4

Key emerging issues: insurance, planning and legal matters relating to the coastal zone

we know we are heading for trouble in terms of more exposure to extreme weather events and we will need to upgrade our building standards. The Insurance Council does meet with us occasionally and their constant request is that we do this. Their argument is that if we do not have higher minimum standards then insurance will become unaffordable for communities because damage will be so frequent and expensive.[1]

At present there is a high degree of uncertainty in relation to current and future climate change liability. If left unaddressed this uncertainty will continue to have a significant impact on decision making processes and information disclosure in relation to climate change hazards.[2]

Introduction

4.1 Chapter 4 looks at some key emerging issues relevant to the coastal zone relating to insurance, planning and legal matters. These issues were frequently raised by inquiry participants over the course of the inquiry, particularly in the context of projected climate change impacts on the coastal zone.

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1 Mr Smith, NSW Department of Environment and Climate Change, *Transcript of Evidence*, 25 March 2009, p. 9.

2 Sydney Coastal Councils Group, *Submission 77*, p. 3.

Climate change and coastal insurance issues

4.2 The insurance industry helps manage society's risk from weather related damages. In Australia, '19 of the 20 largest property insurance losses since 1967 have been weather related'. Insured losses from these events are 'expected to total billions of dollars':

> Between 1967 and 1999, bushfires cost the Australian economy around $2.5 billion. From 1960 to 2001, there were 224 fire-related deaths and 4505 injuries.
>
> The 1999 Sydney hailstorm resulted in $1.7 billion in insured losses, 1 death and 500 injuries. 500 people were made homeless, and 24,000 homes and 70,000 motor vehicles were damaged.[3]

4.3 It is in this context that general insurance products provide essential risk cover for Australians:

> The industry provides a financial recovery mechanism from weather related catastrophes by evaluating, pricing and spreading the risk of such events, and then paying claims when they arise.[4]

4.4 Climate change is projected to have a major impact on the frequency of extreme weather events, with the coastal zone being particularly vulnerable in this regard because of the combined effects of sea level rise and storm surge/flooding events. In its submission to the inquiry, the peak body for the insurance industry, the Insurance Council of Australia (ICA),[5] noted that:

> more than 425,000 Australian addresses are below 4 metres above mean sea level and within 3km of the current shoreline. Within the Greater Sydney region (Newcastle to Wollongong), 46,000 addresses are identified as being within 1km of the shoreline and with elevations less than 3m.[6]

4.5 The ICA further observed that the majority of these vulnerable addresses are located near ocean-connected coastal waters—that is, alongside lakes,

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3 Department of Climate Change (DCC) fact sheet, 'Climate change: potential impacts and costs', DCC website accessed 28 September 2009 <http://www.climatechange.gov.au/impacts/publications/pubs/fs-national.pdf>

4 Insurance Council of Australia (ICA), 'Improving community resilience to extreme weather events', April 2008, p. 4—attachment to ICA, *Submission 12*.

5 The ICA is the representative body of the general insurance industry in Australia. The ICA notes that its members represent 'more than 90 percent of total premium income written by private sector general insurers', *Submission 12*, p. 1.

6 ICA, *Submission 12*, p. 1.

river banks and estuaries—and that properties in coastal settlements which are also on inland floodplains 'can be liable to both river and ocean inundation, often concurrently'.[7]

4.6 Climate change could have adverse impacts on insurance affordability and availability, compounding the problem of under-insurance:

> Around 23 per cent of Australian households (1.8 million) are currently without building or contents insurance. As insurance premiums rise, more households may opt out of insuring, putting an added burden on governments and communities when disasters occur.[8]

4.7 A number of submissions to the inquiry noted concerns about insurance coverage for coastal areas: 'I think inevitably we are going to see major changes in the extent to which the insurance industry is prepared to cover these properties in the future'.[9] In particular, the Queensland Government commented that:

> There are growing concerns that the scope of insurance coverage is being reduced in some coastal areas of Australia because of climate change, particularly the increased threat of sea inundation and riverine flooding. There are already examples from Britain and the United States where insurance had been withdrawn or not been renewed in areas deemed prone to climate change impacts. If insurers come to the conclusion that some areas are not insurable then these communities will have a greater reliance on government relief, ultimately placing an additional burden on government and tax payers.[10]

4.8 Against this background, the Committee was particularly interested in identifying any emerging gaps in insurance coverage for the coastal zone[11]

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7 ICA, *Submission 12*, p. 1.

8 DCC, 'Climate change—potential impacts and costs: fact sheet', p. 2; DCC website accessed 7 August 2009 <http://www.climatechange.gov.au/impacts/publications/pubs/fs-national.pdf>

9 Mr Stokes, National Sea Change Taskforce, *Transcript of Evidence*, 26 March 2009, p. 12.

10 Queensland Government, *Submission 91*, p. 13.

11 A further complication here is that, if a person cannot get insurance for their property, they may not be successful in an application for a bank loan for that property. As Mr Sullivan, from the ICA, commented, '[l]ending practices in Australia do require generally a person seeking to borrow money to purchase insurance to cover the lender's interest in that property or that asset ... If the person cannot get insurance for the risk that the lender requires then the lending will probably not occur', *Transcript of Evidence*, 4 June 2009, p. 5.

and what action might be taken by the Australian Government and the insurance industry to address this matter.

Gaps in insurance coverage for the coastal zone

4.9 The ICA confirmed that there are 'presently no red flagged areas for insurance in a geographic sense that [they] are aware of'.[12] No regions in Australia are therefore currently 'completely red-flagged'—in the sense that no insurance products are available:

> insurers do adjust their risk profiles according to the history of loss in a region. If there is a high level of loss in a region, they would start to increase the cost of offsetting that risk. Some insurers may actually adjust their presence in a region, and by that I mean actually ceasing to write new policy in a region. That has happened around the world. An insurer might decide that they have had enough policy exposure in that region and are now going to focus on another market.
>
> Are we seeing that in Australia? While there are micro adjustments all the time for insurers prudentially spreading their risk right across the nation, we are not seeing any huge trend at the moment where we might start to see areas that are red flagged, unable to get insurance or anything of that nature. There is still a good level of competition in the market ...
>
> I think you will find that insurance will remain available in all areas.[13]

4.10 However, the ICA further clarified that, even though 'no areas are completely red-flagged', there are some things 'that you cannot insure for presently in Australia'.[14] Risks identified by ICA as not generally covered by insurance or as 'presently difficult to insure against' include 'Storm Surge, Landslip and Sea Level Rise'.[15]

4.11 In terms of storm surge, Mr Sullivan from the ICA commented that:

> There are some insurers who will look at what are more commonly called saltwater risks. That could be a king tide on top of a storm surge on top of a coastal inundation problem. So I think the trend is there—the market is starting to look at those risks—

12 ICA, *Submission 12a*, p. 1.

13 Mr Sullivan, ICA, *Transcript of Evidence*, 4 June 2009, p. 3.

14 Mr Sullivan, ICA, *Transcript of Evidence*, 4 June 2009, p. 3.

15 ICA, *Submission 12a*, p. 1.

> but presently, no, you cannot get cover for that in any significant or competitive way.[16]

4.12 In terms of landslip, the Committee drew Mr Sullivan's attention to some images of coastal erosion affecting properties at North Entrance on the Central Coast, NSW,[17] and queried whether coastal erosion of this sort is categorised as landslip and therefore not covered under insurance policies. Mr Sullivan responded as follows:

> Presently not covered—that would be a landslip issue or a coastal erosion issue. You can see that with the level of exposure in Australia or the number of properties in that kind of predicament, that would be a very difficult product to develop, price and find a market for. So the person would still be able to get insurance for the house burning down, a burglary, storm damage and that sort of thing, but, in general, you would not be able to find a policy to cover you for a landslip issue like that. I would not envisage that changing into the future.[18]

Example of coastal dune erosion, North Entrance, Central Coast, NSW—see Submission 5

16 Mr Sullivan, ICA, *Transcript of Evidence*, 4 June 2009, p. 4.
17 Mr Craig Thomson MP, *Submission 5a*, pp. 2-3.
18 Mr Sullivan, ICA, *Transcript of Evidence*, 4 June 2009, pp. 8-9.

4.13 In terms of sea level rise, Mr Sullivan commented that:

> You simply cannot get an insurance product at the moment for gradual sea level rise that at a future time prevents you using a parcel of land because it has become untenable ... globally that is not covered anywhere at the moment. Our most recent study shows there are 896,000 residential properties below six metres and within 3,000 metres of existing coastline, so that is a significant exposure that is out there.[19]

4.14 The Committee understands that a further complication here is that the definitions of these risks 'vary between insurers'.[20] However, in this context, it is important to note that 'there are no common definitions adopted within the general insurance industry on risk'.[21]

4.15 The ICA provided some examples of general exclusions in various policies relating to saltwater risks or action of the sea. Examples included:

> *We will not pay for damage caused by erosion or subsidence – Caused by or as a result of erosion, vibration, subsidence, landslip, landslide, mudslide, collapse, shrinkage or any other earth movement*
>
> and
>
> *We will not pay for damage caused by actions or movements of the sea*
>
> and
>
> *We will not pay for Loss, damage, injury or death arising from:*
>
> - *Actions of the sea, high water or tidal wave – unless the loss or damage is the result of a tsunami*
> - *subsidence or landslide unless it happens immediately as a result of an earthquake or explosion*
> - *hydrostatic pressure including loss or damage to swimming pools or similar structures.*
>
> and

19 Mr Sullivan, ICA, *Transcript of Evidence*, 4 June 2009, p. 4.

20 ICA, *Submission 12a*, p. 1. ICA further noted that insurers 'licensed to operate in Australia are required by ASIC regulation ... to provide product disclosure information to customers as a condition of their license', *Submission 12b*, p. 1.

21 ICA, Submission 12b, p. 1. ICA further noted that this position 'was reinforced in 2008 when the Australian Competition & Consumer Commission (ACCC) ruled against the industry's application for use of a common definition for flooding, the ACCC noting that it was "*not likely to result in a public benefit that would outweigh the detriment to the public constituted by any lessening of competition arising from the arrangements*". Definitions in insurance policies across the industry are only similar to the extent that they rely upon common plain language terms', *Submission 12b*, p. 1.

We will not pay for damage caused by:

- *the seas or tidal wave;*
- *river flood; 'river flood' means when water that is normally contained in a water catchment system increases because of rainfall or snow melt (whether in the immediate region or elsewhere) or is deliberately released by an authority, and the water overflows onto land that is not normally covered by water into your home.*
- *erosion or earth movement ... 'earth movement' means heavage, landslide, land-slippage, mudslide, settling, shrinkage or subsidence ... 'erosion' means being worn or washed away by water, ice or wind.*[22]

4.16 The ICA further noted that:

> The majority of policies use planning language terms such as damage or loss caused by any actions or movements of the sea. Some insurers go further in defining damage from the sea that arises from sea level rise from storm or cyclone events.
>
> Geotechnical issues may be variously defined by some insurers using plain terms such as damage or loss caused by erosion, landslide, collapse, vibration, settling, expansion, shrinkage or any earth movement (generally other than earthquake, which is often defined as a separate event).
>
> The Insurance Council does not hold precise statistics regarding the prevalence or otherwise of exclusions on these matters. However, a scan of publicly available Product Disclosure Statements indicates that cover for damage or loss caused by action or movement of the sea is available in the Australian market, with some restrictions on the types of damage that will be covered as a result of the event. The majority of policies exclude, or have pre-defined limits on the extent of cover, for damage or loss caused by geotechnical matters which are defined using various plain language terms.[23]

4.17 Clearly, where land is inundated or eroded by rising sea levels, coastal landowners and lenders in the banking and finance sector could face significant losses:

> Preliminary estimates of the value of property in Australia exposed to this risk range from $50 billion to $150 billion. The figure depends upon the extent of sea level rise assumed (in the

22 ICA, *Submission 12a*, p. 1.

23 ICA, *Submission 12b*, pp. 1-2.

> order of 1 metre to 3 metres) and the effectiveness or otherwise of potential mitigation measures. Even if paid for over 50 years this amounts to a cost to replace those assets of some $1 billion to $3 billion per annum in real terms.[24]

4.18 Given the estimated scale of economic exposure here, the Committee emphasises that insurance coverage of storm surge, landslip and sea level rise events is therefore a significant emerging issue that needs to be examined further. As one individual informed the Committee, with regard to insurance coverage when their home had to be demolished because of coastal erosion:

> Nil coverage. See clause 34: anything from the sea, nothing at all ... No help with demolition.[25]

Insurance industry recommendations to government

4.19 At a broader level, the ICA outlined a number of 'key actions' for governments to improve community resilience to extreme weather events—see Figure 4.1. While many of these key actions are relevant to all regions of Australia, they are particularly relevant to coastal communities, given the high exposure of the coastal zone to climate change risk.

4.20 In its submission to the inquiry, the Insurance Australia Group (IAG)[26] noted that 'Australia faces an "insurance gap" because land values are not currently insured'.[27] Land value forms a significant component of a property's overall value in coastal locations. However, whereas 'the value of coastal buildings may be protected to some extent by insurance, the land value of properties is not insured at all'.[28]

24 Insurance Australia Group, *Submission 19*, p. 2.

25 Mr Keys, *Transcript of Evidence*, 26 March 2009, p. 64.

26 IAG is the 'leading general insurance group in Australia and New Zealand', *Submission 19*, p. 1.

27 IAG, *Submission 19*, p. 4.

28 IAG, *Submission 19*, p. 2.

Figure 4.1 Key actions for government, proposed by the ICA

Community understanding of weather related risks

Develop a concise public education campaign through an appropriate authority regarding specific climate change impacts and changes to extreme weather events for communities on a regional basis.

Implement mandatory risk information disclosure and acceptance requirements as part of all State based property transfer regulations for all extant and predicted risks to a property.

Risk appropriate land use planning and zoning

Implement risk appropriate land use planning legislation harmonised across all states to prevent inappropriate development on land subject to inundation, specifically:

- No residential or commercial development should occur on land currently subject to or predicted to become subject to a 1 in 50yr return period of riverine flooding unless mitigation works have been carried out to maintain a 1 in 100yr risk exposure limit.
- No residential or commercial development should occur on land currently subject to or predicted to become subject to a 1 in 50yr return period for storm surge unless mitigation works have been carried out to maintain a 1 in 100yr risk exposure limit.

Implement a southerly expansion of cyclone and wind storm related building codes to counter the predicted southerly exposure of severe cyclones.

Implement legislation harmonised across all states requiring mandatory disclosure of all known & predicted risk data by state & local governments to property purchasers during property conveyance and title search processes.

Risk appropriate mitigation measures

Review current funding and approval mechanisms for Disaster Mitigation works, with a view to expansion of the fund to allow for more rapid implementation of mitigation works in high priority areas.

Expansion of the current National Disaster Mitigation Program to include upgrades and repairs to critical stormwater and drainage systems.

Risk appropriate property protection standards

Expand the Building Code of Australia to incorporate property protection as a fundamental basis for consideration in building design and construction.

Community emergency and recovery planning

Continuous best practice review and capability development by Australian emergency response & recovery agencies, as the nature of extreme weather changes and new emergency response and recovery needs emerge.

Source ICA, 'Improving community resilience to extreme weather events' (April 2008), pp. 7-18—see attachment to ICA, Submission 12

4.21 IAG recommended that the Australian Government consider the development of a coastal land value insurance scheme to manage risks in this area. This would involve establishing an insurance fund into which owners of low-lying coastal land would 'pay a regular levy so as to provide compensation when rising sea levels cause their land to become permanently unusable':

> Such a scheme could be operated by government alone, or in conjunction with the private sector. IAG considers that, for several reasons, it is unlikely to be feasible for the private insurance sector alone to operate such a scheme. Most importantly, the globally synchronized nature of the risk of rising sea levels eliminates the scope for geographic diversification of risk on which insurers and global reinsurers normally rely.
>
> An appropriately designed scheme of this nature would introduce a 'user pays' price signal to owners of vulnerable waterfront land that they should be responsible for funding the cost of potential compensation payable to them should that land become unusable rather than expecting future compensation to come from some other source.[29]

Conclusion

4.22 The Committee understands that a changing, less predictable climate has the potential to reduce insurers' capacity to assess, price and spread weather-related risk, particularly in the coastal zone, and have adverse impacts on insurance affordability and availability. The Committee also appreciates that appropriate action needs to be taken by government and the insurance industry to improve community resilience to extreme weather events.

4.23 For example, the IAG pointed to the 'crucial role of government in providing a comprehensive and clearly defined regulatory framework that promotes community resilience to risk and facilitates more affordable premiums and more predictable claims costs'.[30]

4.24 As discussed, the Australian Government is providing leadership in this area through the National Climate Change Adaptation Framework, which is in the early stages of implementation.

4.25 That said, however, the Committee is not aware of any specific work having been undertaken or currently being undertaken by the Australian Government relating to insurance coverage in the coastal zone.

4.26 The Committee notes the importance of the insurance industry in managing society's risks from weather related damages and therefore the increasing significance of this sector, given the projected impacts of climate change. The Committee also notes the significant exposure of

29 IAG, *Submission 19*, p. 6.

30 IAG, *Submission 19*, p. 23.

coastal regions to climate change risks such as storm surge, landslip and sea level rise.

4.27 Given the complex nature of this issue and the potentially significant social and economic costs involved, the Committee believes further investigation of this important matter is urgently required.

4.28 As the ICA emphasised, 'the significant implications for the Australian economy that flow from this hazard require serious consideration and treatment.'[31]

Recommendation 19

4.29 **The Committee recommends that the Australian Government request the Productivity Commission to undertake an inquiry into the projected impacts of climate change and related insurance matters, with a particular focus on:**

- **insurance coverage of coastal properties, given the concentration of Australia's population and infrastructure along the coast**
- **estimates of the value of properties potentially exposed to this risk**
- **insurance affordability, availability and uptake**
- **existing and emerging gaps in insurance coverage, with a particular focus on coverage of coastal risks such as storm surge/inundation, landslip/erosion and sea level rise (including the combined effects of sea inundation and riverine flooding)**
- **the need for a clear definition of the circumstances under which an insurance claim is payable due to storm surge/inundation, landslip/erosion and sea level rise, as well as due to permanent submersion of some or all of the land**
- **the possibility of a government instrument that prohibits continued occupation of the land or future building development on the property due to sea hazard**

31 ICA, *Submission 12*, p. 1.

- **gaps in the information needed to properly assess insurance risk and availability of nationally consistent data on climate change risks**
- **examining the key actions for governments proposed by the Insurance Council of Australia and the Insurance Australia Group in their submissions to this inquiry**
- **possible responses to a withdrawal of insurance for certain risks or regions, noting the increased burden this could place on government and taxpayers**

Climate change and coastal planning issues

4.30 Land use planning is a complex area that touches on a broad range of issues relating to the environment and ecologically sustainable development, governance and institutional arrangements and, more recently, climate change impacts.

4.31 Over the course of the inquiry, the Committee observed substantial changes in the updating of state and local planning schemes to include specific provisions for climate change impacts and adaptation strategies. For example, in a 2008 study, the Australian Network of Environmental Defender's Offices (ANEDO) identified that 'only 7 pieces of Commonwealth and NSW legislation mention climate change'.[32] Similarly, in its June 2008 submission, the National Sea Change Taskforce (NSCT) commented that:

> While climate change is increasingly recognised by Commonwealth and State governments in Australia as a critical issue for coastal communities, few local planning schemes include specific provisions for climate change adaptation.[33]

4.32 As Dr Church, from the Commonwealth Scientific and Industrial Research Organisation (CSIRO), commented to the Committee:

> Much of our previous planning has been done in a stable climate where sea level and other properties have not been changing. We

32 ANEDO, *Submission 73*, p. 15.

33 NSCT, *Submission 79*, p. 23.

> are no longer in that situation, and different planning views need to be taken.[34]

4.33 Legal imperatives, as discussed below, are also ensuring that planning schemes across Australia are gradually being revised to take into account projected climate change impacts.

4.34 Of particular interest here is the extent to which coastal planning schemes promote decisions that increase resilience to the impacts of climate change and discourage decisions that increase vulnerability. As a number of submissions to the inquiry emphasised:

> There is pressing need to reconsider how we plan for coastal development, the criteria we apply to approve or reject development applications and the building regulations imposed for new structures to safeguard against risks of sea effects on coastal assets. These revisions will not be simple recasting of existing instruments but will need to be dynamic in nature to take into account the fact that the points of reference for planning (e.g., height above sea level, frequency of extreme sea levels) are now constantly changing and will continue to change for the foreseeable future. It is likely that appropriate guidelines, approval criteria and building regulations will necessarily be more complex than the existing, familiar, standards.[35]

State coastal planning policies

4.35 A key point to emphasise at this point is that planning is a state responsibility. The Australian Government 'provides significant financial assistance to local government but does not have jurisdiction over local government operational decisions, including their planning decisions.'[36]

4.36 Some inquiry participants called for the Australian Government to provide national leadership and consistency in this area:

> While land-use planning is a responsibility of the States and Territories, NSW considers a more collaborative and supportive relationship across all levels of government could assist in delivering targeted and economically appropriate regional

34 Dr Church, CSIRO, *Transcript of Evidence*, 28 January 2009, p. 3.

35 ACE CRC, *Submission 46*, p. 4.

36 Department of Infrastructure, Transport, Regional Development and Local Government, *Submission 94*, p. 1.

> responses to the impacts of climate change on Australia's coastal communities.[37]
>
> a nationally coordinated program [is required] to encourage states and territories to undertake a systematic review of all environmental planning instruments and legislation to ensure that adequate and nationally consistent approaches to consideration of climate change through development assessment.[38]
>
> LGAT recommends a nationally consistent approach to planning policy and management, including set back provisions in coastal areas.[39]

4.37 However, as Mr Beresford-Wylie, Chief Executive of the Australian Local Government Association (ALGA), emphasised, national leadership and consistency on this issue:

> does not necessarily mean the Australian government coming down with a model that is imposed ... National consistency can be read not so much as saying that the Australian government should be engaged but as saying that there should be a greater degree of consistency between the jurisdictions in how they deal with the issues facing councils and the planning on the coastal zones.[40]

4.38 Inquiry participants raised a number of concerns about state coastal planning policy and its treatment of climate change—in particular, that in some cases 'planning legislation and the policy framework had not kept up to date with current issues and information on climate change'[41] and that there are variations between state governments in terms of the levels of guidance provided to local government about how to deal with coastal planning issues and projected climate change impacts:

> One of the things that we do find in local government—which is perhaps a little bit unfortunate—is that in the absence of consistent guidance from states about how to deal with coastal planning issues, particularly climate change, well-resourced councils will go off and do their own thing. They will try and fill the gap in and they will do the best they can by their communities and their environment. That does lead to criticism by those who have an interest—in, for instance, development on the coast—that there is

37 NSW Government, *Submission 55*, p. 2.

38 Sydney Coastal Councils Group, *Submission 77*, p. 12.

39 Local Government Association Tasmania, *Submission* 86, p. 10.

40 Mr Beresford-Wylie, ALGA, *Transcript of Evidence*, 16 October 2009, pp. 3-4.

41 Planning Institute of Australia, *Submission 51*, p. 10.

> no consistency between councils in the way these things are done.[42]

4.39 The Planning Institute of Australia (PIA) had a particular interest in this area and highlighted its concerns that:

- Planners will be faced with increasingly difficult land use and development scenarios reflecting population and settlement trends which will need to be managed within the context of climate change issues to reduce vulnerability [of] coastal communities and individuals and the environment
- Planners will be under pressure to manage coastal and hinterland areas in new ways in the future which may impact on the way that the community has traditionally used such spaces/places
- PIA and planners generally will be key agents for awareness raising and capacity building in the community generally and within this peak profession[43]

State sea level rise planning benchmarks and risk management framework

4.40 The rate of projected rise in sea level is critical for estimating the severity of potential impacts, and several state governments have recently established sea level rise benchmarks in their coastal planning policies, to serve as guidance in this area—see Figure 4.2.

4.41 Several inquiry participants called on the Australian Government to provide a national benchmark for sea level rise:

> there is an emerging need for an agreed sea level rise benchmark figure for planning purposes in Australia ... State and local governments would benefit from guidance as to what range of sea level rise would be considered most appropriate for planning purposes. Without such guidance, there will be inconsistency across jurisdictions in the application of sea level rise projections. The Queensland Government is therefore seeking the development of a set of nationally consistent default climate change scenarios for use in planning, particularly for sea level rise.[44]

42 Mr Beresford-Wylie, ALGA, *Transcript of Evidence*, 16 October 2009, p. 4.

43 PIA, *Submission 51*, p. 2.

44 Queensland Government, *Submission 91*, p. 9.

> Coastal communities may benefit from nationally consistent parameters for key indicators, including ... sea level rise (coastal inundation), where regional idiosyncrasies do not militate against such an approach.[45]

> I was somewhat surprised, as a lot of other people were, to find the differences between projected sea level rises in different states all around Australia ... It goes to the heart of why there is a need for some collaborative national approach to address an issue as fundamental as the projected sea level rise by, say, the year 2100 ... I think that clearly demonstrates the need for greater cooperation and coordination between the jurisdictions, the states and territories, but also in a process which is initiated by the Commonwealth. I do not see that any other jurisdiction is in a position to be able to initiate that process.[46]

> There are a range of opportunities for action where the Federal Government could assist states/territories [including] adopting a consistent sea level rise scenario across jurisdictions.[47]

> The reason that I was proposing that there be some national consistency in respect of agreement around what level of sea level rise needs to be planned for—for example, New South Wales is saying 0.9 metres by 2100, Victoria is suggesting 0.8 metres, Queensland is still considering its position and so on—is that it is much easier for everyone to communicate the risk if everyone is obliged to communicate it and they are communicating the same level of risk.[48]

> Another good area that we perceive could be dealt with on a national basis is, of course, what sea level scenarios and other climate change related scenarios we adopt for the coast. States are certainly going it alone at the moment. Some have been doing it for quite some time. Others are still getting on board. Some do not have any guidelines in their state planning policies at all. All of the numbers are different, well beyond what you would expect for regional variations across the country.[49]

45 NSW Government, *Submission 55*, p. 4.

46 Mr Stokes, NSCT, *Transcript of Evidence*, 26 March 2009, p. 4.

47 Victorian Government, *Submission 90*, p. 6.

48 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 104-105.

49 Dr Townsend, Engineers Australia, *Transcript of Evidence*, 12 March 2009, p. 4.

Figure 4.2 Sea level rise benchmarks in state coastal planning policies

South Australia

The Coast Protection Board (2002) has adopted the median sea level predictions of the IPCC as part of its coastal planning policy—0.3m sea level rise by 2050, and 1 metre sea level rise by 2100. For major developments, the full range of possible climate change impacts should be considered.

Tasmania

Tasmania has developed an approach based on a 1% annual exceedance probability; that is the probability of a high sea-level event having a 1% chance of occurring once or more in any one year (2008). To determine exceedance probabilities Tasmania coastline is classified into a number of 'tidal zones' and sea level rise projections are based on the IPCC's upper emissions scenarios (A1FI). For any given height of a location, the risk of a high sea level event flooding that point can be determined and the risk over time (up to 2100) can also be identified.

Queensland

The State Coastal Management Plan (2002) identifies climate change adaptation principles that should be referenced in coastal planning. In assessing coastal erosion prone areas, a 0.3m rise in sea level over a 50 year planning period should be adopted (2005).[50]

Western Australia

The State Coastal Planning Policy (2006) suggests that coastal planning strategies should take into account coastal processes and sea level change. The Policy provides for a benchmark of 0.38m when assessing the potential for erosion on sandy shores.

Victoria

The Victorian Coastal Strategy (2008) provides a policy of planning for sea level rise of not less than 0.8m by 2100.

New South Wales

The draft Sea Level Rise Policy Statement (2009) indicates a sea level rise benchmark of 0.4m by 2050 and 0.9m by 2100, should be adopted in coastal planning.

Source DCC, Climate Change Adaptation Actions for Local Government, Report by SMEC Australia, 2009, p. 57

4.42 Dr John Hunter, from ACE CRC, suggested that a national framework for planning for sea level rise might be more useful than a national benchmark:

50 At the time of report drafting, the Queensland Government released its draft Queensland Coastal Plan, which provides for a benchmark of 0.3m by 2050 and 0.8m by 2100—see Queensland Department of Environment and Resource Management website accessed 9 August 2009 <http://www.derm.qld.gov.au/coastalplan/index.html>

> we need to coordinate the ways in which we go about planning and policy making around Australia. It does not mean that we pick the same numbers but that we have the same framework by which we choose those numbers so that the developers would actually know what they are going to do when they go to a different part of Australia and there is just one uniform way of doing these things.[51]

4.43 Dr Andrew Ash, Director of the CSIRO Climate Adaptation Flagship, similarly commented that 'we get fixated on picking a number. We should really be taking a risk management approach rather than saying that that is the number and that we plan to that number'.[52] Professor Woodroffe also noted that '[n]o single value is likely to apply across the nation, but a framework is needed within which such an issue is considered'.[53]

4.44 The Committee agrees that it is crucial that the Australian Government provide national leadership in this area to resolve these issues relating to the establishment of a sea level rise benchmark and planning framework.

4.45 Dr John Church, from CSIRO, made the important point that sea level rise planning benchmarks need to be part of a risk management framework:

> Like all other aspects of managing our economy and our environment, to combine these different issues, particularly the extreme events such as the storm surges and the cyclones, with the sea level rise is a risk management issue and needs to be put in a risk management framework ...
>
> sea level rise will not stop in 2100. This is a time-evolving issue, and that requires us to change our thinking rather than specify a single number ... If you are building a changing shed, which has got a lifetime of 10 years, then you do not need to plan for 2100 when you are building that; but if you are building a city, which is going to have a much longer lifetime, then that number might be too low ... It is the different lifetimes of different infrastructure and the different risks associated with different infrastructure that I think we need to be a little more sophisticated about.[54]

4.46 Dr Hunter similarly observed that:

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51 Dr Hunter, ACE CRC, *Transcript of Evidence*, 28 January 2009, p. 14.

52 Dr Ash, CSIRO, *Transcript of Evidence*, 28 April 2009, p. 4.

53 Professor Woodroffe, *Submission 24*, p. 3.

54 Dr Church, CSIRO, *Transcript of Evidence*, 28 January 2009, p. 7, p. 13.

> One problem we have is that planners tend to come to us and say, 'How much do we need to allow for sea level rise?' The retort I always give is, 'What kind of risks do you want to take?' I think this is a very important change in process that we need: to put the onus of the risk back onto the planners and the policymakers, not leave it to the scientists. What we can tell you is that if you build something at a certain height, when we take all the uncertainties into account this then is the probability that you will be flooded during the life of the asset that you have built ... We cannot make the decision about what risks you want to take. We can make the decision about what the probability of something happening is ...
>
> we really have to move into a risk assessment framework ... where we talk more about probabilities and the risks that we are prepared to take ...
>
> It is a matter of deciding what the risk is that you want to take and then deciding on a number, rather than just picking one number.[55]

4.47 A risk management approach takes the IPCC sea level rise projections as a starting point and integrates these with information on local sea level history. As Professor Steffen commented:

> I am generally very conservative on using projections. I would rather take an approach in terms of assessing vulnerability and planning adaptation. That is often referred to as a bottom-up approach. In other words, put the emphasis on the local region: what is its adaptive capacity; where are its vulnerabilities now; does it have a very low-lying shallowly angled coastline that is prone to inundation now, or does it have more rocky headlands and so on? You have got to sort that out first ...
>
> I would prefer to see the government give probability ranges rather than best guesses ...
>
> That is the sort of information I would like to give. What I would not like to give is: here is a median scenario—it came out of the black box of climate modelling—use this ... Most people are used to dealing with economic data that way because you cannot predict how an economy is going to go. The same is true with climate change. There are large uncertainties there.[56]

55 Dr Hunter, ACE CRC, *Transcript of Evidence*, 28 January 2009, p. 4, p. 8, p. 13.

56 Professor Steffen, *Transcript of Evidence*, 23 October 2008, pp. 4-5.

4.48 Coastal planning guidelines have traditionally been based on a notion of static sea level both now and into the future, and that prior experience of extreme sea levels is therefore a good indicator of future risk. Planning and development guidelines for most coastal regions generally refer to expected return periods for 'unusual' sea level extremes—that is, the 1 in 100 year event.[57] However, as part of a climate altered future, high sea level extremes will become more frequent. Accordingly, even a modest rise in sea level would mean that events that happen only once a year now will happen every day by 2100, and 100-year events would happen annually:

> if you have a flooding event which only happens every year at the moment, by the end of the century it will be happening about every day ... if we design things on the shoreline which we think are only going to get flooded once every 100 years, with a sea level rise of half a metre these events will be happening every few months ...
>
> We tend to work to the 100-year return period, which is that you design things so that there is only going to be an event once every 100 years on average.
>
> When you build in the uncertainty of the sea level rise estimates ... the statistics of just assuming things are going to come along at a regular rate just falls down. Instead of working in terms of how often you think things are going to happen, you have to ask the question: what is the probability of something happening during a certain time period? So you have to change the way in which most of these planning regulations are phrased.[58]

4.49 The Committee notes the serious implications of these more frequent flooding projections for coastal planning and the need for urgent action to amend coastal planning and development policies.

4.50 The Department of Climate Change has funded ACE CRC to develop an interactive web-based tool to enable planners, engineers and policymakers to incorporate IPCC projections of sea level rise into local scale planning

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57 This is sometimes used to refer to an exceedance event which, on average, happens once every 100 years (ie the height above mean sea level that might be exceeded on average by extreme sea levels only once in 100 years) and sometimes used to refer to an event that has a 1 in 100 chance of occurring in any one year (ie 1% annual exceedance probability). Exceedance statistics are commonly used in planning to define a level of acceptable risk, where the likelihood of occurrence is balanced against the costs of mitigating the risk.

58 Dr Hunter, ACE CRC, *Transcript of Evidence*, 28 January 2009, p. 8, pp. 3-4.

codes.[59] This initiative seeks to statistically combine recorded variations in today's sea level (through tides, storms and other meteorological events) with internationally IPCC agreed projections of future sea level rise. As Dr Hunter further explained:

> We are combining the uncertainties of the present flooding events—that is, the fact that we do not know when the next storm is going to come or how big it will be. We have observations of the statistics of those from records that have been kept in ports over the last century. We are combining those statistics with the uncertain projections of sea level rise in the future, and in combining those statistics we can come up with numbers that will tell us, if we build at a certain level and expect something to last from, say, 2010 to 2050, what is the probability of a flooding event during that period.[60]

4.51 This information can be used by engineers and planning authorities to set risk guidelines for coastal development and infrastructure maintenance. The Committee notes that the ACE CRC has also been conducting a national program of workshops based on this research, targeted at infrastructure owners, planners, engineers and policymakers. The workshops provide training on this web-based tool.[61]

4.52 The Victorian Coastal Strategy sets out a comprehensive policy for incorporating climate change into coastal planning—see Figure 4.3. Tasmania also has comprehensive documentation supporting its sea level rise planning policies.[62]

59 DCC website accessed 13 August 2009 <http://www.environment.gov.au/minister/wong/2008/pubs/mr20080613.pdf>

60 Dr Hunter, ACE CRC, *Transcript of Evidence*, 28 January 2009, p. 4.

61 ACE CRC website <http://www.acecrc.org.au>

62 See, for example, *Coastal Hazards in Tasmania: General Information Paper*, Department of Primary Industries and Water, Tasmania, 2008—*Exhibit 91*; *Sea-Level Extremes in Tasmania: Summary and Practical Guide for Planners and Managers*, Department of Primary Industries and Water, Tasmania, 2008—*Exhibit 92*; and *Background Report: Coastal Flooding – Review of the Use of Exceedance Statistics in Tasmania*, Department of Primary Industries and Water, Tasmania, 2008—*Exhibit 94*.

Figure 4.3 Victorian Coastal Strategy 2008: coastal planning policy

1. Plan for sea level rise of not less than 0.8 metres by 2100, and allow for the combined effects of tides, storm surges, coastal processes and local conditions, such as topography and geology when assessing risks and impacts associated with climate change. As scientific data becomes available the policy of planning for sea level rise of not less than 0.8 metres by 2100 will be reviewed.
2. Apply the precautionary principle to planning and management decision-making when considering the risks associated with climate change.
3. Prioritise the planning and management responses and adaptation strategies to vulnerable areas, such as protect, redesign, rebuild, elevate, relocate and retreat.
4. Ensure that new development is located and designed so that it can be appropriately protected from climate change's risks and impacts and coastal hazards such as:

- inundation by storm tides or combined storm tides and stormwater (both river and coastal inundation)
- geotechnical risk (landslide)
- coastal erosion
- sand drift.

5. Avoid development within primary sand dunes and in low-lying coastal areas.
6. Encourage the revegetation of land abutting coastal Crown land using local provenance indigenous species to build the resilience of the coastal environment and to maintain biodiversity.
7. New development that may be at risk from future sea level rise and storm surge events will not be protected by the expenditure of public funds.
8. Ensure that climate change should not be a barrier to investment in minor coastal public infrastructure provided the design-life is within the timeframe of potential impact.
9. Ensure planning and management frameworks are prepared for changes in local conditions as a result of climate change and can respond quickly to the best available current and emerging science.
10. Ensure all plans prepared under the Coastal Management Act 1995 and strategies relating to the coast, including Coastal Action Plans and management plans consider the most recent scientific information on the impacts of climate change.

Source Victorian Coastal Council, Victorian Coastal Strategy 2008, Victorian Government, 2008, p. 38—Exhibit 167

4.53 Concerns were raised about the New South Wales draft sea level rise policy statement.[63] The policy states that '[t]here is no regulatory or statutory requirement for development to comply with this benchmark. The benchmark's primary purpose is to provide guidance to support consistent consideration of sea level rise impacts, within applicable

63 At the time of printing the report, the policy was yet to be finalised. Aspects of the policy discussed here may therefore be revised in the final policy.

decision-making frameworks'.[64] Some inquiry participants were concerned that the policy was not a mandatory (statutory) requirement. As Mr Smith from ANEDO commented:

> I do not think that this document goes too far to solving the problems that councils and decision makers face ... To draw all those things together, this explicitly says, 'We're not mandating this. You don't have to take it into account. It is just the guidelines.' It does not seem like a huge advance to us in terms of dealing with the uncertainty that people are facing.[65]

4.54 There were also concerns about the policy's statements on liability:

> Where assistance is provided to reduce the impacts of coastal hazards, the Government does not assume any responsibility for these hazards ...
>
> Coastal hazards and flooding are natural processes and the Government considers that the risks to properties from these processes appropriately rest with the property owners, whether they be public or private. This will continue where these risks are increased by sea level rise. Under both statute and common law, the Government does not have nor does it accept specific future obligations to reduce the impacts of coastal hazards and flooding caused by sea level rise on private property.[66]

4.55 As Professor McDonald commented, the policy 'makes clear that the government asserts where responsibility will lie ... That is very different from making clear where liability will lie ... It is only a policy statement. Until they legislate to eliminate liability, that is still a point that is easily arguable in court in an appropriate case'.[67]

4.56 This issue opens up broader concerns relating to climate change and coastal legal issues.

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64 'Draft sea level rise policy statement', NSW Government, 2009, p. 3—*Exhibit 124*. NSW Department of Environment, Climate Change and Water website accessed 13 August 2009 <http://www.environment.nsw.gov.au/climateChange/sealevel.htm>

65 Mr Smith, ANEDO, *Transcript of Evidence*, 26 March 2009, p. 30.

66 'Draft sea level rise policy statement', NSW Government, 2009, p. 4, p. 5—*Exhibit 124*.

67 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 109.

National building standards

4.57 The Department of Climate Change submission notes that the Australian Government has provided funding to the Australian Building Codes Board to review and, as appropriate, revise the Building Code of Australia (BCA) to ensure that the risks of future climate change are recognised in building practices and possible climate change adaptation measures are considered.[68] The Australian Building Codes Board develops and implements national standards for new buildings relating to health, safety, amenity and sustainability. The funding will be used to outline the major risks from climate change on Australia's building stock, investigate where nationally consistent or state-specific responses are required and identify areas for further research.

4.58 A number of inquiry participants raised concerns about the BCA:

> there is a need for the introduction of new controls through the Building Code of Australia to ensure that buildings are designed and built to the standard necessary to withstand high wind and water damage.[69]

> The Building Code of Australia ... sets the importance of structure and says that you will design that for a certain probability of, say, a one in 500-year return period; or an annual probability of one in 500 for the wind loading on that. What I believe the building code should do, and is doing, is to require that those probabilities should take into account future climate change impacts on wind speeds in tropical cyclone areas and on wind speeds in southern areas. It should also be concerned about the consequences—that is, the loading from the same wind speeds should be used. But you also should require that the building standards by which any building is constructed are going to be sufficiently robust ... to withstand extreme events above and beyond what might be regarded as currently the values. We need to be able to assess the capacity of structures.[70]

> this is another area where the Commonwealth should play a role in looking to the building codes to decide what level of resilience is cost effective to include in the minimum requirements of the building code. I am currently involving in working with the

68 Department of Climate Change, *Submission 85*, p. 6.

69 Manly Council, *Submission 72*, p. 8.

70 Professor Stevens, Australian Academy of Technological Sciences and Engineering, *Transcript of Evidence*, 21 May 2009, p. 23.

> Commonwealth agencies on a national energy efficiency strategy, so time has come for a big upgrade in our building codes for commercial and residential buildings on energy efficiency. The case for that is overwhelming ... It is an area where we know we are heading for trouble in terms of more exposure to extreme weather events and we will need to upgrade our building standards. The Insurance Council does meet with us occasionally and their constant request is that we do this. Their argument is that if we do not have higher minimum standards then insurance will become unaffordable for communities because damage will be so frequent and expensive. That is a bad situation for Australia to be in if you cannot afford insurance because you will then get the call on taxpayers to bail people out and you do not get people managing their own risks. That is definitely an area where some further Commonwealth assistance would be useful. There is no point in each state individually researching these matters because they do not change from one side of the boundary to the other.[71]

4.59 The ICA recommended that the BCA be expanded to 'incorporate property protection as a fundamental basis for consideration in building design and construction'. Currently, the BCA focuses on safety of life as the only fundamental requirement. The ICA also recommended implementation of 'a southerly expansion of cyclone and wind storm related building codes to counter the predicted southerly exposure of severe cyclones'.[72]

Local government coastal adaptation policies

4.60 While planning and development are governed by statutory frameworks established at state government level, local governments in all Australian jurisdictions have responsibility for preparing a range of legally binding statutory planning instruments such as planning schemes, codes and regulations.

4.61 Individual local council planning schemes generally place an obligation on councils to consider certain matters when dealing with applications for planning consent. This obligation provides an opportunity for councils to

71 Mr Smith, NSW Department of Environment and Climate Change, *Transcript of Evidence*, 25 March 2009, p. 9.

72 ICA, 'Improving community resilience to extreme weather events' (April 2008), p. 14, p. 12—see attachment to ICA, *Submission 12*.

incorporate actions that may serve as a mechanism for local community adaptation to climate change.

4.62 Many local councils have responsibility for determining coastal adaptation practices for their local government area relating to so-called protect, redesign, rebuild, elevate, relocate and retreat policies.

4.63 This area proved to be a contentious one, with inquiry participants raising concerns relating to inconsistencies between different councils in the adaptation approaches adopted, lack of clarity about liability, and uncertainty about the effectiveness of the various approaches adopted and the circumstances under which they should be employed. As Professor McDonald commented:

> When is planned retreat going to be appropriate or even feasible in some areas? In what circumstances should we regard hard engineering structures as actually preferable to planning and other approaches? How should planned retreat be implemented? There is an enormous range of approaches to that question. Who pays for hard structures, so the issues of costing when benefits flow to particular property owners. And then the question of how public amenity value should be valued as against infrastructure and private property values in making all of those decisions.[73]

4.64 Similarly, Ms Mears, Chair of the Victorian Coastal Council, commented that:

> We have to have a framework for managing risk, which is not something we have at the moment. It is something that we need to work towards. It will include our adaptation to risk. What are the levels of risk for some areas? Can they be protected and managed or is it a retreat over time? This is really an important policy space that we are yet to fully develop. We are at the beginning of understanding the areas that are vulnerable. We need to understand within those areas what the assets are that are going to be at risk, what our response is and then who shares the role in managing those risks.[74]

4.65 A further issue here is what guidance on this matter is provided to local councils by state governments to ensure consistency in approach and to what extent local circumstances should determine the approach adopted. Byron Shire Council has a long established policy of planned retreat for

73 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 102.

74 Ms Mears, Victorian Coastal Council, *Transcript of Evidence*, 20 May 2009, p. 15.

certain beach compartments within the shire. However, the council noted its difficulties in implementing aspects of this policy due to 'a lack of statutory support, at times' and recommended that:

> Councils need statutory support from the state and federal governments for strategic planning policies of planned retreat and other climate change adaptation measures.[75]

4.66 The Victorian Government highlighted the significant future costs potentially associated with this area in terms of moving entire settlements and protecting major assets, flagging a possible role for the Australian Government in 'providing financial support and policy and engineering options for dealing with major "retreat" and "protect" options on the coast'.[76] Similarly, SGS Economics and Planning Pty Ltd commented that:

> It is likely to be well beyond the means of local governments to meet the costs of risk management and reduction measures on their own, and equally inequitable for coastal councils to bear the costs of changes brought on by global changes. Councils may even require assistance to meet the costs of adapting their own infrastructure. Assistance from the State and Australian Governments will be required.[77]

4.67 Professor Thom also noted that:

> We will reach 'tipping points' in each and every coastal community around our coast as sea level continues to rise. Each tipping point needs to be assessed in relation to the nation's capacity to pay. When will barrages be needed at Port Philip or Botany Bay? When will the very low third runway at Sydney Airport need to be elevated? When will houses around Swansea need to be relocated as here a 1m sea level rise will inundate 100% of properties adjoining Lake Macquarie? And when will levees, pumps and seawalls be demanded by property owners at risk of inundation or erosion?[78]

4.68 Other adaptation options proposed included providing development approval 'on the basis of a finite timeframe'[79] and defining 'coastal climate change buffer zones to keep development out of lands mapped as being at

75 Byron Shire Council, *Submission 43*, p. 6.

76 Victorian Government, *Submission 90*, p. 7.

77 SGS Economics and Planning Pty Ltd, *Submission 105*, p. 5, p. 6, p. 7.

78 Professor Thom, *Submission 6*, p. 18.

79 WA Department of Planning and Infrastructure, *Submission 89*, p. 2.

risk of inundation'.[80] Wellington Shire Council described the possible use of covenants on property titles, with owners acknowledging that they will abide by actions stipulated in an approved climate change response plan:

> Before the development starts, the owner of the land shall enter into an agreement with the Responsible Authority in accordance with Section 173 of the Planning and Environment Act, 1987 which will covenant that the owners acknowledge they will abide by actions stipulated in the approved climate change management plan.
>
> The agreement will bind the applicant as the owner and shall run with the land so that all successors in title are bound by the agreement. This agreement will be prepared at the applicant's cost and to the satisfaction of the Responsible Authority, and shall be registered on the title in accordance with Section 181 of the Planning and Environment Act, 1987.[81]

4.69 A further important point to note here is that adaptation strategies are already being implemented to address the impacts of coastal erosion. As Professor Woodroffe highlighted, much could be learnt from past management practices in this area:

> Over the past several decades the sea has risen a few centimetres along much of the coast of east Australia. Coastal management programs have not been designed to counter that rise, but in many cases have accommodated it without noticing. The impacts of large storms and the gradual recovery following those storms have been far more apparent. Much could usefully be learned from the behaviour of shorelines over this period. For example, the widespread introduction of dune management, incorporating dune fencing, dune access through walkways, exclusion of four-wheel drives, and revegetation would appear to have reduced and in places reversed retreat that might have been anticipated as a result of the gradual rise of mean sea level. These management procedures offer a good basis that could be expanded with further research as adaptive measures in the face of future sea-level rise.[82]

80 Ms Norman, *Submission 20*, p. 8.

81 See Wellington Shire Council, *Submission 98*, p. 5 and Wellington Shire Council website accessed 1 September 2009 <http://www.wellington.vic.gov.au/Files/Climate_change_response_plan_guidelines.pdf>

82 Professor Woodroffe, *Submission 24*, p. 8.

Foreshore protection at Busselton, WA, as inspected by Committee members

Conclusion

4.70 Subsequent chapters will revisit the issue of coastal planning. However, in terms of coastal planning and climate change, the Committee concludes that there is a need for:

- further work on ensuring a greater degree of consistency between jurisdictions in how they deal with issues facing climate change and planning in the coastal zone
- further work on resolving issues relating to the establishment of a sea level rise benchmark and planning framework
- further work on revising the BCA
- further investigation of liability issues with regard to coastal planning and climate change

4.71 The Committee commends the work of ACE CRC on sea level rise, risk management and coastal planning, including its national workshop program for policymakers, planners and engineers.

4.72 The Committee notes that the Local Government and Planning Ministers Council (LGPMC), which reports to COAG, is currently looking at state climate change planning policies. In May 2009, jurisdictions undertook to 'develop state-specific climate change planning policies to inform local governments and regional planning responses to climate change by mid 2011'. They further agreed to collaborate with the Climate Change and Water Working Group, Australian Transport Council and Ministerial Council on Police and Emergency Management to 'develop a national framework and tools for use by local government to inform planning for climate change mitigation and climate change adaptation'. There was also reference to 'Queensland work on establishing leading practice national planning system principles'.[83]

4.73 The NSW Government noted that COAG is currently:

> reviewing inter-jurisdictional arrangements relating to building, infrastructure and settlements through Working Groups on: Climate Change and Water; Infrastructure; Business Regulation and Competition (which considers planning and building reform): and Housing. It is envisaged that this work will address potential duplication and gaps in effective planning for coastal communities.[84]

4.74 Against that background, it is also important to note that the issues 'in relation to coastal settlement and climate change cannot be resolved by looking at the coastline in isolation to the broader challenge of a sustainable settlements strategy for managing urban growth in Australia'.[85] A strategic approach to settlement planning in the context of climate change is a major national issue. The Committee also draws the attention of all state governments and local government authorities to the scientific evidence about sea level rise outlined in Chapter 2.

83 LGPMC, Communique: eighth meeting—Sydney, 8 May 2009, LGPMC website accessed 17 August 2009 <http://www.lgpmcouncil.gov.au/communique/20090508.aspx>

84 NSW Government, *Submission 55*, p. 1.

85 Ms Norman, *Submission 20*, p. 3.

Recommendation 20

4.75 **The Committee notes the Council of Australian Governments initiative (through the Local Government and Planning Ministers Council) to develop state-specific climate change planning policies by mid 2011, to inform local governments and regional planning responses to climate change. The Committee recommends that the Australian Government ensure that the outcomes of this initiative are included as part of the action plan under the proposed new Intergovernmental Agreement on the Coastal Zone.**

Recommendation 21

4.76 **The Committee recommends that the Australian Government consider the benefits of adopting a nationally consistent sea level rise planning benchmark and, if so, whether this be done on a statutory basis or otherwise. The outcomes of this consideration should then be included as part of the action plan for the proposed Intergovernmental Agreement on the Coastal Zone.**

Recommendation 22

4.77 **The Committee recommends that the Building Code of Australia, including cyclone building codes, be revised with the objective of increasing resilience to climate change.**

Climate change and coastal legal issues

4.78 Climate change law is a new legal discipline and, as commentators have observed, 'devising legal solutions to climate change is likely to involve profound changes to existing governance and regulatory frameworks, with reverberations felt in many other areas of law such as constitutional law, administrative law and property law'.[86]

86 J Peel, 'Climate change law: the emergence of a new legal discipline', *Melbourne University Law Review*, 32(3), 2008, p. 924.

4.79 Uncertainties about legal matters relating to climate change and the coastal zone was one of the issues most frequently raised in evidence and documents provided to the Committee. As Mr Stokes, Executive Director of the National Sea Change Taskforce, commented, '[i]n many respects, councils are at a loss as to how to respond at the moment. What we are seeing is developments being approved right now that, if some of the projections coming out of the IPCC are proved correct, will be placed at risk in the future ... there are still properties being approved today which perhaps it would be prudent not to'.[87]

4.80 Key concerns raised by inquiry participants included:

- clarity about roles and 'who might be liable for what'

  > At present there is a high degree of uncertainty in relation to current and future climate change liability. If left unaddressed this uncertainty will continue to have a significant impact on decision making processes and information disclosure in relation to climate change hazards.[88]

  > The state's view [NSW] is that the risk to a property from sea level rise lies with the property owner, public or private, so whoever owns the land takes the risk. Whether it is the state or a private landowner, they gain the benefit of proximity to the ocean and they bear the risk of proximity to the ocean.[89]

- consistency of information, extent of risk disclosure to the public and 'who knew what, when'

  > There is ... debate about advising the public of climate change implications/risks ... with potential property de-valuing concerns versus people's right to know. It is necessary to have a clear policy direction on this from upper tiers of government so Councils have support and clear direction, without having to go through the courts to see where responsibility lies.[90]

- coastal planning policies taking into account the latest information on climate change and coastal hazards

  > It is a question of working with some degree of certainty. That is an issue. What we find at the moment is that an increasing number

87 Mr Stokes, NSCT, *Transcript of Evidence*, 26 March 2009, p. 11.

88 Sydney Coastal Councils Group, *Submission 77*, p. 3.

89 Mr Smith, NSW Department of Environment and Climate Change, *Transcript of Evidence*, 25 March 2009, p. 9.

90 Manly Council, *Submission 72*, p. 9.

> of local councils are making planning decisions in a state of great uncertainty about, say, the future impact of climate change and also in terms of a lack of clearly defined coastal policy either by the state or anyone else ... They are making decisions today based on information currently available to them that is not necessarily up to date.[91]
>
> The liability issues that could be looming for decision makers agreeing to coastal canal estates today may be something that those decision makers might want to think about very carefully before agreeing to those proposals in future.[92]

- clarification about liability issues with regard to government authorities acting or not acting in terms of climate change adaptation and possible coastal hazards

> I suppose the legal situation that local councils are in at the moment is that if they get a development application for an area of land they believe could be vulnerable in the future to sea level rise they are damned if they do and they are damned if they do not in terms of approving that development. If they approve it there could be a liability down the track if it becomes affected and inundated by the rising sea levels and the attendant severe weather events. If they do not approve it they are going to wind up before an appeals tribunal.[93]

- clarification about liability issues with regard to private property holders acting to protect their properties from the impacts of climate change and about who should bear the cost of adaptive strategies

> soft engineering approaches [eg sand replenishment] ... will become increasingly expensive, and they raise issues about the extent to which public money should be spent to protect a few landholdings that occupy prime, though vulnerable, seafront.[94]

- legacy issues relating to past planning decisions that had allowed development in low-lying areas

> we have essentially the very big question of the legacy risks that we are inheriting and our children will inherit. That is a very big

91 Mr Stokes, NSCT, *Transcript of Evidence*, 26 March 2009, p. 11.
92 Ms Norman, *Transcript of Evidence*, 20 May 2009, p. 38.
93 Mr Stokes, NSCT, *Transcript of Evidence*, 26 March 2009, p. 7.
94 Professor Woodroffe, *Submission 24*, p. 8.

> question. We are not going to solve that one overnight, so I think the first thing we need to do is understand, in a sound, evidenced based way, the nature of the risk that is arising from past decisions ... We will be presented with some big challenges. We need to make the right decisions, based on sound information. Beyond information, the question is: what practical steps do we take? That is a discussion which has barely begun at this point.[95]
>
> Where we do have issues is twofold. The first is in the legacy of the past where councils over the years have approved developments in what will clearly be unsuitable locations into the future. That is a problem. The other area which is a big problem is the historic zonings, where over the years we have zoned land that is not yet developed in inappropriate coastal situations.[96]

- the legal basis underpinning strategies of protect, adapt and retreat and the permissible scope of adaptation strategies

> if people are going to defend their property then the impacts of that defending of property may be transmitted to adjacent areas and cause other potentially detrimental effects in some cases.[97]

- compensation issues

> it is a difficult issue to deal with the results of poor decisions from the past in terms of that vexed issue about compensation—who pays, who carries the risk?[98]
>
> If current Climate Change predictions are realised significant numbers of properties will be adversely affected, many so much so as to become uninhabitable. In those circumstances it is inevitable that some property owners will look for compensation in return for any strategic actions any level of government may take to alleviate climate change risks. It is critical that planning for the financial implications of climate change, in terms of property compensation, commence without delay.[99]

95 Mr Carruthers, Department of Climate Change, *Transcript of Evidence*, 18 June 2009, pp. 7-8.

96 Mr Pearson, NSW Department of Planning, *Transcript of Evidence*, 25 March 2009, p. 5.

97 Mr Robinson, Queensland Department of Environment and Resource Management, *Transcript of Evidence*, 28 April 2009, p. 97.

98 Dr Wilson, Department of Climate Change, *Transcript of Evidence*, 18 June 2009, p. 8.

99 Byron Shire Council, *Submission 43*, p. 9.

- the lack of specific legislation in the area

  > at the moment, there are a lot of guidance notes and there is a lot of jurisdictional buck-passing.[100]

  > A climate change development control which is not discretionary for local governments to enforce may be the answer.[101]

- right of public access to beaches

  > Titles to land in Australia either have fixed 'right-line' property boundaries or boundaries based on some natural (usually water) feature. Right line property boundaries do not change even if the beach recedes into those properties. That is, in areas affected by coastal erosion, changing estuary mouth positions or sea level rise, the beach can end up on private properties. It is critical that the government have the ability to be able to amend property boundaries, or exercise powers of acquisition, in the event that erosion intrudes significantly into those private properties and the beach becomes privately owned.[102]

- indemnity issues

  > Indemnify local government for advice given in good faith regarding all natural hazards including those that may be caused or exacerbated by climate change including, but not necessarily limited to, landslide, bushfire, coastal erosion, coastal recession, flood and coastal inundation.[103]

  > the issue for us as a community and as a local government is that we should not go into defensive management mode and rely on some sort of statutory immunity and hide behind that in providing information across the counter. We need to educate our community and make them understand that this is a shared responsibility.[104]

- potential liability under the common law of negligence and nuisance

4.81 Several general principles emerge from the discussion above, pointing to some possible ways forward. These include:

100 Mr Christensen, Sunshine Coast Environment Council, *Transcript of Evidence*, 28 April 2009, p. 67.

101 Gippsland Coastal Board, *Submission 38*, p. 2.

102 Byron Shire Council, *Submission 43*, p. 10.

103 Pittwater Council, *Submission 10*, p. 8.

104 Mr Wong, Manly Council, *Transcript of Evidence*, 25 March 2009, p. 74.

- preventing future harm
- improving the statutory framework
- considering broader indemnification for local authorities
- ensuring national consistency of information and mandatory risk information disclosure

4.82 In the discussion below, the Committee has often drawn on the evidence of Professor Jan McDonald. (Professor McDonald has published several significant legal studies in this area.[105] Her positions include Director of the Climate Change Response Program at Griffith University and Research Manager at the National Climate Change Adaptation and Research Facility.) However, as outlined below, Professor McDonald's comments were broadly supported by a number of inquiry participants.

Preventing future harm

4.83 Several inquiry participants emphasised that the focus for coastal policymakers in taking into account climate change impacts should be on preventing future harm:

> any interventions or regimes that are considered need to focus principally on approaches that prevent future harm rather than impose liability for it or establish principles of liability. That relates to preventing both maladaptive new development and harm where existing development has already occurred. The fact that a development is in place or infrastructure is in place does not automatically mean that there will necessarily be harm ensuing. Those approaches that are aimed at prevention I think need to recognise that there will always be a level of irreducible uncertainty ... We need to make sure that any response that is taken now to anticipate and prevent future harm is itself iterative, flexible and adaptive to build in upfront the triggers for a ramping up of increased protective measures when a certain event occurs—when the sea rises to a certain level, for example ... Our approach to dealing with climate impacts in the coastal zone should be based on trying to minimise adverse impacts on property, amenity

105 See J McDonald, 'The adaptation imperative: managing the legal risks of climate change impacts', *Climate Law in Australia*, eds T Bonyhady and P Christoff, Sydney, Federation Press, 2007—*Exhibit 28*; and J McDonald, 'A risky climate for decision-making: the liability of development authorities for climate change impacts', *Environment and Planning Law Journal*, 24, 2007—*Exhibit 27*.

> and human health. It should not be based on protecting ourselves from potential legal liability.[106]
>
> ANEDO submits that one of the principles that should primarily be considered in all future coastal planning is 'First, do no more harm'. It is important to not compound the significant problems already faced by coastal communities by making further ill-considered planning and infrastructure which ignore looming biophysical realities. If decisions are made ignoring this principle, they will inevitably create even larger costs for future generations to bear, and undermine the concept of intergenerational equity which should inform true ecological sustainable development.[107]

4.84 The further point was made that these preventative measures should transfer the costs of adaptation to those who derive gain benefit from the development, with an emphasis on developers:

> Those preventive measures also need to transfer or impose the costs of adaptation on those principally who derive benefit from the adaptation or the development in the first place or who are in the best position to pay for it. It has certainly been my observation over the last couple of years that the conversation has been around property owners on the one hand and government on the other hand, whether it is local, state or federal governments. The missing link in that is the role of the development industry and the incredible pressures that it places on local governments to approve developments on marginal lands without taking responsibility for any of the costs that may flow intergenerationally arising out of future impacts ...
>
> My view is that the property developers will be the ones who derive the profit from the enterprise and therefore should be the ones who bear that risk for at least a reasonable time.[108]

4.85 In terms of how this mechanism might work, Professor McDonald commented that developers could be required to 'indemnify property owners for 10 years following the release of the land'. Alternatively, a 'performance bond' could be lodged that 'endures for 20 years' or the developer is required to insure the property—'if the developer cannot get

106 Professor McDonald, *Transcript of Evidence*, 28 April 2009, pp. 99-100, pp. 108-109.

107 ANEDO, *Submission 73*, p. 25.

108 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 100, p. 108.

insurance for a particular piece of land, that is a pretty good communication of risk to the market'.[109]

4.86 It was also noted that preventative approaches might usefully involve time-bound approvals:

> The fact that we might take a preventative approach does not mean to say that all development will be constrained in vulnerable areas. Again I think the planning regime needs to rethink what it means to grant development approval in a certain area. It may be that we start considering time-bound approvals more in the nature of leasehold arrangements where an approval is granted for a development with a 40-year lifespan and then all bets are off until we rethink or reassess the nature of observations at that point to see whether the projections have actually materialised.[110]

Improving the statutory framework

4.87 A number of inquiry participants highlighted the need for an improved legislative framework to clarify liability in respect of past and current coastal planning decisions and set out what is considered reasonable for various parties to have known at a certain time:

> Local Government requires the legislative power to take climate change impacts into account when assessing development applications, as the risk of future litigation is real.[111]

> we do need to have some kind of overarching framework that addresses liability or the scope for liability in respect of past decisions. It is critical that that be addressed using some form of legislative response rather than leaving it to the courts. I think it is going to be an extremely corrosive and stagnating influence on proactive decision making if we stay in this state of paralysis where local governments, and even to some extent state governments, are worried about the risks of exposure to liability ... A liability regime needs to, at the very least, specify what is reasonable for both potential plaintiffs and potential defendants to have known at a certain time. I think that is an absolute minimum.[112]

109 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 107-108.
110 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 100.
111 Local Government Association Tasmania, *Submission 86*, p. 11.
112 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 100.

4.88 Professor McDonald pointed to the complexity of this issue, including that past coastal adaptation works undertaken by different parties may create additional problems or create expectations for other parties that these works will also be undertaken for them:

> a lot of issues will arise in respect of protective structures that are already in place that will prove to have been inadequate, poorly constructed or poorly maintained or that are not located in the locations that they now need to be located in but which have created an expectation for neighbouring communities that they will get the same sort of protective structure. It is not just a case of having approved developments that put certain residents or property in harm's way. It is actually governments, whether departments of infrastructure or local governments, who have undertaken works that may create additional problems, exacerbate climate change related coastal hazards or create an expectation for other parties that those works will be done for them as well.[113]

4.89 It was further noted that, if there is going to be 'a liability regime imposed legislatively outside of the courts, there probably does need to be a fairly comprehensive articulation that transfers the risks and the liability back onto the individual property owner'.[114]

Broader indemnification for local authorities?

4.90 Several inquiry participants commented on the benefits of broader indemnification of local authorities:

> Federal and/or State statutory exemptions against 'climate change' litigation are imperative to the protection of public funds.[115]

> there will probably need to be a far broader indemnification of local authorities, simply to manage the risk of liability in the future.[116]

4.91 Public authorities can be exposed to liability through both their statutory responsibilities and the requirement under common law to act with due regard to the rights of others. The forms of common law liability that

113 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 100.
114 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 101.
115 Byron Shire Council, *Submission 43*, p. 9.
116 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 100.

public authorities are most commonly exposed to are claims in nuisance[117] or negligence.[118] However, under civil liability legislation in each state, public authorities (state governments, local councils and other government instrumentalities) are exempt from liability where it can be established that they have acted reasonably—that is, they are only liable if their actions or inactions are 'so unreasonable' that no other authority would consider them to be reasonable. An essential ingredient of any developing test of what is a reasonable response 'must include a genuine attempt by local government officers to stay informed of current research applicable in their jurisdiction and of changes to relevant policies and regulations'.[119]

4.92 Civil liability legislation also exempts public authorities from liability for 'obvious risks'. Obvious risks are those that, in relevant circumstances, would have been obvious to a reasonable person, including risks that are a matter of common knowledge. For example:

> With the potential effects of climate change now widely known, there is a strong argument that a reasonable person who lives on the coast should be aware of the dangers posed, and therefore that damage from erosion and sea-level rise would be damage from an obvious risk ... Therefore, it would be difficult for a landholder to bring a negligence action against a local council for approving a development application in 2007 in a coastal area subject to erosion, since a reasonable landholder would have been well aware of the risks when submitting the application. No liability would arise in such a circumstance.[120]

4.93 Local governments and other authorities are therefore only at risk of civil liability for failing to account for the impacts of climate change if their actions or inactions constitute a wholly unreasonable response to the risk of climate change. Accordingly, civil liability legislation offers a degree of comfort and security for local government—noting, however, that judicial

117 A nuisance action is an unlawful interference with a person's use or enjoyment of land.

118 Three essential elements must be established in liability for negligence: duty of care, breach of that duty and damage as a result of that breach. Unlike claims in nuisance, in order to incur liability in negligence a duty of care must be found to exist.

119 P England, 'Heating up: climate change law and evolving responsibilities', *Local Government Law Journal*, 13(3), 2008, p. 222.

120 *Coastal Councils and Planning for Climate Change: an Assessment of Australian and NSW Legislation and Government Policy Provisions relating to Climate Change relevant to Regional and Metropolitan Coastal Councils*, p. 24—*Exhibit 106*.

interpretation of civil liability legislation may vary and benchmarks may shift in defining what is manifestly unreasonable.[121]

4.94 A further key issue here is the need for local government to ensure they are informed about climate change information particular to their specific local government area:

> While much of the scientific evidence about climate change impacts is highly generalised, it is without doubt that more specific and localised information will soon become available. It is questionable whether the defence of compliance with general procedures in s 42 of the *Civil Liability Act 2002* (NSW) and its equivalents in other states will be a reliable one if local governments' general procedures and applicable standards fail to take into account regionally applicable, authoritative predictions about climate change impacts as and when they become available. The duty on local government officers here, as in all other areas, is to ensure their state of knowledge and awareness remains at a level that it is reasonable to expect for a local government of such size and resources.[122]

4.95 New South Wales provides further protection from liability through its *Local Government Act 1979*. New South Wales is the only state that provides statutory protection for local government in this way. Section 733 of the act exempts councils from liability 'in respect of advice furnished, action taken, or anything done or omitted to be done which relates to *natural hazards in the coastal zone*, provided that the decision was taken in good faith'.[123] 'Good faith' is assumed if the council acts in accordance with the NSW Coastline Management Manual 1990, which in turn means councils must ensure that the potential effects of climate change are considered when conducting their activities. Professor McDonald commented that this is a provision 'that other states should consider adopting'.[124]

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121 As England comments, '[w]ith respect to civil liability claims, local governments seem less at risk of litigation. However, the applicable statutory defence is a relative one: as our state of knowledge on climate change issues grows, so too will the responsibility of local governments to take into account climate change considerations', 'Heating up: climate change law and evolving responsibilities', p. 219.

122 England, 'Heating up: climate change law and evolving responsibilities', p. 218.

123 *Coastal Councils and Planning for Climate Change: an Assessment of Australian and NSW Legislation and Government Policy Provisions relating to Climate Change relevant to Regional and Metropolitan Coastal Councils*, p. 21—*Exhibit 106*.

124 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 109.

National consistency of information and mandatory risk information disclosure

4.96 Much of the evidence to the inquiry emphasised the need for national consistency in information provided to the public about climate change risks. For example, Professor McDonald pointed to the need for:

> consistency in the kind of information that has to be made available to property owners and prospective purchasers, the way in which that information is presented and over what timescales it is interpreted as being relevant and the form in which it is available. At the moment some of it is available on a certificate of title, in other circumstances you have to go and find it for yourself on the web. I think there is an important role for national consistency in what we expect every prospective purchaser will automatically be informed of when they are considering the purchase of property. A national approach to that is the only way in which you are going to be able to avoid the concerns about everyone's property value being affected. At the moment it is whoever blinks first, it is almost a game of chicken, because no-one is really willing to provide all that information in a way that will lay out in full, vivid detail the implications for certain locations ... consistency of information is a critical requirement across the country .[125]

4.97 Similarly, the ICA proposed implementation of 'legislation harmonised across all states requiring mandatory disclosure of all known and predicted risk data by state and local governments to property purchasers during property conveyance and title search processes'.[126]

4.98 The Committee notes the serious issues raised here, concerning consistent and comprehensive disclosure of climate change risks and coastal hazards. As Professor McDonald further commented:

> I do not think it is satisfactory that at the moment a prospective purchaser has to go online and hope that their prospective local authority has flood maps that are online and then has to try and find out whether those flood maps take into account projected sea level rise and, if so, what level of sea level rise. It really does confer a very heavy burden on purchasers. Whilst some may be well equipped to do that, I suspect that a lot of people are not. It is a

125 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 102, p. 104.

126 ICA, 'Improving community resilience to extreme weather events' (April 2008), pp. 7-18—see attachment to ICA, *Submission 12*.

> situation where at the moment we probably have an imperfect market, to use economics terminology, because people are not making fully informed decisions. People may still not make fully informed decisions, but they might be a little better informed.[127]

Recent cases relating to climate change impacts on the coast

4.99 At the time of the inquiry, a number of legal cases concerning climate change and coastal planning had been decided through the courts. Many of these cases turned on the question of whether the decision maker had considered the potential impacts of climate change on proposed developments in vulnerable coastal areas. As the cases discussed below suggest, there is an emerging trend to consider climate change risks within the broader ambit of the concept of ecologically sustainable development (ESD). Many statutes require promotion of or regard to the principles of ESD. The principles of ESD most relevant to climate change impacts are the precautionary principle and the principle of intergenerational equity.

4.100 Reliance on ESD concepts to require a consideration of future climate change impacts was a feature of a decision issued by the Victorian Civil and Administrative Tribunal (VCAT) in *Gippsland Coastal Board v South Gippsland Shire Council & Ors*.[128] This is a significant case in that climate change factors were established as grounds to block a coastal development. Figure 4.4 provides a summary of this case.

4.101 Figure 4.4 also provides a brief summary of other recent cases in this area. These cases suggest that climate change considerations are increasingly likely to be seen as relevant, if not essential, to local government environmental assessment processes and the need for consent authorities to consider the impacts of climate change on coastal developments through their consideration of ESD: 'the only sensible strategy for local governments is to start incorporating climate change considerations into a wide range of their decisions and activities'.[129]

127 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 104.

128 [2008] VCAT 1545.

129 England, 'Heating up: climate change law and the evolving responsibilities of local government', p. 210.

Figure 4.4 Recent cases relating to climate change impacts on coastal developments[130]

Gippsland Coastal Board v South Gippsland Shire Council & Ors [2008] VCAT 1545

'VCAT refused consent for residential developments in a low-lying coastal region. The local council had previously approved permits for six residential developments in the Grip Road area of Toora, an area zoned for agricultural and mixed land uses. The Tribunal's refusal was primarily based on inconsistency with zoning and planning controls. Importantly, however, VCAT also applied precautionary ESD principles to find that development consent should not be granted in view of the "reasonably foreseeable risk of inundation" to the land and proposed dwellings due to sea level rise induced by climate change. This was despite the absence of specific provisions in the Victorian planning legislation requiring consideration of sea level risk. The Tribunal stated:

"We accept that there is growing evidence of sea level rises and risks of coastal inundation. While we acknowledge that there is uncertainty as to the magnitude of the sea level rise, it is evident that the consequences of such rises in level will be complex due to the dynamic nature of the coastal environment. Put plainly, rising sea levels are to be expected. The range of impacts may well be beyond the predictive capability of current assessment techniques. In the face of such evidence, a course of action is warranted to prevent irreversible or severe harm"'.[131]

Walker v Minister for Planning (2007) NSWLEC 741

'Justice Biscoe found that the Minister for Planning had failed to consider ESD by failing to consider whether the impacts of the proposed development would be compounded by climate change. In particular, the Minister failed to consider whether potential flooding associated with climate change may impact the land at Sandon Point, which is located on flood prone land ... The Court has made it clear that consent authorities will be required to demonstrate that real regard was had to principles of ESD and to climate change impacts. As a result of this decision, councils should assume that there is the potential for greater flooding and inundation as a result of climate change in the coastal zone when considering coastal developments and take this into consideration. Councils must be able to demonstrate that they have taken into account the potential impacts that sea level rise and climate change on the proposed development and whether any mitigation measures could be put in place to lessen any future flooding impacts.'[132]

Northcape Properties Pty Ltd v District Council of Yorke Peninsula [2008] SASC 57

In this case, 'the Yorke Peninsula District Council had taken a proactive approach to the likelihood of sea level rise caused by climate change. Its decision to refuse an application for residential development on the outskirts of Marion Bay was appealed by the developer. Council's decision to refuse the application was upheld in the Environment Court of South Australia and, on appeal, in the Supreme Court. Both decisions

130 See also *Aldous v Greater Taree City Council* [2009] NSWLEC 17 and *Charles & Howard Pty Ltd v Redlands Shire Council* [2007] QCA 200 (2007) 159 LGERA 349.

131 Peel, 'Climate change law: the emergence of a new legal discipline', pp. 954-955.

132 *Coastal Councils and Planning for Climate Change: an Assessment of Australian and NSW Legislation and Government Policy Provisions relating to Climate Change relevant to Regional and Metropolitan Coastal Councils*, pp. 19-20—*Exhibit 106*. (This decision was appealed by the Department of Planning—see *Minister v Walker* [2008] NSWCA 224.)

relied on expert evidence that coastal erosion of 30-45 m could be expected in the next 100 years, taking sea level rise into account. Both decisions confirmed and endorsed the council's objectives for coastal development, stated in the applicable Development Plan. These gave consideration to sea level rise from climate change in the following terms:

"To promote development which recognises and allows for hazards to coastal development such as inundation by storm tides or combined storm tides and stormwater, coastal erosion and sand drift; including an allowance for changes in sea level due to natural subsidence and predicted climate change during the first 100 years of the development"'.[133]

Existing coastal development and concerns of individual property holders

4.102 As legal commentators have noted, 'courts at this stage are only considering climate change impacts in the context of new developments and have not yet starting considering the complex issues associated with the impacts of climate change on existing developments'.[134] For example, the Sunshine Coast Environment Council pointed to existing development on flood-prone coastal floodplains adjacent to rivers and estuaries as being 'a recipe for litigation into the future'.[135]

4.103 Professor McDonald commented that:

> something needs to be done to assist those people if in fact their properties are no longer habitable because of the frequency with which they are flooded or affected or because erosion has rendered them precarious. It does no good at all to say, 'Well, you should have thought about that and done something about it' if the alternative is that they are homeless. One way or another, some solution needs to be found to assist individuals in those circumstances.[136]

4.104 The complexity of these issues was made very clear in evidence to the Committee from a resident from Old Bar on the New South Wales Central Coast. This particular case raises issues about liability and existing

133 P England, 'Doing the groundwork: state, local and judicial contributions to climate change law in Australia', *Environmental Planning and Law Journal*, 25, 2008, p. 372.

134 R Ghanem et cetera al, 'Are our laws responding to the challenges posed to our coasts by climate change?', *University of NSW Law Journal*, 31(3), 2008, p. 904.

135 Mr Christensen, *Sunshine Coast Environment Council*, Transcript of Evidence, 28 April 2009, p. 65.

136 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 106.

developments (in this instance, housing having recently been demolished) and alleged existing approvals for new developments.

4.105 By way of summary, the individual's home had to be demolished because of coastal erosion. They were then informed that they would have to wait for two years, for a council study to be completed, for confirmation on whether consent to rebuild, further back on their property, would or would not be granted—noting that the individual understood that consent to rebuild had already been given before their home was demolished. For the individual, this raised a series of issues relating to state and council coastal land use planning policies, accountability of officials, land values, insurance, home mortgages, compensation and liability—see Figure 4.5.

4.106 The future loss of people's homes to the sea as a result of coastal erosion and inundation was a major issue raised with the Committee. Concerns, for example, were raised about coastal properties in parts of NSW—at Narrabeen, along Belongil spit at Byron Bay and on the Central Coast:

> At Norah Head coastal erosion has forced the local council to issue orders to residents to dismantle structures from the backyards of properties to reduce pressure on the seaward slope to assist in prevention of major land slippage. Heavy rain plus wave energy impact on the toe of this slope has placed a number of homes in the unenviable position of currently having no backyards plus the potential of losing their homes to the sea. Wyong Shire Council and the State Government have both committed extensive amounts of monies to try and minimise the rate of erosion of this slope. The reality is that these works may not prevent a loss of these properties if a severe storm were to impact onto this part of the Dobell coast line.[137]

> locations like the Belongil in Byron and Collaroy-Narrabeen ... have development that is absolutely on the beach frontage where you are going to have a significant hazard impact from sea level rise.[138]

137 Mr Craig Thomson MP, *Submission 5*, p. 2.

138 Mr Pearson, NSW Department of Planning, *Transcript of Evidence*, 25 March 2009, p. 14.

Figure 4.5 Excerpt of evidence from a coastal resident from Old Bar, NSW

My concerns are not just for myself but for all coastal residents who may face this in the future. If how our situation has been handled so far is to be a benchmark, basically it is embarrassing ... The failure to accept any sort of responsibility is just not acceptable for those involved ...

In 2001 we purchased our properties. There were no signs of any erosion. In 2002 minor erosion started. In 2003 we took the view that it was going to become an issue on our place. We applied for subdivision on our property ... On 14 June last year we had the highest tide in 22 years at Old Bar. ... It took close on six metres of lawn in four hours ... Two weeks after that I was served notice by the council to demolish which I abided by. I demolished my homes believing that we had a valid consent, that we could rebuild as they have put in writing to us; that was where our homes were supposed to go ...

I was told last week by council that that study that they are undertaking is still around two years away from finalisation, as in rezoning where it goes to. What do I do for the next two years is my point? I have lost my homes but council has now said, 'Well, you have lost your homes. You have put in an application to rebuild those homes. Even though we have said that is where you are supposed to build those homes, we are going to defer it' ...

So what do I do for two years? Who pays my mortgage? ...

In our particular case at Old Bar the state government and local council have been aware of the erosion issues in that particular piece of coastline since the 1940s. They have been quite happy to collect my land taxes ... If you cannot rebuild, what is it worth, really—nothing ... They have been quite happy to allow development in the last 50 years ...

All along I have played by the rules and believed that there was a policy in place. It is still current. It was implemented by a government department, local and state, and as soon as something goes wrong I have to hold the ball. Nobody else wants to know about it ...

How can no-one be accountable for that? It is just not about us. This is my story but if this is going to be such a big problem then surely there have to be some guidelines where everyone is in the same category, where landowners are made completely aware at time of purchase of whose liability it is going to be; what responsibility is going to be accepted by government or if it is up to the landowners themselves because then values on that land obviously apply accordingly ...

We contacted both state and federal governments regarding any sort of assistance, keeping in mind that we have had to pay to demolish our own homes. Because it was not declared a natural disaster by council, the best that we are told we are eligible for is welfare payments. Upon contacting welfare the first thing they do is say, 'What is the valuation on your house?' Then it is: bang, no, you are not entitled to welfare ...

We are sort of stuck in that time warp for two years until this is resolved. We do not have two years of mortgage payments left. We just do not know where to turn. Where do we go?

Source Mr Keys, Transcript of Evidence, 26 March 2009, pp.61-65

4.107 Mr Attwater from SGS Economics and Planning commented that:

> There is a need to allow existing owners to re-evaluate their choices and to suffer minimal losses from the changing conditions, while ensuring in the future that coastal property owners factor in the costs associated with managing developing risk.[139]

4.108 Mr Attwater further proposed that, as existing owners 'were not aware of the developing risk and are not in control of the causes of this developing risk', for a 'period of 25 years, the cost of risk reduction and management measures be borne by the wider community':

> After that time, the cost of further risk management measures would be the responsibility of those that benefit from coastal use or occupation. This condition should eventually be applied to all coastal property titles.[140]

4.109 There was also a proposal that for existing property subject to increasing risk, 'triggers be identified that would require an adaptation response to keep risks at acceptable levels':

> In this way the community will respond to actual changes in risk as the sea level rises or erosion progresses, not to events forecast for the distant future. Triggers should be soon enough to plan action and respond before risk become excessive, not sooner. The action taken should manage the risk as it develops—it need not all be done immediately.[141]

Conclusion

4.110 The Committee recognises that climate change raises many complex legal issues with regard to the coastal zone, as reflected in the many concerns raised by inquiry participants. The Committee also points to the high level of uncertainty about roles and responsibilities in terms of potential liabilities in this area.

4.111 Local councils are at the forefront of day-to-day coastal management and had major concerns in this area. As the evidence provided to the Committee underlines, councils need to develop clearly defined policies to deal with the impacts of climate change and make the risks of climate change impacts an explicit part of their decision-making criteria to assist in limiting their potential exposure to legal action. As the cases discussed

139 SGS Economics and Planning Pty Ltd, *Submission 105*, p. 5.

140 SGS Economics and Planning Pty Ltd, *Submission 105*, p. 6.

141 SGS Economics and Planning Pty Ltd, *Submission 105*, p. 7.

above suggest, consent authorities also need to consider the impacts of climate change on coastal developments through their consideration of ESD.

4.112 That said, however, Professor McDonald emphasised that, in her view:

> the trend now in the courts is to transfer personal responsibility back to individuals and, in respect of a prospective purchaser, for the most part, they probably could make appropriate inquiries now.[142]

4.113 Further, Professor McDonald commented that the 'circumstances in which the common law holds governments liable in some circumstances ... will probably not apply in the future with respect to most coastal climate hazards because, for the most part, in 2009 prospective purchasers are in a position to protect themselves by making appropriate investigations'.[143]

4.114 However, concerns remain about liability and existing coastal developments. Further, there are clearly concerns about legal issues relating to climate change adaptation and the permissible scope of adaptation strategies at the local level. The legal challenges of climate change adaptation therefore require close monitoring and evaluation.

4.115 As discussed, the Australian Government has established the National Climate Change Adaptation Framework, which is at the early stages of implementation. However, the Committee is not aware of any specific work having been undertaken or currently being undertaken by the Australian Government on legal issues relating to climate change impacts and adaptation, particularly with regard to the coastal zone.

4.116 The Department of Climate Change confirmed that it had not at this point:

> worked through a specific policy position on liability. I can say that, in the context of the COAG work, we have flagged the need to develop, on a national basis, a clear statement of roles and responsibilities between government and private sectors—whether that be businesses or communities, down to householders—and within government, between Commonwealth, state and local. We really do not have that blueprint at this time. So that proposition has been on the table in the COAG officials' discussions, and I think it will continue as an immediate focus for how we move that forward. If there is a public policy position on

142 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 107.

143 Professor McDonald, *Transcript of Evidence*, 28 April 2009, p. 107.

> roles and responsibilities then that will start to flow through in terms of liability in the exercise of those responsibilities.[144]

4.117 Given the complex nature of this area, the potentially significant social and economic costs involved and the significant exposure of coastal regions to climate change risks, the Committee believes further investigation of this matter is urgently required. As Professor Stevens from the Australian Academy of Technological Sciences and Engineering commented:

> We realise this is a difficult problem. You can be in legal problems if you do not do something or if you do something ... The legal side needs to be examined much more closely than we have in the past ... I would rather see some research being done now rather than having it all developed by litigation in the courts.[145]

Recommendation 23

4.118 **Noting the gap in research on legal issues and climate change impacts on the coastal zone, the Committee recommends that the Australian Government request that the Australian Law Reform Commission undertake an urgent inquiry into this area, with particular focus on:**

- **clarification of liability issues with regard to public authorities acting or not acting in terms of climate change adaptation and possible coastal hazards (eg legal basis to implement adaptation strategies of protect, redesign, rebuild, elevate, relocate and retreat)**
- **clarification of liability issues with regard to private property holders acting to protect their properties from the impacts of climate change**
- **legal issues associated with the impacts of climate change on existing developments, as opposed to planned new developments**
- **mechanisms to ensure mandatory risk disclosure to the public about climate change risks and coastal hazards (eg legislation harmonised across all states requiring mandatory disclosure of all known and predicted risk data by state and local governments to property purchasers during property conveyance and title search processes)**
- **whether there should be broader indemnification of local government authorities**

144 Mr Carruthers, Department of Climate Change, *Transcript of Evidence*, 18 June 2009, p. 7.

145 Professor Stevens, ATSE, *Transcript of Evidence*, 21 May 2009, p. 22.