NP4004

# CO-BENEFITS OF LOW CARBON POLICIES IN THE BUILT ENVIRONMENT:

## AN AUSTRALIAN INVESTIGATION INTO LOCAL GOVERNMENT CO-BENEFITS POLICIES

### Research Questions

- Has Australian local government adopted a co-benefits approach in their low carbon policies? If so, to what extent?
- What considerations guide policy-makers in planning for low carbon policies? How do these considerations generate co-benefits?
- What interventions are necessary to plan, generate and purposively promote co-benefits in local government policy processes?

### Methodology

This research uses a combination of qualitative and quantitative methods (Figure 2). Qualitative research involves documenting information from a literature review, analysis of policies and in-depth interviews. Quantitative research involves assessment of data from a comprehensive on-line survey. Geographic area of investigation was Sydney Greater Metropolitan Region (GMR) and surrounding localities (Figure 1)

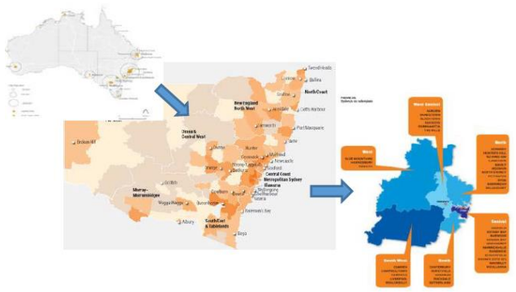

Figure 1: Sydney GMR and surrounding LGAs

Investigation comprises three phases. Phase one and phase two involve desktop review of NSW councils' web sites and their climate change related policies. Phase three involves online survey and interviews. All three phases have been completed.

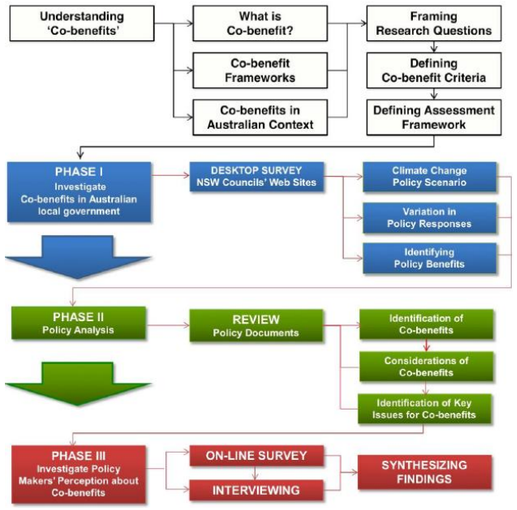


Figure 2: Research Approach and Outline

### Results

Overall the findings reveal that a majority of councils in NSW have some form of policy in place to respond to climate change. However, the degree, form and nature of that response vary among councils. A distinct urban bias towards large metro councils (GMR) as opposed to small non-GMR councils has been observed in undertaking climate change actions (Table 1).

Councils' climate change policies mainly target a single sector/single benefit, with priorities fixed overwhelmingly on economic considerations. Reducing consumption of energy, and therefore greenhouse gases, as well as making significant monetary savings, are major considerations for selection of measures to reduce emissions (Table 2).

| COUNCILS' RESPONSES TO CLIMATE CHANGE | | LOCATION OF COUNCILS | | TYPES OF MITIGATION MEASURES | | | INTEGRATION WITH OTHER POLICIES | | TARGETED CO-BENEFITS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Non energy related | | | | Climatic and Energy related | | Non-climatic and non-energy related | |
| | | GMR (n = 38) | Beyond GMR (n = 37) | Energy related | Waste | Active transport | Integrated | Not integrated | Economic | Environmental | Health | Social |
| CATEGORIES OF COUNCILS | A. Specific Climate Change Policy (n=41) | 22 | 19 | 40 | 37 | 33 | 25 | 16 | 41 | 39 | 07 | 09 |
| | B. Climate Change Addressed Broadly Under 'Sustainability' (n=22) (but no specific policy for Climate Change) | 11 | 11 | 22 | 19 | 11 | 13 | 09 | 21 | 21 | 04 | 05 |
| | C. No Climate Change Policy (n=10) (but measures undertaken to reduce energy consumption that also result in GHG reduction) | 05 | 05 | 08 | 06 | 03 | 01 | 07 | 07 | 05 | 00 | 02 |

Table 1: Variation in Policies & Targeted Co-benefits

As councils predominantly consider 'financial savings' as the main criterion for the selection of measures to reduce emissions, when considering benefits, the majority of councils emphasise 'monetarily quantifiable' benefits.

Non-monetary benefits (e.g., health benefits from better air quality and the uptake of active transport – walking and cycling, improved 'liveability' and enhanced productivity – creating local jobs) of low carbon measures are not explicitly considered in decision making.

| Mitigation Measures | Sectors | | | | | | Categories of Co-benefits | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Energy | Transport | Buildings | Waste | Land use | Water | Environmental | Economic | Health | Social |
| Energy-efficiency | ■ | ■ | ■ | | | | ■ | ■ | ■ | ■ |
| Renewable Energy | ■ | | ■ | | | ■ | ■ | ■ | ■ | ■ |
| Fuel switching | ■ | ■ | | | ■ | | ■ | ■ | ■ | |
| Active transport | ■ | ■ | | | ■ | | ■ | ■ | ■ | ■ |
| Water efficiency | ■ | | | | | ■ | ■ | ■ | | ■ |
| Waste management | ■ | ■ | | ■ | ■ | | ■ | ■ | ■ | ■ |
| Life style, values & behaviour | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Keys: ■ Targeted ■ Impacted

Table 2: Co-benefits from Mitigation Measures

### Conclusions

Local government's over reliance on 'monetary considerations' in targeting benefits from climate change policies is excluding potential co-benefits from incorporation in the policy process thereby limiting its potential to achieving maximum policy benefits.

### Anticipated impacts

This research will evolve a systematic understanding of the Australian local government policy context that will help to identify the conditions under which 'co-benefits approach' could be effective. As well, the research will enable better understandings of how to plan, generate and purposively promote co-benefits in planning urban built environments.

This, in turn, will increase the uptake of low carbon policies and programs by the decision-making community.

### Key statement

**There are enormous opportunities to extend the 'co-benefits approach' in Australian local government to incorporate broader co-benefits of low-carbon policies beyond energy efficiency and monetary savings.**

**Incorporating broader perspectives in local government policy processes can substantially optimise policy outcomes, including improving human health and productivity.**

### Contacts

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