



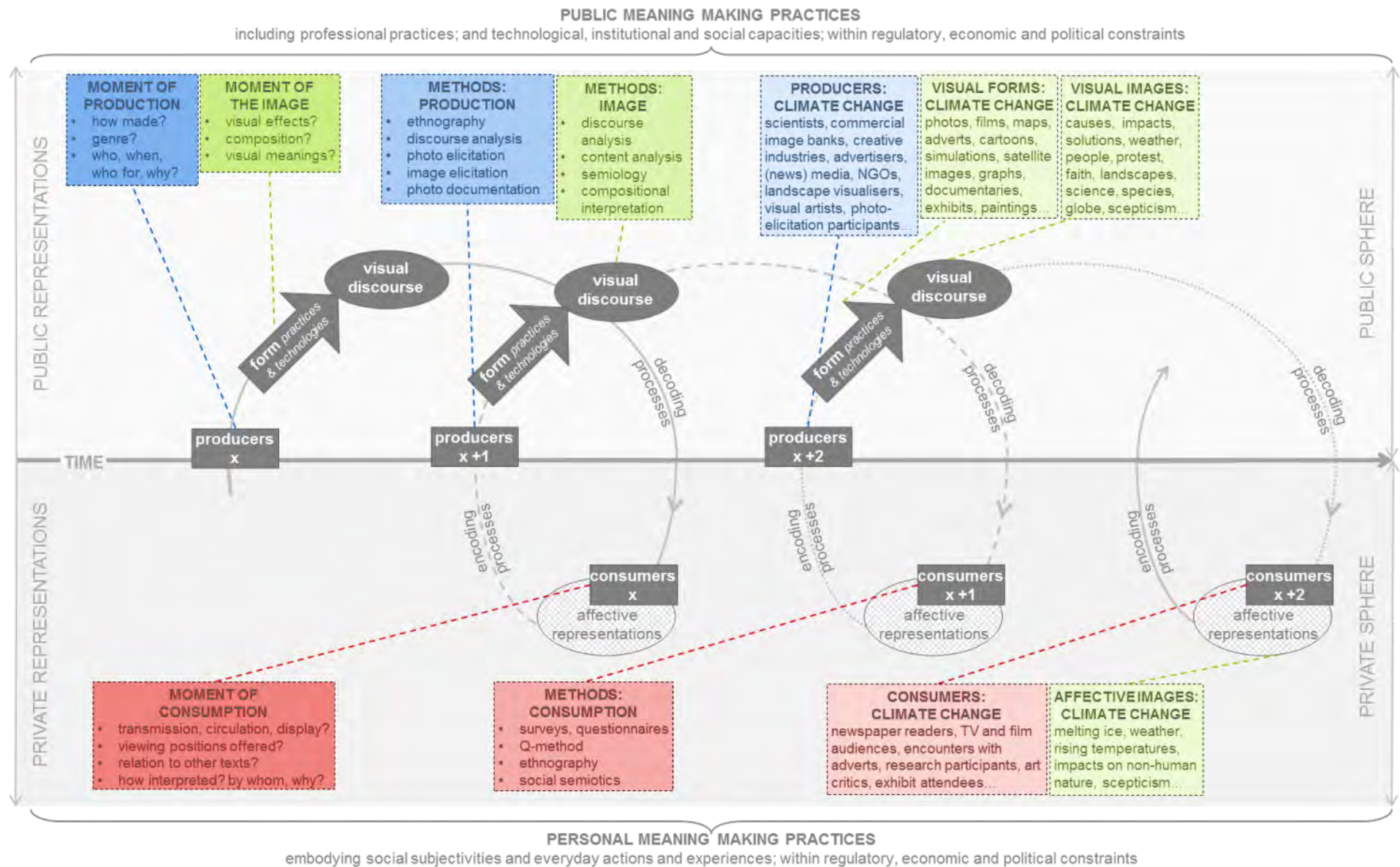
# Place Attachment, Performance and Climate Change Adaptation

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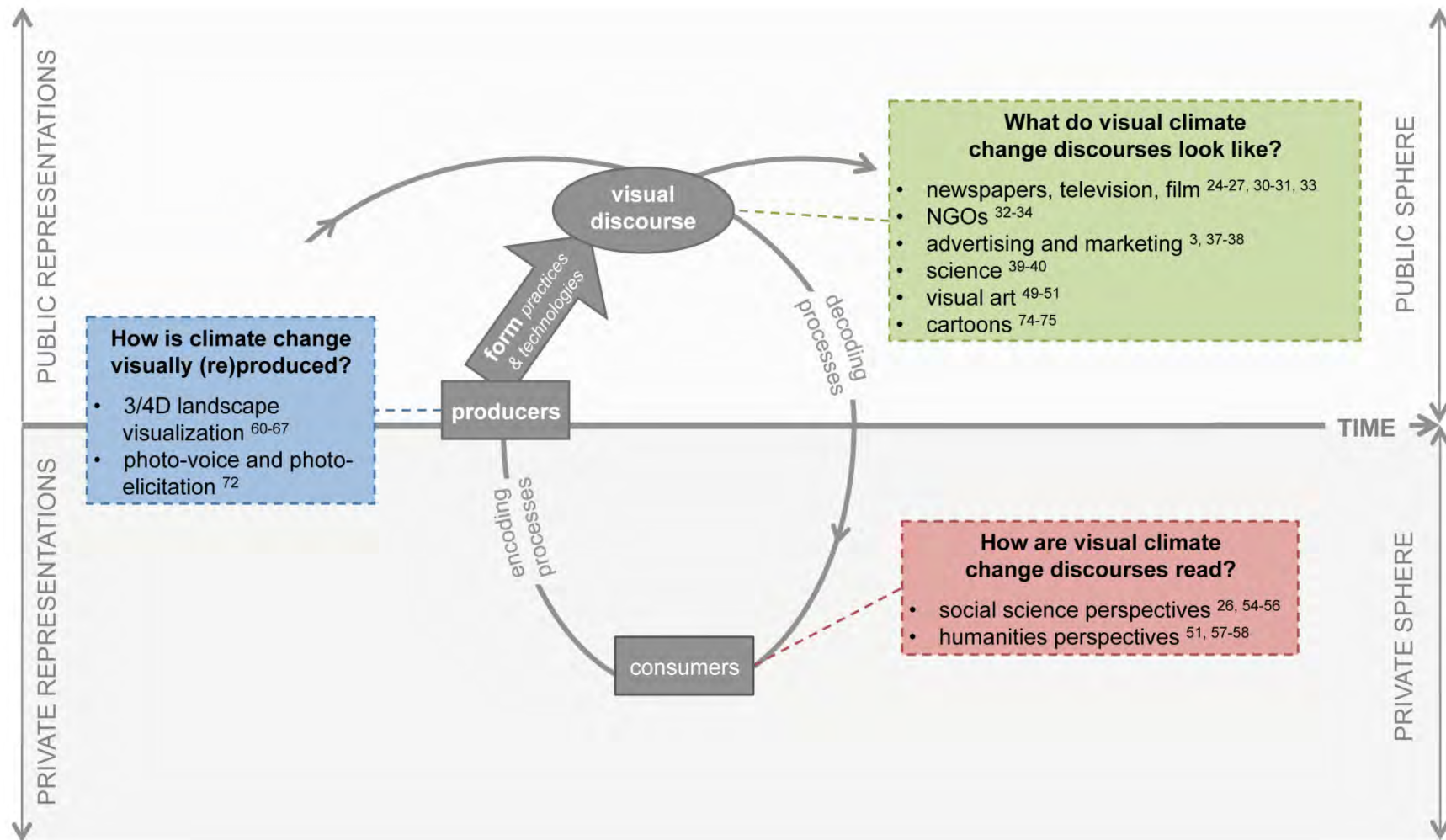
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# Imagery through the communication cycle



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# Individual and social barriers to adaptation

Understanding how people value things at risk is essential if adaptation is to be effective, legitimate and equitable. Yet adaptation decisions often ignore the symbolic, cultural and psychological aspects of settlements and places, and the risks posed to them

(Adger & Barnett 2009; Adger et al. 2011)



Adaptation to sea-level rise in East Gippsland, Australia

# A place-based approach to climate adaptation

- Identifying place-based values helps determine where adaptation limits and barriers might occur (Fresque-Baxter and Armitage, 2012)
- Illuminates symbolic, cultural and psychological aspects of places and the risks posed to them (both by climate change and adaptation decisions) (Adger et al, 2011)
- Highlights fairness and equity dimensions of adaptation (Adger et al, 2011)
- Geographically bound and culturally nuanced: highlights to decision-makers the risks climate change poses to valued entities (Graham et al, 2013).

## Place attachment:

*Positively experienced bonds, sometimes occurring without awareness, that are developed over time from the behavioural, affective and cognitive ties between individuals and/or groups and their socio-physical environment.*

*Brown and Perkins (1992: 284)*

- *the person*
- *the place (over scales of time/space; to physical or social features)*
- *psychological engagement between the two (affect, cognition, behaviour)*

# Photo-elicitation methodology

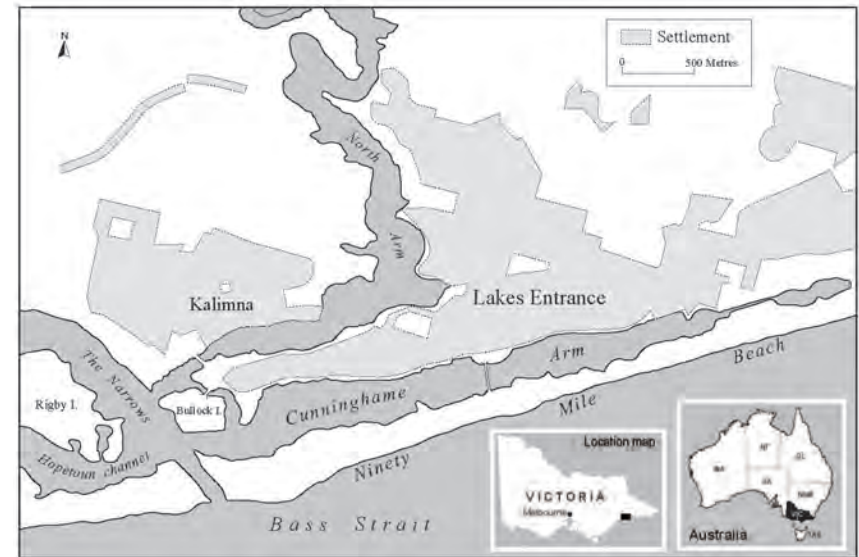
- Call to be more imaginative in the methods used to explore place and identity (Latham, 2002)
- Place attachment as socially constructed (attachment to 'imagined' as much as 'reality'; fluid over time)
- Participants' descriptions of places and their attachments indicate a narrative in the making – the research process is itself is a performance





# Lakes Entrance as an analogue for adaptation to SLR

- Already exposed to severe flooding
- Scepticism about need for adaptation
- Victorian Civil and Administrative Tribunal imposed adaptation decisions: Planning submissions required to incorporate SLR (20 cm by 2040, 80 cm by 2100)
- Conflict between the community and local government; and between local, regional and state government authorities
- Area experiences social-economic disadvantage, has a high proportion of retirees, is remote, and local economy depends on NRM and tourism
- Equity concerns as area acts as adaptation 'test case' for rest of the state



Case study site	Population	(Un)occupied dwellings	Median household income (wkly)	Index of relative socio-economic disadvantage*
Lakes Entrance	5546	2380 (760)	\$588	846-953

# Photo-elicitation methodology



- Participants (n=30) took part in a photo-workshop in Dec 2012
  - briefed on project aims
  - interactive photography workshop
  - Encouraged to think about telling narratives through photos
- Most used own camera (inc. on mobile phones); 3 ptps borrowed a camera
- Camera carried around for a week to capture everyday experiences:
  - *what you value about living here*
  - *how these things may be (or are) impacted by flooding and SLR*

• Images (approx. 20) discussed in an in-depth interview (approx. 30 mins)



# Dimensions of place attachment

- Participants used photographs and interviews to elucidate a deeply-held connection to place and a profound sense of belonging
- Attachment experienced over scale (home to region; over time)
- health and wellbeing benefits: views, wildlife; recreation opportunities
- social attachment to the small country town of Lakes Entrance

*it's just part of the place where I live. I mortgaged everything to get a block that does that, to live on the water. I own it now but at the time it was a big risk to buy it.*



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*There's so many of the people that walk around, walking dogs or exercising and they are all pleasant, there are no muggers, there are no rat-bags. Everybody knows everybody. [...] to show what this actual place is and how wonderful it is that so many people can use it in peace and harmony and get on [...] it hasn't changed, again, for 50 years or 50 plus years.*



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*This is a very special spot for me, this is a family slip yard. I mean, it's beautiful. [...] I just feel like it's home. Like, it's totally in my blood. [...] It means a place that we have built up from the ground, that's still going, that my family have created and are still creating it. It means our connection to the water, obviously, because it is a boat building yard and we are right on the edge of the water.*



# Flooding and SLR pose risks to things people value

- Current levels of flooding already posed risks to valued places
- Risks posed to diversity of people (participants, families, friends, wider community, tourists)
- Risks posed to both physical and social place attachments
- Risks at a range of spatial scales: individual, local, regional scales

*That whole area [Fishermans Landing jetty] went under with our last flood. So the council [...] are going to pull it down, because the wood will be rotting and whatever. But families go there and fish [...] This guy's now selling his [tourist cruise business] boat because he has got nowhere to moor it.*

I: Do you think that's going to impact on the community?

*Well, like I said, I take my grandchildren fishing there [...], the shop openers are down [unhappy] because they are losing money, the holidaymakers go home...*



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*What I specifically liked in this photo [...] I didn't want dead fish and oil slick on the water to make it look like the fishing industry is destroying the environment, it was more the other way round – that the environment could be affecting the fishing industry, if that makes sense, because, as I said, my family has been involved in fishing forever here.*



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*If you look just in that little corner, the tea tree's dead, and this has died, that whole row of tea tree. [...] So that tea tree's disappeared into the lake in the last... well, I've lived there for 25 years but it's really deteriorated in the last 10. (15 yr old photo (inset) superimposed onto a photo taken for the project (main photo))*



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*it's one of our favourite places [...]  
Clive has grown up on the lakes  
and it makes sense that he gets  
married barefoot in the middle of  
the lake system*



*...you know it's not just an ordinary tree. It was  
planted in memory of soldiers that never came  
back from WWI [...] when you think that these are  
representing people, that it's important, yeah,  
and if sea level rises they'll be gone.*

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*...some may well acknowledge, privately, that it is something afoot and there is something going on, but we have got tourists coming and we can't go on about it too much, because this is our business.*

*I ran into someone in the lift in Melbourne yesterday and I said I was from Lakes Entrance and he said, "It's floods there, doesn't it?" [...] That's the perception...*

*I have spoken myself I suppose about flood waters as a child, that it comes and goes, it is no big deal, it's part of the furniture in a sense. [...] Of course, water on the road means lots of different things now, it's the thresh of change ahead, potentially, and it's political, and in this town it's quite a political thing in that the locals would probably just consider this a big puddle and very temporary. It comes, it goes, 'We Are Still Open'.*



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*all the houses for sale along the creek, because they flood. [...] You would be a fool to buy that place in the park.*

*I personally wouldn't buy land in downtown Lakes Entrance because I'm going to be leaving it to my kids and I don't think it's a good investment [laughter]. It's as simple as that. I'd buy something on the hill.*



# Adaptation decisions pose risks to valued places

- Current flood management infrastructure and planning restrictions were perceived to pose risks to valued places
- Future SLR adaptation measures, particularly hard coastal protection, were also perceived to threaten highly valued places
- Most heated comments of all comments occurred when discussing adaptation decision-making (uncertainty; leadership; consultation)



*...the damn thing was never going to work and never will work and they still keep building stuff like this and wasting money and for what? It doesn't work. You wouldn't mind if one out of ten worked but they don't work. This is the futility of the stupidity of the bloody ignorance of some moron in a suit in the city. Quote that!*

*And here are the two pipes that drain the creek water out into the lake [...] 'No comment!' [guffaw] [...] Look at it! It's all choked with sand. Water couldn't flow out anyway even if it... yeah. If it flooded, it's just going to backfill in the lake, and backfill into the creek, and flood all the houses along the creek.*

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*P: Well, I went and I saw the site manager and said to him, you know, why I was taking the photographs and he said to me, "Well," he said, "you know, they have had to build a ramp, and they have had to built it, and it cost \$50,000 more to build that much shop because of the height." [...] And I said to him, "Do you think it's going to stop retailers?" and he said, "It will certainly make them wary of Lakes." [...]*

*I: Okay. Where is this building site?*

*R: This is a new one, just before you get to the footbridge. There's four [units in the building plot], but this is the first one and the others are holding back.*

*I: Okay. Why is that?*

*R: To see what it costs and to see what it's going to look like.*



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*There was an old cabin there that... had been flooded a couple of times over the years, [it] was actually lower than the road level. But now, they battled the council to build a new place and every time they put forwards plans, architect's drawings, the council moved the goalposts. So now they are up to... [...] 2.4 metres above high tide mark. But it gives you an idea of how high the floor level is going to be... It is just totally overkill.*





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*This place, and the one on the corner, have been like this for years because of all the Shire, sort of, and the Government, I don't know who, I think mostly the Shire, waiting to see because they are concerned about the town flooding, what the building regulations are going to be [...] there is just this big, ugly, eyesore right on the corner of the main intersection.*



*These blokes, they were measuring the widths and the depths of the blocks of land when they should have been measuring the bloody tide. [...] it never comes up higher than halfway across that road, in the 30 something years I've been there. [...] Somebody from the city sat there and drew the line up [a particular road], said, "That side can't build. This side I can build." And it's totally incongruous because it's upside down with the sea levels...*

## Study conclusions

### *Photo-elicitation is an effective method to elucidate the performance of place attachment*

- Illuminates the cognitive (e.g. knowledge of landscape) affective (e.g. family's ritual meditative coastal walk) and behavioural (e.g. proximity-maintaining property-buying) dimensions of person-place bonds
- Effective at elucidating place attachment in often intangible but highly valued aspects of everyday life (across scales; and physical and social environments)
- Practical benefits of method:
  - got at taken-for-granted aspects of daily life
  - prompted 'deep and interesting talk'
  - participant engagement in research project
  - participants have power over research process - 'proxy-researchers'



# Study conclusions

## *Place attachment research helps reveal values at risk to aid adaptation decision-making*

- Place attachment can be used to help reveal values at risk (both from the impacts of climate change, but also from adaptation decision-making)
- The three dimensions of place attachment – person, place, and psychological process of engagement – provide a useful framework for understanding nuances in the material and non-material impacts of flooding, SLR and adaptation
- Photo-elicitation process speaks to debates about ensuring greater participation in the development of adaptation policy and plans





Adger W N, Barnett J, 2009, "Four reasons for concern about adaptation to climate change" *Environment and Planning A* 41 2800-2805

Adger W N, Barnett J, Chapin III F S, Ellemor H, 2011, "This must be the place: Under representation of identity and meaning in climate change decision-making" *Global Environmental Politics* 11 1-25.

Brown B, Perkins D, 1992, "Disruptions in place attachment", in *Place Attachment* Eds I Altman, S Low (Plenum, New York) pp 279-304

Fresque-Baxter J A, Armitage D, 2012, "Place identity and climate change adaptation: a synthesis and framework for understanding" *WIREs Climate Change* 3, 251-266

Graham S, Barnett J, Fincher R, Hurlimann A, Mortreux C, Waters E, 2013, "The social values at risk from sea-level rise" *Environmental Impact Assessment Review* 41, 45-52

Latham A, 2002, "Research, performance, and doing human geography: some reflections on the diary-photograph, diary-interview method" *Environment and Planning A* 35 1993 – 2017

O'Neill S, Smith, N, 2013, "Climate change and visual imagery" *WIREs: Climate Change* 5, 73-87

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