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Supplementary Materials

A lack of focus on data sharing, stakeholders, and economic benefits in current global green infrastructure planning

Table S1. GI typology

	Object type (Jones et al, 2022)	Object category							
1	Gardens	Balcony, private garden, shared common garden area							
1	Parks	Park, pocket park, botanical garden, heritage garden, nursery garden							
2 Ar	Amenity areas	Sports field, school yard, playground, golf course, shared open space (e.g., square)							
	Constructed GI on infrastructure	Green roof (extensive), green wall, roof garden (intensive), pergola (with plants)							
3	Other public space	Cemetery, allotment/other growing space, city farm, adopted public space							
4	Linear features/routes	Street tree, cycle track, footpath, road verge, railway corridor, riparian woodland,							
4	Linear reatures/routes	hedge							
	Hybrid GI for water	Permeable paving, permeable parking/roadway, attenuation pond, flood control							
5	Hybrid Of for water	channel, rain garden, bioswale							
	Water bodies	Wetland, river/stream, canal, pond, lake, reservoir, estuary/tidal river, sea (incl. coast)							
6	Other non-sealed urban areas	Woodland (other), grass (other), shrubland (other), sparsely vegetated land							
7	Multi-type GI	More than one type of GI							

Reference

Jones, L., Anderson, S., Læssøe, J., Banzhaf, E., Jensen, A., Bird, D. N., et al. 2022. A typology for urban green infrastructure to guide multifunctional planning of nature-based solutions. *Nature-Based Solutions*, 2, 100041.

Information on 145 green infrastructure planning cases

Please refer to Table S1 for GI types

Scores of data sharing, stakeholder participation and economic benefits (0, 1, 2, 3 = none, low-level, medium-level, high-level)

DS = Data Sharing

SP = Stakeholder Participation

EB = Economic Benefits

Author	Year	Continent	Country	City/ region	Longitude	Latitude	Actions	GI types	Goals	DS	SP	EB	Funds	Ref.
Albert et al	2020	Europe	Germany	Hesse	9.177386	50.639072	Scientific research	5	5 Conserving biodiversity		3	0	Public funding	[1]
Albert et al	2020	Europe	Germany	Rhineland-Palatinate	7.433092	50.188679	Scientific research	5	Conserving biodiversity	0	3	0	Public funding	[1]
Amado et al	2020	other	Angola	Luanda	13.23288	-8.81566	Survey	7	Multiple goals	1	0	1	Institution funding	[2]
Anderson et al	2020	North American	America	Chicago	-87.6336	41.889191	Scientific research	1	Conserving biodiversity	0	0	0	Institution funding	[3]
Angelstam et al	2017	Europe	Sweden	Sweden	18.067724	59.331709	Policy development	6	Conserving biodiversity	0	0	1	private funding	[4]
Angelstam et al	2017	Europe	Lithuania	Lithuania	24.442844	54.691105	Policy development	6	Conserving biodiversity	0	0	1	private funding	[4]
Angelstam et al	2017	Europe	Russia	Komi Republic	57.252414	66.047002	Policy development	6	Conserving biodiversity	0	0	1	private funding	[4]
Angelstam et al	2020	Europe	Sweden	Sweden	18.067724	59.331709	Policy development	6	Conserving biodiversity	3	1	1	Institution funding	[5]
Anguluri et al	2017	Asia	India	Kalaburagi	77.57565	12.338353	Provisioning services	4	Improving human well-being	0	0	0	private funding	[6]
Apud et al	2020	Other	Uruguay	Montevideo	-56.164655	-34.897621	Develop models/ frameworks	5	Multiple goals	0	2	3	Combined funding	[7]
Balbi et al	2020	Europe	France	Rennes	-1.685567	48.113582	Scientific research	4	Conserving biodiversity	3	2	0	Public funding	[8]
Balbi et al	2020	Europe	France	Lens	2.826475	50.443713	Scientific research	4	Conserving biodiversity	3	2	0	Public funding	[8]
Barron et al	2016	North American	Canada	Vancouver	-123.129793	49.281085	Public involvement	6	Multiple goals	1	3	2	Institution funding	[9]
Beery et al	2017	Europe	Sweden	Kristianstads kommun	14.101529	56.024289	Cultural services	7	Improving human well-being	0	2	0	Unfunded	[10]
Beery et al	2017	Europe	Denmark	Copenhagen	12.433376	55.668299	Cultural services	7	Improving human well-being	0	2	0	Unfunded	[10]
Camps-Calvet et al	2016	Europe	Spain	Barcelona	2.155007	41.415583	Develop models/ frameworks	1	Multiple goals	3	2	1	Public funding	[11]
Capotorti et al	2017	Europe	Italy	Rome	12.490041	41.906004	Survey	6	Multiple goals	1	0	0	Combined funding	[12]
Capotorti et al	2015	Europe	Italy	Rome	12.493778	41.904823	Cultural services	6	Improving human well-being	1	0	0	Public funding	[12]
Capotorti et al	2019	Europe	Italy	Rome	12.493778	41.904823	Develop models/ frameworks	6	Multiple goals	3	0	3	Public funding	[13]
Cariñanos et al	2020	Europe	Spain	Granada	-3.599419	37.181936	Regulating services	6	Improving human well-being	2	3	0	Public funding	[15]
Carlier et al	2019	Europe	UK	Fermanagh	-7.917197	54.38	Survey	4	Multiple goals	3	0	0	Institution funding	[16]
Carlier et al	2019	Europe	Ireland	Sligo	-8.539906	54.075698	Survey	4	Multiple goals	3	0	0	Institution funding	[16]
Carlier et al	2019	Europe	Ireland	Letterkenny	-7.757464	54.964504	Survey	4	Multiple goals	3	0	0	Institution funding	[16]
Carlier et al	2019	Europe	Ireland	Castlebar	-9.302837	53.870161	Survey	4	Multiple goals	3	0	0	Institution funding	[16]
Condon et al	1999	North American	Canada	Surrey	-122.829936	49.161458	Develop models/ frameworks	7	Multiple goals	0	0	0	Unfunded	[17]
Connop et al	2016	Europe	UK	Barking	0.135032	51.520929	Public involvement	5	Multiple goals	3	3	0	Combined funding	[18]
Connop et al	2016	Europe	UK	London	-0.141164	51.515288	Public involvement	7	Multiple goals	3	3	0	Combined funding	[18]
Connop et al	2016	Europe	Germany	Ludwigsburg	9.192014	48.89558	Public involvement	7	Multiple goals	3	3	0	Combined funding	[18]

AUTBOR	Vear	Continent	Country	City/region	Longitude	Latituda	Actions	CI types	Coals	DS	SP	FR	Funds	Ref
Czortak at al	2020	Europe	Poland	Świacia	18 / 30205	53 /13065	Scientific research	1	Concerting highly areity	0	0	1	Unfunded	[10]
Daniels et al	2020	Europe	Germany	Aschen	6 080438	50 778443	Scientific research	1	Conserving biodiversity	3	õ	0	Public funding	[20]
Davoren et al	2020	other	South Africa	Ratewana	25 173437	-26 74334	Scientific research		Conserving biodiversity	0	õ	ž	Combined funding	[21]
Davoren et al	2010	Furone	Turkey	Auden	27 847285	37 843715	Develop models/ frameworks	5	Multiple goals	õ	õ	1	Unfunded	[22]
El Ghorah et al	2020	other	Empt	Subar	31 69379	26 610474	Provisioning services	7	Improving human well being	0	0	1	Unfunded	[23]
El Oliolad et al	2010	Furona	Leypt	Lithuania	24 442844	54 601105	Policy development	6	Concerting hodiversity	0	2	0	Public funding	[2.5]
Forrell et al	2010	Europe	Ireland	Dublin	6 276572	53 364771	Cultural services	4	Improving human well being	õ	3	ŏ	I unfunded	[25]
Famandas at al	2013	Europe	Portugal	Porto	9 611293	41 152078	Provisioning services	4	Improving human well-being	2	0	0	Unfunded	[20]
Fernandes et al	2017	other	Australia	Mathourna	144 050600	27 912044	Pomulating contribut	-	Improving human well-being	2	0	0	Dublic funding	[20]
Fowdar et al	2017	Asia	China	Deiting	116 402464	-37.812944	Regulating services	2	Improving human well-being	0	0	0	Fublic funding	[27]
Fuetal Evictal	2010	North American	Amorian	Cincinnati	94 514047	20 11 42 9 4	Stormuster management	2	Enhancing alimata rasilionaa	0	0	0	Dublic funding	[20]
Chafmani at al	2019	North American	America	Cinculard	-64.314247	20 605050	Stormwater management	5	Enhancing climate resilience		0	0	Fublic funding	[29]
Gitt et al	2019	Furene	TUV	Graatar Manahaatar	140.023342	-38.083038 52.620007	Stormwater management	2	E-mancing contate restitence	2	0	0	Dublic funding	[30]
Uni et al	2007	Europe	UN	Greater Manchester	-2.33938	55 052572	Survey	7	Multiple goals	2	2	2	Public funding	[31]
Fiansen et al	2019	Europe	Commente	Darlin	-3.18/11/	53 531400	Survey	7	Multiple goals	2	2	2	Public funding	[34]
manisen et al	2019	Larope	Germany	Derim	10.100107	56 155365	Survey	7	Nutriple goals	2	2	2	Public funding	[32]
Hansen et al	2019	Europe	Denmark	Aarnus Die de Teneire	10.188187	20.122202	Survey	7	Multiple goals	•	2	2	Public funding	[32]
Herzog et al	2016	Other	Brazil	Rio de Janeiro	-43.1/8045	-22.8/0306	Survey		Multiple goals	1		1	Unfunded	[33]
Huera-Lucero et al	2020	other	Ecuador	Puyo	-//.99/901	-1.400103	Survey	4	Multiple goals	3	1	1	Public funding	[34]
loja et al	2014	Europe	Romania	Bucharest	26.100238	44.432948	Survey	1	Multiple goals	0	0	0	Public funding	[35]
Jaworek-Jakubska et al	2020	Europe	Poland	Wrocław	17.02129	51.113131	Provisioning services	6	Improving human well-being	1	3	0	Unfunded	[36]
Kim et al	2018	North American	America	Phoenix	-112.086723	33.460781	Develop models/ frameworks	1	Multiple goals	0	0	0	Combined funding	[37]
Kim et al	2019	North American	America	The Woodlands	-97.743277	30.269836	Scientific research	6	Conserving biodiversity	0	0	1	Institution funding	[38]
La Rosa et al	2020	Europe	Italy	Avola	15.137454	36.909913	Stormwater management	5	Enhancing climate resilience	0	0	0	Unfunded	[39]
Lähde et al	2019	Europe	Finland	Turku	22.251682	60.455625	Public involvement	7	Multiple goals	2	0	0	Public funding	[40]
Lanzas et al	2019	Europe	Spain	Catalonia	2.171723	41.385426	Develop models/ frameworks	6	Multiple goals	3	0	0	Public funding	[41]
Li et al	2015	North American	America	Prince George's County	-77.18255	38.273911	Stormwater management	5	Enhancing climate resilience	3	0	0	Unfunded	[42]
Li et al	2020	Europe	Belgium	Ghent	3.73051	50.0542	Stormwater management	7	Enhancing climate resilience	2	0	0	Public funding	[43]
Liao et al	2020	Asia	China	Three Gorges Reservoir	109.465014	31.023146	Develop models/ frameworks	5	Multiple goals	2	0	1	Public funding	[44]
Locatelli et al	2020	Europe	Spain	Barcelona	2.165068	41.395996	Stormwater management	5	Enhancing climate resilience	2	3	3	Public funding	[45]
Locatelli et al	2020	Europe	Spain	Badalona	2.222378	41.446784	Stormwater management	5	Enhancing climate resilience	2	3	3	Public funding	[45]
Lourenço et al	2020	other	Brazil	Rio de Janeiro	-43.191293	-22.916168	Stormwater management	5	Enhancing climate resilience	2	0	3	Public funding	[46]
Makido et al	2019	North American	America	Portland	-122.67401	45.523223	Heat mitigation	4	Enhancing climate resilience	1	0	1	Public funding	[47]
Marques-Perez et al	2018	Europe	Spain	Valencia	-0.377438	39.469462	Public involvement	3	Multiple goals	2	3	2	Public funding	[48]
Maya-Manzano et al	2017	Europe	Spain	Extremadura	-6.105863	39.484829	Regulating services	6	Improving human well-being	1	0	0	Public funding	[49]
Mazhar et al	2015	Asia	Pakistan	Lahore	74.216658	31.630101	Heat mitigation	1	Enhancing climate resilience	0	0	0	Unfunded	[50]
McWilliam et al	2014	North American	Canada	Toronto	-79.388358	43.663453	Policy development	6	Conserving biodiversity	0	0	0	private funding	[51]
Meerow et al	2017	North American	America	Detroit	-83.065247	42.35727	Develop models/ frameworks	7	Multiple goals	1	3	0	Combined funding	[52]
Newman et al	2020	North American	America	Manchester	-2.28575	53.478874	Develop models/ frameworks	5	Multiple goals	1	3	0	Institution funding	[53]
Nielsen et al	2017	Europe	Sweden	Sweden	18.067724	59.331709	Heat mitigation	6	Enhancing climate resilience	0	0	0	Public funding	[54]
Mistern et al.	2017	Europe	Denmark	Denmark	12,430357	55 670736	Heat mitigation	6	Enhancing climate resilience	0	0	0	Public funding	[54]

Author	Year	Continent	Country	City/ region	Longitude	Latitude	Actions	GI types	Goals	DS	SP	EB	Funds	Ref.
Norton et al	2015	other	Australia	Port Phillip	144.960183	-37.814768	Heat mitigation	7	Enhancing climate resilience	1	3	2	Public funding	[55]
Orantes et al	2017	Asia	South Korea	Yesan County	126.760277	36.094007	Develop models/ frameworks	5	Multiple goals	0	0	1	Unfunded	[56]
Palme et al	2020	Europe	Italy	Catania	15.080156	37.51406	Heat mitigation	6	Enhancing climate resilience	1	1	1	Institution funding	[57]
Pappalardo et al	2017	Europe	Italy	Avola	15.137454	36.909913	Stormwater management	5	Enhancing climate resilience	0	2	0	Unfunded	[58]
Parsa et al	2019	Asia	Iran	Tabriz	46.269777	38.089878	Survey	6	Multiple goals	3	0	0	Unfunded	[59]
Plummer et al	2020	Europe	UK	Britain	-1.023024	53.60623	Habitat construction	6	Conserving biodiversity	3	0	0	Institution funding	[60]
Raje et al	2013	North American	America	Gainesville	-82.345564	29.637623	Stormwater management	5	Enhancing climate resilience	0	0	0	Unfunded	[61]
Ramyar et al	2019	Asia	Iran	Tehran	51.38495	35.697875	Survey	4	Multiple goals	0	0	2	Unfunded	[62]
Rolf et al	2019	Europe	Sweden	Malmö	13.013596	55.596843	Public involvement	7	Multiple goals	1	3	2	Public funding	[63]
Rusche et al	2019	Europe	UK	Manchester	-2.295523	53.477159	Develop models/ frameworks	7	Multiple goals	1	0	0	Unfunded	[64]
Rusche et al	2019	Europe	Germany	Ruhr	7.467023	51.519504	Develop models/ frameworks	7	Multiple goals	1	0	0	Unfunded	[64]
Rusche et al	2019	Europe	Denmark	Copenhagen	12.433376	55.668299	Develop models/ frameworks	7	Multiple goals	1	0	0	Unfunded	[64]
Ryan et al	2010	North American	America	Orlando	-81.379115	28.546861	Provisioning services	5	Improving human well-being	1	0	0	Public funding	[65]
Sabyrbekov et al	2020	Asia	Kyrgyzstan	Bishkek	74.766667	41.883333	Provisioning services	1	Improving human well-being	3	1	1	Public funding	[66]
Schmidt et al	2014	North American	America	McIntosh County	-81.476529	31.539403	Survey	7	Multiple goals	3	3	1	Public funding	[67]
Semeraro et al	2018	Europe	Italy	Apulia	17.182831	40.790217	Public involvement	3	Multiple goals	3	0	3	private funding	[68]
Sharma et al	2016	other	Australia	Glengowrie	138.60089	-34.924237	Stormwater management	7	Enhancing climate resilience	0	3	1	Institution funding	[69]
Tillie et al	2016	Europe	Netherlands	Rotterdam	4.470544	51.938221	Develop models/ frameworks	7	Multiple goals	0	3	3	Unfunded	[70]
Tirpak et al	2018	North American	America	Knoxville	-83.921429	35.962623	Stormwater management	5	Enhancing climate resilience	0	0	0	Public funding	[71]
Tiwary et al	2016	Europe	UK	Newcastle	-1.623607	54.982598	Others	6	Enhancing climate resilience	1	0	0	Public funding	[72]
Torres- Camacho et al	2017	North American	America	San Juan	-66.6	-18.27	Scientific research	2	Conserving biodiversity	0	2	1	Institution funding	[73]
Tran et al	2020	North American	America	Philadelphia	-75.165797	39.959442	Develop models/ frameworks	7	Multiple goals	3	2	2	Institution funding	[74]
Tsegaye et al	2019	North American	America	Tampa	-82.459081	27.955381	Stormwater management	6	Enhancing climate resilience	3	0	0	Public funding	[75]
Tsegaye et al	2019	North American	America	Milwaukee	-87.907623	43.04586	Stormwater management	6	Enhancing climate resilience	3	0	0	Public funding	[75]
Tzoulas et al	2010	Europe	UK	Warrington	-2.604313	53.393113	Cultural services	1	Improving human well-being	0	0	0	Unfunded	[76]
Van der Sommen et al	2018	other	Australia	Darwin	130.89652	-12.426274	Others	6	Enhancing climate resilience	0	2	1	Unfunded	[77]
Van Renterghem et al	2020	Europe	Belgium	Antwerp	4.401314	51.223959	Regulating services	2	Improving human well-being	0	2	0	Public funding	[78]
Vasiljević et al	2019	Europe	Serbia	Belgrade	20.44749	44.801535	Policy development	6	Conserving biodiversity	0	0	0	Unfunded	[79]
Vollmer et al	2015	other	Indonesia	Jakarta	106.845452	-6.193038	Cultural services	5	Improving human well-being	1	3	0	Public funding	[80]
Walmsley et al	2006	North American	America	New Jersey	-74.59364	40.086438	Scientific research	4	Conserving biodiversity	0	0	1	Unfunded	[81]
Wang et al	2019	Europe	Germany	Leipzig	12.37135	51.349776	Develop models/ frameworks	3	Multiple goals	3	1	1	Unfunded	[82]
Wang et al	2020	Asia	China	Fengtai District	116.389277	39.802661	Develop models/ frameworks	7	Multiple goals	2	1	0	Unfunded	[83]
Wanghe et al	2019	Asia	China	Beijing	116.75	38.933333	Scientific research	7	Conserving biodiversity	3	0	0	Unfunded	[84]
Weerakkody et al	2019	Europe	UK	Stoke	-1.176254	52.940499	Regulating services	2	Improving human well-being	0	0	0	private funding	[85]
Wong et al	2015	Asia	China	Hong Kong	114.182101	22.282082	Stormwater management	2	Enhancing climate resilience	3	0	0	Combined funding	[86]
Wong et al	2018	Asia	China	Hong Kong	114.169452	22.282082	Regulating services	2	Improving human well-being	1	0	0	Institution funding	[87]
Wright et al	2018	North American	America	State of Washington	-122.892786	47.041429	Stormwater management	5	Enhancing climate resilience	1	0	0	Public funding	[88]
Yang et al	2013	North American	America	Houston	-95.380777	29.771738	Stormwater management	6	Enhancing climate resilience	1	0	0	Unfunded	[89]
Yang et al	2016	North American	America	Texas	-97.743277	30.269836	Scientific research	6	Conserving biodiversity	0	0	2	Combined funding	[90]
Yang et al	2017	North American	America	Phoenix	-112.086723	33.460781	Provisioning services	5	Improving human well-being	2	0	1	Public funding	[91]

Author	Year	Continent	Country	City/ region	Longitude	Latitude	Actions	GI types	Goals	DS	SP	EB	Funds	Ref.
Zefferman et al	2018	North American	America	Knoxville	-83.931777	35.965194	Survey	7	Multiple goals	0	2	0	Institution funding	[92]
Zhang et al	2017	Asia	China	Changchun	125.330606	43.823827	Scientific research	6	Conserving biodiversity	3	0	0	Public funding	[93]
Zhang et al	2019	North American	America	Detroit	-83.033333	41.316667	Develop models/ frameworks	7	Multiple goals	1	0	0	Unfunded	[94]
Zölch et al	2019	Europe	Germany	Munich	11.583333	47.133333	Heat mitigation	2	Enhancing climate resilience	1	0	0	Institution funding	[95]
Beaujean et al	2021	Europe	Belgium	Lie`ge	5.568508	50.650151	Develop models/ frameworks	7	Multiple goals	1	0	0	Institution funding	[96]
Bonilla-Bedoya et al	2021	other	Ecuador	Quito	-78.469563	0	Regulating services	6	Improving human well-being	3	0	0	Public funding	[97]
Campbell-Arvai et al	2021	North American	America	Detroit	-83.065247	42.35727	Stormwater management	7	Enhancing climate resilience	0	3	1	Public funding	[98]
Dudzic-Gyurkovich et al	2021	Europe	Poland	Krakow	19.932014	50.065578	Provisioning services	1	Improving human well-being	2	0	2	Unfunded	[99]
Elbardisy et al	2021	other	Egypt	Cairo	31.21238	30.086917	Heat mitigation	4	Enhancing climate resilience	1	0	0	Unfunded	[100]
Fagerholm et al	2021	Europe	Finland	Turku	22.250532	60.456903	Regulating services	7	Improving human well-being	2	0	0	Institution funding	[101]
Fu et al	2021	North American	America	Congress Run watershed	-84.425532	39.208641	Develop models/ frameworks	7	Multiple goals	3	3	2	Public funding	[102]
Graviola et al	2021	other	Brazil	Rio Claro	-47.565142	-22.406479	Develop models/ frameworks	7	Multiple goals	0	3	0	Public funding	[103]
Herath et al	2021	other	Australia	Melbourne	144.962483	-37.804961	Heat mitigation	2	Enhancing climate resilience	1	0	0	Public funding	[104]
Johnson et al	2021	Europe	Germany	Berlin	13.404379	52.530877	Heat mitigation	7	Enhancing climate resilience	0	1	3	Unfunded	[105]
Kirk et al	2021	other	Australia	Melbourne	144.962483	-37.804961	Habitat construction	7	Conserving biodiversity	1	2	1	Public funding	[106]
Li et al	2021	Asia	China	Liaoning	122.388673	41.750256	Regulating services	7	Improving human well-being	3	0	2	Public funding	[107]
Ouyang et al	2021	Asia	China	Hong Kong	114.182101	22.282082	Heat mitigation	7	Enhancing climate resilience	3	0	0	Institution funding	[108]
Rosenberger et al	2021	Europe	Germany	Munich	11.577381	48.140515	Stormwater management	5	Enhancing climate resilience	0	0	0	Unfunded	[109]
Quezada et al	2021	other	Chile	Concepción	-73.122766	-36.764679	Provisioning services	5	Improving human well-being	3	0	0	Public funding	[110]
Takakura et al	2021	other	Brazil	São Paulo	-46.635609	-23.542039	Provisioning services	6	Improving human well-being	1	0	1	Unfunded	[111]
Venter et al	2021	Europe	Norway	Oslo	10.751095	59.916174	Public involvement	2	Multiple goals	3	3	0	Public funding	[112]
Yao et al	2021	Asia	China	Fuzhou	119.297721	26.091332	Heat mitigation	1	Enhancing climate resilience	0	0	0	Public funding	[113]
Anderson et al	2021	North American	Canada	Ontario	-86.809371	51.83487	Regulating services	7	Improving human well-being	0	1	2	Public funding	[114]
Bonilla-Duarte et al	2021	other	Dominican	Santo Domingo	-69.939049	18.49431	Regulating services	6	Improving human well-being	1	3	0	Institution funding	[115]
Bosch et al	2021	Europe	Switzerland	Lausanne	6.638042	46.532886	Heat mitigation	6	Enhancing climate resilience	3	0	0	Institution funding	[116]
Di Pirro	2021	Europe	Italy	Lazio region	12.744701	42.013411	Scientific research	6	Conserving biodiversity	3	1	0	Institution funding	[117]
Gatto et al	2021	Europe	Italy	Rome	12.487139	41.924165	Heat mitigation	6	Enhancing climate resilience	0	3	3	Institution funding	[118]
Gómez-Villarino et al	2021	Europe	Spain	Madrid	-3.707814	40.418972	Others	7	Enhancing climate resilience	2	0	1	Unfunded	[119]
Guenat et al	2021	Other	Malawi	Lilongwe	33.774346	-13.956548	Public involvement	7	Multiple goals	1	3	0	Institution funding	[120]
Jarvis et al	2021	North American	Canada	Vancouver	-123.162132	49.291004	Regulating services	7	Improving human well-being	1	0	1	Institution funding	[121]
Jia et al	2021	Asia	China	Hong Kong	114.182101	22.282082	Heat mitigation	7	Enhancing climate resilience	1	0	0	Public funding	[122]
Lehnert et al	2021	Europe	Czech	Brno	14.342245	49.998133	Heat mitigation	2	Enhancing climate resilience	2	2	0	Combined funding	[123]
Lehnert et al	2021	Europe	Czech	Olomouc	14.342245	49.998133	Heat mitigation	2	Enhancing climate resilience	2	2	0	Combined funding	[123]
Lehnert et al	2021	Europe	Czech	Ostrava	14.342245	49.998133	Heat mitigation	2	Enhancing climate resilience	2	2	0	Combined funding	[123]
Lehnert et al	2021	Europe	Czech	Plze [*] n	14.342245	49.998133	Heat mitigation	7	Enhancing climate resilience	2	2	0	Combined funding	[123]
Lehrer	2021	North American	America	Chicago	-87.649698	41.892198	Habitat construction	7	Conserving biodiversity	3	0	0	private funding	[124]
van Oorschot et al	2021	Europe	Netherlands	Hague	4.308267	52.08446	Develop models/ frameworks	7	Multiple goals	1	2	1	Unfunded	[125]

References

- [1] Albert, C. et al. Planning nature-based solutions: principles, steps, and insights. Ambio, 16 (2020).
- [2] Amado, M. et al. Using different levels of information in planning green infrastructure in Luanda, Angola. Sustainability 12, 26, (2020).
- [3] Anderson, E. C. & Minor, E. S. Assessing four methods for establishing native plants on urban vacant land. Ambio, 11 (2020).
- [4] Angelstam, P. & Lazdinis, M. Tall herb sites as a guide for planning, maintenance and engineering of riparian continuous forest cover. Ecol. Eng. 103, 470-477 (2017).
- [5] Angelstam, P. et al. Sweden does not meet agreed national and international forest biodiversity targets: a call for adaptive landscape planning. Landsc. Urban Plan. 202, 17 (2020).
- [6] Anguluri, R. & Narayanan, P. Role of green space in urban planning: outlook towards smart cities. Urban For. Urban Gree. 25, 58-65 (2017).
- [7] Apud, A., Faggian, R., Sposito, V. & Martino, D. Suitability Analysis and Planning of Green Infrastructure in Montevideo, Uruguay. Sustainability 12, 18 (2020).
- [8] Balbi, M. et al. Least-cost path analysis for urban greenways planning: A test with moths and birds across two habitats and two cities. J. Appl. Ecol. 12 (2020).
- [9] Barron, S., Sheppard, S. R. J. & Condon, P. M. Urban Forest indicators for planning and designing future forests. Forests 7 (2016).
- [10] Beery, T. H. et al. Fostering incidental experiences of nature through green infrastructure planning. Ambio 46, 717-730 (2017).
- [11] Camps-Calvet, M., Langemeyer, J., Calvet-Mir, L. & Gomez-Baggethun, E. Ecosystem services provided by urban gardens in Barcelona, Spain: insights for policy and planning. Environ. Sci. Policy 62, 14-23 (2016).
- [12] Capotorti, G., et al. Combining the conservation of biodiversity with the provision of ecosystem services in urban green infrastructure planning: critical features arising from a case study in the metropolitan area of Rome. Sustainability 9 (2017).
- [13] Capotorti, G., et al. Setting Priorities for Urban Forest Planning. A Comprehensive Response to Ecological and Social Needs for the Metropolitan Area of Rome (Italy). Sustainability 7, 3958-3976 (2015).
- [14] Capotorti, G., et al. Biodiversity and ecosystem services in urban green infrastructure planning: A case study from the metropolitan area of Rome (Italy). Urban For. Urban Gree. 37, 87-96 (2019).
- [15] Carinanos, P. et al. Assessing allergenicity in urban parks: A nature-based solution to reduce the impact on public health. Environ. Res. 155, 219-227 (2017).
- [16] Carlier, J. & Moran, J. Hedgerow typology and condition analysis to inform greenway design in rural landscapes. J. Environ. Manage. 247, 790-803 (2019).
- [17] Condon, P. M. & Isaac, K. Green municipal engineering for sustainable communities. P. I. Civil Eng-Munic. 156, 3-10 (2003).
- [18] Connop, S. et al. Renaturing cities using a regionally-focused biodiversity-led multifunctional benefits approach to urban green infrastructure. Environ. Sci. Policy 62, 99-111 (2016).
- [19] Czortek, P. & Pielech, R. Surrounding landscape influences functional diversity of plant species in urban parks. Urban For. Urban Gree. 47, 10 (2020).
- [20] Daniels, B., Jedamski, J., Ottermanns, R. & Ross-Nickoll, M. A "plan bee" for cities: Pollinator diversity and plant-pollinator interactions in urban green spaces. Plos One 15, 29 (2020).
- [21] Davoren, E., Siebert, S., Cilliers, S. & du Toit, M. J. Influence of socioeconomic status on design of Batswana home gardens and associated plant diversity patterns in northern South Africa. Landsc. Ecol. Eng. 12, 129-139 (2016).
- [22] Deniz, B. Urban ecosystem-based planning and design strategy of an urban river, Tabakhane stream, Aydin, Turkey. Curr. Sci. 119, 93-102 (2020).
- [23] El Ghorab, H. K. & Shalaby, H. A. Eco and Green cities as new approaches for planning and developing cities in Egypt. Alex. Eng. J. 55, 495-503 (2016).
- [24] Elbakidze, M., et al. Defining priority land covers that secure the livelihoods of urban and rural people in Ethiopia: a case study based on citizens' preferences. Sustainability 10 (2018).
- [25] Farrell, M., Cooper, A. & Yates, K. Challenges and benefits in the design of coastal walking and cycling amenities: toward a more integrated coastal management approach. Coast. Manage. 43, 628-650 (2015).
- [26] Fernandes, C. O., et al. Between tree lovers and tree haters. Drivers of public perception regarding street trees and its implications on the urban green infrastructure planning. Urban For. Urban Gree. 37, 97-108 (2019).
- [27] Fowdar, H. S., Hatt, B. E., Breen, P., Cook, P. L. M. & Deletic, A. Designing living walls for greywater treatment. Water Res. 110, 218-232 (2017).
- [28] Fu, W., Yu, K. J. & Li, D. H. Spatio-temporal relational evaluation of the Beijing water crisis and planning implementation from 1949 to 2013. Water Policy 20, 490-509 (2018).

- [29] Fu, X. R. et al. Evaluation of Permeable Brick Pavement on the Reduction of Stormwater Runoff Using a Coupled Hydrological Model. Water 12, 15 (2020).
- [30] Ghofrani, Z., Sposito, V. & Faggian, R. Designing a pond and evaluating its impact upon storm-water quality and flow: a case study in rural Australia. Ecol. Chem. Eng. S. 26 (2019).
- [31] Gill, S. E. et al. Characterising the urban environment of UK cities and towns: A template for landscape planning. Landsc. Urban Plan. 87, 210-222 (2008).
- [32] Hansen, R., Olafsson, A. S., van der Jagt, A. P. N., Rall, E. & Pauleit, S. Planning multifunctional green infrastructure for compact cities: What is the state of practice? Ecological Indicators 96, 99-110 (2019).
- [33] Herzog, C. A multifunctional green infrastructure design to protect and improve native biodiversity in Rio de Janeiro. Landsc. Ecol. Eng. 12, 141-150 (2016).
- [34] Huera-Lucero, T., Salas-Ruiz, A., Changoluisa, D. & Bravo-Medina, C. Towards sustainable urban planning for Puyo (Ecuador): Amazon forest landscape as potential green infrastructure. Sustainability 12, 28 (2020).
- [35] Ioja, C. L., Gradinaru, S. R., Onose, D. A., Vanau, G. O. & Tudor, A. C. The potential of school green areas to improve urban green connectivity and multifunctionality. Urban For. Urban Gree. 13, 704-713 (2014).
- [36] Jaworek-Jakubska, J., Filipiak, M., Michalski, A. & Napierala-Filipiak, A. Spatio-temporal changes of urban forests and planning evolution in a highly dynamical urban area: the case study of Wroclaw, Poland. Forests 11, 18 (2020).
- [37] Kim, G. & Coseo, P. Urban Park systems to support sustainability: the role of urban park systems in hot arid urban climates. Forests 9 (2018).
- [38] Kim, J. Subdivision design and landscape structure: case study of the Woodlands, Texas, US. Urban For. Urban Gree. 38, 232-241 (2019).
- [39] La Rosa, D. & Pappalardo, V. Planning for spatial equity a performance based approach for sustainable urban drainage systems. Sustain. Cities Soc. 53, 14 (2020).
- [40] Lahde, E., Khadka, A., Tahvonen, O. & Kokkonen, T. Can we really have it all?designing multifunctionality with sustainable urban drainage system elements. Sustainability 11 (2019).
- [41] Lanzas, M., Hermoso, V., de-Miguel, S., Bota, G. & Brotons, L. Designing a network of green infrastructure to enhance the conservation value of protected areas and maintain ecosystem services. Sci. Total Environ. 651, 541-550 (2019).
- [42] Li, H. Green Infrastructure for Highway Stormwater Management: Field investigation for future design, maintenance, and management needs. J. Infrastruct. Syst. 21 (2015).
- [43] Li, L. Y., Van Eetvelde, V., Cheng, X. & Uyttenhove, P. Assessing stormwater runoff reduction capacity of existing green infrastructure in the city of Ghent. Int. J. Sust. Dev. World 27, 749-761 (2020).
- [44] Liao, Q. P., Wang, Z. & Huang, C. B. Green infrastructure offset of the negative ecological effects of urbanization and storing water in the Three Gorges Reservoir area, China. Int. J. Env. Res. Pub. He. 17, 19 (2020).
- [45] Locatelli, L. et al. Socio-economic assessment of green infrastructure for climate change adaptation in the context of urban drainage planning. Sustainability 12, 18 (2020).
- [46] Lourenco, I. B., Guimaraes, L. F., Alves, M. B. & Miguez, M. G. Land as a sustainable resource in city planning: The use of open spaces and drainage systems to structure environmental and urban needs. J. Clean. Prod. 276, 19 (2020).
- [47] Makido, Y., Hellman, D. & Shandas, V. Nature-based designs to mitigate urban heat: the efficacy of green infrastructure treatments in Portland, Oregon. Atmosphere 10 (2019).
- [48] Marques-Perez, I. & Segura, B. Integrating social preferences analysis for multifunctional peri-urban farming in planning. An application by multi-criteria analysis techniques and stakeholders. Agroecol. Sustain. Food Syst. 42, 1029-1057 (2018).
- [49] Maya-Manzano, J. M. et al. Allergenic pollen of ornamental plane trees in a Mediterranean environment and urban planning as a prevention tool. Urban For. Urban Gree. 27, 352-362 (2017).
- [50] Mazhar, N., Brown, R. D., Kenny, N. & Lenzholzer, S. Thermal comfort of outdoor spaces in Lahore, Pakistan: lessons for bioclimatic urban design in the context of global climate change. Landsc. Urban Plan. 138, 110-117 (2015).
- [51] McWilliam, W., et al. Barriers to the effective planning and management of residential encroachment within urban forest edges: a Southern Ontario, Canada case study. Urban For. Urban Gree. 13, 48-62 (2014).
- [52] Meerow, S. & Newell, J. P. Spatial planning for multifunctional green infrastructure: Growing resilience in Detroit. Landsc. Urban Plan. 159, 62-75 (2017).
- [53] Newman, G. et al. Citizen Science-Informed Community Master Planning: Land Use and Built Environment Changes to Increase Flood Resilience and Decrease Contaminant Exposure. Int. J. Env. Res. Pub. He. 17, 13 (2020).
- [54] Nielsen, A. B., Hedblom, M., Olafsson, A. S. & Wistrom, B. Spatial configurations of urban forest in different landscape and socio-political contexts: identifying patterns for green infrastructure planning. Urban Ecosyst. 20, 379-392 (2017).
- [55] Norton, B. A. et al. Planning for cooler cities: A framework to prioritise green infrastructure to mitigate high temperatures in urban landscapes. Landsc. Urban Plan. 134, 127-138 (2015).
- [56] Orantes, M. J. C., Kim, J. & Kim, J. Socio-cultural asset integration for a green infrastructure network plan in Yesan County, Korea. Sustainability 9 (2017).
- [57] Palme, M., Privitera, R. & La Rosa, D. The shading effects of green infrastructure in private residential areas: building performance simulation to support urban planning. Energy Build. 229, 20 (2020).

- [58] Pappalardo, V., La Rosa, D., Campisano, A. & La Greca, P. The potential of green infrastructure application in urban runoff control for land use planning: a preliminary evaluation from a southern Italy case study. Ecosyst. Serv. 26, 345-354 (2017).
- [59] Parsa, V. A., Salehi, E., Yavari, A. R. & van Bodegom, P. M. An improved method for assessing mismatches between supply and demand in urban regulating ecosystem services: a case study in Tabriz, Iran. Plos One 14 (2019).
- [60] Plummer, K. E., Gillings, S. & Siriwardena, G. M. Evaluating the potential for bird-habitat models to support biodiversity-friendly urban planning. J. Appl. Ecol. 57, 1902-1914 (2020).
- [61] Raje, S. et al. Green infrastructure design for pavement systems subject to rainfall-runoff loadings. Transport. Res. Rec. 79-87 (2013).
- [62] Ramyar, R., Saeedi, S., Bryant, M., Davatgar, A. & Hedjri, G. M. Ecosystem services mapping for green infrastructure planning- the case of Tehran. Sci. Total Environ. 703, 14 (2020).
- [63] Rolf, W., Pauleit, S. & Wiggering, H. A stakeholder approach, door opener for farmland and multifunctionality in urban green infrastructure. Urban For. Urban Gree. 40, 73-83 (2019).
- [64] Rusche, K., Reimer, M. & Stichmann, R. Mapping and assessing green infrastructure connectivity in European city regions. Sustainability 11 (2019).
- [65] Ryan, P., Wanielista, M. & Chang, N. B. Nutrient reduction in stormwater pond discharge using a Chamber Upflow Filter and Skimmer (CUFS). Water Air Soil Pollut. 208, 385-399 (2010).
- [66] Sabyrbekov, R., Dallimer, M. & Navrud, S. Nature affinity and willingness to pay for urban green spaces in a developing country. Landsc. Urban Plan. 194 (2020).
- [67] Schmidt, J. P., Moore, R. & Alber, M. Integrating ecosystem services and local government finances into land use planning: a case study from coastal Georgia. Landsc. Urban Plan. 122, 56-67 (2014).
- [68] Semeraro, T., Pomes, A., Del Giudice, C., Negro, D. & Aretano, R. Planning ground-based utility scale solar energy as green infrastructure to enhance ecosystem services. Energy Policy 117, 218-227 (2018).
- [69] Sharma, A. K. et al. Water sensitive urban design: an investigation of current systems, implementation drivers, community perceptions and potential to supplement urban water services. Water 8 (2016).
- [70] Tillie, N. & van der Heijden, R. Advancing urban ecosystem governance in Rotterdam: from experimenting and evidence gathering to new ways for integrated planning. Environ. Sci. Policy 62, 139-144 (2016).
- [71] Tirpak, R. A., Hathaway, J. M. & Franklin, J. A. Evaluating the influence of design strategies and meteorological factors on tree transpiration in bioretention suspended pavement practices. Ecohydrology 11 (2018).
- [72] Tiwary, A. et al. Development of multi-functional streetscape green infrastructure using a performance index approach. Environ. Pollut. 208, 209-220 (2016).
- [73] Torres-Camacho, K. et al. Intrinsic and extrinsic drivers of yard vegetation in urban residential areas: implications for conservation planning. Urban Ecosyst. 20, 403-413 (2017).
- [74] Tran, T. J., Helmus, M. R. & Behm, J. E. Green Infrastructure Space and Traits (GIST) model: Integrating green infrastructure spatial placement and plant traits to maximize multifunctionality. Urban For. Urban Gree. 49, 11 (2020).
- [75] Tsegaye, S. et al. Transitioning from Gray to Green (G2G)- a green infrastructure planning tool for the urban forest. Urban For. Urban Gree. 40, 204-214 (2019).
- [76] Tzoulas, K. & James, P. Peoples' use of, and concerns about, green space networks: a case study of Birchwood, Warrington New Town, UK. Urban For. Urban Gree. 9, 121-128 (2010).
- [77] Van der Sornmen, F. J., et al. Analysis of the interrelationship between houses, trees and damage in a cyclone affected city: can landscape design and planning utilising trees minimise cyclone impact? Int. J. Disast. Risk Re. 28, 701-710 (2018).
- [78] Van Renterghem, T., Dekoninck, L. & Botteldooren, D. Multi-stage sound planning methodology for urban redevelopment. Sustain. Cities Soc. 62, 12 (2020).
- [79] Vasiljevic, N. et al. The concept of green infrastructure and urban landscape planning: a challenge for urban forestry planning in Belgrade, Serbia. Iforest 11, 491-498 (2018).
- [80] Vollmer, D., et aal. Understanding the value of urban riparian corridors: considerations in planning for cultural services along an Indonesian river. Landsc. Urban Plan. 138, 144-154 (2015).
- [81] Walmsley, A. Greenways: multiplying and diversifying in the 21st century. Landsc. Urban Plan. 76, 252-290 (2006).
- [82] Wang, J. X., Pauleit, S. & Banzhaf, E. An Integrated Indicator Framework for the Assessment of Multifunctional Green Infrastructure-Exemplified in a European City. Remote Sensing 11 (2019).
- [83] Wang, Y. A., Chang, Q. & Fan, P. L. A framework to integrate multifunctionality analyses into green infrastructure planning. Landsc. Ecol. 19 (2020).
- [84] Wanghe, K. Y. et al. Gravity model toolbox: An automated and open-source ArcGIS tool to build and prioritize ecological corridors in urban landscapes. Glob. Ecol. Conserv. 22, 14 (2020).
- [85] Weerakkody, U., Dover, J. W., Mitchell, P. & Reiling, K. Topographical structures in planting design of living walls affect their ability to immobilise traffic-based particulate matter. Sci. Total Environ. 660, 644-649 (2019).
- [86] Wong, G. K. L. & Jim, C. Y. Identifying keystone meteorological factors of green-roof stormwater retention to inform design and planning. Landsc. Urban Plan. 143, 173-182 (2015).

- [87] Wong, G. K. L. & Jim, C. Y. Abundance of urban male mosquitoes by green infrastructure types: implications for landscape design and vector management. Landsc. Ecol. 33, 475-489 (2018).
- [88] Wright, O. M., et al. Is there a limit to bioretention effectiveness? Evaluation of stormwater bioretention treatment using a lumped urban ecohydrologic model and ecologically based design criteria. Hydrol. Process. 32, 2318-2334 (2018).
- [89] Yang, B. & Li, S. J. Green infrastructure design for stormwater runoff and water quality: empirical evidence from large watershed-scale community developments. Water 5, 2038-2057 (2013).
- [90] Yang, B. & Li, S. J. Design with Nature: Ian McHarg's ecological wisdom as actionable and practical knowledge. Landsc. Urban Plan. 155, 21-32 (2016).
- [91] Yang, J. C. & Wang, Z. H. Planning for a sustainable desert city: the potential water buffering capacity of urban green infrastructure. Landsc. Urban Plan. 167, 339-347 (2017).
- [92] Zefferman, E. P., McKinney, M. L., Cianciolo, T. & Fritz, B. I. Knoxville's urban wilderness: Moving toward sustainable multifunctional management. Urban For. Urban Gree. 29, 357-366 (2018).
- [93] Zhang, D. et al. Effects of urbanization intensity on forest structural-taxonomic attributes, landscape patterns and their associations in Changchun, Northeast China: implications for urban green infrastructure planning. Ecol. Indic. 80, 286-296 (2017).
- [94] Zhang, Z. Z., Meerow, S., Newell, J. P. & Lindquist, M. Enhancing landscape connectivity through multifunctional green infrastructure corridor modeling and design. Urban For. Urban Gree. 38, 305-317 (2019).
- [95] Zolch, T., Rahman, M. A., Pfleiderer, E., Wagner, G. & Pauleit, S. Designing public squares with green infrastructure to optimize human thermal comfort. Build. Environ. 149, 640-654 (2019).
- [96] Beaujean, S. et al. A multistep approach to improving connectivity and co-use of spatial ecological networks in cities. Landsc. Ecol. 36, 2077-2093 (2021).
- [97] Bonilla-Bedoya, S. et al. Spatiotemporal variation of forest cover and its relation to air quality in urban Andean socio-ecological systems. Urban For. Urban Gree. 59, 12 (2021).
- [98] Campbell-Arvai, V. & Lindquist, M. From the ground up: Using structured community engagement to identify objectives for urban green in frastructure planning. Urban For. Urban Gree. 59, 13 (2021).
- [99] Dudzic-Gyurkovich, K. Urban development and population pressure: The case of Mlynowka Krolewska park in Krakow, Poland. Sustainability 13, 25 (2021).
- [100] Elbardisy, W. M., Salheen, M. A. & Fahmy, M. Solar irradiance reduction using optimized green infrastructure in Arid hot regions: A case study in El-Nozha District, Cairo, Egypt. Sustainability 13, 32 (2021).
- [101] Fagerholm, N., Eilola, S. & Arki, V. Outdoor recreation and nature's contribution to well-being in a pandemic situation-Case Turku, Finland. Urban For. Urban Gree. 64, 15 (2021).
- [102] Fu, X., Hopton, M. E. & Wang, X. H. Assessment of green infrastructure performance through an urban resilience lens. J. Clean. Prod. 289, 11 (2021).
- [103] Graviola, G. R., Ribeiro, M. C. & Pena, J. C. Reconciling humans and birds when designing ecological corridors and parks within urban landscapes. Ambio 51, 253-268 (2022).
- [104] Herath, P., Thatcher, M., Jin, H. D. & Bai, X. M. Effectiveness of urban surface characteristics as mitigation strategies for the excessive summer heat in cities. Sustain. Cities Soc. 72, 15 (2021).
- [105] Johnson, D., Exl, J. & Geisendorf, S. The potential of stormwater management in addressing the urban heat island effect: An economic valuation. Sustainability 13, 19 (2021).
- [106] Kirk, H. et al. Building biodiversity into the urban fabric: A case study in applying Biodiversity Sensitive Urban Design (BSUD). Urban For. Urban Gree. 62, 14 (2021).
- [107] Li, K. M. et al. Multiscale analysis of the effects of urban green infrastructure landscape patterns on PM2.5 concentrations in an area of rapid urbanization. J. Clean. Prod. 325, 12 (2021).
- [108] Ouyang, W. L. et al. Evaluating the thermal-radiative performance of ENVI-met model for green infrastructure typologies: Experience from a subtropical climate. Build. Environ. 207, 21 (2022).
- [109] Rosenberger, L., Leandro, J., Pauleit, S. & Erlwein, S. Sustainable stormwater management under the impact of climate change and urban densification. J. Hydrol. 596, 11 (2021).
- [110] Quezada, C. R. & Jorquera, F. Urban fabrics to eco-friendly blue-green for urban wetland development. Sustainability 13, 20, (2021).
- [111] Takakura, M. & Massi, K. G. Wealth and education influences on spatial pattern of tree planting in a tropical metropolis in Brazil. Environ. Manage. 69, 169-178 (2022).
- [112] Venter, Z. S. et al. Interactive spatial planning of urban green infrastructure Retrofitting green roofs where ecosystem services are most needed in Oslo. Ecosyst. Serv. 50, 11 (2021).
- [113] Yao, X. et al. How can urban parks be planned to mitigate urban heat island effect in "Furnace cities"? An accumulation perspective. J. Clean. Prod. 330, 10 (2022).
- [114] Anderson, V., Gough, W.A. & Agic, B. Nature-Based Equity: An assessment of the public health impacts of green infrastructure in Ontario Canada. Int. J. Environ. Res. Public Health 18, 17 (2021).
- [115] Bonilla-Duarte, S., et al. Contribution of urban forests to the ecosystem service of air quality in the city of Santo Domingo, Dominican Republic. Forests 12, 11 (2021).

- [116] Bosch, M. et al. Evaluating urban greening scenarios for urban heat mitigation: a spatially explicit approach. Royal Society Open Science 8, 12 (2021).
- [117] Di Pirro, E., Sallustio, L., Capotorti, G., Marchetti, M. & Lasserre, B. A scenario-based approach to tackle trade-offs between biodiversity conservation and land use pressure in Central Italy. Ecol. Modell. 448, 10 (2021).
- [118] Gatto, E., Buccolieri, R., Perronace, L. & Santiago, J. L. The challenge in the management of historic trees in urban environments during climate change: The Case of Corso Trieste (Rome, Italy). Atmosphere 12, 18 (2021).
- [119] Gomez-Villarino, M. T., Villarino, M. G. & Ruiz-Garcia, L. Implementation of urban green infrastructures in Peri-Urban Areas: A case study of climate change mitigation in Madrid. Agronomy-Basel 11, 11 (2021).
- [120] Guenat, S., Lopez, G. P., Mkwambisi, D. D. & Dallimer, M. Unpacking stakeholder perceptions of the benefits and challenges associated with urban greenspaces in Sub-Saharan Africa. Front. Environ. Sci. 9, 12 (2021).

[121] Jarvis, I. et al. Assessing the association between lifetime exposure to greenspace and early childhood development and the mediation effects of air pollution and noise in Canada: a population-based birth cohort study. Lancet Planet. Health 5, E709-E717 (2021).

- [122] Jia, S. Q. & Wang, Y. H. Effect of heat mitigation strategies on thermal environment, thermal comfort, and walkability: A case study in Hong Kong. Build. Environ. 201, 16 (2021).
- [123] Lehnert, M., Brabec, M., Jurek, M., Vladimir, T. & Geletic, J. The role of blue and green infrastructure in thermal sensation in public urban areas: A case study of summer days in four Czech cities. Sustain. Cities Soc. 66, 16 (2021).
- [124] Lehrer, E. W. et al. Urban bat occupancy is highly influenced by noise and the location of water: Considerations for nature-based urban planning. Landsc. Urban Plan. 210, 9 (2021).
- [125] van Oorschot, J., Sprecher, B., van 't Zelfde, M., van Bodegom, P. M. & van Oudenhoven, A. P. E. Assessing urban ecosystem services in support of spatial planning in the Hague, the Netherlands. Landsc. Urban Plan. 214, 11 (2021).