Submission to the Legislative Council, Environment & Planning Committee

Inquiry into Climate Resilience

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The author has been involved in consideration of climate adaptation for more than a decade contributing to a study on low-lying coastal communities in 2012 (Stanley et al. 2013) supported by the then National Climate Change Adaptation Research Facility. More recently, he has been working with the National Academy of Public Administration (NAPA) in the United States and the Institute of Global Public Policy at Fudan University in China on comparative adaptation governance. He has conducted workshops in rural Victoria (Euroa and Shepparton) on adaptation governance as part of the NAPA/Fudan project supported by the Goulburn Broken Catchment Management Authority. He has contributed to discussion on adaptation at an international level (through the UNFCCC) and national level (National Risk Assessment and Adaptation Plan). His PhD was in environmental governance with a focus on multistakeholder governance.

General comments

With the world currently on a trajectory toward a 2.5-degree temperature rise by the end of the century and the potential to exceed its carbon budget by the end of the decade[1], loss and damage as a result of climate change will be high and growing[2]. Adaptation represents the buffer between mitigation (avoided climate impacts) and loss and damage (the full social, economic and environmental costs of climate change). Internationally, there is great frustration and disappointment with slow progress on the Global Goal on Adaptation (GGA)[3]. In Australia, the Commonwealth Government is in the process of preparing Australia's first national risk assessment and adaptation plan.

At COP 28 in the UAE last year, parties to the Paris Agreement agreed the UAE Framework for Global Climate Resilience[4] while recognising the importance of finance, technology and capacity-building. The parties also recognised the importance of factors such as leadership, institutional arrangements, policies, data and knowledge, skills and education, public participation, strengthened and inclusive governance were also crucial to enabling adaptation action. It identified targets for adaptation to be achieved by 2030 and beyond related to water, food and agriculture, health, ecosystems and biodiversity, infrastructure and human settlements, poverty and cultural heritage.

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[1] Decision CMA.5 COP 28 Outcome of the first global stocktake advance unedited version. See paragraph 18 where the stocktake expects an increase in the range of 2.1 to 2.8 degrees "with the full implementation of the lates nationally determined contributions" p.4

[2] For a discussion on loss and damage from climate change in Australia see the 2023 Intergenerational Report prepared by the Commonwealth Treasury: https://treasury.gov.au/publication/2023-intergenerational-report

[3] Decision CMA.5 COP 28 Glasgow-Sharm el-Sheikh work program on the global goal on adaptation referred to in decision 7/CMA.3 advanced unedited version

[4] Ibid paragraph 8-10

The Framework for Global Climate Resilience sets out four steps; (1) undertake an impact, vulnerability and risk assessment, (2) develop a climate adaption plan supported by policy instruments and planning processes, (3) Implement adaptation plans to reduce impacts and, (4) design and operationalise a system for monitoring, evaluation and learning (MEL) for adaptation. In its global adaptation gap report[5], the UNEP identified that a growing number of countries are undertaking risk assessments and plans but few are demonstrating implementation and fewer have MEL systems.

In Victoria, the *Climate Change Act 2017* sets out requirements for adaptation action plans for at least seven systems including built environment, education, health, water, agriculture, transport and natural environment (sections 34 to 40). Adaptation is also a consideration in the climate change strategy to be prepared by the Minister (sections 29 to 33). Both the climate strategy and individual action plans are to be reported on five-yearly cycles commencing on 31 October 2020 (climate change strategy) and 31 October 2021 (adaptation action plans). The climate strategy is required to consider the latest climate science however the adaptation plans "may" consider additional risks and vulnerabilities. Both the strategy and action plans are required to report on implementation and effectiveness of the previous five-year plan or strategy.

General concerns regarding climate adaptation governance in Victoria

In addition to the specific responses below, there are a number of weaknesses in climate change governance in Victoria that undermine adaptation governance:

(a) While the *Climate Change Act 2017* was in many ways a leading-edge example of climate legislation, it is in need to further amendment to align with global best practice particularly in relation to adaptation
(b) The Act does not address the four elements of the Framework for Global Climate Resilience particularly in relation to risk and vulnerability assessment, implementation, monitoring, evaluation and learning (MEL)
(c) While Victoria has undertaken some leading work in understanding the implications of climate science for Victoria, this is not the same as a formal risk assessment
(d) In particular, Victoria should consider second, third and fourth order impacts associated with climate[6] particularly in so far as these relate to issues of equity and care for our citizens (see attachment 1, page 9-11 for a short description)
(e) In relation to implementation, Victoria does not appear to have a consistent and transparent approach to implementation. While investment in implementation was clearly identified some years ago, that has not been the case in recent years

[5] Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed. Adaptation Gap Report 2023, United Nations Environment Program (UNEP), 2023
[6] Stanley, J. et al. 2013, What would a Climate-Adapted Settlement Look Like in 2030? National Climate Adaptation Research Facility, Gold Coast, Australia

(f) Experience working with rural communities[7] suggests there has been little embrace of collaborative governance models for transformational change widely discussed in academic literature and by various international reports[8]
(g) As highlighted in our recent report for the National Academy of Public Administration[9], while mitigation efforts can focus on global and national targets, adaptation goals and priorities are local and influenced by local considerations.
(h) Experience[10] suggests communities feel frustrated and powerless. They have the networks to develop local adaptation priorities but need support with finance, science and legal frameworks from state and federal governments to implement
(i) Existing institutional models that prioritise funding with top-down approaches through agencies or, are based on responsive action following emergencies are not addressing concerns about prevention and anticipation of climate impacts
(j) The Boundary Centre model developed for California by Professor Mark Pisano and Rob Lempert offers one suggestion for incorporation science and financing with local decision-making in Climate Sustainability Districts (see attachment 2)
(k) Victoria has a model for reporting climate adaptation (MERI Framework) however there is little evidence of this being implemented particularly in relation to the proposed three-yearly review of adaptation proposed in the framework
(l) Developed in 2018, the monitoring and evaluation framework needs to be reviewed to align with the Global Framework and current international thinking as reflected in the two-year *UAE – Belem work program* on indicators[11]
(m) Five-yearly reporting (*Climate Change Act 2017*) is clearly inadequate; it fails to maintain momentum for adaptation action, it does not specify a monitoring and evaluation framework, intervals are too long (only one review before 2030)
(n) Greater coordination and accountability from a lead agency are required to drive adaptation action. The Biden Administration in the United States has combined coordination of Federal agency Climate Adaptation Plans with accountability
(o) U.S. Federal agencies were required to prepare climate adaptation plans in 2020. These were released in 2021 and updated with progress reports in 2022. This year, agencies released updated plans for 2024-2027 with common indicators[12]

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[7] Report on the Goulburn Broken Catchment Management Workshop on Adaptation and Climate Change, Spencer, M, Stanley, J, Wohlgezogen, F, Zhu-Maguire, I, 2022,
[8] For example: Intergovernmental Panel on Climate Change (IPCC) 2022, *Climate Change 2022, Impacts, Adaptation and Vulnerability, Technical Summary*, February, p.71 https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/; Intergovernmental Panel on Climate Change, Sixth Assessment Report, Summary for Policymakers (2022) https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf; Fook, T (2017) Transformational Processes for Community-Focused Adaptation and Social Change: A Synthesis, Climate and Development 9 (1), 5 - 21
[9] Adapting to the Impacts of Climate Change: A Comparative Study of Governance Processes in Australia, China and the United States, National Academy of Public Administration, Washington DC, April 2024
[10] Spencer et al. 2022 *op cit.* also Report on Shepparton Climate Adaptation Workshop, Spencer, M, Wohlgezogen, F, and Stanley, J, 2024
[11] Paragraphs 39 – 42 of the Glasgow – Sharm el Sheikh work program, 2023, op cit.
[12] See: https://www.whitehouse.gov/briefing-room/statements-releases/2024/06/20/fact-sheet-biden-harris-administration-releases-agency-climate-adaptation-plans-demonstrates-leadership-in-building-climate-resilience/

(p) Indicators were developed in collaboration with the Council on Environmental Quality and Office of Management and Budget to improve assessment and communication of climate adaptation efforts across the Federal government[13]
(q) Victoria needs a lead agency or special office to coordinate and lead on adaptation, a comprehensive risk and vulnerability assessment, more regular reporting against a consistent set of metrics and, new forms of governance to engage, empower and support local communities on adaptation.

Specific Comments

In response to the Inquiry's Terms of Reference (4 October 2023), I would make the following observations:

1) The main tasks facing Victoria's built environment and infrastructure from climate change and the impact these will have on the people of Victoria.
   a) Priorities and strategies for addressing climate change impacts are best established through a comprehensive and systematic risk analysis. This has not been undertaken in Victoria
   b) Analysis of climate impacts is best undertaken through a systems approach that considers interconnections between events and individual subsystems such as built environment
   c) In this context, it is important that the analysis considers second, third and fourth order impacts rather than only focus on first order impacts. See discussion of fist to fourth level impacts in attachment 1

2) How the Victorian Government is preparing for and mitigating the impacts of climate change on our built environment.
   a) While risks have been identified and an adaptation plan prepared, this would be stronger if was based on a systemic risk analysis, if the adaptation plan and implementation had a consistent reporting and implementation metrics.
   b) Given the lack of a comprehensive risk analysis, regular reporting and a monitoring, evaluation and learning framework, it is difficult to say with any authority how Victoria is going
   c) The lack of bottom-up mechanisms and local adaptation governance excludes the most important part of an adaptation strategy, local participation. Our experience suggests this is struggling in Victoria[14].

3) The barriers facing Victoria in upgrading infrastructure to become more resilient to the impacts of climate change, including barriers in rebuilding or retrofitting infrastructure, including but not limited to, issues relating to insurance and barriers faced by local government.

[13] See: https://www.sustainability.gov/pdfs/indicatorsmetrics-2024-cap.pdf
[14] Based on experience of workshops in Euroa and Shepparton

a) Without commenting specifically on building obstacles, lack of investment in preparedness is a problem. Too much reliance is placed on disaster response after an emergency event as noted by the Productivity Commission[15]
b) Insurance is a major issue facing both private and public property owners. Failure to attract insurance has a flow-on effect to a failure to raise loan or investment capital that can stop construction or reconstruction
c) This problem of insurance was evident, for example, after the Lismore floods where part of the centre of the town was uninsurable after the event which meant they could not raise funds for reconstruction and remained derelict.

4) The adequacy of the current Victorian planning system as it relates to its adaptation to, preparation for, and mitigation of climate change impacts.
   a) I will leave this for people with greater depth of knowledge of the planning system to comment.

5) What more could be done to better prepare Victoria's built environment and infrastructure, and therefore the community, for future climate disaster events.
   a) A comprehensive assessment of risks and vulnerabilities to establish priorities
   b) Assessment of first to fourth order risks and vulnerabilities
   c) Short, medium. Long term planning to address risks and vulnerabilities
   d) Support for localised governance of adaptation risks and vulnerabilities
   e) Support local adaptation governance with access to finance and science
   f) Adoption of common monitoring, evaluation and learning framework
   g) More regular reporting on adaptation progress toward agreed targets

6) Whether further inquiries or investigation may be needed into other aspect of climate change adaptation and climate disaster preparedness in Victoria, noting that climate change will have for-reaching impacts on all aspects of Victorian life, including but not limited to biodiversity, human health, primary production, industry, emergency services and more, and that while these areas may overlap with the matters covered in this inquiry, they may also warrant further investigation in their own inquiries.
   a) Climate will have a significant impact on the Victorian community. It is now most unlikely that the Paris Agreement target will be met therefore increasing loss and damage. Adaptation is a way of reducing and dealing with loss and damage. It is no longer adequate to address adaptation the way it is being addressed in Victoria. It will require central coordination to facilitate collaboration with agencies, local government and communities on adaptation planning, develop a common language and approaches, undertake risk assessments and develop plans, to link science, knowledge and law with local governance, to develop and implement a common set of metrics (indicators), to monitor and report regularly to government, the Parliament and the community on progress. This role is tentatively titled the Office of Adaptation Coordination.

[15] For example, in its 2014 report the Productivity Commission estimated that Australian Government pre-disaster mitigation expenditure was only 3 per cent of what it spent post-disaster. *Natural Disaster Funding Arrangements*, Productivity Commission Inquiry Report Volume 1, No. 74, December 2014

b) In developing and legislating for the Office of Adaptation Coordination, current provisions in the *Climate Change Act 2017* could be brought up to date with international developments particularly in relation to the Framework on Global Climate Resilience both in terms of the approach to adaptation and the targets for adaptation. This update should also be mindful of Commonwealth action on adaptation as a result of the current risk analysis and adaptation plan.
c) Review of the Act should consider provisions in the *Climate Change Act 2022* (Cth) in relation to promoting accountability and ambition through annual statements and a requirement that these statements be tabled in each House of the Parliament, the role of the Climate Change Authority as a source of independent advice to the Minister and requirements for periodic review of the Act (first review within five years, subsequent reviews within 10 years).

Dr Michael Spencer
[redacted]