Index

Index note: Page numbers in italic refer to images. Page numbers in the form 227n12 refer to endnotes.

Abrahams, C. 204
accessibility see food accessibility
Accra, Ghana 49, 156, 159, 164, 300, 302, 308
Accra Working Group on Urban and Peri-urban Agriculture (AWGUPA) 49, 300, 302
ACHR see Asian Coalition for Housing Rights
Acquah, B. 209
Adaptive and collaborative governance 49
affordability see food affordability
Afica 3, 8, 9, 10 see also South Africa
African Food Security Urban Network (AFSUN) 186–7, 188, 190, 192, 193, 198, 200
Agergaard, J. 156
agribusiness planning 63–5, 70–1
American Planning Association (APA) 83, 134, 137–40, 266
Amman, Jordan 12
APA see American Planning Association
AQST see Accordo Quadro di Sviluppo Territoriale
Aranha, A. 209
Asen, Peter 90
Asian Coalition for Housing Rights (ACHR) 11
availability see food availability
Avritzer, L. 227n12
AWGUPA see Accra Working Group on Urban and Peri-urban Agriculture
Azar, Robert 94

Baltimore City, US 20, 41, 42, 43, 53
Bamako, Mali 304
Bangkok, Thailand 60–78
city farm plan 73–6
civil society planning 71–3
different food actors 61–7
food expenditure 11
overview 60–1, 76–8
planning approaches 68–73
urban planning 35, 37, 45
Bangladesh 35
Battersby, Jane 187
Belo Horizonte, Brazil 209–27

achievements and challenges 226
arguments and method 210–11
Belo Horizonte Food Security Program (BHFSIP) 32, 209–10, 211, 219, 221
food policy planning as collaborative process 220–2
food supply and distribution system 211–20
spatial levels of food supply system 216–17
urban planning 31, 36, 37, 44, 47–8, 49, 53
urban quality life index 222–5
Bestor, T.C. 173, 175, 177, 182
Blay-Palmer, A. 25
Bliss, Garry 88
Blomqvist, L. 155
Bloomberg, Michael 313, 314, 317, 326
BMA (Bangkok Metropolitan Administration) 61–4, 68, 69, 73, 75
Borges, Mauricio 221
Botswana 187, 188
Brazil 40, 41 see also Belo Horizonte
Bristol, UK 20, 40, 44, 47, 53
Canada 44, 264–5 see also Toronto
Cape Town, South Africa 13, 37–8, 188, 189–98, 200, 202, 304
capsules 175, 176, 177, 180
carbon footprint 155
charters 18, 44–5, 338–9
Chautauqua County, New York 137, 146–8, 149, 152n20
China 3, 7, 189, 248 see also Hangzhou
Cicilline, David 87, 88, 89, 95
Cienfuegos, Cuba 40
Cissé, O. 309
cities
food and urban planning 18–22, 27, 45, 47–51, 55
food challenges 1, 2, 4–7, 9–10, 11
waste management 154, 155
city charters 338–9
city food councils 47–50
CityFoodTools initiative 274
city region (definition) 50–1
city region food systems (CRFS) 21, 25–6, 27, 156, 159, 165, 292
Civil Rights Movement 145, 152n15
civil society 27, 49, 65–7, 71–5, 77, 120, 336
climate changes 13–14, 15, 51, 89, 103, 108, 313
CLTs see community land trusts

341
Cobbina, S. 306
Cofie, O.O. 159
COIs see communities of innovation
collaborative governance 49
collaborative planning 220, 226
collective form 180, 181
collective gardens 66–7, 75
COMASA (Conselho Municipal de Abastecimento e Segurança Alimentar) 48, 210, 220, 221
Common Agricultural Policy (CAP) 284
communities of innovation (COIs) 135, 136, 137, 148, 149, 152n22
communities of opportunity (COOs) 135, 136, 137, 148, 149, 150, 152n22
community gardens
Bangkok 61, 69, 74
East Harlem 328
Lima 121
Portland 112–13
Providence 80–1, 84–5, 87, 89, 91–2, 95–8, 100
Seattle 140
community land trusts (CLTs) 33–4, 84–5
community-supported agriculture (CSA) 91, 283, 330
composting 158, 160, 162, 163
COMPUR (Conselho Municipal de Políticas Urbanas) 210, 221
COOs see communities of opportunity
Costa Rica 35
Costco 325, 328, 329
CRFS see city region food systems
CSA see community-supported agriculture
Cuba 40, 123
Curitiba, Brazil 123
Cynar, Ellen 93
de Blasio, Bill 317, 328
declarations 18, 20–3, 334–7
de Zeeuw, Henk 25–6, 303
Dhaka, Bangladesh 35
diabetes 8, 191
diet 7–10, 37–8, 190–1, 312–14
disease 7, 8, 191, 297, 312–14
Distretto Agricolo della Valle Olona (DAVO) 285, 286
Distretto Agricolo Milanese (DAM – Milan Agricultural District) 46, 283–6, 288–90
Distretto Neorurale delle Tre Acque di Milano (DiNA Mo) 285, 286
Distretto Rurale Riso e Rane 285, 286
Djakarta, Indonesia 24
Donadieu, P. 277
Dongshan Fresh Food Market, China 257, 258
Donovan, J. 204
Dougherty County, Georgia 137, 144–6, 149
Drarga wastewater treatment plant, Morocco 162–3
Drechsel, Pay 26, 154
Dubbeling, M. 50, 303
East Harlem, New York 312, 319–29
East River Plaza, New York 324–5
ecological footprint 155
e-commerce 261, 262
ecoroofs 113, 113
Ecuador 27
edible green space 66, 69
E’lema e-platform 261
Elorza, Jorge 88
employment 10, 22, 64, 145
energy 35, 108, 161
Engel’s law 11, 15n2
environment 12–14, 89, 90, 273, 330
Esselunga supermarkets 290
Everett, David 88
Expo 2015, Milan 287, 289, 290
FAO see Food and Agriculture Organization of the United Nations
food accessibility
Belo Horizonte 219, 222
Cape Town 191–2
definition 110
food and urban planning 37, 38, 41
food challenges 3, 6, 10, 11
Portland 108, 110–13
food affordability 11, 110, 261–2, 330
Food and Agriculture Organization of the United Nations (FAO)
Belo Horizonte municipal planning 210
food and urban planning 18, 23, 27, 34, 41, 50, 53, 199
food challenges 3, 6, 8–9
Food for the Cities Programme 289
Lima 119
Toronto 274
food asset mapping 264–74
defining food assets 266
food and urban planning 40, 53
Golden Horseshoe Food and Farming Alliance 266–9
overview 264–6, 273–4
Toronto Food Policy Council 269–73
food availability 3, 110, 111, 330
food banks 115n21, 214, 216
Food by Ward initiative 270, 271
food carts 38, 110–12
food challenges 1–16
access to secure urban and peri-urban land 15
climate and environmental changes 13–14
defining food security 3–7
defining ‘urban’ 9–10
informal food sector and street trading 12–13
malnutrition 8–9
overview 1–3
urban poverty 10–11
food charters 18, 29, 44–5
food costs 258–9, 262
food councils 14, 47–50, 57, 93
food deprivation 44, 47, 53
food deserts 38, 111, 188, 201
food distribution 27, 34–9, 175
food environment mapping 41, 53
food expenditure 10–11, 15n2
Food for the Cities Programme 289
food gentrification 327, 330
food hubs 54, 109, 145, 148, 330
food insecurity 3–9, 19, 41, 54, 74, 136, 266, 313
Food in the City 314
Food Liaison Advisory Group (FLAG) 34
food markets 229–45
  case descriptions 232–8
  findings 239–43
  food distribution 39
  Hangzhou 247–62
  literature review 229–31
  policy and planning implications 243–5
  research methodology 231–2
  Riga 30

food planning
  city region food systems 25
  food and urban planning 28, 36, 56–7
  New York City 313–16
  Portland 106–9, 114–15
  research and policy agenda 50–7
  role of urban policy and planning 198–9
  United States 134

food remittances 12, 16n4
food retail 37–9, 187, 324–5, 328–9, 330
Food Retail Expansion to Support Health (FRESH) 315, 315, 316
food safety 10, 13, 39, 56, 195, 252, 257–8, 262, 295
food security
  Belo Horizonte 209, 210, 219, 220
  Cape Town 189–98
  defining 3–7
  food and urban planning 21, 22, 29, 53–4
  food challenges 3–7, 10, 13
  overview 186–7
  pillars 3
  urban food security in African cities 186–206

food security and nutrition index 53–4
food-sensitive planning and urban design (FSPUD) 204–5
food sovereignty 6
Food Stamps 110
food subsidiarity 30
food systems
  assessment and analysis tools 53
  central role of food distribution 34–9
  and city region food systems 25–6
  definitions 23, 29
  exploring 23–5
  multi-scale food systems planning 29–31
  and role of planners 28–9
  spatial dimension 26–7
food systems planning
  Bangkok 61–7
  city region food systems 25–6
  food challenges 1, 13
  food systems and the role of planners 28–9
  innovative planning tools and instruments 40–7
  links between food and urban planning 20
  multi-scale food systems planning 29–31
  research and policy agenda 51–2
  spatial planning 26–7
  United States 137, 138, 139
  urban agriculture 32–4
  urban food systems planning as a process 31–2

FoodWorks strategy, New York City 314
food zoning 312–31
  East Harlem 319–29
food challenges 9
food planning in New York City 313–16
  overview 312–13
  Providence 92–3
  rezoning and supermarket displacement 321–4
  rezoning and displacement of food production 328
  rezoning for big box food retailers 324–5
  strategies for healthy food zoning 329–31
  Tamale 303–5, 307
  unintentional food zoning 316–19
  upzoning and food gentrification 325–8

Fortaleza, Brazil 41
France, Robert 25
fresh food 7, 9, 39, 39, 189, 330
fresh food markets
  Bangkok 61, 62
  changes from formalisation of fresh food markets 256–61
  fresh food market formalisation 248–56
  Hangzhou 7, 247–62
  overview 247–8, 261–2
  street markets in China 248
  FRESH (Food Retail Expansion to Support Health) 315, 315, 316
  FSPUD (food-sensitive planning and urban design) 204–5

Fukushima disaster 184
Gajah Majah University (UGM) 231, 236, 237, 238, 242
Garden City movement 19, 28, 51
gentrification 327, 330
greenhouse gas emissions 324, 328
Gonçalves, M.P.
Greenbelt Foundation
Greenbelt Food Carts 38
greenhouse gas emissions 13
green mapping 40
green markets 64, 66, 66, 75
Greenprint Providence 89
green restaurants 64, 65, 76
Growing Food Connections (GFC) 135–7, 140, 143, 146, 148, 149, 151n1, 152n22

Habitat Agenda 21
Habitat III Summit 22
Hamilton, Ontario 24
Hangzhou, China 247–62
changes from formalisation of fresh food markets 256–61
food distribution 39
INDEX

fresh food market formalisation 248–56
maps 249
overview 7, 247–8, 261–2
street markets in China 248

I
Index 118
Index to Authors 173–249
Index to Citations 250–81
Index to Figures 81–172
Index of Place Names 172–208
Index of Terms 209–326

Istanbul Declaration on Human Settlements
island nations
irrigation
IQVU (Quality of Urban Life Index)
International Labour Organization (ILO)
International Foundation for Urban
international declarations
Integrated Food Security Strategy (IFSS)
informal food sector
Ilieva, Rositsa T.
hygiene
hybrid food systems
hunger
housing
healthy food
Healthy City Strategy Vancouver 2014–2025
health
Healey, Patsy
Hanjra, M.A.
street traders
role of urban policy
research and policy agenda
Cape Town
Bangkok
research methodology
policy and planning implications
literature review
food distribution
findings
street markets in China
overview
fresh food market formalisation

K
Kaufman, J.L.
Karwan Bazaar Market, Dhaka
Kampala, Uganda
Jitlada Garden, Bangkok
Java
Johannesburg, South Africa
Jokowi, Mayor (Joko Widodo)
Kampala
Kampala, Uganda
Karwan Bazaar Market, Dhaka
Kasetsart University, Thailand
Kaufman, J.L.
Kennedy, C.
Kenya 189, 292
Kibuye market, Kenya 189
Kisumu, Kenya 189, 201
Kitwe, Zambia 189, 197, 201
Kubitschek, Juscelino
Kumasi, Ghana 156, 158, 163
Kurokawa, Kisho
land mapping 40–1
land regulations 46, 68, 83, 307
land use 9, 15, 30, 40–1, 46, 92, 105, 114, 303–5
land zoning 46, 304 see also food zoning
‘fast food mile’ 54
Lessa, I.
Letchworth, UK
Lim, Peru 117–32
agriculture in Metropolitan Lima 120–3
challenges of urban governance 119–20
current situation of urban agriculture 128–32
food and urban planning 31, 34
mega-urban problems 117–19
urban agriculture into municipal policies 123–8
local, regional and metropolitan (LRM) governments
London 20, 40, 44, 46
Lots of Hope 96, 99
Lusaka, Zambia 188, 204

M
Machu Picchu urban garden, Peru 121
macrostructure 175–6, 177
Maki, Fumihiko 176, 180, 181
Malabo declaration 21
Malmo, Sweden 143, 150
malnutrition 5, 5, 55, 54, 191, 211
Maputo, Mozambique 189
McCall, Tom 102, 105
McMahon, Robert 95
megacities 1, 2, 3, 10, 117–19
Melbourne Food Policy 20
Mendes, W.
Metropolitan Urban Development Plan for Lima and Callao 2035 (PLAM) 127, 128, 130
‘Mi Huerta’ (My Garden) Program, Lima 124, 125–6, 126, 127–30
Milan, Italy 276–91
Expo 2015 and local/national developments 286–9
food and urban planning 31, 32, 33, 46–7
Framework Agreement for Territorial Development 285–6
maps 277
metropolitan main crops production 278–9
Milan Agricultural District 46, 283–6, 288–90
Milan Food Policy 287–8, 290
Milan Urban Food Policy Pact (MUFPP) 22, 53, 156, 287, 289
neo-ruralisation 279–83
overview 276–9, 289–90
Minneapolis, Minnesota 136, 141–3, 148
Minnesota, US 44, 141
mobile markets 12, 38, 67, 73
Mooshammer, H. 210
Morgan, Kevin 28
Morganti, M.E. 54
Morocco 162–3
Mörtenböck, P. 210
Mougeot, L. 32
Mozambique 189
MPAP see multi-stakeholder policy formulation and action planning
MUFPP (Milan Urban Food Policy Pact) 22, 53, 156, 287, 289
multiple deprivation maps 44
multi-scalar food systems planning 23, 29–31
multi-stakeholder policy formulation and action planning (MPAP) 45–6, 49, 164, 300–4, 307, 308
Multnomah County, Oregon 110, 112

Nabuco, Maria Regina 220, 221
NADHALI Project 119
Nairobi, Kenya 8, 34
Nepal 11
New Urban Agenda (NUA) vi, 22, 156
New York City food challenges 7, 8
food distribution 38
food planning 313–16
food zoning in East Harlem 319–29
maps 320, 322
overview 312
unintentional food zoning 316–19
non-governmental organisations (NGOs) 65, 85, 86, 243
NUA see New Urban Agenda
nutrition 6–9, 10, 11, 19, 22, 25, 53–4, 190–1, 314

obesity 8, 25, 46, 191, 312, 313
One New York plan 314
online shopping 261, 262
Ontario, Canada 264–5
open-air food markets 214–16, 217, 218, 221
opportunity-to-innovation (OTI) 135–6, 149
overnutrition 8

Paguyuban Pedagang Sekitar Kampus (PPSK) 234
Parco Agricolo Sud di Milano (PASM – Agricultural Park of South Milan) 32, 46, 280–2, 285, 287–90
Parco delle Risaipe (Rice Park) 285, 288
Paris 46, 54
parks 95–6
participatory planning
Bangkok 71
food and urban planning 38, 45–6, 48, 56, 57
making food markets work 237, 241, 242
Tamale 292–3, 300–3, 307
waste management 162
Pasar Gede market, Solo 232
Pasar Notoharjo, Solo 231, 233, 239, 240, 242, 243
Pasar Panguungrejo, Solo 231, 233–5, 236, 239, 242, 243

PASM (Parco Agricolo Sud di Milano – Agricultural Park of South Milan) 32, 46, 280–2, 285, 287–90
Peru 117, 119–20, 121
Philippines 11
Pinchareau community garden, Bangkok 74
PLAM see Metropolitan Urban Development Plan for Lima and Callao 2035
Pollock, Nicole 90
pollution 54, 158, 159
popular markets 118
popular restaurants 210, 211–12, 212, 213, 216, 218, 221
population 9, 171
Portland, Oregon 20, 31, 36, 51, 102–15
Portland Plan Food System 20, 36, 102, 106
Pothukuchi, K. 198–9, 200
poverty 10–11, 13, 198, 219, 229
P-Patch Community Gardening Program 140
Proeftuin Amsterdam 20
Province, Rhode Island 80–101
city–NGO collaboration 95–6
city planning and policy 95–6
community gardens and farmers’ markets 98
contributing factors 84–90
food and urban planning 32, 33, 47, 48
growth of Providence 80–2
local food metrics 97
neighbourhood case study 99–100
overview 80, 96–9
Somerset Garden 87
Sustainable Providence Food Plan 20, 93–4
urban planning up to 2000 82–4
Providence Urban Agriculture Task Force (UATF) 33, 48, 85, 86, 87, 88
Quito, Ecuador 21, 22, 123, 131
racial inequalities 144, 145, 146, 313
Reardon, T. 188
recycling 55, 158, 160
Rees, W.E. 155
Reis, Aarão 285
resource recovery and reuse (RRR) 161, 162, 165, 168
rezoning 312–15, 317, 318, 328, 329–31
Riga 30
rights 21, 22, 203–4, 219
Rocha, C. 209, 219
Rome Declaration on World Food Security 21
rooftop agriculture 75, 113, 314, 315
Rosario, Argentina 31, 32, 40, 51, 123, 131
Rosenberg, Greg 84
Roy, Ananya 230
RUAF (International Foundation for Urban Agriculture and Food Security) 18, 46, 50, 121, 164, 274, 300, 302, 308
sacolão (Brazilian food stores) 212, 213, 214
sanitation 10, 22, 158, 296
San José, Costa Rica 35
Sankofa Initiative 100
Satterthwaite, D. 6
SCLT see Southside Community Land Trust
SDGs see Sustainable Development Goals
Seattle, US 20, 136, 140–1, 148

INDEX 345
 Seoul Declaration 22
 shiitamachi urban pattern 179, 184, 185n3
 Shopping Basket Programme (SBP), China 247, 251–2
 slums 10, 15n1, 38, 55, 75
 SMASAN (secretaria municipal adjunta de seguridad alimentar e nutricional) 209, 210, 211, 214, 216, 217, 221, 226
 SNAP see Supplemental Nutrition Assistance Program
 social enterprises 64, 66, 77
 social grants 196, 198, 199
 Solo, Indonesia 48, 49, 231, 232–5, 239–44
 Somerset Garden, Providence 81
 Sonnino, R. 19
 Souki, L.G. 221
 South Africa 38, 139, 186–7, 189–98, 199–201, 293 see also Cape Town
 South African National Health and Nutrition Examination Survey (SANHANES) 189
 Southside Community Land Trust (SCLT) 33–4, 81, 84–5, 86, 87, 99
 Southeast Georgia Project for Community Education 145
 spatial planning
 food challenges 7, 14
 food planning in New York City 314, 315
 Indonesia street vendor relocation 38, 243–4
 multi-scalar food systems planning 29, 30
 Portland 104–9, 114
 research and policy agenda 52, 56
 spatial indicators 44
 spazas (general stores) 195–6, 202–3
 Sri Lanka 11
 State of Food Insecurity in the World reports 54
 street vendors
 Amman 12
 Bangkok 67, 73
 Cape Town 196, 197
 food and urban planning 38, 49, 55–6
 food challenges 10, 12
 Indonesia vendor relocation 229–45
 right to work 203–4
 supermarkets
 Cape Town 37, 194, 195, 196, 198
 food and urban planning 37, 38
 food challenges 13
 Hangzhou fresh food markets 260, 261
 Lima 118
 Milan 290
 New York City 312, 314, 321, 323, 324, 327, 328, 329
 urban food security in African cities 186, 187–8, 204, 205
 urban quality life index 222
 Supplemental Nutrition Assistance Program (SNAP) 7, 110, 115n21, 313, 314, 331
 sustainability 20, 74, 89, 90, 91, 114, 155, 314
 Sustainable Development Goals (SDGs) 156, 168, 199
 Tacoli, C. 156
 Tamale, Northern Ghana 292–309
 food and urban planning 31, 46, 49
 food production space 298–9
 food system 293–6
 history, geography and planning 296–8
 images 294, 297, 298, 299
 land allocation and zoning 303–5
 multi-stakeholder planning process 300–3
 overview 292–3, 307–9
 role of planning 300–7
 waste management 157, 159, 163, 164
 water management 305–7
 Taman Kuliner, Yogyakarta 231, 237–8, 239, 240, 241
 Tange, Kenzo 182
 Taveras, Angel 88, 90
 TFPC (Toronto Food Policy Council) 47–50, 269–73
 Thailand 11, 64, 71, 77 see also Bangkok
 Tokyo 2, 171–5, 183–4 see also Tsukiji fish market
 Toronto, Canada
 food and urban planning 40, 44, 47, 48, 53
 food zoning 264–74
 maps 272, 273
 overview 264–5
 Toronto Food Policy Council 47–50, 269–73
 Toronto Food Strategy 20, 270
 towns 9–10, 27, 51
 Tracey-White, J. 156
 transport systems 14, 20, 54, 55, 259
 Tsukiji fish market, Japan 171–85
 food and urban planning 26, 39
 formal and informal urban systems 177–9
 images 176, 178, 180, 181, 183
 individual luck and common order 177
 learning from Tsukiji as kingdom of food 179–82
 from macrostructure to capsule 175–6
 new central wholesale market 183–4
 Tokyo fishery distribution system 171–2
 Tsukiji as Tokyo’s kitchen 172–5
 UATF (Urban Agriculture Task Force) 33, 48, 85, 86, 87, 88
 UGM see Gadjah Mada University
 UN see United Nations
 undernutrition 8
 unintentional food zoning 312, 316–19 see also food zoning
 United Nations (UN) 21, 51 see also Food and Agriculture Organization of the United Nations
 United States (US) 134–52
 APA survey results 137–40
 approach 135–7
 communities of innovation case examples 140–3
 communities of opportunity case examples 143–8
 food charters 44
 food expenditure 11
 overview 134–5, 150–1
 successes and challenges 148–50
 UPA (urban and peri-urban agriculture) 32–3, 51

INDEX
Upper Manhattan Empowerment Zone Development Corporation (UMEZ) 321, 323, 325
up zoning 325–8
urban (definition) 9–10
urban agriculture
African cities 187
Belo Horizonte 222
Cape Town 192–3
food and urban planning 20, 21, 25, 32–4, 52
Lima 121, 122, 123–32
New York City 312, 328
Portland 112
Providence 85, 91–2, 96
Tamale 300, 304, 309
United States 139, 140, 142–3
waste management 159, 164, 167
Urban Agriculture Task Force (UATF) 33, 48, 85, 86, 87, 88
urban and peri-urban agriculture (UPA) 32–3, 51
URBANET (Urban Agriculture Network) 300, 302
UrbanFoodPlus project 164, 300, 306
urban food security 186–206
food challenges 1, 3–9
food security and nutrition index 53–4
how poor urbanites source food 187–9
international agenda and declarations 21
overview 186–7, 205–6
role of urban policy and planning 198–205
urban food distribution in Cape Town 189–98
urban growth 3, 105, 106, 180
urban growth boundary 104, 106, 180
urban life quality index see IQVU
urban metabolism 55, 155–9
urban planning 18–57
central role of food distribution 34–9
city region food systems 25–6
declarations 335–6
exploring food systems 23–5
food challenges 1, 9, 11, 13
innovative planning tools and instruments 40–7
integrating food into urban planning 31–50
links between food and urban planning 19–23
multi-scalar planning 29–31
overview 18, 57
research and policy agenda 50–7
role of food councils 47–50
role of planners 28–9
role of urban policy and planning in Africa 198–205
spatial dimension 26–7
urban agriculture 32–4
urban food systems planning as a process 31–2
US see United States
US Department of Agriculture (USDA) 85, 100n5
Valladares, Brazil 40
Vancouver 20, 25, 28, 44, 45
vendors see street vendors
vertical farming 63, 91
Vescovi, R. 282
Villaran, Susana 124, 126, 128, 129, 130, 131
Voices of the Hungry 41
Wackernagel, M. 155
Warren, E. 187
Washington County, Oregon 105, 140
waste management 154–68
appropriate business environment 162–3
Ghanaian cities 156–9
overview 154, 168
planning challenges 163–7
Tamale 296, 300, 306, 307
towards a circular economy 160–2
urban metabolism 55, 155–9
wastewater 121, 158, 159–63, 306–7
water footprint 14, 155, 156, 158, 159
water management
Bangkok 63
food and urban planning 22, 55, 200
food challenges 8, 10, 11, 15
Tamale 295, 305–7
waste management 156, 161
West Elmwood Housing Development Corporation (WEHDC) 99, 100
WFP see World Food Programme
WHO see World Health Organisation
Widodo, Joko (Mayor Jokowi) 231, 232, 233, 240, 242
Wilfred Laurier Centre for Sustainable Food Systems 274
Wilmalette Valley 104, 109, 113
Wiskerke, J.S.C. 26
World Food Programme (WFP) 11
World Food Summit 6
World Future Council 210
World Health Organisation (WHO) 8, 306
Xinnongdu Market, China 255
Yogyakarta, Indonesia 48–9, 231, 235–9, 241, 242
Yurdin, Seth 89
Zambia 188, 189
Zero Hunger programme, Brazil 36, 41, 214, 219
Zimbabwe 292
zoning see food zoning

INDEX 347