Response to Productivity Commission's Barriers to Effective Climate Change Adaptation Draft Report



June 2012



1. Overview of Tasmanian Government Response

As noted in the Tasmanian Government's submission to the Productivity Commission's Inquiry into Barriers to Effective Climate Change Adaptation (the Inquiry), the Government accepts there are climate change impacts that are now unavoidable and it has a role to play to help Tasmanians prepare for these impacts. Significant work is currently underway to assist local and state government, industry and the community understand how they will be impacted by climate change and how to adapt to these impacts.

The Tasmanian Government now welcomes the opportunity to respond to the Productivity Commission Barriers to Effective Climate Change Adaptation, Draft Report (the Draft Report). The Government's response focusses on those recommendations and information requests that are particularly relevant to Tasmania, and where there is sufficient evidence to provide reliable input.

1.1 Tasmanian Context

As previously outlined in the Tasmanian Government's earlier submission. Tasmania's projected temperature changes over the next century are less than the projected Australian and alobal average temperature changes for the same period. This is largely due to the moderating influence of the Southern Ocean¹.

There is no significant change to projected total annual rainfall over Tasmania. However, rainfall patterns across Tasmania, and from season-toseason, show significant changes under high and low emissions scenarios².

Projections show an emerging pattern of increased rainfall over Tasmania's coastal regions, and reduced rainfall over Central and North West Tasmania. A slight increase is projected in the total amount of runoff in the State by 2100, though there are different responses in different regions. Runoff is projected to decrease markedly in Tasmania's Central Highlands by 2100. However, runoff is likely to increase in the important agricultural regions of the Derwent Valley and the Midlands over the same period³.

Changes are expected to the frequency and severity of extreme events, resulting from increasing energy in the atmosphere. For example, rainfall intensity is projected to increase across Tasmania, with longer dry periods in between heavy downpours⁴.

Like other coastal jurisdictions, Tasmania will be impacted by rising sea levels resulting from climate change and warming ocean temperatures. The

¹ Tasmanian Government, Fact sheet 4: Projected Climate Change Impacts for Tasmania, available at http://www.dpac.tas.gov.au/ data/assets/pdf file/0008/146987/Fact Sheet 4 Impacts FINAL.pdf

² As above

³ As above.

⁴ White CJ, Grose MR, Corney SP, Bennett JC, Holz GK, Sanabria LA, McInnes KL, Cechet RP, Gaynor SM & Bindoff NL 2010, Climate Futures for Tasmania: extreme events technical report, Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Tasmania.

Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report of 2007 conservatively estimated a sea level rise of up to 79 cm above 1990 levels by 2100⁵. A recent summary of projections of sea level rise published since the IPCC Fourth Assessment Report suggested a pragmatic range of 0.5-2 m for 21st century sea level rise relative to 1990 levels⁶, assuming a 4 °C or more rise in temperature. It is anticipated that some of the more recent projections will be reflected in the next IPCC report, expected in late 2013.

2. General Comment on the Draft Report

The Tasmanian Government supports the approach taken in the Draft Report, and commends the Productivity Commission for its presentation of the key issues relevant to barriers to adaptation.

The recommendations in the report are acceptable to the Tasmanian Government, noting that specific comment is made addressing them, where appropriate, in the following section.

Consistent with the Productivity Commission's view, the Tasmanian Government recognises that all levels of government have an important role to play in setting principles, directions and priorities for adapting to climate change. A critical part in this process is ensuring effective government collaboration to develop a shared understanding of these roles and responsibilities, and working to ensure that all parties have the resources to discharge them efficiently. The Tasmanian Government is committed to working with other levels of government to undertake this work.

Work is currently being undertaken in the Department of Premier and Cabinet's Tasmanian Climate Change Office to develop an Issues Paper, which will progress the discussion of Tasmania's approach to climate change adaptation among key stakeholders both inside and external to state government.

The five key roles for the Tasmanian Government in climate change adaptation are identified in the Issues Paper as:

- providing public good information;
- taking climate change risks and opportunities into account in policy, planning and regulation;
- managing climate change risks to public goods, assets and services;
- working collaboratively with other spheres of government; and
- identifying and assisting highly vulnerable communities.

Such an approach emphasises the importance of having agreed definition

⁶ Nicholls R, Marinova N, Lowe J, Brown S, Vellinga P, de Gusmao D, Hinkel J, Tol R (2011) Sea level rise and its possible impacts given a 'beyond 4 c world' in the twenty first century. Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences 369: 161-181, DOI 10.1098 / rsta.2010.0291

⁵ Intergovernmental Panel on Climate Change, 2007, *Climate change 2007: the physical science basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Geneva, Switzerland.

of roles and responsibilities at each level of government to ensure the development of policy and regulatory responses that meet the needs of the Tasmanian community and enable effective adaptation to climate change.

3. Responses to the Draft Report recommendations

This section of the Tasmanian Government's response addresses each of the Draft Report recommendations.

3.1 Assessing reforms and setting priorities (draft recommendation 4.1)

Reforms to address barriers to effective risk management in the current climate should be implemented without delay, where they are likely to deliver net benefits.

In relation to barriers to adaptation to uncertain future climate trends, the case is less clear.

- •Where a reform has low up-front costs and potentially large benefits, albeit with long time periods between the costs being incurred and the benefits being received, there could be a case for preparatory action. The case is likely to be stronger if the reform will deliver benefits under a range of climate change scenarios.
- Where measures have high up-front costs, the community is likely to benefit by deferring high cost options until better information becomes available.

The Tasmanian Government accepts this recommendation and its underpinning foundations.

Climate change adaptation needs to be factored into planning decisions by both the private and public sectors. As a general principle, those who bear the risk and benefit from the mitigation of that risk (e.g. reduced damages) will be in the best position to manage a particular risk. Accordingly, local initiatives and private responsibility should be at the forefront of climate change adaptation in Australia because the great majority of direct action to anticipated climate change will be undertaken by the private sector.

Further, because private adaptation is primarily market-driven, it is likely to be efficient and socially optimal, particularly where there are already existing capacity and adaptation options available.

The Tasmanian Government believes that intervention should target demonstrated market failures, where the benefits of intervening are expected to exceed the costs. Unnecessary intervention through overregulation or unwarranted subsidies may lead to market distortions and unintended consequences, and ultimately lower welfare.

In adopting the recommended approach, a key short-term action is to undertake a preliminary analysis of the vulnerability of infrastructure to extreme events, to determine possible immediate responses and pathways for the longer term. The Tasmanian Government therefore recommends that Draft Recommendation 4.1 be expanded to include the benefit of conducting vulnerability assessments of existing infrastructure at a local scale

to inform the prioritisation process.

3.2 Building adaptive capacity (draft recommendation 5.1)

Australian governments should implement policies that help the community deal with the current climate by improving the flexibility of the economy. This would also build adaptive capacity for dealing with future climate change. This includes reforms to:

- taxes that influence the way resources are used, such as land tax exemptions and conveyancing duty, which could inhibit the mobility of labour, capital, or both
- government transfers that reduce incentives to adjust to changing circumstances, such as the reforms recommended in the Commission's 2009 inquiry into drought support
- regulations that impose unnecessary costs or inhibit competition or flexibility and could impede climate change adaptation by reducing the ability of firms, households or other organisations to respond to changing circumstances, such as restrictions to water trading.

In principle, the Tasmanian Government supports reforms that improve the efficiency of the taxation system. This view was endorsed in the State Tax Review Discussion Paper 2010.

However, it should be recognised that states and territories have limited capacity to implement meaningful tax reform, due to a number of factors including government budgetary pressures at state and commonwealth levels and the challenging economic conditions currently confronting businesses and individuals.

Further, states and territories are currently undertaking a process of coordinated state tax reform through the Council of Australian Governments (COAG). The Tasmanian Government supports the consideration of tax reforms to account for climate change adaptation through the COAG agenda.

3.3 Information provision (draft recommendation 6.1)

The Australian Government initiative to improve the coordination and dissemination of flood risk information should be expanded over time to encompass other natural hazards. Guidelines to improve the quality and consistency of risk information should be regularly updated and take climate change into account where feasible.

The Tasmanian Government welcomes improved risk information coordination, provision and dissemination by the Australian Government of this information. The Tasmanian Government has invested in a number of initiatives designed to improve understanding and communication of natural hazard information. The support of the Australian Government in developing

a number of these initiatives is acknowledged.

As noted in the Tasmanian Government's submission to the Inquiry, seven reports have been released under the *Climate Futures for Tasmania* project and over 60 complementary projects have been established to continue the extension and application of the *Climate Futures for Tasmania* results⁷.

Other significant information that has been provided to assist communities and businesses understand climate change related risks include:

- The Vulnerability of Tasmania's Natural Environment to Climate
 Change: An Overview⁸, which is the first assessment of the potential
 impacts of climate change on Tasmania's terrestrial, freshwater and
 marine systems.
- Indicative Mapping of Tasmania's Coastal Vulnerability to Climate Change and Sea Level Rise⁹, which outlines the vulnerability of the Tasmanian coastline to the impacts of climate change and sea level rise. It provides a valuable tool for the assessment of coastal development, zoning and land use planning.
- The Tasmanian Coastal Vulnerability (Stage One) project that provided second pass (high resolution) regional inundation modelling and mapping in geographic information system (GIS) formats under various sea level rise projections and storm surge events.
- A series of eight information brochures highlighting the opportunities of a changing climate to various agricultural sectors, including dairy, wine and cropping.

The need to disseminate climate change impacts information in a form usable and appropriate to end-users is also recognised by the Tasmanian Government. Examples of different types of communication used by the Climate Futures for Tasmania project include:

- Publicising the Climate Futures for Tasmania results on the Land Information System Tasmania GIS website 10. This enables users to 'zoom-in' and access localised climate change information for their area.
- Supporting the ClimateAsystTM infrastructure tool developed by Pitt and Sherry, which applies the Climate Futures for Tasmania climate change projections to infrastructure.
- Providing climate change profiles at a local government area level for all Tasmanian councils. These profiles provide localised climate change impacts information for councils to use in risk based management and planning decision making.

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⁷ The Climate Futures for Tasmania reports are available at http://www.climatechange.tas.gov.au

⁸ Available at http://www.dpiw.tas.gov.au/inter-nsf/WebPages/DRAR-88P8CY?open

⁹ Available at http://www.dpiw.tas.gov.au/inter.nsf/webpages/pmas-6rg5wx?open

¹⁰ Available at http://www.thelist.tas.gov.au.

Further work is currently progressing in several of these areas to improve both the scale of the information and its delivery to the community.

A number of planning reforms are currently being progressed by the Tasmanian Government. These reforms include a range of responses to facilitate effective adaptation to climate change and are underpinned by this improving information base. For example, as part of the development and implementation of a State Framework for the mitigation of Natural Hazards through Land Use Planning and Building Control, the State's approach to managing natural hazards (such as coastal erosion and inundation, flooding, storms, bushfires and landslide) through land-use planning are being articulated in a series of policy statements. A number of statewide planning provisions that address natural hazards and assist Local Government in planning and adapting to the consequences of climate change are also under preparation.

The Tasmanian Government strongly supports this recommendation, however in implementing this recommendation, the Tasmanian Government advocates that the Australian Government coordinates and disseminates this information in a manner that best utilises and reinforces the existing state government expertise, mechanisms and pathways.

3.4 Local government (draft recommendation 7.1)

There is uncertainty about the roles and responsibilities for adaptation by local governments, including in the areas of land-use planning, coastal management, and emergency management. As a first step to clarifying these roles and responsibilities, state and Northern Territory governments should publish a comprehensive list of laws which delegate regulatory roles to local governments. This would assist state, territory and local governments to assess whether local governments have the capacity to effectively discharge their roles.

The Tasmanian Government supports a collaborative approach to clarifying roles and responsibilities for adaptation between all levels of government, and supports this recommendation.

As noted in section two of this response, the development of a Climate Change Adaptation Issues Paper is underway in Tasmania, and this is intended to discuss roles and responsibilities for adaptation by the Tasmanian Government, with reference to possible roles and responsibilities of other levels of government. For Tasmania, this work is particularly important in the coastal area.

The Tasmanian Government will then work with the Australian Government

and Local Government to build a consistent understanding of respective roles and responsibilities. Following this work, the development and implementation of adaptation strategies and actions will be more streamlined.

3.5 Local government (draft recommendation 7.2)

Uncertainty about the legal liability of local governments is emerging as a barrier to effective climate change adaptation. State and Northern Territory governments should clarify the legal liability of local governments regarding climate change adaptation matters and the processes required to manage that liability.

The Tasmanian Government supports this recommendation.

The uncertainty regarding the legal liability of councils and the Tasmanian Government is particularly evident for natural hazards that occur in the coastal area of Tasmania. The Tasmanian Government has recently allocated funding in the 2012-13 State Budget to the development of a coastal protection and planning framework. This budget initiative is anticipated to progress work to clarify the uncertainty about the legal liability of councils over the next 12 months.

Recent work undertaken at the national level notes several measures that can mitigate the potential liability of councils. These measures include:

- ensuring councils are up-to-date with general climate science and information; and
- the development by state governments of integrated coastal planning systems based on up-to-date information.

As noted earlier in this response, the Tasmanian Government has been particularly active in providing downscaled climate information and associated products and tools. It is anticipated that further work to address potential legal issues associated with coastal climate change impacts will be considered in the process of developing a Tasmanian coastal protection and planning framework.

3.6 Planning and building regulation (draft recommendation 8.1)

As a priority, land-use planning systems should be revised to ensure that they are sufficiently flexible to enable a risk management approach to incorporating climate change risks into planning decisions. In doing this, consideration should be given to:

 transparent and rigorous community consultation processes that enable an understanding of the community's acceptable levels of risk for different types of land use

- the timeframe of risks and the expected life time of proposed land use
- the costs and benefits of different types of land use.

The Tasmanian Government supports this recommendation.

Tasmania's Resource Management and Planning System (RMPS) legislation provides a flexible and integrated system to facilitate the application of different land use planning tools to address climate change issues and outcomes. The RMPS provides a comprehensive suite of statutory planning instruments that can be applied at a statewide, regional and local level, including state policies, planning directives, regional land use strategies, local government planning schemes, associated scheme amendment processes and processes for assessing projects of state and regional significance.

For example, the Tasmanian Planning Commission is currently preparing a number of statewide planning provisions applying the planning directive processes in the Land Use Planning and Approvals Act 1993 (LUPA Act) for matters related to adaptation to climate change, including bushfire, landslide, flooding and coastal hazards. These planning directives will further develop the statutory planning system to ensure that climate change adaptation options and risk management assessments are included in strategic land use planning and development assessment decision-making.

Similarly, work is currently being undertaken by the Tasmanian Planning Commission's Coastal Planning Advisory Committee on a coastal management and planning framework, which includes the consideration of emergent issues associated with climate change as well as progressing the development of a sea level rise planning allowance.

3.7 Planning and building regulation (draft recommendation 8.2)

As a priority, the Building Ministers' Forum should ensure that the National Construction Code and associated standards (including those developed by Standards Australia) take climate change impacts into account. As soon as practicable:

- the Building Ministers' Forum should provide a formal response to the Australian Building Codes Board's 2010 review of the Building Code of Australia under climate change
- the Australian Building Codes Board should develop a formal work program that outlines its approach to incorporating climate change in the National Construction Code over time. This work program should reflect any formal government response to the 2010 review of the Building Code of Australia.
- The Australian Government should give consideration to the public funding requirements for the Australian Building Codes Board and Standards Australia to undertake this work.

The Tasmanian Government supports this recommendation.

3.8 Planning and building regulation (draft recommendation 8.3)

The Council of Australian Governments' Select Council on Climate Change should consider, as part of its adaptation work plan, appropriate responses to managing the risks of climate change to existing settlements in high-hazard risk areas.

The Tasmanian Government supports this recommendation.

3.9 Emergency management (draft recommendation 10.1)

The Australian Government should commission an independent public review of the Natural Disaster Relief and Recovery Arrangements. This review should commence as soon as possible and desirably produce a preliminary report by the end of October 2012. The review should consider whether the arrangements lead to inadequate infrastructure investments or insurance decisions, or reduce the incentives of state and territory governments to appropriately manage their risks. It should also examine alternative arrangements or funding models.

The Tasmanian Government does not object to an independent review being conducted of the Commonwealth Government's Natural Disaster Relief and Recovery Arrangements (NDRRA). However, as required by the Natural Disaster Relief and Recovery Arrangements Determination 2011, a review is currently being conducted of the adequacy of the States' insurance arrangements by the Australian Government Department of Finance and Deregulation. It is understood that this review will address many of the issues identified in Chapter 10 of the Productivity Commission draft Report.

The Tasmanian Government considers that the NDRRA are, and should continue to be, a financial safety net for jurisdictions affected by significant natural disasters. The current policy supports the principle of shared responsibility for the costs of natural disasters across all tiers of government.

It is important that this fundamental principle of the NDRRA be clearly articulated in any review. Within this, the clear distinction needs to be drawn between policy outcomes (that measures eligible for reimbursement under the NDRRA seek to achieve) and the operation of the NDRRA as a financial safety net for jurisdictions.

Should such a review be undertaken, the Tasmanian Government will provide a more detailed response through that process.

3.9 The role of insurance (draft recommendations 12.1 - 12.3)

State and territory taxes and levies on general insurance constitute a barrier to effective adaptation to climate change. State and territory governments should phase out these taxes and replace them with less distortionary taxes.

The Australian Government should only proceed with reforms that require all household insurers to offer flood cover if it can be demonstrated that the benefits to the wider community would exceed the costs. These benefits and costs should be assessed, and any reforms implemented, after barriers to effective climate change adaptation in other policy areas are addressed.

Governments should not subsidise premiums for household or business property insurance, whether directly or by underwriting risks. This would impose a barrier to effective adaptation to climate change.

Consistent with its role of identifying and assisting highly vulnerable communities the Tasmanian Government supports this draft recommendation and has made the same point it its submission to the Natural Disaster Insurance Review.

Tasmania's concerns relate to the potential increase in insurers' capital and operating costs as a result of being required to offer flood cover. As identified in the Draft Report, this may result in higher premiums to all policyholders and/or the withdrawal of household cover in some areas, thereby reducing competition and impeding adaptation to climate change.

The Tasmanian Government's position is that governments should not subsidise premiums for households or business property insurance, whether directly or by underwriting risks. This would potentially impose a barrier to effective climate change adaptation.

4. Responses to the Draft Report information requests

This section of the Tasmanian Government response addresses each of the relevant Draft Report information requests

4.1 Hazard risk information (draft information request 6.1)

How useful are property title documents, property certificates, rates notices and rental contracts as means for communicating natural hazard risk information to households and businesses?

The Tasmanian Government supports the increased provision of evidence to landowners to overcome information asymmetries that hinder climate change adaptation by distorting the real cost of living in some locations. Such information could be communicated through title documents, rates notices, certificates and contracts. Such information should also be provided in a format that is useful for the intended audience.

Tasmania does not currently have a requirement for vendor disclosure of natural hazard risks, although there is limited provision for the noting of some risks on land titles. The following examples apply in Tasmania.

<u>Property title documents</u> – Part 5 Agreements under the LUPA Act can provide that any use or development of land (including use and development on land impacted by climate change hazards or other natural hazards) is conditional upon an agreement between the council and the landowner being entered into. These agreements can be attached to a land title and specify management regimes for the land or conditions which prohibit, restrict or regulate use or development on the land.

<u>Property certificates</u> – Section 337 certificates under the <u>Local Government</u> Act 1993, enable a person to apply in writing to the general manager of a council for a certificate in respect of information relating to land specified and clearly identified in an application. The general manager issues a certificate that answers the prescribed questions that are attached to the certificate. A certificate relates only to information that the council has on record at the date of issue of the certificate although a general manager may provide other relevant information or document relating to the land.

Under the LUPA Act, prescribed questions relate to the following:

- Planning scheme or special planning orders
- Current zoning
- Planning restrictions
- Building line or setbacks
- Planning permits
- Planning appeals
- Obstruction of sealed schemes
- Civil enforcement proceedings

Agreements under Part 5 of the LUPA Act

<u>Vendor disclosure legislation</u> – An effective system for vendor disclosure has the potential to identify natural hazards and climate change risk. Clause 8 of the draft Residential Property Transactions Bill 2012 makes provision for including a warning notice in a contract. Better understanding or definitions of natural hazards would be required to give this effect.

What alternatives are available?

The Environmental Management and Pollution Control Act 1994 provides for environment protection notices. Such notices can be issued for environmentally relevant activities (i.e. activities which may cause or are causing serious or material environmental harm or environmental nuisance). An environment protection notice is issued by state or local government to the person who is responsible for the environmentally relevant activity.

Environment protection notices could potentially be used to manage and/or regulate climate change mitigation activities to achieve positive planning outcomes. For example, a notice could be issued to a property owner constructing flood and inundation works on their property that may potentially cause environmental harm or an environmental nuisance to other properties or public land.

What costs and risks would state and local governments incur in providing such information?

A barrier to the implementation of such as system is the lack of widely accepted information relating to the risk of natural hazards. Tasmania is currently engaged in the development and implementation of a State Framework for the mitigation of Natural Hazards through Land Use Planning and Building Control that will enhance our capacity to identify areas susceptible to natural hazards. When this work is completed, the Tasmanian Government will communicate these risks to councils, households and businesses through the appropriate channels.

There are number of costs and risks related to making this information widely available. These include costs associated with implementing legislative change, risks of legal action relating to the identification of risk (information / profiles that negatively impacts property values), and the cost of implementation.

It should be noted that the Tasmanian Government is also aware that there may be costs and risks associated with not providing such information.

4.2 Local governments' legal liability (draft information request 7.1)

The Commission notes the current arrangements in New South Wales to limit the legal liability of local governments through the Civil Liability Act 2003 (NSW) and the Local Government Act 1979 (NSW), and seeks further

information on whether this approach (or alternatives) could fully address the legal liability issues facing local governments in other jurisdictions when dealing with climate change adaptation.

The Tasmanian Government is currently developing its position in relation to this matter and is therefore currently not in a position to respond fully at this point. It is however noted that several measures can reduce the potential exposure of councils to liability.

These measures include:

- ensuring councils are up-to-date with general climate science and information; and
- the development by state governments of integrated coastal planning systems based on up-to-date information.

It is anticipated that further work to address potential legal issues associated with coastal climate change impacts may be considered in the process to develop a Tasmanian coastal protection and planning framework.

4.3 Planning and building regulation (draft information request 8.1)

To what extent do current state and territory land-use planning frameworks facilitate or impede the use of different land-use planning tools, such as time limited development approvals or 'triggers'? What changes are required to state and territory planning frameworks to address any impediments?

As noted in the Tasmanian Government's response to draft recommendation 8.1, Tasmania's RMPS legislation provides a flexible and integrated system to facilitate the application of different land use planning tools to address climate change issues and outcomes. The RMPS provides a comprehensive suite of statutory planning instruments that can be applied at a statewide, regional and local level, including state policies, planning directives, regional land use strategies, local government planning schemes, associated scheme amendment processes and processes for assessing projects of state and regional significance.

For example, as noted in the response to draft recommendation 8.1, the Tasmanian Planning Commission is currently preparing a number of statewide planning provisions applying the planning directive processes in the LUPA Act for matters related to adaptation to climate change, including bushfire, landslide, flooding and coastal hazards.

These planning directives will further develop the statutory planning system to ensure that risk management assessments and adaptation options are included in strategic land use planning and development assessment decision-making. Similarly, work is currently being undertaken by the Tasmanian Planning Commission's Coastal Planning Advisory Committee on a coastal management planning framework, as well as the development of

a sea level rise planning tool. This work will contribute to the 2012 / 13 State Budget funding to prepare a coastal protection and planning framework.

Under the current system, land-use planning tools such as time-limited development approvals or 'triggers' have had limited application in Tasmania, so the ability to implement such arrangements under the existing land-use planning framework has not been widely tested. Legislative amendment may be required to facilitate such planning tools, however its application has not been specifically investigated.

4.4 Planning and building regulation (draft information request 8.2)

The Commission seeks views on individual, business and community preferences for managing the risks of climate change for existing settlements.

- What levels of climate change risk are appropriate for existing settlements?
- Does this differ for private and public assets?
- What approaches should governments take to ensure these levels of 'acceptable' risk are maintained?
- In what circumstances should governments use 'protect', 'accommodate' or 'retreat' options for managing climate change risks to existing settlements?

The Tasmanian Government considers that risk management from natural hazards is not about totally avoiding or eliminating the risk. Natural hazards are a feature of our environment and, in most instances, the potential impacts of natural hazards are manageable.

In some circumstances, the application of the precautionary principle at the strategic level might result in the avoidance of an area with current or future risk being the most cost-effective climate change adaptation response.

Local and State Governments, individuals, developers, and communities must balance the short and long-term costs associated with the impacts of natural hazards against the benefits arising from development, occupation or use of an area subject to natural hazards.

The management of the risks presented by natural hazards requires three core elements:

- Clear guidance on why governments intervene in the use of land when mitigating the potential impacts of natural hazards;
- A transparent framework for translating policies on natural hazards into strategic land use decisions and planning controls; and
- Robust processes to engage all relevant government and nongovernment stakeholders to ensure that a balance of views is considered in setting government policy.

The Tasmanian Government is currently consulting on a set of principles regarding the role of government in mitigating the impact of natural hazards through land use planning and building control. These principles highlight the importance of understanding public versus private risk, supporting the pricing of risk in property transactions, educating and supporting individuals to manage risks and ensuring that governments do not increase public or private risks through policy, regulatory or investment decisions.

Given this background, in response to the questions raised:

- The level of appropriate climate change risk for a community depends on how climate change modifies existing hazards and the pre-existing vulnerability that each community may have. The same principles would apply for private and public assets.
- Government should take a range of actions that could be covered by protect, retreat or accommodate, depending on what is appropriate in terms of values and hazards in each location. The principles being developed would guide any response.
- The circumstances around the choice of protect, accommodate, or retreat as options for a response to climate change depend on having a robust, transparent framework for consultation and decision making that draws in all stakeholders and implements an approach that works for state and local governments and the community.

One approach that is currently being employed in Tasmania to examine these questions in considerable detail is the Tasmanian Coastal Adaptation Decision Pathways (TCAP) project. This project, funded through the Australian Government's Coastal Adaptation Pathways program, is following a decision framework methodology in four low lying coastal areas of Tasmania to develop adaptation pathway that reflects the views of the communities. Analysis of the TCAP project's outcomes when it concludes in September 2012 should prove informative in this area.

The final report of the project will be communicated to the Australian Government in the first instance and the, more generally, to Local Government and the broader community. A standard methodology is being developed as part of the TCAP project that can be applied to other coastal council areas.