

Index

Page numbers in italics refer to Figures and Tables and those in bold refer to Boxes and Case Studies.

anthropocentric functions,

abandoned and derelict spaces, 64 and activism, 158 definition and benefits, 49, 63 East-Boston Greenway, USA (case study), **145–146**, *145* Sheffield, UK, 181 Tallin, Estonia, 63 activism, 158 add-on mainstreaming, 173 Advocacy Planning (participation tool), 157 aesthetic preferences, shifts in, 138 affordable housing, 103, 146, see also social housing air quality Athens (case study), 84 Barcelona (case study), 176 green walls and, 59-60 Leipzig (case study), 164 Sofia, Bulgaria (case study), 185 Tianjin (case study), 22 alley and street trees/hedges/greens. See also trees definition, 49 allotments and community gardens, 59 and activism, 158 definition and benefits, 49, 58 justice potentials of, 147–148 Prinzessinnengärten, Berlin, Germany, 95 Querbeet garden, Leipzig, Germany (case study), 164, Sea Heroes Community Garden, The Hague, Netherlands, 181 urban orchards, Mallorca, Spain, 58-59 altruistic value, 32 Amsterdam, Netherlands (green roof/rain garden), 61-63 Anthropocene (definition), 13

prioritising, 138-139 Appreciative Inquiry (participation tool), 157 aguifers, 20 Mexico City (case study), 97 Arnstein, S.R., **156**, 159–160 Athens, Greece Hellenikon Metropolitan Park, 140-142 Ministry of Economics and Finance (green roof), 54 Stavros Niarchos Foundation Cultural Centre (case study), **84**, 85 urban gardens, 114 Atlantis Aquifer Clearing Project, Cape Town, South Africa, 177 atriums (definition), 49 Audi Hungaria (case study), 39, 40, Augustenborg Ecocity, Malmö, Sweden, 114, 115, 119, 122 austerity, impact of, 123, 124, 140, 141 Australia (Urban Forest Strategy, Melbourne, case study), 21, 22, 97, **111**, 110, 113, 114, 115, 117, 119, 120, 142, 179, 182 balcony greens (definition), 49 Baltimore School of Urban Ecology, 17 banks, investment in nature banking networks, 99 private banks, 93-95, 100, 101, 102 public banks, 92, 97, 100, 112 Barcelona, Spain Passeig de Sant Joan (case study), 176, 177 Urban Ecology Directorate, 179 urban gardens, 114, 117

barescape (definition), 48, see also abandoned and derelict spaces beekeeping, Audi Hungaria (case study), 40, 95 benefits/value of nature-based solutions (overview), 3, 9, 21 bequest value, 32 Bergen, Norway, 34 BiodiverCity project, Malmö, Sweden (case study), 51, 52, 108-110, 113, 142, 179 biodiversity goals, 2, 132 Biodiversity Net Gain regulation (England), 175 bioswales, 61 birds feeding and watching, problematic, 38-39, 44 Blok 54, Amsterdam, Netherlands (green roof/rain garden), 61-63 blue areas, 62 categories and benefits, 49, 60 blue infrastructure. See also flood protection; lakes/ponds; rivers/ streams/canals/estuaries; natural water retention measures; sustainable urban drainage systems (SuDS); wetlands/bogs/fens/marshes definition, 2 importance and challenges, 69, 69, 112 Bockarjova, M., 33 bogs. See wetlands/bogs/fens/ marshes Bolivia, Law of the Rights of Mother Earth, 19 Bologna, Italy (tree planting), 55-56 Boston, USA East-Boston Greenway (case

study), 145-146, 145

'Anthropocene thinking', 15-16



196 Index

Boston, USA (cont.)

Porous Alley Demonstration Project, 184 Seaport District, 147 botanical gardens (definition), 49 bottom-up governance activism as, 158 definition, 72, 74 subcategories of, 74, 76 typical characteristics, 78 Brazil Parque Várzeas do Tietê, Sao Paulo, 37-38 Broadway estate, Tilbury, UK, 37 Brundtland Report, 13, 15 Budapest, Hungary (Eiffel Palace Office Building), 59-60 building greens. See external building greens built environment, influence on nature-based innovations, 119, 121 builtscape (definition), 48 Bulgaria, 'Sofia - Green Capital' (case study), 184, 185 Burgess, Ernest, 16, 17 business models for nature-based solutions, 70, 102, 102 Canada Forks North Portage Partnership, Winnipeg (case study), 121-122, 122 Spence Neighbourhood Association, Winnipeg, 156-158 Canada geese, 39 Cape Town, South Africa Atlantis Aquifer Clearing Project, 177 **Environmental Education Trust** (case study), 35, 36 carbon offsetting, 56, 99 carbon storage valuation, 32 Castree, Noel, 12 certification schemes, 175-176, 178 Chan, K.M.A.P., 30 Chicago School of Sociology, 16 Eco-City and Eco-Valley, Tainjin

co-creation; collaborative governance; education initiatives challenges and obstacles, 155, 159-160, 160 community investors, 91, 95-96 crowdfunding, 95, 158-159, 180, 185 definition, 151 direct action, 158 embracing diversity, 152 forms of, 154-156 and governance, 151 importance of, 116-117, 151 insights (quotes) on, 168 and justice, 152, 153-154 ladder and wheel of participation, 159, 159-160 Liberties Greening Strategy, Dublin, Ireland, 156 park gardening, 58 participatory integrated assessment (PIA), 155 processes and practices, 160-163, 161, 163 Querbeet garden, Leipzig, Germany (case study), 164, 165 Roerplein pocket park, Utrecht, the Netherlands (case study), **165–166**, 166 Sea Heroes Community Garden, The Hague, the Netherlands, Spence Neighbourhood Association, Winnipeg, Canada, 156-158 tools and methods, 155, 156-158, 157 tree care, 22 uptake of nature-based innovations, 123 city-nature dichotomy, 12 Clancy, C., 38-39 climate change impacts on cities 1-2. 109 UN Framework Convention, 2 urban contributions to, 1-2 climate-risk mitigation/climate adaptation Climate Adaptation Strategy, Munich, Germany, 114

Citizen Panel (participation tool),

citizen participation, 158, see also

157

and financial investment, 101, 182 importance, 131 and innovation, 109 Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 as pathway, 131, 132 co-benefits (definition), 72 co-creation. See also citizen participation challenges and obstacles, **155**, 159–160, *160*, 180–181, collaborative governance. See collaborative governance definition, 151 importance and benefits, 150-151, 178-179 and justice, 152, 153-154 models of collaboration, 73 processes and practices, 160-163, 161, 163 co-financing. See hybrid investment/investors co-governance. See collaborative governance coastalscape (definition), 48 coasts (definition), 49 Cohesion Fund, 91 collaboration with stakeholders/ citizens. See citizen participation; See co-creation collaborative development funds, 96-97, 181, see also hybrid investment/investors; public-private partnership model collaborative governance challenges, 80 closed-circuit water system, Utrecht, the Netherlands, 178-179 definition, 72, 74 in NBIS framework, 116 Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 subcategories of, 74, 77 trend towards, 79-80 typical characteristics, 78 Urban Ecology Directorate, Barcelona, Spain, 179

(case study), 22, 23, 146

wetland park, Tianjin, 111, 112

Sponge Cities Project, 112



More Information

Cambridge University Press & Assessment 978-1-108-83173-4 — Urban Nature Kes McCormick, Bernadett Kiss, Yuliya Voytenko Palgan, Harriet Bulkeley, McKenna Davis Rob Raven, Andrés Luque-Ayala, Kathrin Hörschelmann Index

Index 197

commitments to sustainability, 113-114 community gardens. See allotments and community gardens community investment/investors, 91, 95-96, see also crowdfunding Community Organising (participation tool), 157 contested values, 35-38, 138-139, **141**, 143–144, **185** neoliberalism vs common good, 139-143 COSME (Programme for the Competitiveness of Enterprises and Small and Medium-Sized Enterprises), 91 creativity, importance of, 14 crowdfunding, 95, 158-159, 180, 185 cultural and social values, 35-38, 120, 122-123 cultural processes and actions (overview), 52 Davidson, S., 160 deltas (definition), 49 demonstration projects, 184-186 densification Malmö, Sweden (case study), 51 Melbourne, Australia (case study), 21 Parc Marianne Ecodistrict, Montpellier, France (case study), 93-94, 94, 144 derelict areas. See abandoned and derelict spaces direct action by citizens, 158 direct-use values, 32 directed mainstreaming, 174 distributional justice, 152, 153, 159 District-Based Community Work (participation tool), 157 District Forum (participation tool), 157 drainage. See sustainable urban drainage systems (SuDS) Dublin, Ireland Liberties Greening Strategy, 156 Tolka Valley Park (case study),

East-Boston Greenway, USA (case study), 145-146, 145 Eco-City and Eco-Valley, Tainjin China (case study), 22, 23, ecogentrification. See green gentrification ecological categories of naturebased solutions (overview), 44, 48, 49, see also specific categories ecological innovations definition, 44, 108 Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 processes and actions for, 52 ecology (definition), 13, see also human ecology; urban ecology; urban political ecology economic flows, 18 economic processes and actions (overview), 52 economic regeneration, as pathway, economic value of nature and nature-based solutions, 27, 27, 32-34, 33, 34, 36 ecosystem definition, 13 integrated model of urban ecosystem, 17 and urban metabolisms, 18 ecosystem-based adaptation (definition), 20 ecosystem-based disaster risk reduction (definition), 20 Edinburgh, UK (Little France Park case study), 123, 124 education initiatives benefits of (in general), 117 Cape Town Environmental Education Trust (case study), **35**, 36 as distributional justice, 153 Heeley Development Trust, Sheffield, UK, 181 and municipal governance for citizen participation, 162 as participation tool, 157 urban orchards, Mallorca, 58 EIB (European Investment Bank), 92, 102

Eiffel Palace Office Building, Budapest, Hungary, 59-60 **Environmental Education** (participation tool), 157 Environmental, Social and Governance (ESG) initiatives, ERDF (European Regional Development Fund), 92 Erixon Aalto, H., 35 Ernston, H., 35, 37 ESF (European Social Fund), 92 ESG (Environmental, Social and Governance) initiatives, 95 ESIF (European Structural and Investment Funds), 91-92 Essen, Germany, 34 Estonia (abandoned fishing harbour, Tallin), 63 European Investment Bank (EIB), 92, 102 European Union (EU), programmes and funding, 91-92, 180, 186 evaluation of nature-based solutions, 117, 144, 184-186 existence value, 32 experimentation, 107, 115, 117-118, 179, 184 external building greens, 54, 55 balcony greens, 49 green roofs. See green roofs green walls/facades. See green walls/facades farmscape (definition), 48 Federal Building Code (Germany), 175 fens. See wetlands/bogs/fens/ marshes financing barriers to investment, 100-101. 123, 142-143, 146, 182 collaborative development funds, 96-97, 181 community investment/investors, 91.95-96 crowdfunding, 95, 158-159, 180, global requirement, 89 hybrid investment/investors. See hybrid investment/investors investor categories, 89, 90, 91

52–53, *53*



198 Index

financing (cont.) key concepts, 89, 89-90 in NBIS framework, 118-119 opportunities for investment, 101-102 private investment/investors. See private investment/investors public investment/investors, 91, 91-93, 112, 180, 183 returns on investment, 84, 90 supranational programmes, 91-92, 180, 186 through taxation income, 92, 93 fishing, 60, 63 flood protection Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 Montpellier, France (case study), 94 Forks North Portage Partnership (FNPP), Winnipeg, Canada (case study), **121–122**, *122* France (Parc Marianne Ecodistrict, Montpellier, case study), 93-94, 94, 144 Future Workshop (participation tool), 157 GABV (Global Alliance for Banking on Values), 99 garden city model, 13, 15, 15, 16 gardens. See also allotments and community gardens; botanical gardens (definition); horticulture (definition); house gardens Athens, Greece, 114 Barcelona, Spain, 114, 117 Madrid, Spain, 180 gardenscape (definition), 48 Gateshead, UK (kittiwakes), 38 gentrification. See green gentrification Germany Climate Adaptation Strategy,

ateshead, UK (kittiwakes), 38 ateshead, UK (kittiwakes), 38 attrification. See green gentrification ermany
Climate Adaptation Strategy, Munich, 114
Federal Building Code, 175
green roofs, Hamburg, 175, 182–183
insurance investment portfolios, 98
Isar River restoration, Munich (case study), 82, 83, 108, 109, 120, 147

Petuelpark, Munich, 57-58 Prinzessinnengärten, Berlin, 95 public banks and investment in urban nature, 92 Querbeet garden, Leipzig (case study), 164, 165 sustainable finance networks, 99 tree adoption, Leipzig, 95 urban park restoration, Essen, 34 governance. See also policy and regulation bottom-up governance. See bottom-up governance definition and key concepts, 72, 73-74 importance of, 70, 72, 74 key advice, 80-85 multi-level governance. See multi-level governance municipal governance for citizen participation, 161 in NBIS framework, 115-116 participatory (by citizens), 153-154 principles and values, 80, 81, 82 processes and actions (overview), top-down governance. See top-down governance Greece Hellenikon Metropolitan Park, Athens, 140-142 Ministry of Economics and Finance, Athens (green roof), Stavros Niarchos Foundation Cultural Centre, Athens (case study), 84, 85 urban gardens, Athens, 114 green areas for water management, 49, 61, 62 wetland park, Tianjin, China, 111, 112 Green Areas Inner-City Agreement (GAIA), Bologna, Italy, 55-56 green corridors definition, 49 Passeig de Sant Joan, Barcelona, Spain (case study), 176, 177 green gentrification, 137, 144-146,

146, 158, see also hedonic

pricing

definition, 136 green indoor areas, 61 categories and benefits, 49, 59 green infrastructure (definition), 2 Green Infrastructure Fund (Scotland), 183 green parking lots, 49 green playgrounds/school grounds, 49 green procurement, 93, 175 green roofs Blok 54, Amsterdam, Netherlands, 61-63 definition, 49 Hamburg, Germany, 175, 182-183 housing association investment in, Sweden, 93 incentives, 92, 99, 179-180, 182-183 Melbourne, Australia, 111, 119 Ministry of Economics and Finance, Athens, 54 National Roof Plan, the Netherlands, 179-180 Stavros Niarchos Foundation Cultural Centre, Athens (case study), 84 Green Space Factor, 175 green walls/facades definition, 49 Eiffel Palace Office Building, Budapest, Hungary, 59-60 Melbourne, Australia, 111 greening mandates, 175 greenwashing definition, 136 Hellenikon Metropolitan Park, Athens, Greece, 140-142 greenway, Boston, USA (case study), 145-146, 145 Győr, Hungary (case study), 39, 40, Hamburg, Germany

Hamburg, Germany
green roofs, 175, 182–183
NATURCENT regulation,
184
heat stress. See urban heat island
effect
hedonic pricing. See also green
gentrification
definition, 28



Index 199

and economic valuation of nature, 33, 34 as unintended consequence, 45, 146, 147, 158 Heeley Development Trust, Sheffield, UK, 181 Hellenikon Metropolitan Park, Athens, Greece, 140-142 Henrique, K.P., 37-38 Heritage Lottery Fund, 96 Heynen, N., 136, 138, 139 Horizon Europe Programme, 91 horizontal coordination (definition), 72, 78 horticulture (definition), 49 house gardens, 49 house prices, and proximity to nature. See hedonic pricing housing, affordable, 103, 146 housing, social, 143, 144, 147 Howard, Ebenezer, 13, 15, 15 human ecology, 16 human ecology (definition and scope), 13 Hungary City Development Fund, Kecskemét, 96-97 Eiffel Palace Office Building, Budapest, 59-60 Győr (case study), 39, 40, 95 hybrid investment/investors, 96-99, 97, 140, see also collaborative development funds; public-private partnership model Mexico City Water Fund (case study), 97, 98, 118 Sea Heroes Community Garden, The Hague, 181 'Sofia - Green Capital', Bulgaria (case study), 184-185 Urban Forest Fund, Melbourne,

indigenous people, co-creation with, 156–158 indirect use values, 32 indoor vertical greeneries (walls and ceilings) (definition), 49 industrialisation, impact of, 14–15 inequalities, global, 140 inequalities, socioeconomic. See also marginalised

Australia, 111, 182

communities; social inclusion; social justice and education initiatives, 35 and nature-based solutions, 37-38, 45, 53, 139, 143, 144, 145-146, 147 infrastructure. See also blue infrastructure; green infrastructure (definition) process and actions, 52 and urban political ecology, 18-19 urban infrastructure regimes. See urban infrastructure regimes innovations. See also ecological innovations; physical innovations; social innovations; system innovations; technological innovations and experimentation, 107 introduction and key concepts, **106**, 106-107 in Malmö, Sweden (case study), 51 NBIS. See nature-based innovation systems framework (NBIS) and novelty, 108 pathways, 70 processes and actions for, 52 structural conditions for. See structural conditions for nature-based innovations types of, 44, 48, 106, 108-110 in Winnipeg, Canada (case study), 121-122, 122 institutional green spaces (definition), 49 instrumental value of nature, 28, 30 insurance sector and products, 98-99, 101, 182, 183 intermediaries definition, 170 importance, 171 intra- and interorganisational mainstreaming, 173 intrinsic value of nature, 28, 30 invasive plant species removal, 177 investment definition, 89, 89 financial investment. See

financing

non-financial investment, 89, 90

investors, categories/examples of (overview), 89, 90, 91, see also collaborative development funds; community investment/ investors; financing; hybrid investment/investors; private investment/investors; public investment/investors: public-private partnership model, IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), 31 Nature Futures Framework, 31 Liberties Greening Strategy, Dublin, 156 Tolka Valley Park, Dublin (case study), 52-53, 53 Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 tree planting, Bologna, 55-56 urban river and canal regeneration, Milan, 34 IUCN (International Union for Conservation of Nature), 99 justice definition, 152

definition, **152**distributional justice, **152**, 153, 159
procedural justice, **152**, 153–154, 159
recognitional justice, **152**, 153, 154, 159
social justice, 146–148

Kecskemét, Hungary (City Development Fund), 96–97 kittiwakes, 38 knowledge development, 118, 123 knowledge processes and actions (overview), 52 Kotsila, P., 147–148

lakes/ponds
definition, 49
Larkhill Garden Lakes,
Liverpool, UK, 60
landowner engagement, 45, 51



200 Index

large urban parks or forests (definition), 49 Larkhill Garden Lakes, Liverpool, UK. 60 Law of the Rights of Mother Earth (Bolivia), 19 Leipzig, Germany Querbeet garden (case study), **164**, 165 tree adoption, 95 Liberties Greening Strategy, Dublin, Ireland, 156 LIFE Programme, 91-92 Light, Jennifer, 16 Little France Park, Edinburgh, UK (case study), 123, 124 Liverpool, UK (Larkhill Garden Lakes) 60 London, UK Broadway estate, Tilbury, 37 Walthamstow Wetlands, 38–39 lottery funding, 96 Madrid, Spain (gardens), 180 mainstreaming urban nature. See solutions challenges, 177-178 definition and key concepts, 89,

also pathways for nature-based **170**, 170 enabling factors, 171-173, 174, 174 policy and, 174, 175-178, 184 strategic actions, 171-174 maintenance, and investment, 101 making space for nature, 45 Mallorca, Spain (urban orchards), 58-59 Malmö, Sweden Augustenborg Ecocity, 114, 115, 119, 122 BiodiverCity project (case study), **51**, *52*, 108–110, 113, 142, 179 investment in green roofs, 93 managerial mainstreaming, 173 marginalised communities, 37-38, 137, 156-158, see also social inclusion marshes. See wetlands/bogs/fens/ marshes Marx, Karl, 18 Melbourne, Australia (Urban

22, 97, 111, 110, 113, 114, 115, 117, 119, 120, 142, 179, 182 Mexico City Water Fund (case study), 97, 98, 118 mobile planting, 109, 131 monitoring and evaluation of nature-based solutions, 117, 144, 184-186 Montpellier, France (Parc Marianne Ecodistrict case study), 93-94, 94, 144 more-than-human approaches, 19 multi-functionality of nature-based solutions and compromises, 143-144 definition, 136 multi-level governance, 79, 115-116 definition 72 horizontal coordination, 72 Type I and Type II, 78-79 vertical coordination (definition), **72**, 78 Munich, Germany Climate Adaptation Strategy, Isar River restoration (case study), 82, 83, 108, 109, 120, 147 Petuelpark, 57-58

natural capital (definition), 20 Natural Capital Accounting (NCA) (definition), 28 Natural Capital Coalition (NCC), 99 Natural Capital Finance Facility Pioneers, 102 natural water retention measures definition, 20, 21 Mexico City (case study), 97 NATURCENT regulation, Hamburg, Germany, nature, concept of (introduction), 11-12, 12, see also urban nature (definition and concept of) nature-based innovation systems framework (NBIS), 113 agency, 113-114 collaboration, 116-117 discourse and vision, 114 introduction and overview, 106, 111-112 learning, 117–118 place-based factors, 119-120

policies, 114-115 resources, 118-119 nature-based solutions. See also urban nature (definition and concept of) benefits/value (overview), 3, 9, 21 definition and concepts, 2-3, 19-20, **20**, **44** ecological categories (overview), **44**, 48, 49 trade-offs in. 29 Nature Conservancy, The (TNC), 97, 97, 99, 177 Nature Futures Framework (IPBES), 31 nature intermediaries. See intermediaries Nature's Contribution to People (NCP) (definition), 28 NATURVATION project, 102 NBIS (nature-based innovation systems framework). See nature-based innovation systems framework (NBIS) NCC (Natural Capital Coalition), NCFF (Natural Capital Finance Facility), 92 neighbourhood green spaces. See pocket parks/neighbourhood green spaces neoliberalism versus common good (contested values), 139-143 definition, 136 exploitation of activist schemes, 158 Netherlands, the ASN bank investment in nature, 95, 102 Building Agenda policy programme, 178-179 closed-circuit water system, Utrecht, 178-179 green roof incentives, 183 green roof/rain garden, Amsterdam, 61-63

insurance products, 98-99

National Roof Plan, 179-180

Roerplein pocket park, Utrecht

(case study), 165-166, 166

Neighbourhood Green Plan

project, Utrecht, 180

Forest Strategy case study), 21,



Index 201

The Hague, 181 sustainability certification schemes, 176 Newcastle, UK historic park restoration, 96 kittiwakes, 38 park management model (case study), 140, 141, 142 NGFS (Network of Central Banks and Supervisors for Greening the Financial System), 99 NGOs (non-governmental organisations), 96, 97, 154-156, 162-163, 163, 184-185 non-use values, 32, 33, 34 Norway (peri-urban forests and wetlands, Bergen), 34 option values, 32 orchards (Mallorca, Spain), 58-59 Our Common Future (Brundtland Report), 13, 15 Parc Marianne Ecodistrict, Montpellier, France (case study), 93-94, 94, 144 Park, Robert, 16 parking lots, 49 parks and (semi-natural urban green areas, 57, see also large urban parks or forests (definition); see also pocket parks/neighbourhood green spaces categories and benefits, 49, 57 Hellenikon Metropolitan Park, Athens, Greece, 140-142 park management model, Newcastle, UK (case study), 140, 141, 142 Petuelpark, Munich, Germany, 57-58 restoration in Newcastle, UK, 96 Rethinking Parks project, Sheffield, UK, 96

parkscape (definition), 48

participation. See citizen

participation

(PIA), 155

Parque Várzeas do Tietê, Sao

Paulo, Brazil, 37-38

participatory integrated assessment

Sea Heroes Community Garden,

Participatory Planning Workshop (tool), 157 partnerships. See co-creation Passeig de Sant Joan, Barcelona, Spain (case study), 176, 177 patch dynamics, 17 pathways for nature-based solutions innovation pathways, 70 types and complimentarity of pathways, 132 Pauleit, S., 173 peri-urban forests Bergen, Norway, 34 Győr, Hungary, 39 Petuelpark, Munich, Germany, 57-58 physical geography, influence on nature-based innovations, physical innovations, 108-110 PIA (participatory integrated assessment), 155 Pickett, S.T., 17 pilot projects, 184-186 planning. See urban planning Platform Carbon Accounting Financials (PCAF), 99 playgrounds/school grounds, 49 pocket parks/neighbourhood green spaces definition, 49 Roerplein pocket park, Utrecht, the Netherlands (case study), 165-166, 166 policy and regulation. See also governance; neoliberalism green procurement, 123 and innovation, 123 and mainstreaming, 174, 175-178, 184 in NBIS framework, 114-115 processes and actions (overview), regulatory mainstreaming, 173 political ecology. See urban political ecology ponds. See lakes/ponds population growth, urban, 1 Porous Alley Demonstration Project, Boston, USA, 184 Prinzessinnengärten, Berlin, Germany, 95

private investment/investors, 91, 93-95, 100-101, 140-143 Parc Marianne Ecodistrict, Montpellier, France (case study), 93-94, 94, 144 procedural justice, 152, 153-154, process generation and actions (overview), 52 processes and actions (overview), procurement. See green procurement product generation and actions (overview), 52 programmatic mainstreaming, 173 public investment/investors, 91, 91-93, 112, 180, 183 public-private partnership model. See also collaborative development funds; hybrid investment/investors park management model, Newcastle, UK (case study), 140, 141, 142 Stavros Niarchos Foundation Cultural Centre, Athens, Greece (case study), 84 tree planting, Bologna, Italy, 55-56 Public Procurement Law (Spain), 175 Public Spirit Workshop (participation tool), 157 Querbeet garden, Leipzig, Germany (case study), 164, 165 railroad banks and tracks, 49 East-Boston Greenway, USA (case study), 145-146, 145 railscape (definition), 48 rain gardens Blok 54, Amsterdam, the Netherlands, 61-63 definition 49 rainfall capture, 21, 23, 49, 84, Raymond, C.M., 155 recognitional justice, 152, 153, 154, 159 Reed, M.S., 160



202 Index

regulation. See policy and

regulation regulatory mainstreaming, 173 relational approaches. See morethan-human approaches relational value of nature, 31, 32, restoration processes and actions (overview), 52 return on investment (RoI) definition, 28 long-term nature of, 100 rewilding projects, 83, 138, 146 riverbank greens (definition), 49 rivers/streams/canals/estuaries definition, 49 Forks North Portage Partnership (FNPP), Winnipeg, Canada (case study), 121-122, 122 Isar River restoration, Munich, Germany (case study), 82, 83, 108, 109, 120, 147 Parc Marianne Ecodistrict, Montpellier, France (case study), 93-94, 94, 144 riverscape (definition), 48 Roerplein pocket park, Utrecht, Netherlands (case study), **165–166**, 166 roofscape (definition), 48 Round Table (participation tool), 157 sea coasts (definition), 49 Sea Heroes Community Garden, The Hague, Netherlands, 181 Sekulova, F., 139, 144, 146, 147 Sheffield, UK Heeley Development Trust, 181 Rethinking Parks project, 96 social and cultural values, 35-38, 120, 122-123 social housing, 143, 144, 147, see also affordable housing social inclusion. See also inequalities, socio-economic; marginalised communities as distributional justice, 153 key lessons, 137 as pathway, 132

Urban Forest Strategy, Melbourne, Australia (case study), 21, 22, 97, 111, 110, 113, 114, 115, 117, 119, 120,142, 179, 182 urban forests (in general), 8, 8, wetland park, Tianjin, China, 111.112 social justice, 146–148, see also inequalities, socioeconomic social spaces, creating, 58-59, 154 socioecological systems (definition), 13 'Sofia - Green Capital', Bulgaria (case study), 184, 185 soilscape (definition), 48 South Africa Atlantis Aquifer Clearing Project, Cape Town, 177 Cape Town Environmental Education Trust (case study), 35, 36 Spain gardens, Madrid, 180 Passeig de Sant Joan, Barcelona (case study), 176, 177 Public Procurement Law, 175 Urban Ecology Directorate, Barcelona, 179 urban gardens, Barcelona, 114, 117 urban orchards, Mallorca, 58-59 Spence Neighbourhood Association, Winnipeg, Canada, 156-158 Sponge Cities Project, China, 112 stakeholder engagement. See citizen participation; co-creation Stavros Niarchos Foundation Cultural Centre, Athens, Greece (case study), 84, 85 street trees/hedges/greens. See alley and street trees/hedges/greens streetscape (definition) 48 structural conditions for naturebased innovations, 120-123 Forks North Portage Partnership, Winnipeg, Canada (case study), 121-122,

Little France Park, Edinburgh, UK (case study), 123, 124 supranational programmes and financing, 91-92, 180, 186 sustainable business networks and investment, 99 sustainable development Brundtland Report, 13, 15 certification schemes, 176 challenges, 143-144 definition, 13 green procurement, 93, 175 as pathway, 132 sustainable urban drainage systems (SuDS), 30, 49, 183 swales/filter strips (definition), 49 Sweden Augustenborg Ecocity, Malmö, 114, 115, 119, 122 BiodiverCity project, Malmö (case study), 51, 52, 108-110, 113, 142, 179 climate change risk awareness, 182 Green Space Factor use, 175 housing association investment in green roofs, 93 public banks and investment in urban nature, 92 sustainability certification schemes, 176 Swyngedouw, E., 138, 139 system innovations definition, 111 processes and actions for, 52 system processes and actions (overview), 52 systemic/synergistic approach to urban sustainability, 2, 5 systems (definition), 106 Tallinn, Estonia (abandoned fishing harbour), 63 taxation income, and investment in urban nature, 92, 93 TCFD (Taskforce on Climaterelated Financial Disclosures), technological innovations BiodiverCity project, Malmö, Sweden (case study), 51, 52, 108-110, 113, 142, 179

definition, 108

processes and actions for, 52

social innovations

definition, 110

processes and actions for, 52



More Information

Cambridge University Press & Assessment 978-1-108-83173-4 — Urban Nature Kes McCormick, Bernadett Kiss, Yuliya Voytenko Palgan, Harriet Bulkeley, McKenna Davis Rob Raven, Andrés Luque-Ayala, Kathrin Hörschelmann Index

Index 203

technologies, access to, 119 The Hague, the Netherlands (community garden), 181 thermal performance of buildings, green roofs and, 54 Tianjin, China Eco-City and Eco-Valley (case study), 22, 23, 146 wetland park, 111, 112 TNC (The Nature Conservancy), 97, 97, 99, 177 Tolka Valley Park Wetlands and Greenway, Dublin, Ireland (case study), 52-53, 53 top-down governance definition, 72, 74 subcategories of, 74, 75 typical characteristics, 78 top-down vision, 114 Tozer, L., 146, 147 trade-offs in nature-based solutions, 29 transnational municipal networks, Traveller community, 37 trees. See also alley and street trees/ hedges/greens adoption in Leipzig, Germany, 95 i-tree software, 119 planting in Bologna, Italy, 55-56 planting in Sofia, Bulgaria, 185 planting in Tianjin, China, 112 Urban Forest Strategy, Melbourne, Australia (case study), 21, 22, 97, 111, 110, 113, 114, 115, 117, 119, 120, 142, 179, 182 urban forests (in general), 8, 8, 110 Tschakert, P., 37-38 Type I/Type II multi-level governance, 78-79 UN Convention on Biological

Diversity, 2

UN Framework Convention on

Climate Change, 2

underscape (definition), 48

Initiative), 99

United Kingdom

UNEP FI (UN Environment

Programme Finance

Biodiversity Net Gain regulation (England), 175 Broadway estate, Tilbury, 37 Green Infrastructure Fund (Scotland), 183 Heeley Development Trust, Sheffield, 181 kittiwakes, Newcastle, 38 Larkhill Garden Lakes. Liverpool, 60 Little France Park, Edinburgh (case study), 123, 124 Rethinking Parks project, Sheffield, 96 sustainability certification schemes, 176 Walthamstow Wetlands, London 38-39 United States East-Boston Greenway (case study), 145-146, 145 Porous Alley Demonstration Project, Boston, 184 Seaport District, Boston, 147 unwanted nature, 38-39 urban ecology definition and scope, 13, 16–17 knowledge paradigms, 17 Urban Forest Strategy, Melbourne, Australia (case study), 21, 22, 97, **111**, 110, 113, 114, 115, 117, 119, 120, 142, 179, 182 urban forests (in general), 8, 8, 110 urban green areas connected to grey infrastructure, 57-58 categories and benefits, 49, 54-55 urban heat island effect Athens, Greece (case study), 84 Barcelona, Spain (case study), mitigation, 21, 21, 59, 109, 176, 186 urban infrastructure regimes, 172 definition, 106, 170 urban landscapes, types of, 44, 48, 50, see also specific types of landscape urban metabolisms, 13, 17-18 urban nature (definition and concept of), 2, 11-12, 12, see also nature-based solutions urban planning garden city model, 13, 15, 15, 16

twentieth century, 16 urban political ecology, 18-19 definition and scope, 13, 136 urban resilience, 16 utility companies, 184 Utrecht, the Netherlands closed-circuit water system, 178-179 Neighbourhood Green Plan project, 180 Roerplein pocket park (case study), 165-166, 166 value of nature and nature-based solutions contested values. See contested values direct-use values, 32. economic valuation, 27, 27, 32-34, 33, 34, 36 indirect use values, 32 instrumental value, 28, 30 intrinsic value, 28, 30 introduction and concepts. 26-27, 28 negative value (unwanted nature), 38-39 non-economic metrics, 32. 33 non-use values, 32, 33, 34 relational value, 31, 32, 123 Van der Jagt, A.P.N., 111 vertical coordination (definition), 72 78 Walthamstow Wetlands, London, UK 38-39 Wamsler, C., 173 water. See blue infrastructure water management, green areas for. See green areas for water management water pollution, Tolka Valley Park Wetlands and Greenway, Dublin, Ireland (case study), **52–53**, 53 water supply strategy, Cape Town, South Africa, 177 waterscape (definition), 48 wetlands/bogs/fens/marshes definition, 49 Tolka Valley Park, Dublin, Ireland (case study), 52-53, 53