

# Social, Economic and Institutional Dimensions of Climate Change Adaptation: Knowledge Needs Analysis Summary Report



**FINAL**

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## Executive Summary

This report provides an analysis of a knowledge needs survey relating to the social, economic and institutional dimensions of climate change adaptation, conducted in June 2016. In particular, this report analyses the research and capacity building needs to inform the review of the National Climate Change Adaptation Research Plan for the Social, Economic and Institutional Dimensions of Climate Change (SEI NARP). The online survey was distributed to the 548 members of the Social, Economic and Institutional Dimensions Network (SEI Network) of the National Climate Change Adaptation Research Facility (NCCARF). There were 70 respondents to the survey from a range of sectors, including: government (27%), NGOs (7%), private sector (3%), “other/not answered” (7%), and the remainder from research/university. 33% of respondents worked predominately in the coastal zone, with 49% working only in Australia and 34% working in Australia most of the time. The most common knowledge needs related to adaptation enablers, adaptation pathways, and adaptive capacity. The results of the knowledge needs survey are congruent with the 10 high priority topics of the revised SEI NARP.

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## 1 Introduction

The Social, Economic and Institutional Dimensions Network (SEI Network) of the National Climate Change Adaptation Research Facility (NCCARF) has been tasked with updating the 2011 National Climate Change Adaptation Research Plan for the social, economic and institutional dimensions (SEI NARP). One key contribution to this process is a knowledge needs analysis to identify stakeholder research priorities. In addition, the knowledge needs analysis informed the design, conduct and content of activities for capacity building of researchers and end-users across Australia (with a focus on the coastal zone).

## 2 Methods

A survey comprised of 11 questions (table 1) was developed to gather data on research needs using the software package 'Opinio'. A link to the online survey was circulated to the 548 members of the SEI network e-newsletter in mid-June 2016.

**Table 1: Knowledge Needs Analysis online survey questions**

No.	Questions
1	What sector do you represent?
2	Is your work predominately focused in the coastal zone?
3	In your work, what is your primary role?
4	Is your work focus primarily in Australia?
5	What are the two most important climate change impacts that require adaptation actions?
	<i>Impact 1</i>   <i>Impact 2</i>
6	What are the two most important social, economic or institutional considerations when addressing these impacts?
	<i>Consideration 1</i>   <i>Consideration 2</i>
7	What are the top three research needs to address to address <i>Consideration 1</i>
8	What are the top three research needs to address to address <i>Consideration 2</i>
9	How important are the following information sources to aid climate change adaptation decision making?
	<i>Journal articles</i>   <i>Written reports</i>   <i>Workshops</i>   <i>Conferences</i>
	<i>Online resources</i>   <i>Face to face training</i>   <i>Participation in a community of practice</i>   <i>Engagement between researchers and decision makers</i>
10	How easy or difficult are the following information sources to access?
	<i>Journal articles</i>   <i>Written reports</i>   <i>Workshops</i>   <i>Conferences</i>
	<i>Online resources</i>   <i>Face to face training</i>   <i>Participation in a community of practice</i>   <i>Engagement between researchers and decision makers</i>
11	Are there any additional comments you would like to make?

The raw survey data was discussed at the 2016 SEI NARP writing workshop (in conjunction with a systematic literature review, outcomes of four sector-based peer learning events, and the SEI NARP co-authors' collective research experiences). Post-writing workshop, the survey data was coded according to the revised SEI NARP priority topics for validation. Additional themes relating to Indigenous issues, non-SEI issues, and non-aligned responses (to the SEI NARP priority topics) were also coded. In some instances, survey data was coded to more than one theme.

### 3 Results and Discussion

Seventy respondents participated in the survey and identified 215 research needs. Some of the more complex responses were allocated to more than one research topic category, increasing the final count to 297. Research needs identified by survey respondents were consistent with all of the revised high priority SEI NARP topics (table 2).

**Table 2: Survey responses relating to research needs**

Research topic category	Total	Percentage
Vulnerability	21	7.1%
Capacity	33	11.0%
Adaptation pathways	41	13.8%
Cognitive, emotional and motivational dimensions of adaptation	25	8.4%
Enablers of sustained adaptation action	46	15.5%
Limits and thresholds	11	3.7%
Distribution of costs and benefits	19	6.4%
Legal reform	14	4.7%
Mainstreaming climate change adaptation	22	7.4%
Financial	22	7.4%
Indigenous	7	2.4%
Non-SEI	20	6.7%
Other	16	5.4%

Research needs allocated to the ‘other’ category included: (i) clarifying roles and responsibilities (1.7%); (ii) monitoring and evaluation (1.4%); and (iii) mitigation (0.7%). Responses allocated to the non-SEI category included protection and resilience of ecosystems (2.7%), and agricultural production (1.3%).

The results of the knowledge needs survey are supported by the findings of the systematic literature review (Elrick-Barr and Smith, 2016). For example, knowledge about the equity dimensions (distribution of costs and benefits) of climate change was identified as a significant knowledge gap in the review. Similarly, the need for research that ‘enables’ climate change action rather than understanding the ‘barriers’ to action was also identified in the systematic literature review (which found that many more papers on ‘barriers’ had been published in comparison to ‘enablers’). In addition, both the systematic literature review and knowledge needs analysis provided the justification to increase the priority of ‘mainstreaming’ and ‘adaptation limits’ from low to high priority.

### 4 Reference

Elrick-Barr, C.E. and Smith, T.F. (2016) Social, Economic and Institutional Dimensions of Climate Change Adaptation: A Systematic Review. Prepared for the National Climate Change Adaptation Research Facility, Gold Coast.

## 5 Appendix: Summary of other quantitative results

### 5.1 Sectors represented

Sector	Respondents	Percentage
State government	10	14.3%
Local government	9	12.9%
Non-government organisation	5	7.14%
Private sector	2	2.9%
Research/university	39	55.7%
Other	2	2.9%
No answered	3	4.3%

n=70

### 5.2 Importance of information sources

Information source	Very unimportant	Unimportant	Neutral	Important	Very important
Journal articles (n=52)	1.9%	7.7%	15.4%	51.9%	23.1%
Written reports (n=51)	2.0%	0.0%	13.7%	54.9%	29.4%
Workshops (n=52)	1.9%	1.9%	3.9%	46.2%	46.2%
Conferences (n=52)	1.9%	1.9%	28.9%	50%	17.3%
Online resources (n=51)	2.0%	0.0%	13.7%	33.3%	51.0%
Face to face training (n=52)	3.9%	0.0%	9.6%	32.7%	53.9%
Community of practice <sup>1</sup> (n=52)	3.9%	0.0%	9.6%	15.4%	65.4%

<sup>1</sup> 5.8% not sure

### 5.3 Access to information sources

Information source	Very difficult	Difficult	Neutral	Easy	Very easy
Journal articles (n=52)	9.6%	36.5%	11.5%	23.1%	19.2%
Written reports (n=51)	3.9%	23.5%	19.6%	45.1%	7.8%
Workshops (n=51)	5.9%	37.3%	37.3%	15.7%	3.9%
Conferences (n=51)	7.8%	33.3%	29.4%	19.6%	9.8%
Online resources (n=51)	0.0%	2.0%	19.6%	43.1%	35.3%
Face to face training <sup>1</sup> (n=50)	10.0%	40.0%	46.0%	10.0%	2.0%
Community of practice <sup>2</sup> (n=50)	11.8%	29.4%	29.4%	17.7%	5.9%

<sup>1</sup> 2.0% not sure

<sup>2</sup> 5.9% not sure

### 5.4 Importance of engagement between researchers and decision makers

Very unimportant	Unimportant	Neutral	Important	Very important	Not sure
1.9%	0.0%	0.0%	15.4%	80.8%	1.9%

n=52

### 5.5 Ease of engagement between researchers and decision makers

Very difficult	Difficult	Neutral	Easy	Very easy	Not sure
17.3%	36.5%	28.9%	11.5%	1.9%	3.9%

n=51