161, 168
percentage of global CO₂ emissions 210–211
relationship to Kyoto Protocol 206
Clean Development Mechanism (CDM) 169, 206, 213–214
climatic change overview 20–21
as cause of droughts 93
CBD&RRC principle 173–179
influence on California drought 92, 97–98
social cost of, in California 99–101
Stanford University report on 97–98
see also carbon trading vs. carbon taxes, in China; IMO economic instruments and CBD&RRC principle
common but differentiated responsibilities and respective capabilities (CBD&RRC) principle 173–179, 209–210
see also IMO economic instruments and CBD&RRC principle
Commonwealth Scientific and Industrial Research Organisation
Wealth from Waste project 129
compensation for vulnerable groups 112–113
computer and television e-waste see environmental taxation and e-waste, in Australia
Congressional Research Service (CRS), on fossil fuel production and water usage 53–54
Conservation Council 14
conservation covenants see carbon price incentives, in Australian land sector
conventional natural gas, definition 76
Convention on the High Seas (1958) (ILC) 182
convergence of conflict, defined 8
Cornell University 75
Daly, Herman 222
deforestation see REDD+ programs, in Brazil
Denmark, study on excise duties on alcohol beverages 143
desalination see tax incentives/penalties and water resource protection, in US
De Sépibus, Joëlle 215
desert-based justice 222, 223
developing vs. developed states, in environmental law see Annex I/Non-Annex I States division
Diffenbaugh, Noah 98
differentiated import duties 115
distributional justice 221–223
drilling costs see hydraulic fracturing and water resources, in US
drought, definition 101
see also United States of America (US)
earthquakes, due to fracking wastewater injection 55
EEX, Leipzig 229
efficiency standards 115
electronic goods waste see environmental taxation and e-waste, in Australia
El Hierro, Canary Islands see subsidy reform and renewable energy, in African/Indian Ocean island states
Emissions Trading Scheme (ETS) linkage and Paris Agreement 204–219
overview 204–205
ADP negotiations 209–210, 213
bilateral agreements 211–212
CDM and cooperation 206, 213–214
COP 21 and industrialised developing countries 210–211
free rider behaviour 209, 211–212
Kyoto Protocol 205–208, 209
post-2020 regime linkage and Paris Agreement 214–215
post-Kyoto climate negotiations 207–209
summary conclusion 215–216
energy efficiency see subsidy reform and renewable energy, in African/Indian Ocean island states
energy production and water resources see tax incentives/penalties and water resource protection, in US
environmental fiscal reform (EFR) 109–111
see also subsidy reform and renewable energy, in African/Indian Ocean island states
environmental taxation and e-waste, in Australia 124–139
overview 124
Decision RIS vs. Henry Review 133–135
E-waste Reduction Fund proposal 135
extended producer responsibility (EPR) 132–135
federal intervention in waste regulation 127–131
historical waste management regulation 126–127
National Television and Computer Recycling Scheme (NTCRS) 124, 128–131, 133, 135
product stewardship 132–135
scope of problem 125–126
summary conclusion 135–136
equality principle 185–186, 188, 189, 222–226
European Commission (EC) EU ETS revision proposals 198–200
National Allocation Plans 193–194, 228
Oil Bulletin 144–145, 147
European Environment Agency 109
European Union (EU)
Climate and Energy Package (2008) 192
conditional targets as incentivisation 212
Directive on Waste Electrical and Electronic Equipment (WEEE) 132–133
Emission Trading Scheme (ETS) 43, 166, 192–193
percentage of global CO₂ emissions 210–211
support for Russia as member of WTO 205–206, 211
see also carbon markets and social justice, in EU/US; tax burden shifting and Pigovian principle, in EU
e-waste see environmental taxation and e-waste, in Australia
excise duties see tax burden shifting and Pigovian principle, in EU
extended producer responsibility (EPR) see environmental taxation and e-waste, in Australia
feebate schemes 115
fee reduction see Marine Park protection via market-based instruments (South Australia)
fines see cap-and-trade programs, in California
Finland, invests in development corporation 229
Fisheries Research Development Corporation 14
flags of convenience (FOCs) see IMO economic instruments and CBDRRC principle
forestry sector see carbon price incentives, in Australian land sector; REDD+ programs, in Brazil
forward shifting of tax burden see tax burden shifting and Pigovian principle, in EU
fossil fuel subsidies (FFS) see subsidy reform and renewable energy, in African/Indian Ocean island states
fossil fuel to renewable energy (FFRE) transition see subsidy reform and renewable energy, in African/Indian Ocean island states
fracking see hydraulic fracturing and water resources, in US
France, social housing retrofit 229
General Method of Moments (GMM) (EU) 148–149
Germany
Special Energy and Climate Fund 229
study on wind electricity plant for Cabo Verde 118
subsidy reporting 111
Gillibrand, Kirsten 87
Glennon, Robert 61–62
greenhouse gas emissions (GHG)
carbon dioxide gas emissions, in US (1990-2013) 94
due to fracking 73, 74–76, 86–87
Obama on US goals 99
under Paris Agreement 21, 26, 31
sources of carbon dioxide, in California (2013) 93
see also carbon price incentives, in Australian land sector
green procurement 115
green taxes see subsidy reform and renewable energy, in African/Indian Ocean island states
Hansen, N.L. 144
high-value metals see environmental taxation and e-waste, in Australia
Hochstetler, Kathryn 206, 212, 213
hydraulic fracturing and water resources, in US 73–91
overview 73
air pollution from hazardous chemicals 74–76
chemical composition of natural gas 73–74
depletion allowance 85–86
environmental damage 78–79, 81, 83
EPA on threats to water due to 54–55
fracking process 76–78
fresh water depletion 78–79
intangible drilling costs (IDCs) 83–84
Modified Accelerated Cost Recovery system (MACRS) 84–85
perverse subsidies 86
summary conclusion 86–87
surface water contamination 82–83
tangible drilling costs (TDCs) 84–85
tax incentives 73, 84–86
underground water contamination 79–82
water usage and wastewater 54
hydrogen fluoride 75–76
ICE, London 229
IMCO case (ICJ) 185
IMO economic instruments and
CBDRRC principle 174–191
Annex I/Non-Annex I States
division 176–179
common but differentiated
responsibilities and respective
capabilities (CBDRRC)
principle 174–179
international court opinions 180
international court opinions on
genuine link doctrine 185–186
legal content of CBDRRC 176–179
Manning of Ships under
UNCLOS 184
Marine Environmental Protection
Committee (MEPC) 186–188
multilateral provisions of CBDRRC
175–176
nationality of ships and genuine link
179–184
open registries 180–183
rift between developed/developing
state members 186–188
summary conclusion 189–190
UNCLOS, on genuine link 182–183
UNCITAD, on open registries 183–184
incentives for GHG emission reduction
see carbon price incentives, in
Australian land sector
incentives to support water
conservation and ecosystems, in
California 92–103
overview 92
agricultural water shortage 95–96,
98
California Air Resources Board
(ARB) 98
California Water Action Plan 97
Cap-and-Trade Program 98–99
climates change and drought 92,
97–98
economic impact of water shortage
95–97
mandated water reductions 96–97
social cost of carbon (SCC) 99–101
sources of carbon dioxide (2013) 93–94
sources of precipitation 95
summary conclusion 101
Water Energy Technology Program
96
India
adopts measures for voluntary
targets 208
Clean Development Mechanism
(CDM) 213
conditional targets as incentivisation
212
percentage of global CO2 emissions
211
Indian Ocean island states see subsidy
reform and renewable energy, in
African/Indian Ocean island states
information access see Reducing
Emissions from Deforestation and
Forest Degradation (REDD+)
programs
inter-generational justice 222–227, 231
Intergovernmental Panel on Climate
Change (IPCC) 20, 75, 165, 187,
205
International Conference on
Conditions for Registration of
Ships 183–184
International Convention for the Prevention of Pollution by Ships (MARPOL) 187
international cooperation agreements 29
International Court of Justice (ICJ) 180, 185, 188
International Energy Agency 75
International Law Association, on CBDRRC principle 177–178
International Law Commission (ILC)
Convention on the High Seas (1958) 182
Law of the Sea Conference (1958) 182
International Maritime Organization (IMO)
CO₂ Emissions from Ships 173
Marine Environmental Protection Committee (MEPC) 186–188
Maritime Safety Committee 185
Resolution A963.23 173
see also IMO economic instruments and CBDRRC principle
International Renewable Energy Agency (IRENA) 116–117
International Transport Workers’ Federation (ITF) 181–182
International Tribunal for the Law of the Sea (ITLOS) 188
Seabed Disputes Chamber 185–186
intra-generational justice 222–227, 229, 231
Iran, cash transfer compensation for vulnerable groups 112
irrigation systems see tax incentives/penalties and water resource protection, in US
Japan
concerns regarding Doha Amendment 209
percentage of global CO₂ emissions 211
Jumeau, Roland 118
Kasoulides, George C. 181
Kettner, C. 195
Kyoto Protocol (1997) adoption of 205–206
Annex I/Non-Annex I States division 204–206
assigned amounts units (AAUs) 206
CBDRRC principle 175
Clean Development Mechanism (CDM) 169, 206, 213–214
Doha Amendment 209
legal obligations under 35
poor performance of 170–171
scope of 20–21, 158
signatories of 23
labelling for energy efficiency 115
landfill levy approach see environmental taxation and e-waste, in Australia
land sector carbon price incentives see carbon price incentives, in Australian land sector
Law of the Sea Conference (1958) (ILC) 182
lead, as air pollutant 76
Leal-Arcas, Rafael 206
least-cost abatement see carbon price incentives, in Australian land sector
Legal Amazon see REDD+ programs, in Brazil
Lewis, Rob 7
Lichtenstein v. Guatemala (ICJ) 180
lifeline tariffs see compensation for vulnerable groups
Lindhqvist, Thomas 132
liquefied natural gas, definition 74
liquefied petroleum gas, definition 74
lobster industry see Marine Park protection via market-based instruments (South Australia)
Maldives, tourism tax 118
Marine Park protection via market-based instruments (South Australia) 3–18
overview 3–4
buy-back process 8, 9–11, 14
conflict with commercial fishers 7–8
economic impacts 8, 11–14
impacts on commercial fishing 8–10
legislative background 4–5
management milestones 13
quota management systems 12–13
SAMPIT tracking tool 6
sanctuary zones 3, 5, 8–10
stakeholders and 5–7, 8
summary conclusion 14–15
uniqueness of marine environment 4
Voluntary Catch/Effort Reduction Programme 9, 12–13
market stability reserve (MSR) 199–200, 228, 229
Marx, Karl 222
Mato Grosso, Brazil see REDD+ programs, in Brazil
methanol, as air pollutant 76
Mexico
State of Chiapas in talks with Mato Grosso, Brazil and California 25, 26
Midcap, Bill 79
Milne, Janet E. 165
Modified Accelerated Cost Recovery system (MACRS) 84–85
Montreal Protocol 174, 176
NASA, on 2015 as hottest year 100
National Oceanic and Atmospheric Administration 75
natural gas industry
US tax breaks for 73
see also hydraulic fracturing and water resources, in US
negative externalities, taxation of see tax burden shifting and Pigovian principle, in EU
New Mexico, water conservation in 62
New Zealand
concerns regarding Doha Amendment 209
conditional targets as incentivisation 212
removal of agricultural subsidies 86
Nozick, Robert 222
Obama, Barack 99
offset credits, definition 22
onward shifting of tax burden see tax burden shifting and Pigovian principle, in EU
open ship registries see IMO economic instruments and CBDRRC principle
Organisation for Economic Co-operation and Development (OECD) 176, 215
Pacific Institute 96
Pareto principle 151, 152
Paris Agreement (2015) developed/developing state dichotomy 188
GHG emission reduction 21, 26, 31
interest in REDD+ programs 19
scope of 214–215
see also Emissions Trading Scheme (ETS) linkage and Paris Agreement
Pigovian principle see tax burden shifting and Pigovian principle, in EU
policy mainstreaming see subsidy reform and renewable energy, in African/Indian Ocean island states
polluter-pays principle 133, 152, 223, 224, 225–227
Primary Industries and Regions SA (PIRSA) 9, 14
procedural justice 221
produced water, definition 54
see also product stewardship
environmental taxation and e-waste, in Australia
public participation see REDD+ programs, in Brazil
public water supply see tax incentives/ penalties and water resource protection, in US
Purdue University 75
quotas management systems see Marine Park protection via market-based instruments (South Australia)
Rawls, John 222
RecFish 14
recycling see environmental taxation and e-waste, in Australia
REDD+ programs, in Brazil 213
overview 19
Acre state initiatives 24–28, 29–30
anti-corruption measures 30
complaint system 30
federal legislation 24, 26–27
independent auditors 30
linkage provisions 29–30
Managing Counsels 28, 30
Mato Grosso state initiatives 24–26, 27, 28–30
National Policy on Climate Change 23–24
Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAm) 24
public participation 29
risk mitigation 29–30
ROW’s recommendations 27–29
satellite monitoring 24, 27, 30
State Environmental Protection Agency 28
State System of Incentives for Environmental Services (SISA), in Acre 25, 30
summary conclusion 30–31
Validation and Monitoring Commission, in Mato Grosso 28, 30
redistribution justice 222, 224–226
Reducing Emissions from Deforestation and Forest Degradation (REDD+) programs
Offsets Working Group (ROW) 26–29
public participation and transparency 29–30
see also REDD+ programs, in Brazil
Regional Greenhouse Gas Initiative (RGGI) (US) 20–21, 220–221, 230–231
renewable energy see subsidy reform and renewable energy, in African/Indian Ocean island states
result-based distributional justice 221–223
reverse auctions see carbon price incentives, in Australian land sector
Rio Declaration (UNCED) 174, 175
Rocky Mountain Farmers Union 79
Russian Federation
accession to WTO 205–206, 211
adopts voluntary emission reduction targets 208
concerns regarding Doha Amendment 209
percentage of global CO₂ emissions 211
as signatory to Kyoto Protocol 205–206
SAMPIT tracking tool 6
sanctuary zones see Marine Park protection via market-based instruments (South Australia)
SARDI (South Australian Research and Development Institute) 14
satellite monitoring see REDD+ programs, in Brazil
scarcity rent caps see carbon markets and social justice, in EU/US
Schumberger 81
sectoral allocation, in EU ETS 192–203
overview 192–193; see also sectoral allocation, in EU ETS
adaptation, post-2020 period 198–200
allocation patterns 194–197
database and methodology 194–195
development of free allocation over time 195–196
EC revision proposals (2015) 198–200
establishment of market stability reserve (MSR) 199–200
EU Transaction Log (EUTL) 194–195, 197
free allocation vs. verified emissions 196–197
National Allocation Plans 193
sectoral allocation rules 193–194
summary conclusion 200–201
Sen, Amartya 222
shipping sector see IMO economic instruments and CBDRRC principle; International Maritime Organization (IMO)
Sky Trust proposal 225
Market instruments and the protection of natural resources

Small Island Developing States (SIDS)
see subsidy reform and renewable energy, in African/Indian Ocean island states

SMART (Specific, Measurable, Achievable, Relevant and Time-bound) targets 113, 119

social cost of carbon (SCC) 99–101

social justice 221–223
see also carbon markets and social justice, in EU/US

solar PV 111–112

South Africa, adopts emission reduction targets 207

South Australia (SA) see Marine Park protection via market-based instruments (South Australia)

Stanford University 97–98

Stockholm Declaration (1972) 174

Stubblebine, W.C. 150

subsidy reform and renewable energy, in African/Indian Ocean island states 107–123
overview 107–108
addressing FFRE concerns 120
communication and awareness-raising strategy 113–114
energy markets with level playing fields 114–115
environmental fiscal reform (EFR) 109–111
FFRE strategy with binding RE targets 113
FFS and RE transition in island states 108–109
fiscal space and EFR 120–121
instruments to foster stable investment environment and risk reduction 115–117
mobilisation of investment 121
multi-faceted environmental problems 114
policy mainstreaming and FFRE transition roadmaps 119–120
protection of vulnerable groups from price increases 112–113
regional cooperation and RE transition funding 117–118, 122
results on Cabo Verde 116–117, 118
results on El Hierro, Canary Islands 111–112
SMART binding targets 113, 119
subsidy reporting and reform 111–112
summary conclusion 118–122
taxes and instruments to enhance energy efficiency 115
tax recommendations 110
tourism tax in Maldives 118
transition policy packages 114–118

sustainability
cap-and-trade see cap-and-trade programs, in California
carbon pricing see carbon price incentives, in Australian land sector
marine area protection see Marine Park protection via market-based instruments (South Australia)
REDD+ see REDD+ programs, in Brazil
Swain, Daniel 98
take–make–waste approach see environmental taxation and e-waste, in Australia
taxation
carbon trading vs. see carbon trading vs. carbon taxes, in China
e-waste see environmental taxation and e-waste, in Australia
subsidy reform see subsidy reform and renewable energy, in African/Indian Ocean island states
tax burden shifting see tax burden shifting and Pigovian principle, in EU
water resource protection see tax incentives/penalties and water resource protection, in US
tax burden shifting and Pigovian principle, in EU 140–154
overview 140–141
data and methodology (2005–2014) 144–147
discussion of results 149–152
Index

Lerner Index 151
literature review 141–144
results 147–149
summary conclusion 152–153
use of General Method of Moments (GMM) 148–149
use of Levin Liu Chu test 147
Value Added Tax (VAT) 145–150
tax incentives/penalties and water resource protection, in US 51–72
overview 51–52
agricultural water use 52, 55–56
background on water problems 52–57
benefits of incentives/penalties 51, 63–67
desalination 62–63
design of tax incentives 65
earthquakes linked to fracking wastewater injection 55
energy-efficient technologies 64–65
energy production and 53–55
federal intervention 61–67
federal laws, as undermining protection 59–61
impacts of droughts 52, 53
public water supply 56–57
state conservation incentive programs 67
state laws, as undermining protection 57–59
summary conclusion 68
technology improvements 52
water allocation and national trading system 61–62
water pricing 65–66
water scarcity and pollution 62–63
Tienan Liu 168
total allowable commercial catch (TACC) see Marine Park protection via market-based instruments (South Australia)
Tourma, Danielle 98
tourism taxes 118
transparency see Reducing Emissions from Deforestation and Forest Degradation (REDD+) programs
transport fuels see tax burden shifting and Pigovian principle, in EU
treaty power 29
2030 Agenda for Sustainable Development (UN) 118–119, 198
U4 Anti-Corruption Resource Center 30
unconventional natural gas, definition 76
United Nations Conference on Environment and Development (UNCED) 177
Rio Declaration 174, 175
United Nations Conference on the Human Environment (1972) 174
United Nations Conference on Trade and Development (UNCTAD) 183–184
United Nations Convention on Conditions for Registration of Ships (UNCCROS) 184
United Nations Development Programme 125
United Nations Framework Convention on Climate Change (UNFCCC) 169, 175, 178, 186, 204, 205
Ad Hoc Working Group on Further Commitments for Annex I Parties (AWG-KP) 207–209
Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) 213
Bali Road Map 207
Brazilian Second National Communication 23
Cancun Agreement 208, 213
Copenhagen Accord 160–161, 207, 208
Green Climate Fund 208
Nationally Appropriate Mitigation Actions 208–209
see also Emissions Trading Scheme (ETS) linkage and Paris Agreement; Kyoto Protocol (1997)
United Nations General Assembly 2030 Agenda for Sustainable Development 118–119, 198
Fourth Assessment Report (AR4) 205
United Nations Office for Sustainable Development 109
see also subsidy reform and renewable energy, in African/Indian Ocean island states
United Nations University on global e-waste 125
United Nations World Meteorological Organization 51
United States of America (US) bilateral emissions reduction agreement with China (2014) 211–212
cap-and-trade programs see cap-and-trade programs, in California
carbon dioxide gas emissions (1990–2013) 94
Clean Air Act 22, 231
Clean Water Act (CWA) 60
Colorado River 58–59, 62, 70–71
droughts 52, 53, 78–79, 92, 93–95, 97–98
Endangered Species Act 60
equitable apportionment doctrine 59–60
Farm Bill 62
Federal Power Act 60
fracking see hydraulic fracturing and water resources, in US
House Committee on Energy and Commerce 75
Obama on GHG emission reduction goals 99
percentage of global CO₂ emissions 210–211
prior appropriation doctrine 58–59
product stewardship 132
regional cooperation and RE transition funding 114
Regional Greenhouse Gas Initiative (RGGI) 20–21, 220–221, 230–231
relationship to Kyoto Protocol 206, 209, 211–212
riparian rights doctrine 57–58
Safe Drinking Water Act 87
Senate non-passage of Waxman–Markey bill 21–22
social justice see carbon markets and social justice, in EU/US
studies on excise duties 143, 144
study on federal vs. state gasoline taxes 144
study on sales tax shifting in retail prices 142–143
sulphur dioxide cap and trade system 159
treaty power 29
on uniformity in state obligations under CBDRRC principle 176
water conservation see incentives to support water conservation and ecosystems, in California
water resource protection see tax incentives/penalties and water resource protection, in US
Western Climate Change Initiative 20–21, 165
see also individual federal agencies use it or lose it water rights see tax incentives/penalties and water resource protection, in US
US Army Corps of Engineers (ACE) 60
US Bureau of Land Management 54
US Energy Information Administration (EIA) 85–86, 145
US Environmental Protection Agency (EPA) on carbon dioxide gas emissions 94
CO₂ Allowance Tracking System 231
contamination pathways due to fracking 79–80
enforcement provisions 60
fresh water usage in fracking 201
78
Index

on threat of fracking to water resources 54–55
US Geological Survey (USGS), on fracked well water usage 54

Value Added Tax (VAT) 145–150
Vienna Convention for the Protection of the Ozone Layer 174
Viola, Eduardo 206, 212, 213
vulnerable groups see compensation for vulnerable groups

waste management see environmental taxation and e-waste, in Australia
water conservation see tax incentives/penalties and water resource protection, in US
water resource protection fracking see hydraulic fracturing and water resources, in US
incentives in water conservation see incentives to support water conservation and ecosystems, in California

tax incentives/penalties see tax incentives/penalties and water resource protection, in US
water shortage see incentives to support water conservation and ecosystems, in California
Wealth from Waste project 129
welfare-based justice 222
Western Climate Change Initiative (US/Canada) 20–21, 165
Wind farms 111–112
Wood and Management Industries Association 28
Woolford, Jonas 14
Workers Association 28
World Bank, on environmental fiscal reform (EFR) 109
World Trade Organization (WTO) 174, 205–206
zoning see Marine Park protection via market-based instruments (South Australia)