The governance of local climate commons

Submitted by: Suzanne Dunford

Thesis submitted in fulfilment of the requirements for the degree of

Master of Sustainable Futures

under the supervision of

Associate Professors Brent Jacobs and John Wright

University of Technology Sydney

Institute for Sustainable Futures

February 2022

CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Suzanne Dunford, declare that this thesis, is submitted in fulfilment of the requirements for the award of Masters in Sustainable Futures, in the Faculty of Transdisciplinary Innovation at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

This research is supported by the Australian Government Research Training Program.

I acknowledge the assistance of my lead supervisor who has assisted in the research work and the preparation of the thesis, and the management at Waverley Municipal Council, including Ross McLeod, General Manager and Sam McGuinness, Executive Manager of the Environmental Sustainability Department who supported this study.

Signature: Production Note:
Signature removed prior to publication.

Date: 3 February 2022

Contents

List of Figures and tables

Table 1: Comparison of community envisioned change in urban greening arrangements compared to Ostrom's IAD Design principles.

Table 2: Comparing progressive commons values with community sentiment

Table 3 Infrastructure services form local to national scales, from Spiller and Murrian 2018 Table 6.1

Self-interest is for the past. Common interests are for the future
David Attenborough 2020

Abstract

As climate change impacts accelerate, there is an urgent need to understand and enhance the governance of climate change adaptation, or existing vulnerabilities will be exacerbated, and opportunities to accrue benefits from adaptive responses may be lost.

While a global phenomenon, climate change is experienced locally, varying significantly from place to place, and requiring local and context-specific adaptations. Using lenses of social ecological systems, common pool resources and subsidiarity, this thesis identifies attributes of governance that can support local and sub-local capacity to anticipate, adapt and address local climate change impacts on ecological and social systems.

Set in the Waverley Local Government Area, I examine how urban trees and vegetation, accessible to both public and private interests, represent a local climate commons that providing climate adaptation benefits such as heat regulation, to residents, visitors and ecological communities.

This mixed methods study draws on empirical evidence of community attitudes, document analysis and an extensive review of adaptation literature. It finds that by deepening the application of subsidiarity to existing institutional and governance arrangements, shared management of local climate commons can be achieved. Furthermore, it will promote and foster the diversity in approaches necessary to provide the best chance for successful transferability of inclusive, accountable and effective climate change adaptation.