Index

Aarhus Convention, 1998 229
AAUs (Assigned Amount Units) 65, 69, 72–73
abatement, emission 119
access to information 144–145, 149
Access to Justice Act 1999, UK 171
accidents, nuclear/marine oil 92, 118, 123
accountability 242
Ackerman, F. 39
action, vs. failure to act 238
Ad Hoc Working Group on Further Commitments for Annex/Parties under Kyoto Protocol (AWG-KP) 73, 82
adaptation 17, 49, 105, 146–151
appropriate, Dutch system as incentive for 247–249
and burden sharing agreement 77–80
and ‘classical’ environmental matters 146
concept 135–136
concrete applications 136–138, 150
and equal treatment 246, 247
examples of damage (Netherlands) 238–239
particularities
and Articles 2, 3 and 8 of ECHR, field of application 147
resulting from effects of climate change 146
practical measures, obligation to adopt 149–150
risk management obligations 148–149
‘traditional’ environmental problems and climate change 148–151
types of 136

Adaptation Fund 105
‘Adapting to climate change: Towards a European framework for action’ (White Paper) 148, 153, 154
administrative decisions, Netherlands 239–242, 247, 249
admissibility of applications, to Court of Human Rights 138–139
Affaire linguistique belge, positive obligations theory 139
Akandji-Kombé, J.-F. 155–156
Akkermans, A.J. 225, 226
Alcamo, J. 88
Allen, M. 4, 12, 188
anthropogenic contribution to climate change 15, 16, 91–92, 169, 256, 267
anticipatory adaptation 136
appeals
administrative decisions, lawfulness and unlawfulness (Netherlands) 239–242
US Court 5, 18
Arcuri, A. 37
asbestos exposure 30, 214
attribution, US compensation claims 199–200, 202
auctioning, EU ETS 101–106, 114, 120
Australia
ratification of Kyoto Protocol 223
remedies in 221
autonomous adaptation 136

Baldwin, R. 11
Bali Action Plan 55, 74, 75, 82
Ballinger, R. 207, 223
Barton, A. 186
Bates, J. 188
Beck, U. 39
Belei, B. 37, 39
Betlem, G. 224
Climate change liability

Biesen, P. van den 6, 10, 126, 263, 265, 267
biomass production 16
Bocken, H. 132
bonus-pater-familias standard 23
Boutonnet, M. 37, 39
Boy, L. 40
Bramley, M. 186
Brown, D. 36–37
BSA (burden-sharing agreement) and adaptation 77–80
burden sharing
burden-sharing agreement see BSA (burden-sharing agreement)
expansion in EU mitigation law and policy 76–77
financial transfers to developing countries, including in 80–81
and future international climate regime 73–76
and loyal cooperation principle 72–73
notion of 55, 82
possible extensions to 73–81
Burley, A.-M.S. 82
Burns, W. 12, 35, 36
‘but for’ test, causation 183, 268

California v. General Motors Corporation 18, 35, 190–191, 195, 197, 200, 203
carbon capture and geological storage (CCS) 92, 96–98, 108–113
Directive 2009/31/EC 101, 102, 109, 110, 111, 115, 118
funding 112–113
‘significant irregularities,’ 110–111
in view of liability 110–112
carbon emissions 91, 100
causation 267–268
‘but for’ test 183, 268
establishing chain of 19, 25, 30
and European Court of Human Rights 143, 150–151

Netherlands, barriers to causality in 242–243
types of 25, 30
UK law 182–184
US law 197–199
CCS see carbon capture and geological storage (CCS)
de Cendra de Larrañag, J. 6, 9, 10, 125, 269–270
Christianson, G. 38
civil liability for global warming, Netherlands 206–222
regulatory approach of EU 92, 119, 122–123, 125
Clean Air Act, US 5, 18, 271
Climate Change Act 2008, UK 126, 170, 172
climatic change liability and precautionary principle 21–29
added value of application of principle 29–32
effects of principle on climate change liability (table) 28
liability from precautionary principle 23, 27–29, 32
liability with precautionary principle 23–26, 31–32
climatic damage fund, proposals for 119, 120
Climatic Research Unit, University of East Anglia (UK) 256
coal-fired electricity generating installations 95–98, 110, 230
and United Kingdom 114–115
Cohesion Policy (2007–2013) 78, 88
Columbia Journal of Environmental Law 4
Comer v. Murphy Oil 18, 35, 192, 196, 197, 203, 264
Comer v. Nationwide Insurance 191–192
Commission v. Ireland 61
comparative methodology 7
compensation claims in jurisdictions outside USA 201–202
France 241
Germany 240
Netherlands 246–247
liability goals 258
in United States see under United States and climate change liability
compliance regime, Kyoto Protocol 65, 74
Article 10 EC, role in ensuring compliance 65–69, 70
and effort sharing decision burden-sharing agreement for 2012–2020 69–72
compliance committee 63, 64, 68
consequences for EC 63–65
see also Kyoto Protocol
conditional fee arrangements 171
Conference of the Parties (COP)
Bali (COP-13) 2007 55, 82
Marrakesh (COP-7) 2001 63, 75
Montreal (COP-11) 2005 55
Connecticut v American Electric Power Company 195, 212, 216, 223
Consumer Protection Act 1987, UK 179, 187
contributory negligence 19
Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) 109
Copenhagen Accord (2009) 47, 51, 73, 74, 75, 80
and regulatory approach of EU 115, 120, 121
Cullet, P. 39
Czech Republic, sale of AAUs to Spain and Austria 69
Dam, C.C. van 250
damages 19, 24, 172, 190, 220–221
Dasgupta, P. 39
declaratory relief 261
Delreux, T. 84
Depledge, J. 85
design failures 4
deterrence see prevention and deterrence
developing countries, financial transfers to 80–81
Dijk, C. van 6, 10, 126, 261, 263, 265
distribution of competences/responsibilities (EC) 61, 62–63
documents, access to 144–145
Dougdale, A.M. 187, 188
Douma, W. 36
Drupsteen, T. 243–244
duty of care, in United Kingdom 178, 187
earth temperature 206, 207
EC see European Community (EC)
EC Treaty see Treaty Establishing the European Community (EC Treaty)
Edmunds, R. 188
EEPR (European Energy Programme for Recovery) 98
effort sharing 55, 82, 99
see also burden sharing
Egenhoger, C. 89
electricity sector, fossil-fuel fired 91, 94, 95–98, 124
climate legislation targeting 99–115
definition of ‘electricity generator’ 129
Emission Performance Standards 108
energy consumption vs energy production 97
and Netherlands 230
specific regulatory approaches regarding carbon emissions 100
state aid to coal industry 97, 98
and United Kingdom 114–115
see also fossil fuels
Elsner, J. 34
Emanuel, L. 34
Emission Performance Standards 108, 130
emissions, GHG see European Union Emissions Trading Scheme (EU ETS); greenhouse gas (GHG) emissions
Emissions Trading Scheme (ETS) Directive 71
Energy and Finance Ministers 95
energy installations, EC climate
Climate change liability

legislation see electricity sector, fossil-fuel fired energy policy, solidarity principle 57
Energy Security and Solidarity Action Plan 97
Engle v. Liggett Group 201, 204
Environmental Liability Directive (ELD) 2004 111, 113–114, 123, 217
and United Kingdom 176, 182
Environmental Protection Agency (EPA), US 5, 18
equal treatment, and governmental liability 237, 246–247
Eritja, M.C. 84
EU see European Union (EU)
EU ETS see European Union Emissions Trading Scheme (EU ETS)
European Commission 71
on adaptation measures 136–138
Impact Assessment accompanying White Paper ‘Adapting to climate change’ 148, 153, 154
and regulatory approach of EU 96, 97, 100, 104
Strategic Energy Review 109
European Community (EC)
Annex I parties 61, 63, 75, 84, 87
Climate Change Committee 71
distribution of competences/ responsibilities 61, 62–63
and ECHR 153
failure to comply with Kyoto Protocol commitments 6, 9, 63–64, 67–69, 85
and Kyoto Protocol 55, 59–69, 86
non-Annex I parties 75, 84
as REIO 60
see also European Union (EU);
Member States
European Convention on Human Rights (ECHR) 147, 156, 269
Article 2 (right to life) 142, 145, 147, 148
Article 3 (freedom from torture and inhuman or degrading treatment and punishment) 142, 146–147, 148
Article 6 (right to fair trial) 142
Article 8 (respect for private and family life, home and correspondence) 142, 145, 146–147, 148
Article 10 (freedom of expression) 142
Article 11 (freedom of assembly and association) 142
Article 13 (right to an effective remedy) 142
case law on positive obligations and environment 143, 150–151
First Protocol, Article 1, 142
potential liability of States under for failure to take appropriate measures 6, 9, 134–152
see also European Court of Human Rights
European Court of First Instance 103
European Court of Human Rights 134, 136, 150
and adaptation measures 137–138
admissibility of individual applications 138–139
case law on positive obligations and environment 9, 138–145, 213
evaluation of 152
Inter-State cases before 138
overview of ‘system’ 138
positive obligations, control of 141–142
on precautionary principle 150, 151
see also European Convention on Human Rights (ECHR)
European Court of Justice (ECJ) 57, 58, 61, 84, 90, 113
European Energy Programme for Recovery (EEPR) 98
European Environment Agency 66, 86
European Parliament 71, 78
European Union Emissions Trading Scheme (EU ETS) 7, 9, 12, 76, 90, 92, 95, 96, 99
auctioning 101–106, 114, 120
basic feature 100–101
Index

cap on emissions 99, 102, 105, 118
and carbon capture 109, 110, 112
Directive 1996/96/EC 107
Directive 2003/87/EC 107, 115
evaluation of 123
fee considerations 121, 122–123,
124, 131–132
harmonization 94, 107
and Netherlands 230, 232, 234
price of allowances 104–105, 114
regulation vs climate change liability
265–267
responsibility stipulation 118, 124
revenues 105
and United Kingdom 170, 172, 181
European Union (EU)
Emissions Trading Scheme see
European Union Emissions
Trading Scheme (EU ETS)
Energy Security and Solidarity
Action Plan 97
liability for climate change 6, 55–81
regulatory approach see regulatory
approach of EU
see also European Community (EC)
ex ante facto approach 136, 139
precautionary principle 17, 27, 31
risk management 143, 144, 148,
151
ex post facto approach 136, 258
precautionary principle 17, 19, 21,
23, 27, 31
risk management 143, 148, 151
exhaustion of national remedies, and
admissibility of individual
applications to Court of Human
Rights 139
Export Import Bank 221
extreme weather events 15, 16, 34, 35,
137, 198
Fadeïeva case 141–142
Fagan, N. 172, 186
failure to act, governmental liability
243–245, 247–248, 249–250
vs. action 238
Fairchild v. Glenhaven Funeral Services
Ltd and Others 183, 188
false negative balancing errors 21, 26,
27
false positive balancing errors 21, 26,
27, 33
Farber, D. 35
Faulk, R. 35
fault liability 18–19, 23–24
in Netherlands 237, 239–245
Faure, M. 10–11, 12, 126, 154, 157,
159, 224, 225, 226
financial transfers to developing
countries 80–81
floods 15, 16, 206, 219
force majeure events 19, 25
foreseeability 19, 25, 31, 216
fossil fuels
carbon emissions 91, 100
carbon-friendly energy sources 96,
97, 102
coal-fired electricity generating
installations 95–98, 110,
114–115, 230
energy installations, EC climate
legislation 99–115
as major source for energy
production 95–98
France
administrative law 246
compensation claims 241
Friedmann, W. 56, 82
Friends of the Earth inc. v. Peter
Watson 221
Furedi, F. 172, 186
G-20 (Group of Twenty), and fossil
fuel sector 95
Garrett, N. 39
Geddes, A. 186
General Administrative Law Act
(GALA), Netherlands 228, 244
general causation 25
General Court 229
Georgiev, A. 89
Germany
compensation claims 240
emission reduction targets 126,
131
GHG emissions see greenhouse gas
(GHG) emissions
glaciers, melting of 210
global warming
civil liability for (Netherlands) see
Climate change liability

global warming, civil liability for (Netherlands) 280
and earth temperature 206, 207
emissions causing 30
‘long-tail’ characteristic of climate change 91–92, 93
long-term target 76
policy recommendations for reducing 90, 91, 92, 94, 96, 97, 99–100, 114, 119
in United Kingdom 166
in United States 190, 191, 193, 195–196, 198

long-term liability 238–239, 248
protected legal right or interest 245
short-term liability 238–239, 247, 249–250
whether Dutch system incentive for appropriate adaptation to climate change 247–249

Gray, J. 35

Greece, and Kyoto Protocol 85
Greenhouse Gas Emissions Trading Scheme Regulations 2005, UK 181, 186
greenhouse gas (GHG) emissions 3, 4, 5, 6, 11, 120, 123, 214
abatement 119
Kyoto Protocol and European Community 73, 87
overall worldwide 216
policy options for reducing 90, 91, 92, 94, 96, 97, 99–100, 114, 119
and precautionary principle 15–16, 26

see also European Union Emissions Trading Scheme (EU ETS)

Guerra v. Italy 144, 157, 158
guilt principle, and fault liability 237
Gupta, J. 4, 11, 12

Hansen, James 230
Haritz, M. 6, 8–9, 10, 126, 258, 267, 270, 271
Harper, B. 35
Harremoës, P. 39
Haug, C. 82
Healy, K. 38
heat waves 15
Heinzerling, L. 39

Hockeystick Curve 24
horizontal effect, and positive obligations 140
human rights
and climate change 6, 47, 51, 138
European Convention on Human Rights see European Convention on Human Rights (ECHR)
European Court see European Court of Human Rights
Index 281

Human Rights Council, Resolution on human rights and climate change 134
hurricanes 34, 35, 219
Hurricane Katrina 15, 191, 192
Impact Assessment accompanying White Paper ‘Adapting to climate change’ 148, 153, 154
information, access to 144–145, 149
infringement procedures 71
injunctions 19, 24, 49, 189, 261
Institutions and Instruments to Control Global Climate Change (Maastricht Conference 2001) 8
insurance sector 210, 223
integrated permitting 106–108
Inter-Academy Council (IAC) 256
Inter-American Commission on Human Rights 208
Inter-American Court of Human Rights 50
interest groups 209
Intergovernmental Panel on Climate Change (IPCC) 186, 219, 256, 267
adaptation definitions 135–136
on earth temperature 206, 207
projections/need for action 91, 92, 104, 105, 123
Reports 15–16, 24, 25, 31, 34, 38, 77, 126–127, 168, 257
International Court of Justice 231
International Energy Agency (IEA) 95
international law 4, 6, 7, 24
liability of Member States and EU 55–81
loyal cooperation principle see loyal cooperation principle (Art 10 EC)
mixed agreements 61
public 62, 63–64
solidarity principle 56–58, 83
Inter-State human rights cases 138
Ius Commune Research School, Transboundary Environmental Law Programme 8, 10
Ius Commune Workshop

Environmental Law on the Topic of Liability for Climate Change Damage (2009) 34
Jacquemont, F. 85
Jans, J.H. 130
joint and several liability 184, 193
Jordan, A. 82
Kaminskaité-Salters, G. 6, 9, 10, 12, 51, 126, 185, 259, 262, 267, 268
Keeling Curve 24, 38
Kelderluik Criteria, negligence 214
Kerr, M. 186, 187
Kivalina, action against oil and electric utility industries 192–194, 195, 196–197, 198, 200
Kivalina v. ExxonMobil 18, 35, 203, 204
Korinsky v. EPA 18, 35
Kosolapova, E. 9, 10, 126, 260, 261, 265, 268, 269, 270, 271
Kourilsky, P. 41
Kulovesi, K. 88
Kupferberg case 61
Kyoto Protocol 3, 24, 55, 73, 103
Article 10 EC, role in ensuring EC compliance with 65–69, 70
bubbles notion (Art 4) 81, 85
compliance regime, and consequences for EC 63–65
Conference of the Parties (COP) 55, 75, 82
and European Community 55, 59–69, 86
failure to comply with commitments of 6, 9, 63–64, 67–69, 85
mitigation targets 56, 66, 68, 69
and Article 4, 61–62, 63, 64, 65, 67, 81
as mixed agreement 61, 67, 84
ratification 59, 66, 84, 223
and United States 189, 207
see also compliance regime, Kyoto Protocol; United Nations Framework Convention on Climate Change (UNFCCC)

Lang, J.T. 83
Lascoumes, P. 40
Climate change liability

\textbf{L. C. B. v. United Kingdom} 145

legal interdisciplinary methodology 5–7

legal uncertainty, in climate change liability 17–19

Leone, J. 41

liability, climate change

broad approach to liability law 257
cases 270–271
causation 267–268
development 32
drawbacks 259–260
effectiveness of measures 271–273
EU and Member States \textit{see under} European Union (EU)

fault liability \textit{see} fault liability
goals of liability 258–259
hurdles/potential solutions 262–265
long-term vs. short-term 238–239
nature of claims 260–261
optimal basis of 18–19
persons liable 268–270
and precautionary principle \textit{see}
climate change liability and precautionary principle

prevention of damage as primary goal 9, 47–51
proportional 101, 129
recommendations 273–274
and regulation 264, 265–267
\textit{see also} regulation of EU sound science, importance 255–257
strict liability 18, 118, 123
liability law, compensative and preventive effect 32

Lisbon Treaty (2009) 57, 58, 83, 229

litigation

injunctions 19, 24, 49
liability of Member States and EU 67
in Netherlands 227–235
administrative 229–231
civil 231–234
threat of 48
in United Kingdom 165–185
causation 182–184
causes of action 176–182
reasons for litigation 168–170
tort case, climate-based 173–175

‘long-tail’ problem, climate change as 91–92, 93
long-term liability, vs short-term liability 238–239
Lowry, J. 188
loyal cooperation principle (Art 10 EC) 56, 58–59, 61
and burden sharing 72–73
role of Art 10 in ensuring EC compliance with targets 65–69

\textit{Lubbe v Cape Plc} 174

\textit{Lujan v. Defenders of Wildlife} 196

Lyster, R. 128

Maastricht European Institute for Transnational Legal Research (METRO) 8, 10

MacDonald, R.S.J. 56, 82
Makuch, K.E. and Z 11
Maldives, submission to the Office of the UN High Commissioner for Human Rights (2008) 137, 138, 154, 271
Mank, Bradford 196, 197
Mann, M. 38
manufactured risks 39
Marguénaut, J.-P. 139–140, 155
marine oil pollution accidents 92, 118, 123
Marrakesh, Conference of the Parties (COP-7) 2001 63, 75
\textit{Massachusetts v. EPA} 5, 18, 192, 211
McEvoy, D. 88
Mediterranean Arc 77–78
Member States

allocation of responsibility for future damage 120–121
distribution of competences/ responsibilities 61, 62–63
information, obligations in terms of 149
potential liability for failure to take appropriate measures 134–152
risk management and obligations 143–144
solidarity principle 56–58
State intervention, in positive obligations 140–141
\textit{see also} European Community (EC); European Union (EU)
methodology 5–7
mitigation 17, 23, 76–77
mitigation targets and Kyoto Protocol 56, 66, 68, 69
Article 4, 61–62, 63, 64, 65, 67, 81
mixed agreement, Kyoto Protocol as 61, 67, 84
Monitoring, Reporting and Verification (MRV) 74, 75
Montreal, Conference of the Parties (COP-11) 2005 55
Morris, J. 38
MOX Plant Case 61
multi-party causation 25
Nasheed, Mohamed (President of Maldives) 47
national remedies, exhaustion of 139
natural disasters 92, 118, 123, 150, 206
hurricanes 15, 34, 35, 191, 192, 219
natural ecosystems 168
natural gas 97
negative obligations, vs positive obligations 140–141
negligence
in Netherlands 213–217, 250
in United Kingdom 176–178
Nentjes, A. 11
Netherlands and climate change liability 7, 9–10
civil liability for global warming 206–222
and European Union Emissions Trading Scheme 230, 232, 234
governmental liability 237–250
integrated permitting 107
litigation see Netherlands courts, legal system and litigation
Netherlands courts, legal system and litigation 227–235
access to civil and administrative courts 227–229
access to European courts 229
Administrative Jurisdiction Division, Council of State 228
administrative litigation 229–231
civil litigation 231–234
Dutch Civil Code 209, 210, 211, 218, 219, 221, 228, 231, 244, 263
Dutch Parliament, Second Chamber 230
Dutch Supreme Court 227, 228, 240, 244–245, 268
Environmental Management Act 229–230
General Administrative Law Act 228, 244
Tort Law 228
NGOs (non-governmental organisations) 6, 7, 10, 18, 174, 262
and human rights 138, 151
Nollkaemper, A. 12, 126, 154, 157, 159, 208, 223, 225, 226
non-justiciability of political questions doctrine 189, 191, 193, 194–196, 200, 201, 264
Nordhaus, W. 11, 34, 94, 132
nuclear accidents 92, 118, 123
Office of the UN High Commissioner for Human Rights 134, 137, 138, 154, 271
Öneryildiz v. Turkey 141, 144, 147, 156, 157, 158
Osofsky, A. 12
Osofsky, H. 35, 36
OSPAR Convention 109
Overseas Private Investment Corporation 221
Pardy, B. 34, 37, 41
Peel, J. 39
Peeters, M. 7, 9, 10, 129, 266
Pigovian taxes 3
Pinna, A. 40
planned adaptation 136
political questions, non-justiciability (US) 189, 191, 193, 194–196, 200, 201, 264
polluters
polluter-pays-principle 17, 31, 32, 35, 258
present polluters and future victims 92, 93, 94, 117, 124
responsibility for future damage, under EU 94, 116–121
Pontin, B. 187
positive obligations 136
Climate change liability

and access to information 144–145
adoption of practical measures 145, 149–150
case law 138–145
and ‘classical’ environmental matters 142–145
Court control of 141–142
distinction criteria/typology 140–141
legal and practical measures 140
vs negative obligations 140–141
objective and ground 139–140
procedural and substantial 141, 149
risk management and State obligations 143–144
State’s failure to fulfil 140
theory 139–142
Poznan Conference on Climate Change 105
practical measures, adoption of 145, 149–150
precautionary principle 6, 8–9, 10, 15–34, 97
backward-looking sense 24
burden of proof 21, 25, 151
and climate change liability 21–29
added value of application of principle to climate change liability 29–32
liability from precautionary principle 23, 27–29, 32
liability with precautionary principle 23–26, 31–32
cost-benefit considerations 19, 20, 26, 33
European Commission’s Communication 143
European Court of Human Rights on 150, 151
ex ante facto dimension 17, 27, 31
ex post facto dimension 17, 19, 21, 23, 27, 31
flexibility 33
as higher-order legal principle 27
interpretations 22, 25, 33
as normative principle 31, 32, 151
scope of, as tool to handle uncertainty 19–21
‘serious and irreversible damage,’ threat defined as 20
standard of care 19–20, 23
and UNFCCC 215–216
see also uncertainty, in climate change
prevention and deterrence 9, 17, 30, 31, 32
damage prevention, as primary goal of liability 47–51
in United Kingdom 169–170
see also precautionary principle
private law, liability under 6
problem definition 5–7
procedural injury 261
product liability 179–180
proportional liability 101, 129
public law/public international law 6, 62, 63–64
public nuisance 180–181, 184
global warming 190, 191
Radé, C. 39
regional economic integration organizations (REIOs) 59–60
regulatory approach of EU 90–125
carbon capture and storage see carbon capture and geological storage (CCS)
civil liability 92, 119, 122–123, 125
collective and voluntary 117
Environmental Liability Directive 111, 113–114, 123, 182, 217
EU ETS see European Union Emissions Trading Scheme (EU ETS)
fossil fuels see fossil fuels
general framework 99–100
integrated permitting 106–108
specific approaches concerning fossil-fuel fired electricity sector 100
stipulating responsibility for future damage 92, 93, 116–121, 124
regulatory compliance defence 19, 25
’relativiteitseis’ Netherlands 245
relativity requirement, Netherlands 218–219
Relis, T. 186
remedies
compensation claims see compensation claims
Index

damages 19, 24, 172, 190, 220–221
injunctions 19, 24, 49, 189, 261
see also litigation
Renewable Energy (RES) Directive
2009 76
responsibility for future damage, under
EU 116–121, 124
allocation of 4, 119–121
Member States 120–121
retroactivity, US compensation claims
200–201, 202
reversal of burden of proof 25
Richardson, B. 40
Richardson, K. 132
Ringius, L. 82
Rio Declaration on Environment and
Development of Human Beings
(1992) 214
risk management 143–144, 148–149
Rose-Ackerman, S. 132
Rylands v. Fletcher 180, 182
de Sadeleer, N. 39, 40
Schneider, S. 26, 34, 39, 266
Schueler, B. 6, 10
scientific uncertainty, in climate change
liability 15–17, 33, 214, 219
sea-level rise 137, 166
self-interest 57, 79
Shearman, D. 35, 165, 170, 185, 186,
187, 198, 199, 223
short-term liability, vs long-term
liability 238–239
Smith, J. 35, 165, 170, 185, 186, 187,
198, 199, 223
Smith, J.B. 153
solidarity principle 56–58, 83
specific causation 25, 30
Spier, J. 6–7, 9, 10, 12, 35, 40, 209–210,
224, 226, 259, 261, 262, 272, 273
spontaneous adaptation 136
standing, threshold requirement (US
compensation claims) 196–197,
201–202
Stanford Environmental Law Journal/
Stanford Journal of International
Law 4
state of law principle 140
state of the art defence 19, 25, 217,
233
statutory authorisation defence, in
United Kingdom 181–182
Stavins, R. 87
Steele, K. 39
Steinberger, E. 85
Stolker 211
storms 16, 34
Strategic Energy Review (European
Commission) 109
Strauss, A. 36
strict liability 18, 118, 123
Structural and Cohesion Funds, EU
78, 88
subsidiarity principle 141
Sunstein, C. 36
supplementarity principle 68, 69, 86
supremacy of law principle 140
Tapick, J. 38
Tapinos, D. 37, 40
Taskin v. Turkey 145, 147, 157, 158,
213
Tatar v. Romania 142, 143, 150–151,
157, 159
taxes 3, 122
Temple Lang, J. 59
Thibierge, C. 37
Thielmann, E.R. 83
Timmons Roberts, J. 80, 89, 132
Tinker, C. 41
tobacco consumption 30, 38
Tol, R.S.J. 4, 12
tort law perspective 4, 7, 9–10, 47–48
in Netherlands 228, 245
Principles of European Tort Law
220
in United Kingdom 169, 173–175
Toxic Tort cases 29, 30
‘traditional’ environmental problems
and climate change 148–151
Transboundary Environmental Law
Programme, Ius Commune
Research School 8, 10
transboundary environmental
problems 92, 118
Treaty Establishing the European
Community (EC Treaty)
decision-making (Art 300 EC) 60–61
loyal cooperation principle (Art 10
EC) 58–59, 60, 61
Climate change liability

and burden sharing 72–73
ensuring compliance with 65–69
Treaty on European Union (TEU) 57, 58
Treaty on the Functioning of the European Union (TFEU) 88, 107, 229

UKCIP (UK Climate Impacts Programme) 166, 185
uncertainty, in climate change, uncertainty explosion/cascade of uncertainties 16
uncertainty, in climate change liability legal 17–19
need to avoid 31
precautionary principle, scope of as tool to handle 19–21, 268
scientific 15–17, 33, 214, 219
‘unclean hands’ (contributory negligence) 19
United Kingdom and climate change liability 7, 9
carbon capture and storage 96
causation 182–184
causes of action 176–182
climate change levy 11
Climate Impacts Programme (UKCIP) 166, 185
coal-fired electricity generating installations 114–115, 130–131
and Emission Performance Standards 108
emission reduction targets 125–126
European Union Emissions Trading Scheme 170, 172, 181
fresh water resources 167
Greenhouse Gas Emissions Trading Scheme Regulations 2005, 181, 186
industry, infrastructure and property 166–167
legal aid, limited access to 171
litigation 165–185
reasons for 168–170
natural ecosystems 168
negligence 176–178
product liability 179–180
public nuisance 180–181, 184
status quo and future developments 170–173
statutory authorisation defence 181–182
tort case, climate-based 173–175
United Nations Environment Programme 222
United Nations Framework Convention on Climate Change (UNFCCC) 3, 20, 24, 55, 134–135, 212
and precautionary principle 215–216
ratification by EC 59, 84
United States and climate change liability 4, 9
Article III standing requirements 196, 202
attrition 199–200, 202
case law 5, 18, 35, 190–192, 195–197, 200, 201, 203, 204, 211, 212, 216, 221, 223, 264
causation 197–199, 202
compensation claims 189–202
conditional fee arrangements in 171
Kivalina, action against oil and electric utility industries 18, 35, 192–194, 195, 196–197, 198, 200, 203, 204
and Kyoto Protocol 189, 207
non-justiciability of political questions doctrine 189, 191, 193, 194–196, 200, 201, 264
retroactivity 200–201, 202
standing threshold requirement 196–197, 201–202
Supreme Court 270–271
US Restatement (Second) of Torts 202, 204
urban planning, Netherlands 245, 248
utility industries, action against (US) 18, 35, 192–194, 198
Valasinas v. Lithuania 147, 158
Van Boom, W. 40
Vedder, H.H.B. 130
Verheyen, R. 4, 12, 165, 185, 223
victims of climate change damage 139, 167
and regulatory approach of EU 91, 92, 93, 94
Viney, G. 41
Viscusi, W.K. 169, 186
Vogel, C. 132
Vos, E. 10

water resources, in UK 167
Weart, S. 38
Webster, P. 34
Weishaar, S. 129
Whitmore, A. 119
Wibisana, A. 38
Wijckhoff, J. 12
World Meteorological Organization (WMO) 34, 222
Zander, J. 37