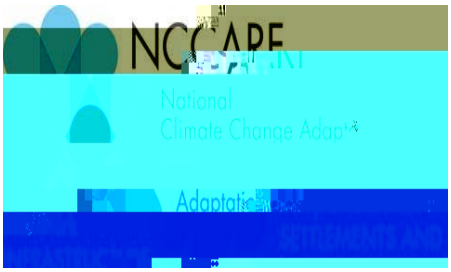

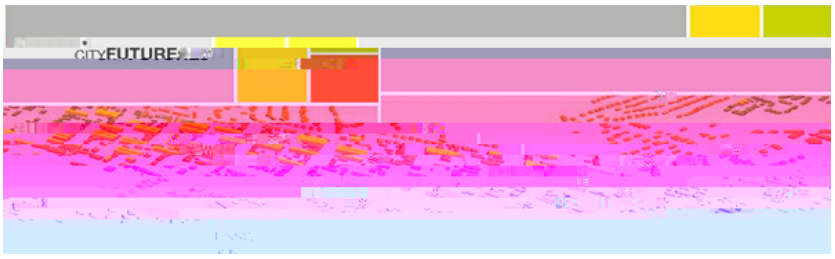

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Executive Summary

Climate change adaptation in the built environment is an emerging policy field. Adaptation planning scenarios such as those being developed by the Victorian Centre for Climate Change Adaptation and Research help to clarify and drive proactive, anticipatory policies and longer-term strategic planning initiatives for vulnerable settlements and infrastructure. Adaptation policies for the built environment also entail transformations of the Australian economy and international treaty commitments to reduce greenhouse gas emissions.

Purposes of this positioning paper:

Many adaptation initiatives and multiple approaches are already happening in the built environment space at local and state government levels. However, members of the ACCARNSI network are concerned about a lack of consistency in these approaches, nationwide. This position paper identifies the need to work towards a national policy framework for adaptation in built environments that provides a clearer sense of purpose and cohesion. The framework of provisional policy goals, drivers, and instruments outlined below provides a basis for working towards adoption of consistent strategic plans, institutional reforms and improved governance arrangements that encourage innovations to capitalise on

Key tasks for national policy-makers include setting goals to drive efficient adaptation strategies and

Position Paper –

The challenges to managing built environments and infrastructures that are most vulnerable to coastal erosion, storm surges and tidal inundation are being addressed by several research organizations including the Built Environment and Coastal Settlements nodes in ACCARNSI, CSIRO's Urban Systems program, City Futures Research Centre at UNSW, Griffith Urban Research and Climate Change Response Unit, and by a standing committee in the House of Representatives[6] House

planning codes and regulations. The DIISR Briefing accentuates these key research findings on barriers from stakeholder interviews: policy issues/concerns for the built environment are stretched across too many portfolios and the fragmented, disjointed governmental structures within which the built environment industry operates. And the multitude of players and scales at which the built environment operates means that there are interfaces government at all levels, from national to local. Policy consistency is requisite.

From a European perspective, the 2nd PEER Report on (Mickwitz et al 2009:25) describes similar barriers and difficulties that multi-level governance and federal structures pose for EU member countries, attempting to harmonise legislation, policies and planning codes.

i. How to ensure consistent planning codes yet encourage innovation?

Enabling innovation in the built environment is a key challenge for national policymakers. They

3.2 Problematic goal setting issues

Deciding other appropriate national policy goals may be made problematic by the complexities of national negotiations on setting consistent industry standards that match international best practice, and Australia's international treaty obligations on climate change mitigation and adaptation. Adding to this complexity is the status of Sydney and Melbourne as cities of global stature (Steele and Burton 2010). Problematic goal-setting include whether to:

i. Apply the subsidiarity principle to adaptation?

The forces attention on locating power and responsibility for sustainability strategies and actions to the lowest appropriate spatial scale of governance[8]. Put simply, this principle asserts that the closer governance and decision-making are to grass roots issues/concerns and contexts, the better for relevance and buy-in through community engagement (Dovers 2005:167). However, this assertion is challenged by the

0 0mT21TT313(36070TD0Tc<05p6339/TT201Tf6.86892.1311TD.0896)Tj/TT31Tf1.51370TD0Tc<037

ü UNEP Sustainable Building and Climate Initiative www.unpe.org/sbci is a partnership between UNEP and major public and private sector organizations, and NGOs. Its goals are:

- **Provide a common platform for the stakeholders:** Provide a global platform for dialogue and collective action from buildings sector stakeholders to address sustainability issues of global significance, especially climate change;
- **Develop tools and strategies:** Develop tools and strategies for achieving a wide acceptance and adoption of sustainable building practices throughout the world;
- **Establish baselines:** Establish globally acknowledged baselines based on the life cycle approach, with a National thghoonon

respectively. That is, structural change requires reliable long-term policies and land-use planning in order to avoid premature capital depreciation. From an investor's point of view, these long investment cycles bear an additional regulatory risk in addition to the risk that emerges from the impacts of climate change

-

i. Reduce the

The adaptation policy instruments and measuring tools for the Australian built environment arena listed below are drawn from international and national sources. They assist decision-makers to:

- Apply systems thinking approaches to unlock capacities for adaptation (CATSS Report 2010: 4)
- Identify and appraise adaptive options to manage risks;
- Choose measures that are no-regret or low-regret, incremental and build adaptive capacities; and
- Determine which adaptive options require a local or regional approach.

However, there is a proviso: some of these adaptation policy instruments and measuring tools will need to be coordinated at all governance levels – national, state, regional, municipalities, enterprise, individual – to enable cost-effective implementation strategies (Bruņeniece and Bisters 2007).

5.1 Tool to link policy vision, sectoral development and review

Source: 'Objective setting for Climate Change Adaptation Policy' AEA Technology Environment and Stockholm Environment Institute, 2005

The policy-framing tool shown above, devised by AEA Technology Environment and Stockholm

Climate change researchers are now using integrated scenario analyses as a methodology to explore complex and uncertain future relationships between the key factors of GHG emissions, different mitigation targets, and requisite adaptation strategies to deal with impacts on important foci including populations, water and food resources, built environments and infrastructure, landuse planning, economic trends, and governance (van Vuuren et al 2011; Ison et al 2010, Jones 2010). Scenario approaches portray projected climate change build shared understandings of the impacts (e.g. exposure, sensitivity, vulnerabilities), and provide a focus on affecting the adaptive capacity and resilience of places, population groups, infrastructure and institutions. Scenario planning strategies also crystallise longer-term policy responses (and implications of failing to respond) and decision making by:

- Clarifying key trends and risks;
- Engaging citizens and stakeholders;
- Provoking and informing debate;
- Developing common understandings;
- Expanding the range of options to be considered; and
- Evaluating likely policy impacts

VCCCAR researchers also

options:

- ü *Salient* – the scenarios address intersecting key factors and significant issues/concerns in international, national and regional domains.
- ü *Legitimate* – the scenarios are grounded in the weight of scientific evidence and/or in

[13] resolve tensions between experts' technical knowledge vis-à-vis local citizens' lay knowledge of adaptive management issues. Locals are enabled through stringent facilitation to speak on par with scientists and environmental managers, without feeling intimidated by technical jargon and rank. It is a collective learning process rather than a dispute between parties where each side assumes possession of the necessary facts (Ison 2004).

iv. Engage early adopters and champions

Adaptation policies are unlikely to be effective without

(Green lights graphics courtesy of Parsons Brinckerhoff Australia)

6.3 Reassess priorities through adaptive learning

Research and evaluation methods to scope emerging opportunities for implementation pathways include in interviews and surveys of influential thought leaders to gain their insights on emerging trends and innovations (Patton 2010: 330) and subsequently engage them as champions of a preferred implementation pathway. Ongoing reassessments of national policy goals, priorities and options for the national policy framework can be guided by adaptive learning and evaluative thinking questions, including:

- Does the of the intended policy goals, priorities and options stack up? Are the internal logic statements – i.e.

7. Conclusion: Pathways to Implementation

The most crucial implementation pathway is longer-term strategic planning. Appropriate ways to reach towards this outcome and other recommended policy priorities and options, in the next year or so, include:

vii. Lobbying for a national advisory body for adaptation in the built environment, akin to Infrastructure Australia

viii. Tabling this position paper at the next LGPMC meeting and at the new COAG Ministerial Council to address climate change issues (to be convened in the second half of 2011)

ix. Publication as an on-line issues paper open for comments and feedback

x. Dissemination through relevant professional associations including the BDEP, ASBEC, AILA and ATSE

xi. Liaison with Local Government Associations in each State and Territory and ALGA

xii. Stakeholder roundtables

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Appendix A: Glossary of key adaptation concepts

'Climate change', 'adaptation' and 'vulnerability' are defined differently by international organizations

Position

Appendix B: Call to Action from BEDP

The Australian Council of Built Environment Design Professions (BEDP) is calling on the federal and state governments to develop an overarching sustainable settlement policy as a matter of national priority. In the face of international recognition of the emerging threats posed by abrupt and irreversible damage to the climate of our planet, governments around the world are increasingly adoptingincreasingly

Appendix C: Developmental Evaluation and policy making

Developmental evaluation is a collaborative decision making enterprise designed to support continuous improvement, adaptation and intentional change. As a member of a team tasked with formulating innovative responses to thorny strategic policy and program development issues, the evaluator plays a key role in elucidating team discussions with evaluative questions and logic, applying program

> intervals. It means giving feedback quickly after a significant event or action occurs… evaluators very literally expect the unexpected and reserve part of their evaluation design for "rapid response research." These methodologies are not planned up front but are designed and implemented as needed to address emerging strategy-related questions." (Heather Wiess, The Harvard Exchange, XIII (1) Spring 2007: pp. 1-3)

Appendix D: Vulnerable built environment sectors and adaptation responses

Sectors at risk	Potential impacts	Adaptation responses	Key reports and legislation frameworks
Cities and Coastal Communities	Provision of basic services is challenged: water, energy supply, transportation etc Coastal areas under threat of inundation & erosion, especially major infrastructure damaged due to increased storm & cyclone intensity/ frequency & associated		

		change in Finland on chosen impact areas & different time periods in 21st century.	
	France:	**Local Future Climate Change Scenarios** Observatoire National sur les Effets du Rechauffement Climatique (ONERC)	ONERC web site: <www.ecologie.gouv.fr/-ONERC-.html>
	United Kingdom Climate Initiatives Programme (UKCIP)	**UKCIP Adaptation Wizard**: Intro>Themes>Buildings>menu	