Greening the private realm: policy approaches

Dr Judy Bush

Lecturer in Urban Planning

Acknowledging Traditional Owners

Policy mechanisms

Policy mechanisms

- Government provision and demonstration

- Information and community engagement
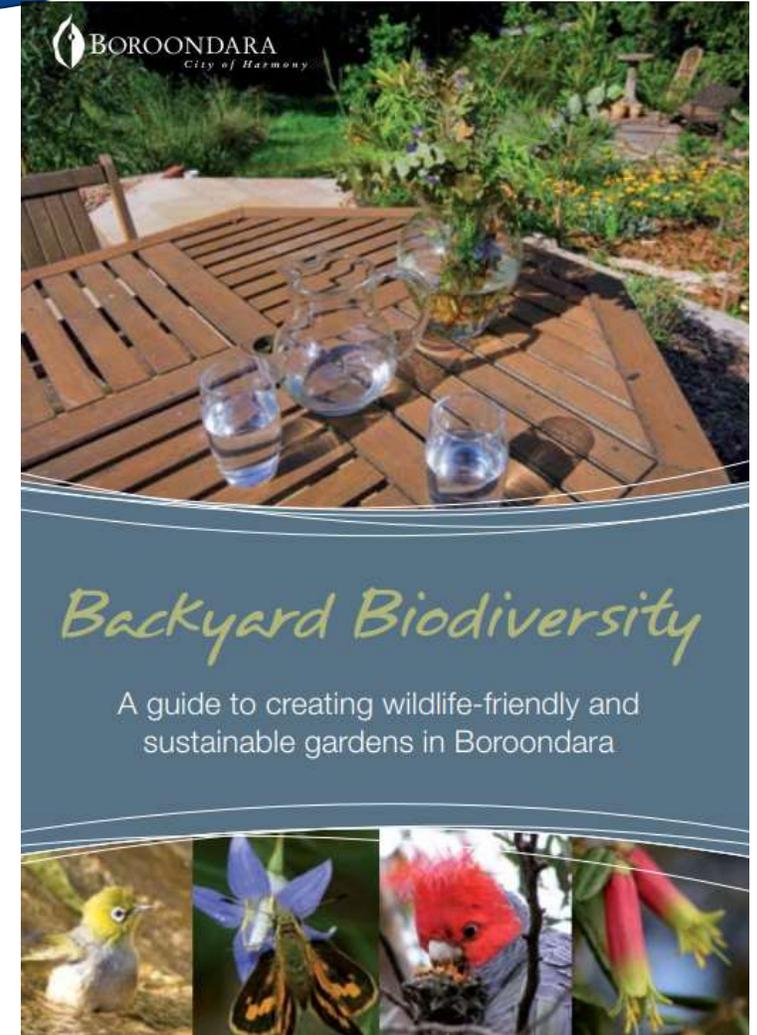
- Incentives, awards, grants

- Regulations

A single mechanism is unlikely to be sufficient for environmental policies that aim to address sustainability issues in complex systems

MADDISON, S. & DENNISS, R. 2013. *An introduction to Australian public policy: theory and practice,* Port Melb, Vic., Cambridge Univ Press.

Policy mechanisms

Guidelines, brochures

- Government provision and demonstration

- Information and community engagement

- Incentives, awards, grants

- Regulations

BOROONDARA
City of Harmony

Backyard Biodiversity

A guide to creating wildlife-friendly and sustainable gardens in Boroondara

https://gardensforwildlifevictoria.com/
https://www.boroondara.vic.gov.au/waste-environment/sustainability/biodiversity/create-wildlife-friendly-garden

Policy mechanisms

- Government provision and demonstration

- Information and community engagement

- Incentives, awards, grants

- Regulations

Awards, incentives, rebates

Support/resources for tree management

https://www.sustainability.vic.gov.au/about-us/awards-we-administer/premiers-sustainability-awards
https://aila.awardsplatform.com/gallery/JzOoGoPQ

Policy mechanisms

- Government provision and demonstration

- Information and community engagement
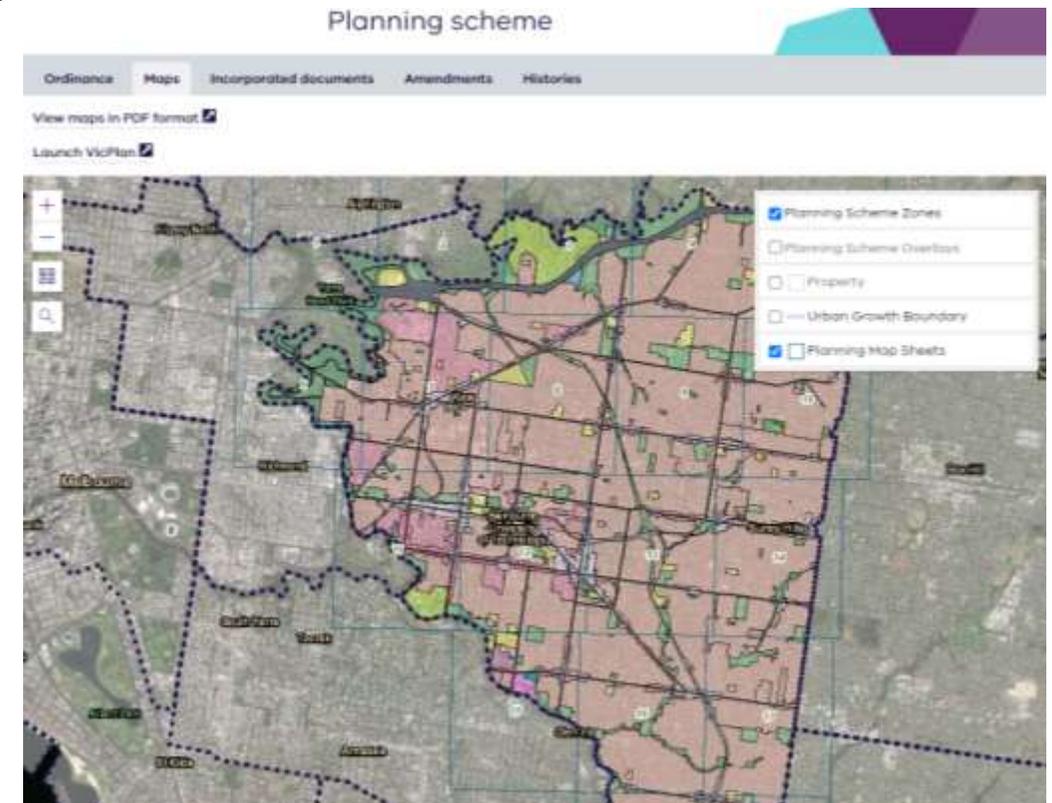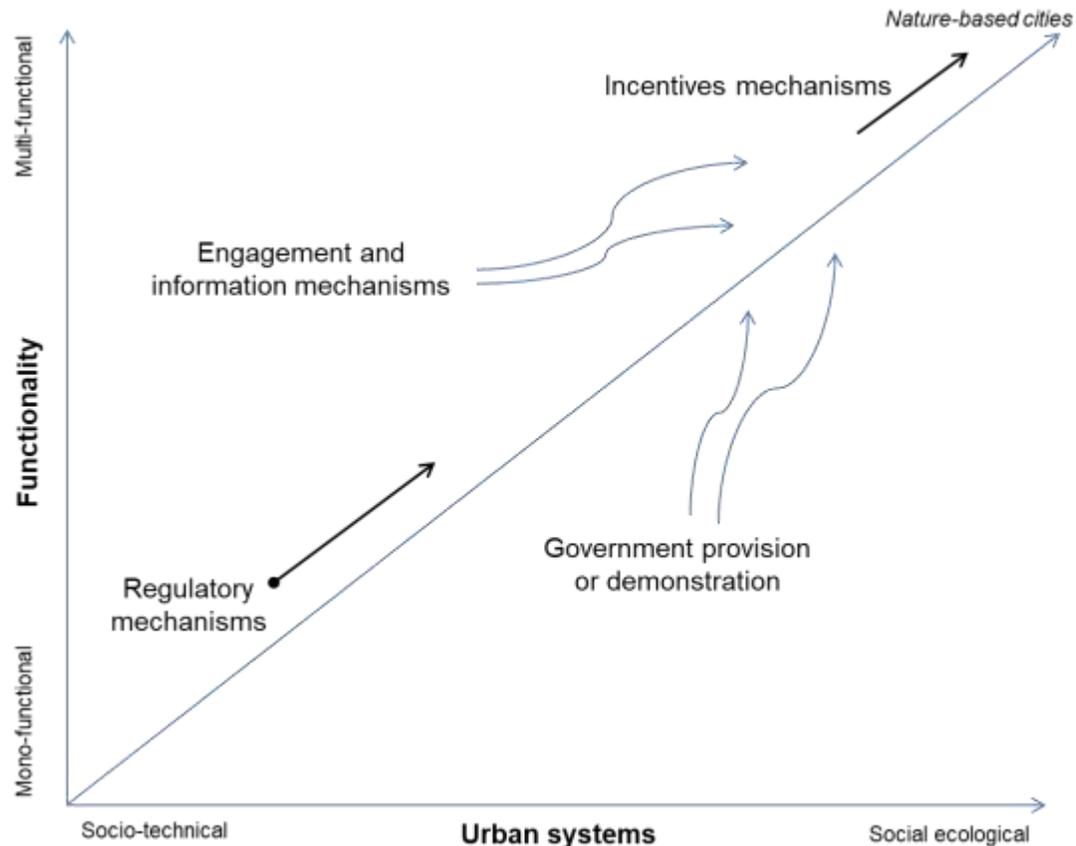
- Incentives, awards, grants

- Regulations

Planning scheme provisions:
- zones and overlays;
- clauses for minimum area
Local laws: significant and canopy trees
Tree bonds (for construction periods)

Regulation requires enforcement to be effective

Planning scheme

Schuijers, L., & Bush, J. (2022). Stewardship: retrofitting private property with the public interest in ecology. In N. Graham, M. Davies, & L. Godden (Eds.), *Routledge Handbook of Property, Law and Society*: Taylor and Francis Books. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4113558
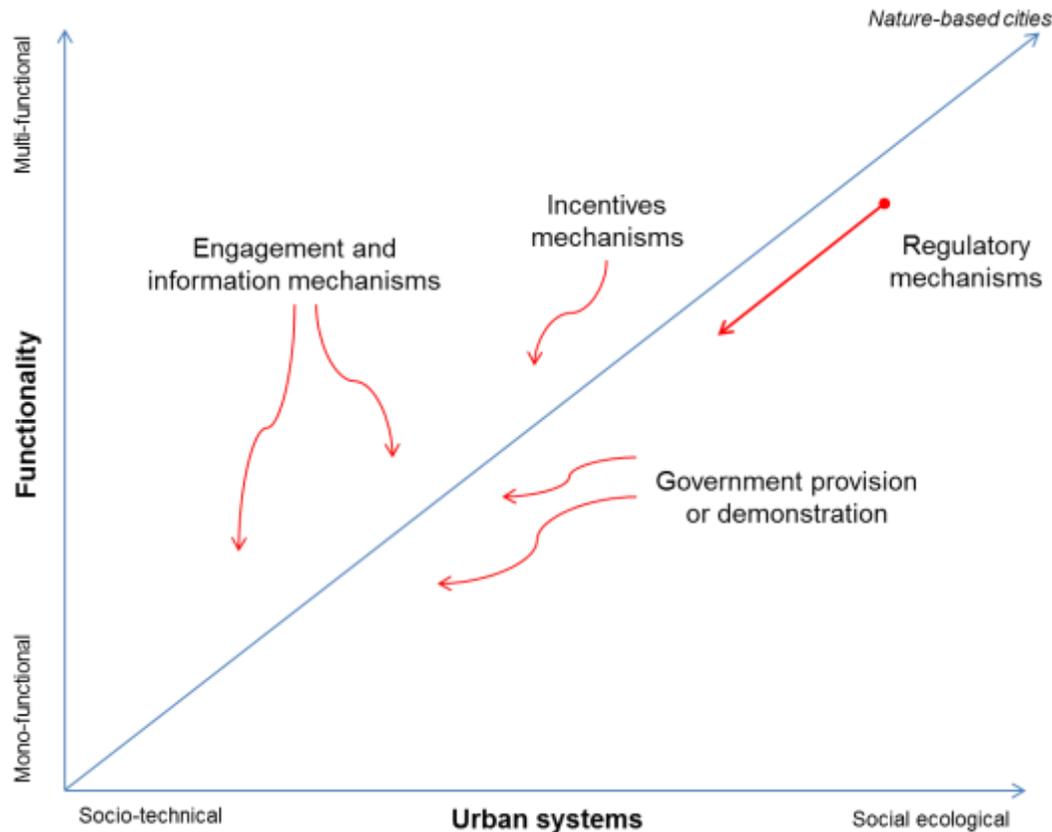
Policy mechanisms to facilitate more nature

Policy mechanism	Mechanisms that support the transition to nature-based cities
Regulations	*Set minimum standards, periodically recalibrated to increase performance*
Government provision and demonstration	*Utilise and inspire innovation, support development of industry skills and capacity,*
Engagement and information	*Inspire action and innovation, and empower recipients of information*
Incentives, awards and grants	*Recognise and reward innovation, best practice*

BUSH, J. & HES, D. 2018. Urban green space in the transition to the eco-city: policies, multifunctionality and narrative.
In: HES, D. & BUSH, J. (eds.) Enabling Eco-cities. Defining, planning and creating a thriving future. Singapore: Palgrave.

Policy mechanisms that hinder

Policy mechanism	Mechanisms that hinder the transition to nature-based cities
Regulations	*Specify maximum standards or 'ceiling' below which implementation must comply*
Government provision and demonstration	*Limited provision; demonstration of low standards; lack of innovative approaches*
Engagement and information	*Information that reinforces compliance with minimum standards; engagement and consultation that is limited to basic information provision*
Incentives, awards and grants	*Incentives, grants and awards that maintain business-as-usual approaches without fostering innovation and best-practice*

BUSH, J. & HES, D. 2018. Urban green space in the transition to the eco-city: policies, multifunctionality and narrative.
In: HES, D. & BUSH, J. (eds.) Enabling Eco-cities. Defining, planning and creating a thriving future. Singapore: Palgrave.

City of Melbourne Green Factor Tool

Melbourne's Green Factor Tool

- Policy mechanism to increase greening in new developments

- Defines minimum area of greening (in-ground, green roofs, green walls)

- Underpinned by *research evidence base* and *strategic policy priorities* to support regulation

Function	Weighting
1. Urban temperature regulation (cooling)	25%
2. Habitat for biodiversity	20%
3. Runoff mitigation	20%
4. Food supply	10%
5. Recreation	10%
6. Place values and social cohesion	10%
7. Aesthetic benefits	5%

Bush, J., Ashley, G., Foster, B., & Hall, G. (2021). Integrating green infrastructure into urban planning: developing Melbourne's Green Factor Tool. *Urban Planning, 6(1). doi:10.17645/up.v6i1.3515*

Melbourne's Green Factor Tool

- Policy tool to increase greening in new developments

- Defines types of greening (in-ground, green roofs, green walls)

- Underpinned by *research evidence base* and *strategic policy priorities* to support regulation

Identified from research

Function	Weighting
1. Urban temperature regulation (cooling)	25%
2. Habitat for biodiversity	20%
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Melbourne's Green Factor Tool

- Poli... ...rease ...lopments

- Def... ...of greening... ...en roofs, green walls)

- Underpi... ...d by *research evidence base* ... *strategic policy priorities* to suppo... regulation

Identified from research
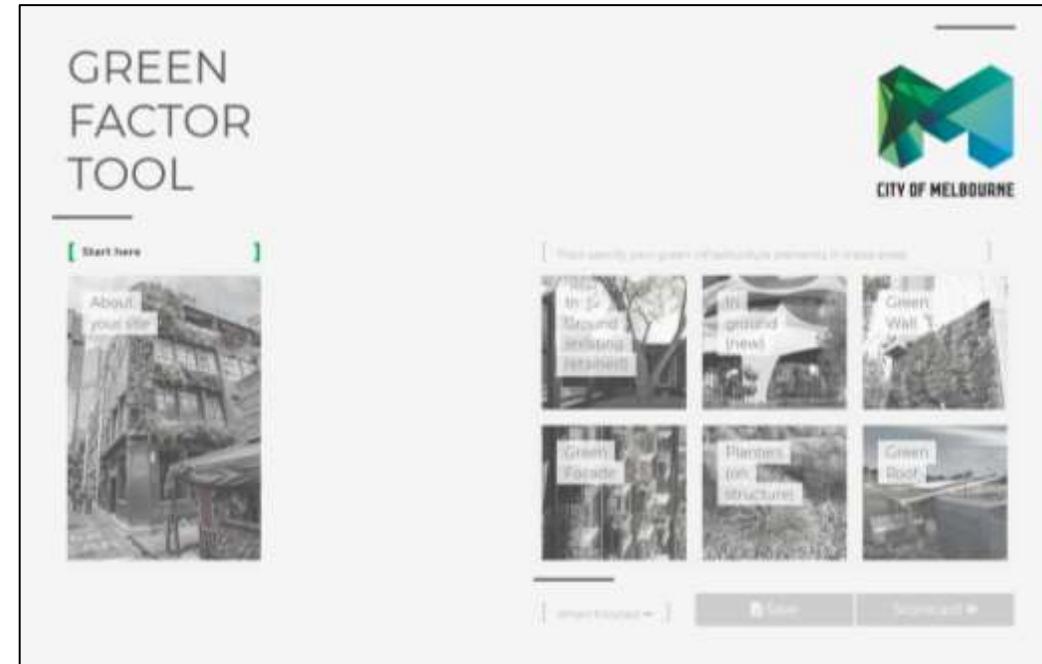
Responding to CoM policy priorities

Function	Weighting
1. Urban temperature regulation (cooling)	25%
2. Habitat for biodiversity	20%
3. Runoff mitigation	20%
4. Food supply	10%
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Melbourne's Green Factor Tool

	Large tree 10m+	Medium tree 6m–10m	Small tree 3m–6m & climbers (on structure)	Large shrub 2m+	Small shrub 0-2m	Ground cover/ under-storey	Lawn/ turf
1. Temperature regulation	3	3	2.5	2	2	2	**2**
2. Habitat provision	3	3	2.5	2	2	1.5	**0.5**
3. Runoff (quantity)	3	3	2.5	2	2	2	**2**
4. Recreation	3	3	2.5	1	1	1	**2**
5. Place, social cohesion	3	3	3	2	2	2	**1**
6. Aesthetic	3	3	3	2	2	2	**2**
7. Food production	**2**	**2**	**2**	**2**	**2**	**3**	0

https://www.melbourne.vic.gov.au/community/greening-the-city/green-infrastructure/Pages/green-factor-tool.aspx

https://www.greenfactor.com.au/

Bush, J., Ashley, G., Foster, B., & Hall, G. (2021). Integrating green infrastructure into urban planning: developing Melbourne's Green Factor Tool. *Urban Planning, 6(1). doi:10.17645/up.v6i1.3515*

Conclusions

Urbanisation processes

Stages:

- Change initiation

- Strategic planning

- Project consideration/initiation

- Design

- Costings and approvals

- Construction

- Use and ongoing management

- Renewal/recovery/decommission
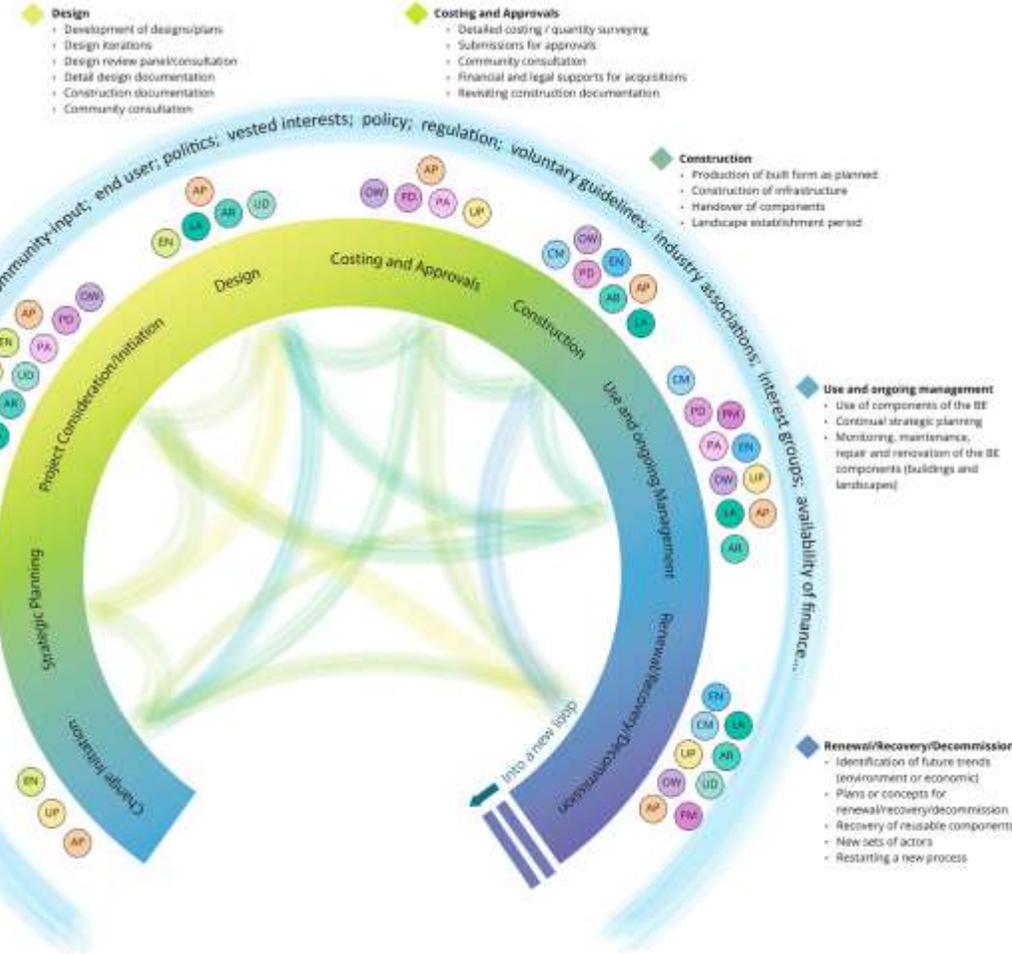
Greening cities

Urban greening and nature-based solutions:

- Responding to climate change

- Cooling cities

- Managing water runoff quality and quantity

- Biodiversity conservation and restoration

- Cultural heritage and sense of place

- Connecting with nature … in the city

- Multifunctional urban infrastructure

Oke, C., Bekessy, S., Frantzeskaki, N., Bush, J., Fitzsimons, J., Garrard, G., . . . Gawlor, S. (2021). Cities should respond to the biodiversity extinction crisis. *Urban Sustainability, 1.* *doi:10.1038/s42949-020-00010-w*

Bush, J., & Doyon, A. (2019). Building urban resilience with nature-based solutions: how can urban planning contribute? *Cities, 95, 102483. doi:10.1016/j.cities.2019.102483*

Thank you

Dr Judy Bush

Judy.bush@unimelb.edu.au