



Urban forests in Latin America: challenges and opportunities for research and practice

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Urban forestry in Latin America and the Caribbean



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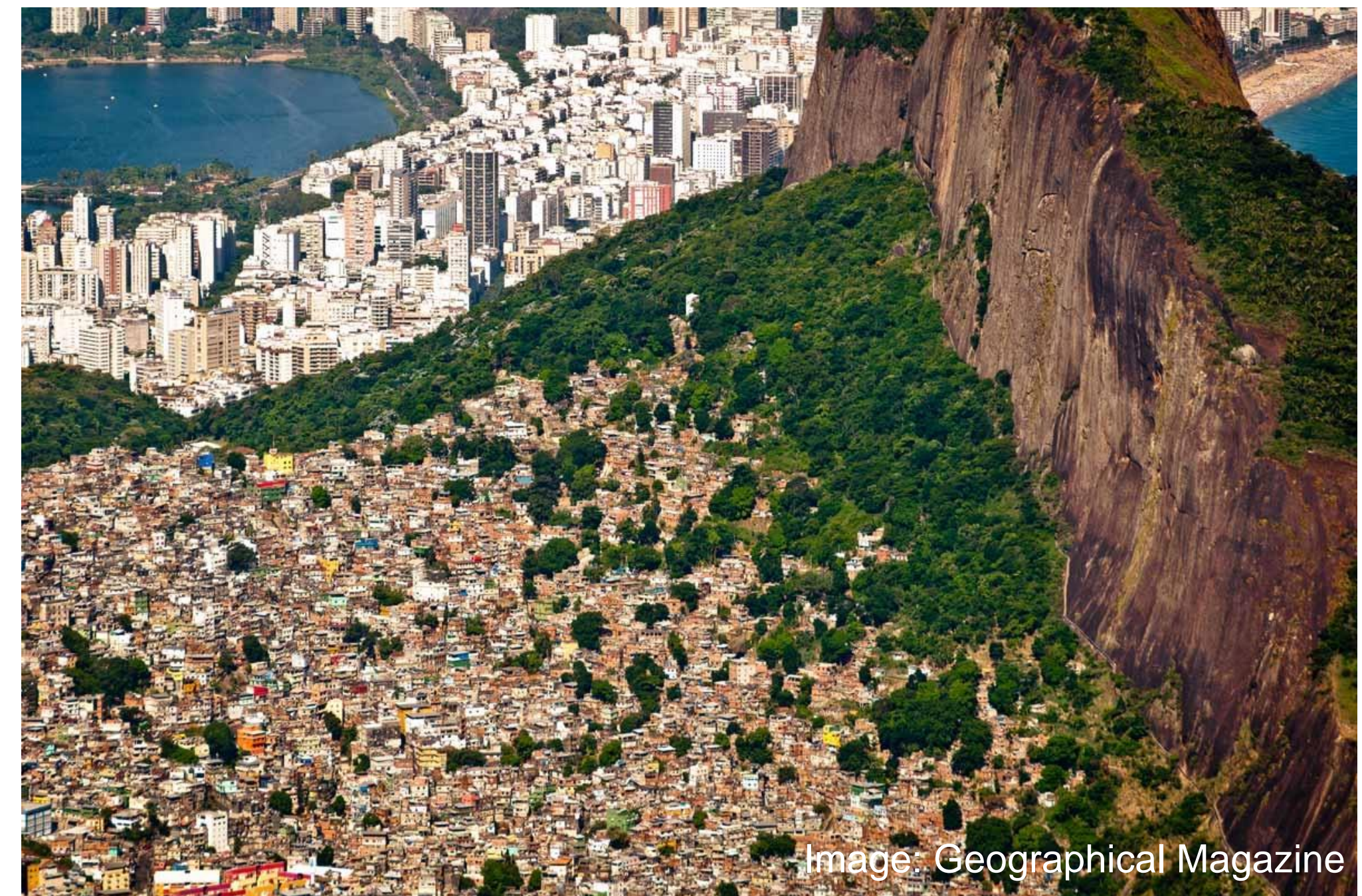
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Focus on Latin America and the Caribbean

- One of the most urbanized, yet socially inequitable, and climate vulnerable regions in the world
- Lack of regional-scale studies assessing the role of urban forest in supporting urban sustainability and resilience
- Urban forestry network in the region is forming with great potential





Cali, Bogota (Colombia), Lima (Peru), Piracicaba (Brazil)

Photos: C. Ordóñez

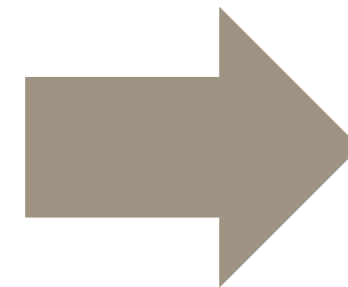
Research questions

1. What are the conceptualizations of urban forestry in the region?
2. What are the research and management trends in urban forestry?
3. What are the opportunities and challenges for urban forestry in the context of climate change?

Methodology

Systematic literature review

1. Focus on Latin America & Caribbean (LAC) cities
2. Includes information about tree-dominated systems
3. Empirical and conceptual studies since 1970
4. English, Spanish and Portuguese
5. Scopus, Web of Science, SciELO, Redylac



Online survey

1. Focus on urban forest research and management
2. Academics and practitioners working in LAC cities (tier-1 & tier-2)
3. Information about conceptualizations, gaps, challenges and opportunities

Web of Science

Scopus

SciELO

Redylac

Identification

Screening

Eligibility

Included

Titles and abstracts retrieved
n = 232

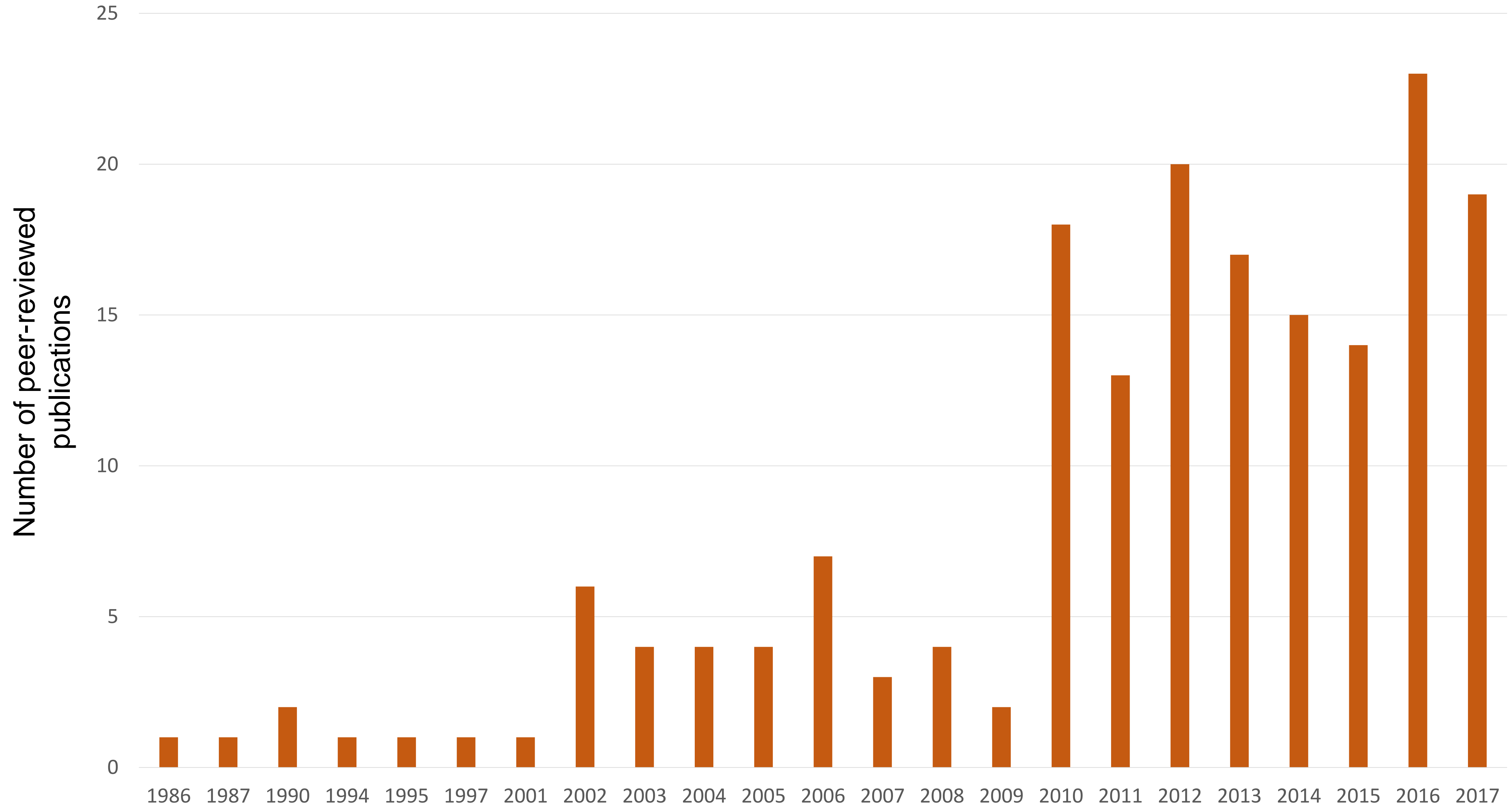
Records after duplicates removed:
n = 195

Full text articles assessed for eligibility
n = 195

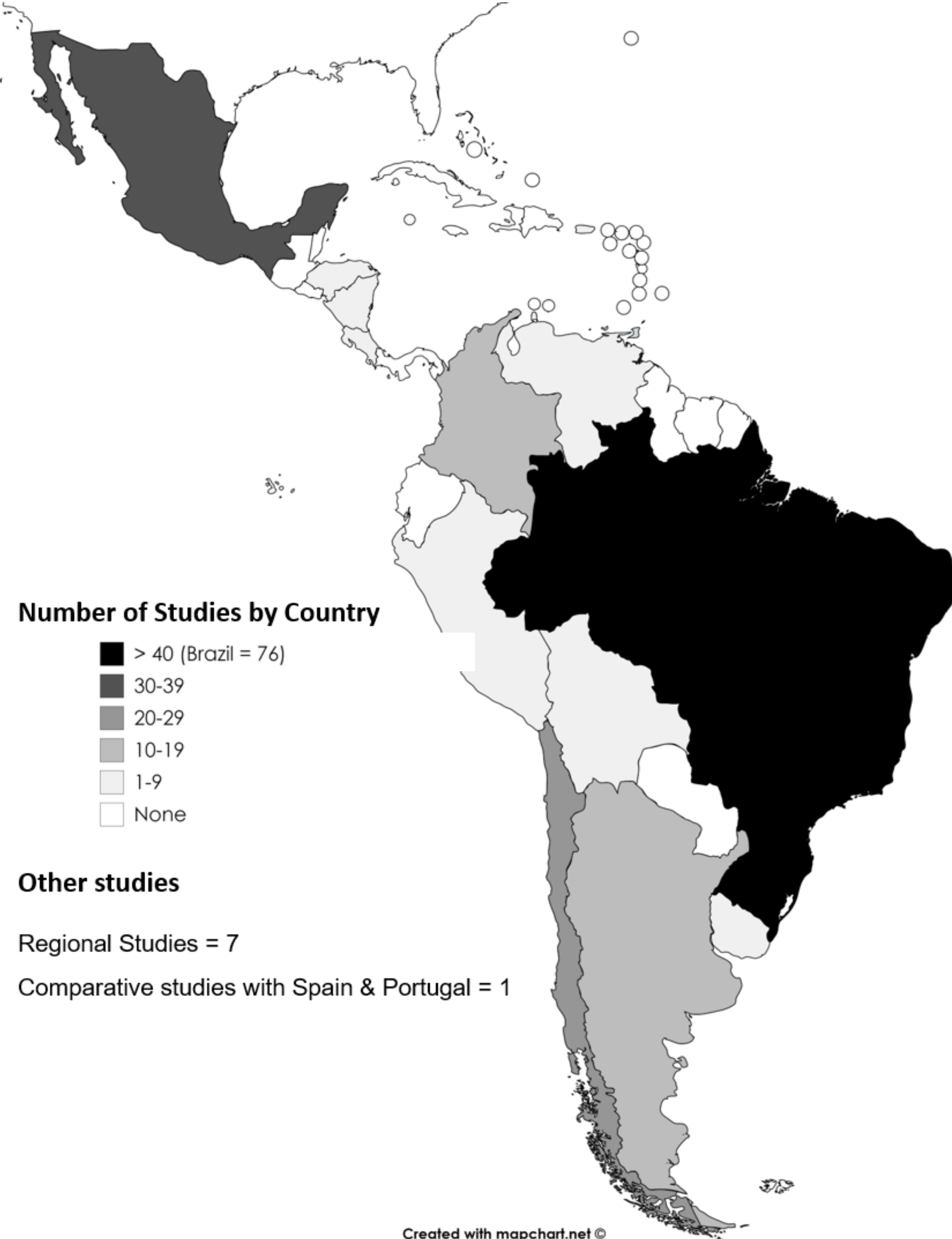
Records excluded:
not focused on urban forests/trees; not focused on Latin American countries
n = 13

Studies included in review
n = 182

Preliminary results: publications over time



Geographical focus



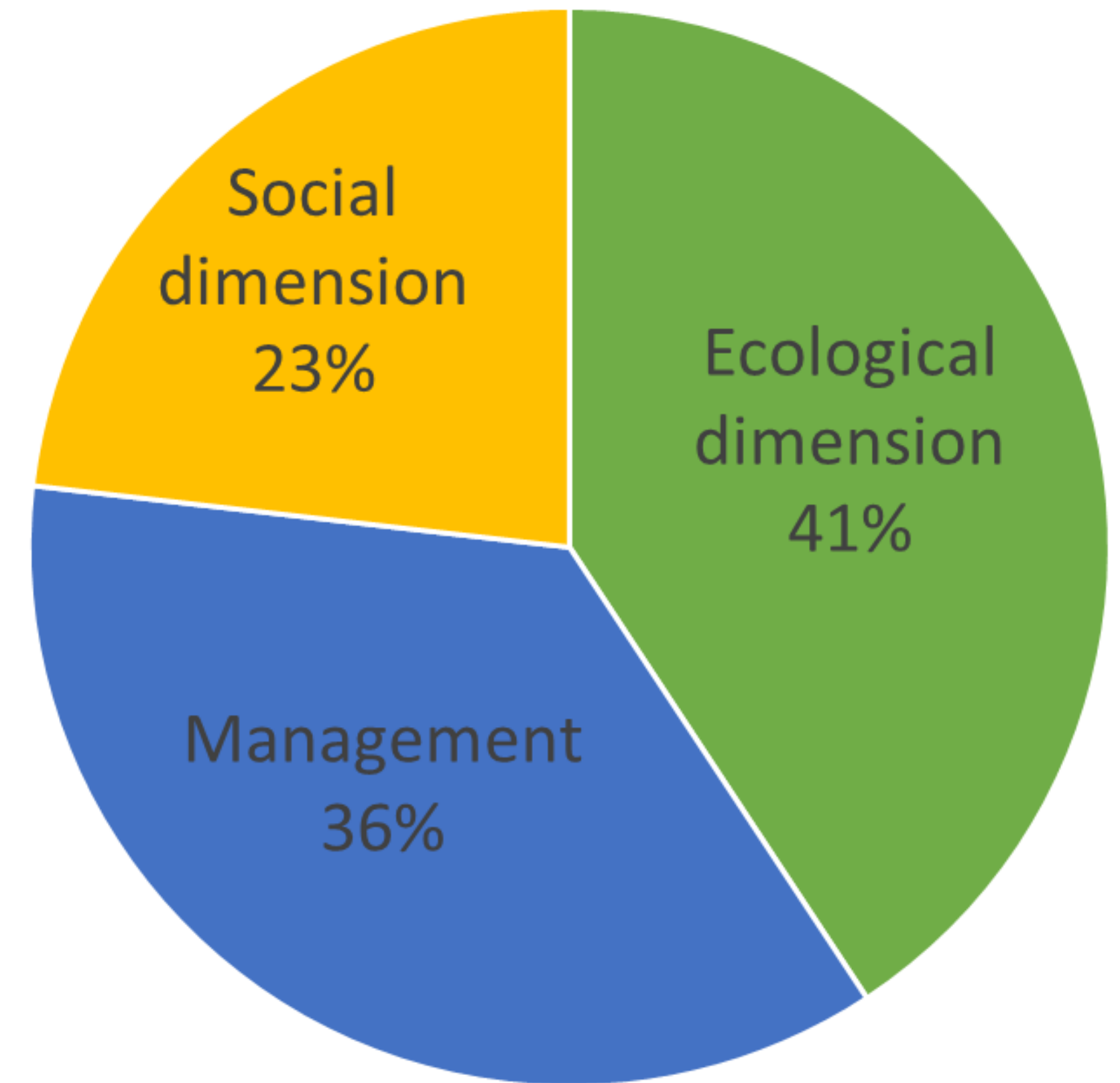
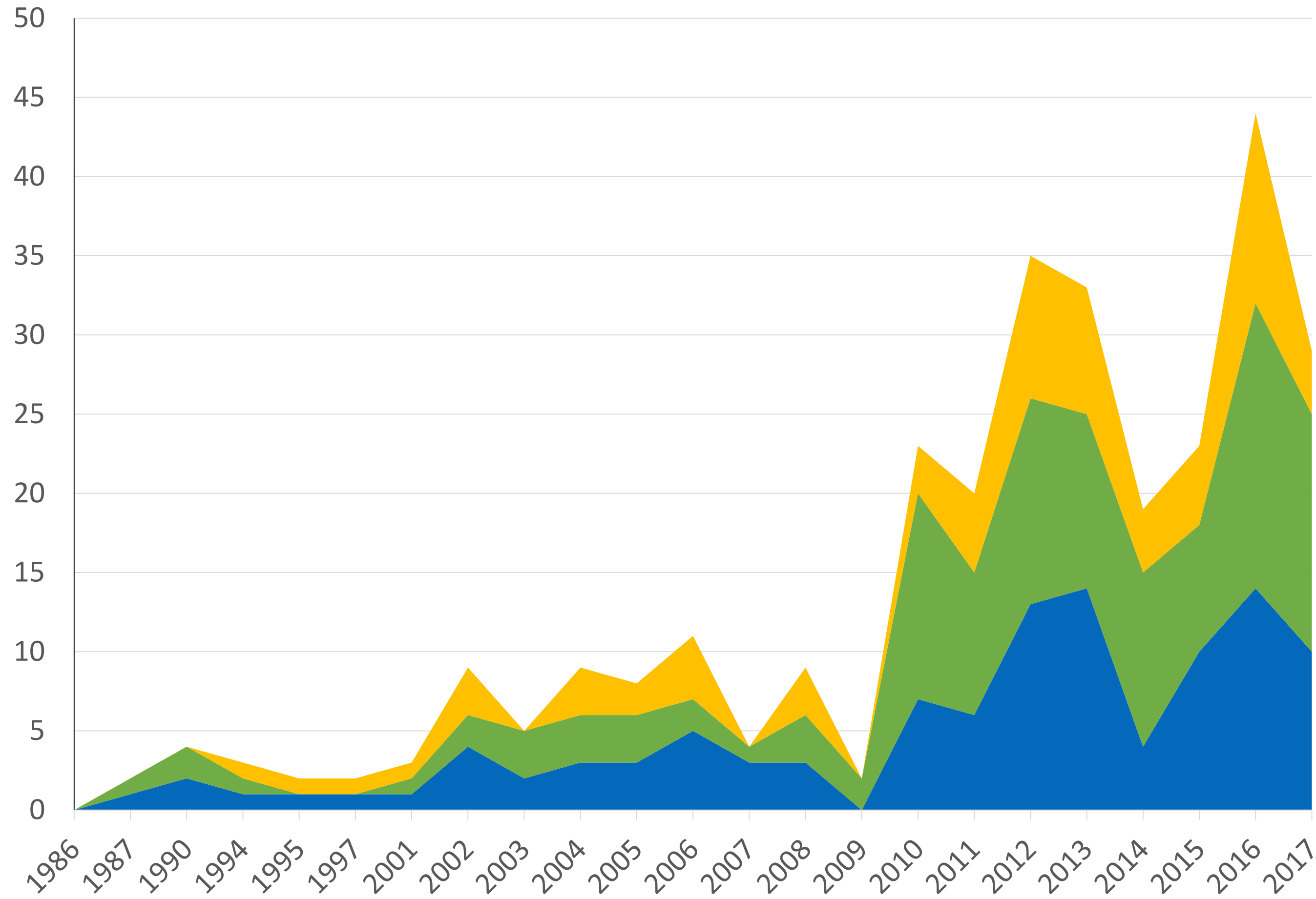
Country	Size (km2)	Population	Urban (%)	Papers
Brazil	8,358,140	210,867,954	84	77
Mexico	1,943,950	130,759,074	78	31
Chile	743,532	18,197,209	90	27
Colombia	1,109,500	49,464,683	79	16
Argentina	2,736,690	44,688,864	88	16
Bolivia	1,083,300	11,215,674	70	4
Nicaragua	120,340	6,284,757	61	3
Peru	1,280,000	32,551,815	78	2
Puerto Rico	8,870	3,659,007	94	2
Honduras	111,890	9,417,167	52	2
Costa Rica	51,060	4,953,199	81	1
Uruguay	175,020	3,469,551	95	1
Venezuela	882,050	32,381,221	88	1

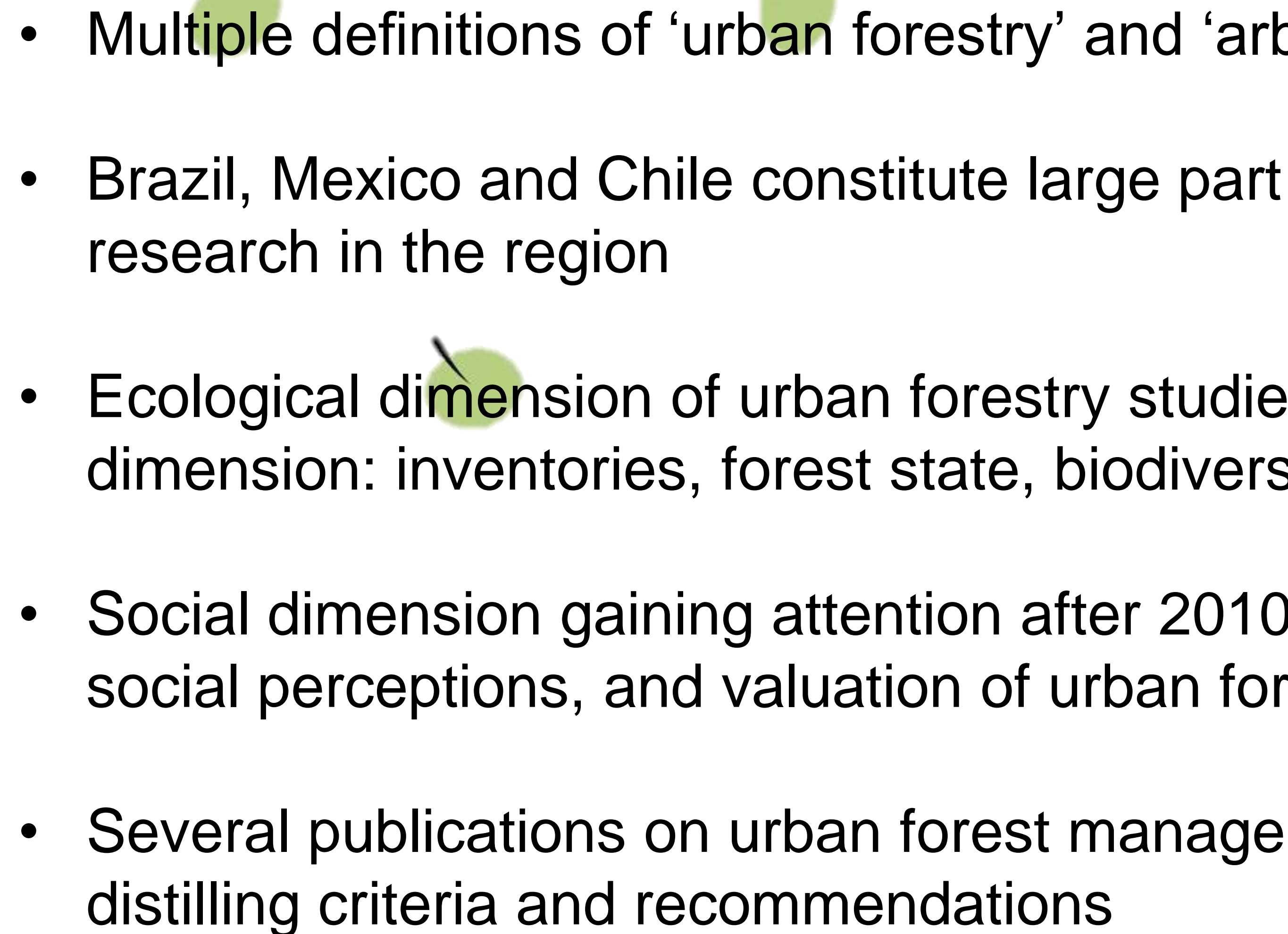
Based on 2018 World Bank's country data

Geographical focus over time

	1986	1987	1990	1994	1995	1997	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total	
Brazil	1	1	1	1				3	2	2	3	4	1	1	1	10	7	5	3	6	7	8	8	75	
Mexico			1											1		2		6	5	3	3	4	4	29	
Chile					1	1	1	1	1				1	1		1	4	3	2		1	4	4	25	
Argentina								1		1						2	1	1	2	2	1	5		16	
Colombia												2	1		1	1		1	2	2	2		2	14	
Bolivia									1									1	1					3	
Nicaragua										1		1		1											3
Honduras																	1						1	2	
Peru																				1		1		2	
Puerto Rico																		1	1					2	
Costa Rica																1								1	
Uruguay																1								1	
Venezuela																				1				1	
Multinational				1	1		1	1		1								2	1			1		1	
Total/year	1	1	2	1	1	1	1	6	4	4	4	7	3	4	2	18	13	20	17	15	14	23	19	182	

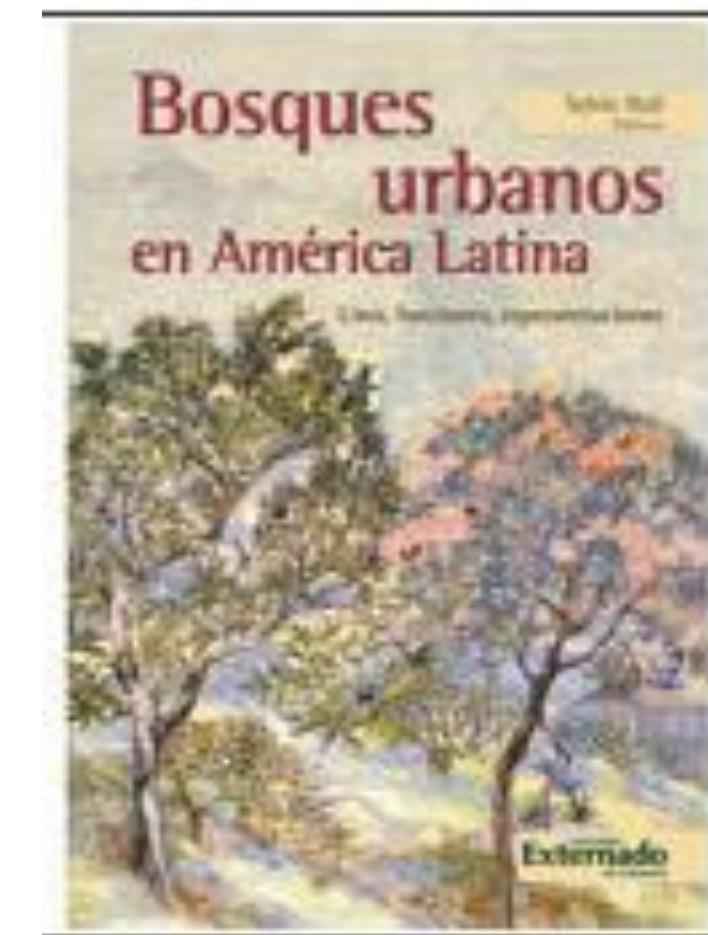
Scope of analysis



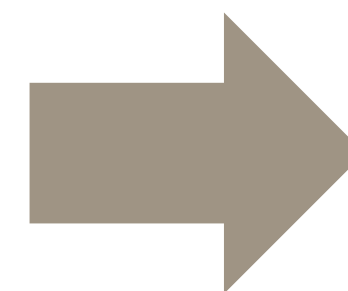
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- Multiple definitions of ‘urban forestry’ and ‘arboriculture’ in LAC
 - Brazil, Mexico and Chile constitute large part of urban forestry research in the region
 - Ecological dimension of urban forestry studied more than the social dimension: inventories, forest state, biodiversity
 - Social dimension gaining attention after 2010: ecosystem services, social perceptions, and valuation of urban forests
 - Several publications on urban forest management & planning: distilling criteria and recommendations

Next steps

- Additional 'grey literature' to include in the review
- Online survey: complementary results to gain a better understanding
- Theory/research vs practice/on-the-ground realities
- Supporting the Latin American urban forestry network



List of contacts



ON-LINE SURVEY



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