SPACE PLACE & CULTURE

Our Place,
Our Environment,
Our Future

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> First, I worry about climate change. It's the only thing that I believe has the power to fundamentally end the march of civilization as we know it, and make a lot of the other efforts that we're making irrelevant and impossible.
>
> Bill Clinton

For Australians, our sense of space and place are central to our identity and culture. From the first inhabitants of Australia to the diverse range of migrants who have made their way here, this country represents a freedom and way of life that is envied the world over. Yet Australians cannot afford to be complacent. The summer of 2012–2013 has seen temperatures skyrocket and very large, destructive bushfires. Indeed, the summers of the past 10 years are a litany of natural disasters, beginning with fires in the suburbs of Canberra in 2003 that destroyed or damaged over 500 houses and killed four people. The climate events of fire, flood, cyclones and drought have always occurred throughout Australia's history, but the undeniable forces of climate change mean that the term 'natural disasters' is becoming a misnomer. And it is the city–dwellers in Australia who need to prepare themselves, just as those who live in regional and rural Australia have always been aware of the impact of climate on their lives.

In 2012, RIO + 20 participating nations resolved to 'recognize that if they are well planned and developed, including through integrated planning and management approaches, cities can promote economically, socially and environmentally sustainable societies'.[1] The United Nations Secretary General Ban Ki-moon refers to the Urban Century.[2] The Australian Prime Minister's White Paper on Asia refers to the Asian Century and urbanisation.[3] At the UN Climate Change Conference in Doha 2012, progressive business, cities and regional alliances confirmed their commitment to tackling climate change. Urbanisation and climate change are two of our greatest challenges, and managing both effectively will have a profound influence on where we live — our place. The future of our cities and regions in the context of sustainability and climate change is a very significant challenge facing Australia.[4,5]

This chapter examines some of the current and future issues concerning sustainable development, the opportunities for mitigation and adaptation to climate change, and what this might mean on the ground for our cities, coasts and regions in Australia. A broad framework of sustainable development is adopted for this discussion, including social, environmental and economic considerations, with the primary consideration being a healthy planet. Some of the key trends in Australian cities and towns are discussed, followed by the challenges and opportunities for sustainable urban and regional futures. Recent urban, coastal and climate change research is also discussed within the context of current international dialogues on human settlement and climate change.

This chapter will explore the following areas:

1. Identification of some key trends in Australian cities, including urbanisation and climate change, and possible implications for sustainable development.

2. The challenges in planning for urban and regional futures in the context of sustainability and climate change.

3. An exploration of the opportunities for cities, coasts and regions — the places we live — and some recommendations for action.

4. Conclusions on our place, our environment and our future.

Urbanisation, climate change and sustainable development

Urbanisation

During 2012 there were three major international gatherings on cities and climate change: (1) RIO + 20 United Nations Conference on Sustainable Development, (2) the World Urban Forum convened by UN Habitat to focus on urbanisation and developing nations, and (3) the UN Climate Change Conference in Doha, which had the aim of negotiating the global climate change treaty. As a participant in all three gatherings I became very aware of the increasing recognition of the impacts of urbanisation and potential connections to action on climate change. Global trends in urbanisation and the impacts on climate change featured in all discussions. The outcome of RIO + 20 placed a strong emphasis on cities. The Secretary General concluded that the pathway to sustainability is through our towns and cities. The meetings also confirmed my long-held belief that community involvement in these processes is critical for long-term change.

The United Nations' report, *World Urbanisation Prospects 2012,* estimates that by 2025, '750 cities of over half a million people and 360 cities over one million in size will exist in the greater Asia region'.[6] This urban growth is predominantly in rapidly urbanising nations to the north of Australia.

A similar trend of urbanisation continues in Australia. The *State of Australian Cities 2012* shows continuing dominance of the capital cities. This annual report by the Australian government highlights that:

• Melbourne and Sydney have absorbed 40% of population growth since 2001

- the proportion of people living in capital cities has increased steadily over the past 40 years
- there is a rising ageing population
- there is a reduction in home ownership, with 60% of homeowners owning their house outright in 1996 compared to 46% in 2011
- rental vacancy rates have remained very low across all capitals, but are particularly severe in Perth, Darwin and Canberra
- there is a continuing trend of large houses with a reduction in the size of units
- after reaching a peak in 2005, per capita urban passenger transport (the number of kilometres travelled per person) has declined more steeply and for a longer period than since the Great Depression.[7]

These points provide an insight into some of the social and economic issues within and between cities. If we overlay some of the critical environmental concerns such as water, biodiversity and renewable energy, you can begin to appreciate the scale of the challenge of planning for a more sustainable future.

Coastal urbanisation is another particular characteristic of urban settlement in Australia, with over 80% of the population living in the coastal zone.[8] This pattern of urban development reflects both a love for the coastal environment[9] and the location of our capital cities (except Canberra), with associated economic and social activity.

Coastal communities have experienced significant change in recent years. Many have undergone rapid growth while other smaller ones have experienced decline due to structural change and out-migration. Overall, 'coastal communities have experienced population growth at levels well above the national average. Between 1997 and 2010 the population of

coastal areas outside the nation's metropolitan areas increased by two million people — from 4.9 million to 6.9 million'.[10] Local government estimates are that the coastal population outside the capital cities could reach 12 million by 2050. Such coastal urban growth will lead to consequent demands for infrastructure and services. There will also be increasing pressure to develop 'vulnerable lands' exposed to coastal inundation and extreme weather events. This situation will be exacerbated by the impacts of climate change.

The scale of population increase by 2050 highlights the need for a national growth management plan as an integral part of a sustainable population strategy.[11]

In response, the councils established the National Sea Change Taskforce to highlight the pressures on coastal communities, particularly those facing urban growth — South-East Queensland, the NSW north coast, the edge of metropolitan Melbourne, and south west of Perth. The objectives of the National Sea Change Taskforce are to:

> support and advance the interests of coastal councils and their constituencies; provide national leadership in addressing the impact of the 'sea change' phenomenon; work collaboratively with local State and Federal Governments to develop a coordinated approach to managing population and tourism growth in coastal areas.[12]

In a series of research reports the taskforce has identified some of the key issues in coastal urbanisation.[13] These include relatively rapid urban growth, demand for infrastructure, and lack of community services.

The National Sea Change Taskforce has developed a sustainability charter to provide a framework for decision-making and investment in those towns and regions experiencing 'transition'. The principles adopt a sustainable development model with strong emphasis on intergovernmental coordination and integration of coastal planning and management.[14]

Since then, considerable emphasis has been placed on an even greater challenge — planning for coastal climate change, including coastal inundation; risk to critical infrastructure; and increasing incidence of bushfires. These impacts and the co-incidence of events are discussed later in this chapter.

Urbanisation and coastal development have been accom-panied by an increasing interest by governments in regional development. This policy agenda has been driven by the Australian Government through the Regional Development Australia program, an initiative of the Hon Simon Crean MP. With 55 Regional Development Committees across Australia, the objective is to 'consult and engage with communities; promote and participate in regional programs and initiatives; provide information and advice on their region to all levels of government, and support informed regional planning'.[15]

The regional program is hosted by the Department of Regional Australia, Local Government, Arts and Sport and supported in part by the one billion dollar Regional Development Australia Fund (of which I am Deputy Chair). The emphasis on regional planning throughout Australia has encouraged local jurisdictions to work together on complex issues such as urban development, transport, community facili-ties and climate change. It has also provided the opportunity for building capacity in regional communities to plan for their long-term futures.

Planning for environmental change

The projected risks in relation to the impacts of climate change include sea level rise and exposure to more extreme weather events such as floods and bushfires. The mapping of coastal inundation risk and implications for residences and infrastruc-ture were initially outlined in two major national reports:

1. *Climate Change Risks to Australia's Coasts*[16]
2. *Climate Change Risks to Coastal Building and Infrastructure*.[17]

The implications of climate risks are receiving national attention, particularly the vulnerability of national infrastructure such as major airports and transport. The Australian Climate Commission established by the Australian Government in 2011 has a charter to provide all Australians with an independent and reliable source of information about the science of climate change, the international action being taken to reduce greenhouse gas emissions, and the economics of a carbon price. In its report, *The Critical Decade — Climate Science, Risks and Response*s, the Commission outlined the five key messages on the science:

- There is no doubt that the climate is changing. The evidence is overwhelming and clear.
- We are already seeing the social, economic and environmental impacts of a changing climate.
- It is beyond reasonable doubt that human activities — the burning of fossils fuels and deforestation — are triggering the changes we are witnessing in the global climate.
- This is the critical decade. Decisions we make from now to 2020 will determine the severity of climate change our children and grandchildren experience.[18]

Since then, considerable research has occurred at all levels of government (e.g. Department of Climate Change and Energy Efficiency) with research institutions (e.g. the Commonwealth Scientific and Industrial Research Organisation [CSIRO] and the National Climate Change Adaptation Research Facility) and non–government organisations (e.g. National Sea Change Taskforce). The landmark national action on mitigation was the introduction of the carbon price on 1 July 2012. This provided an economic framework for industry adjustment to reduce carbon emissions. At the regional and city level, there is action on both mitigation and adaptation, particularly by capital city local governments of Sydney and Melbourne, as part of the C40 group.

At the city level, Sydney City Council has introduced a wide range of measures and is an active member of the global cities alliance group C40. Through its active Lord Mayor, Clover Moore, Sydney has committed to very significant reductions in greenhouse gas emissions by 70% from 2006 levels, by 2030. Similarly, Canberra, through the ACT Government and the *Climate Change and Greenhouse Gas Reduction Act 2010,* has ambitious targets, with zero net greenhouse gas emissions by 2060, peaking per capita emissions by 2013, reducing 40% of 1990 levels by 2020 and 80% of 1990 levels by 2050. In the 2012 ACT elections, the re-elected minority Labor Government, in negotiating a minority government with the Greens, committed to a number of very significant measures, including the building of light rail and renewable energy targets of 90% by 2020.

Action on planning for climate change in the coastal environment is mixed. In a survey of coastal councils, Gurran and colleagues noted the following points:

1. Beyond Australia's capital cities, urban growth pressures focus on the coastal zone.

2. While some coastal areas have climate adaptation strategies few actions have been completed.

3. Few local authorities have incorporated climate risk in planning frameworks.

4. State planning law on coastal climate risk is complex and inconsistent, undermining action.

5. Rising community scepticism towards climate change has eroded political commitment in some areas.[19]

The audit also indicates that:

> Some areas are well underway towards holistic adaptation strategies, but others have neither engaged, nor anticipate, adaptation planning activities; of the strategies that have commenced, few are yet completed; and, despite ongoing development pressure, few

councils have yet developed their planning controls for
climate risk.[20]

Gurran, Norman, and Hamin developed a 'ladder of opportu-
nity' in adaptation action to assist local decision-makers in
preparing for climate change. This proposes a sequence of
adaptation actions along a continuum that commences with
easily achieved results to more complex solutions involving
cost and political commitment.[21] It illustrates how local input
is critical in developing coastal urban futures and climate
change adaptation actions. This has been further recognised in
a national coastal research project — Coastal Urban Futures:
Wollongong to Lakes Entrance[22] — involving a range of local
leaders and decision-makers in coastal planning and manage-
ment. In this study, the emphasis is moving from simply under-
standing the science to working with key decision-makers in
coastal communities to identify practical pathways for coastal
adaptation for 2030 and beyond.

At the Doha Climate Change Conference in November
2012, planning for adaptation received international support,
particularly for identifying 'ways to further strengthen adaptive
capacity of the most vulnerable'.[23] While nation state discus-
sion progressed very slowly, this was in contrast to considerable
action at the city and regional levels of government. At both
RIO +20 and Doha, this included the Clinton Climate
Initiative (CCI) Cities program and Arnold Schwarzenegger's
R20 Regions of Climate Action.

In its final advice to the Minister for Climate Change &
Energy Efficiency, Greg Combet MP, the national Coasts and
Climate Change Council recommended to the Australian
government the following strategies to improve capacity to
adapt to climate change:

• climate risk protection standards to guide planning and
  investment

- improved decision-making through better science and information
- coastal policy and regulatory reform
- on-ground adaptation for tackling hotspots and integrating climate change into the national agenda in three key areas — the national, urban, and regional policy agenda
- insurance and banking sector reform
- managing natural disaster risk (planning and response).[24]

The second part of this chapter explores some of the key issues that influence the capacity of the urban and regional planning system to provide credible pathways for sustainable development.

Challenges in planning urban and regional futures

The trends in urbanisation, coastal urbanisation, regional development policy and planning for climate change provide a broad context for considering some of the challenges for urban and regional futures. While there are many challenges facing cities and regions in the future, including transport, housing, urban design, biodiversity, water, and climate change, the following four issues are highlighted as fundamental to enabling an effective planning process:

1. integrity in the planning process, including transparency and accountability
2. an integrated approach to sustainable development
3. a risk management approach for adapting to a changing environment
4. effective implementation over the long term.

Integrity in the planning process: Identifying responsibility

Transparency and accountability in decision-making in land use planning is vital to ensure that vested interests are declared and the wider community is engaged in the process. This is an

essential foundation for a credible urban and regional planning system. Following an inquiry into the NSW planning system in 2012, the Independent Commission on Corruption (NSW) (ICAC) stated:

> In recent years, there has been an increasing tendency towards departures from the stated requirements. The existence of a wide discretion to approve projects, which are contrary to local plans and do not necessarily conform to state strategic plans, creates a corruption risk and community perception of lack of appropriate boundaries. A re-emphasis on the importance of strategic planning, clear criteria to guide decisions and a consistent decision-making framework will help address this issue.[25]

In more recent times, with a changing political landscape at the state level, there has been a stepping back from regulation overall, including planning and environmental management, softening of urban growth boundaries, and removal of climate change policy frameworks and strategic coastal planning. This is at a time when the science on climate change is increasing in confidence[26] strongly indicating that a precautionary approach be taken in decision-making on land-use decisions.[27] Alongside transparency and accountability there needs to be a clear policy framework that can achieve both coordinated and integrated outcomes. The process of developing this is important to delivering long-term sustainable outcomes beyond the next election. Confirming this, the first two recommendations by ICAC NSW in its report, *Anti-Corruption Safeguards and the NSW Planning System*, are:

> Recommendation 1
> That the NSW Government ensures that discretionary planning decisions are made subject to mandated sets of criteria that are robust and objective.

> Recommendation 2
> That the NSW Government makes it mandatory that major strategic policy documents are considered during the making of planning instruments.

In summary, the urban and regional planning system needs to be transparent and accountable in the decision-making process, supported by an agreed set of major policy outcomes for sustainable development.

An integrated approach to sustainable development

Sustainable development requires an integrated and coordinated approach that provides for both vertical and horizontal integration of policy development. In a federal system this can be difficult to achieve. In an effort to provide a more coherent policy framework for sustainable cities in Australia, the Council of Australian Governments (COAG) commissioned a report through the COAG Reform Council — the Review of Capital City Strategic Planning Systems 2012, chaired by Hon Brian Howe MP.

The final report to the COAG Reform Council made six recommendations, with an emphasis on collaboration and integration. In particular, recommendation 3 (in part) states that:

> COAG should focus continuous improvement efforts on outcomes in cities, including through collaboration by governments to improve information and data about Australian cities; a commitment by evidence-based policy interventions in cities; and clear frameworks for measuring progress and monitoring of strategic planning in cities.[28]

The Review found that:

> while jurisdictions made considerable efforts to improve their strategic planning systems, no jurisdiction was found to be wholly consistent with the nine nationally agreed criteria. It highlighted the need for ongoing targeted and agreed intergovernmental cooperation on cities issues to help all levels of government get in place effective strategic planning systems.[29]

The nine nationally agreed criteria referred to include integration, hierarchy of plans, nationally significant infrastructure,

nationally significant policy issues, capital city networks, planning for future growth, frameworks for investment and innovation, urban design and architecture, accountabilities, intergovernmental cooperation, evaluation, and review.

As discussed earlier, integrated regional planning is also experiencing a renaissance, with the support of the Australian government. Each of the 55 regional development committees is required to prepare a regional plan. These plans are reviewed annually, resulting in an increasing awareness and capacity in regional planning throughout Australia. The integrated nature of this planning is providing a positive foundation for discussion on sustainable development and green growth opportunities in regional Australia.

Risk management: planning for climate change and extreme weather
The urban and regional planning system in Australia was designed at a time when climate change (e.g. coastal inundation) was not factored into decision-making on land use. The research by Gurran et al. indicates that there are certainly examples where this is now occurring with selected local councils and some regional initiatives, but there is no mainstream approach across the system.[30] Most recently, local councils are beginning to include climate change as part of a 'risk management' plan for the whole council. In the case of the coastal council Shire of Bega,[31] this has occurred with the financial support of the insurer. This suggests that one effective strategy for planning for climate change (mitigation and adaptation) could be to incorporate a risk management framework into the urban and regional planning. It would require moving from a fixed regulatory framework to a more adaptive decision-making process that can respond quickly to a rapidly changing environment. It also suggests that this change may be driven by the private sector by the insurers and re-insurers who are bearing the costs of inadequate decision-making.

Recent inquiries following extreme weather events provide insight into future actions (e.g. 2009 Victorian Bushfires Royal Commission, Queensland Floods Commission of Inquiry). Recommendations include making better connections between natural resource management and urban and regional planning, so risk management can be done across landscapes; a better framework for integrated regional planning; and an adaptive and systems approach to urban and regional planning.

Effective implementation over the long term

Finally, implementation is critical if anything is to be achieved. Or, as the NSW Rural Fire Service slogan says: 'A plan to have a plan is not a plan'. A primary focus of Rio + 20 was institutional reform for sustainable development. This was focused at the international community, but is equally relevant at national, regional and local government. The COAG Review referred to above made some recommendations at the national level on cities. Similarly, initiatives have been made through Regional Development Australia. This is not about more government, but more effective government for a highly urbanised, coastal nation. In Australia we need more effective mechanisms for responding to the challenges outlined beyond the next election.

All Australian parties have previously agreed to one initiative: setting up an Australian Sustainability Commission. Recommendations 1, 2 and 3 of the 2005 Sustainable Cities report included an Australian Sustainability Charter, sustainability targets and an Australian Sustainability Commission.[32]

I suggest there are potentially four key elements for an Australian Sustainable Development Commission:

1. Facilitation: Joining the dots in our cities and regions to facilitate a more integrated approach, including bringing different perspectives to the table for better decisions. A shared understanding and commitment to urban and

regional futures provides a more certain investment environment for all sectors.

2. Long-term monitoring: Tracking progress of implementing sustainable development, and keeping on top of and providing the necessary data for policy-makers and communities.

3. Advice: Giving government, industry and parliament independent advice on possible ways forward, using experience obtained from global and local networks.

4. Education: An ongoing national portal for leading practice on sustainable development and research in partnership with universities and industry.[33]

The continuing urban growth of Australian cities, regional development, climate change and extreme weather, including heat, bushfires and floods, will require institutional arrangements that provide a platform for sustainable development over the long term. The climate change debates over the last decade have demonstrated that engagement with industry and the wider community is even more important when dealing with uncertainty and risk. An Australian Sustainable Development Commission could facilitate that change. This, together with the planning reforms discussed earlier, could provide a new framework for a more integrated approach to the environment and our place and our future.

Opportunities for sustainable urban and regional futures

Our cities and regions are not level playing fields; that is, our 'places' have significant socioeconomic differences between and within.[34,35] The needs of Darwin may vary significantly to that of Canberra, and the western suburbs of Sydney to the north shore of Sydney. The capacity of a population to adapt to climate change may vary according to social, educational and economic circumstances, such as the capability to relocate from areas of risk and/or rebuilding after disasters. A more integrated regional approach can assist to address these issues

by better equipping communities for social and environmental change, and to become 'adapted communities'.

This chapter has outlined some of the key trends, challenges and possible institutional responses to improve our capacity to plan and provide for more sustainable development. Given this context and a possible platform for action, there are many exciting possibilities for clean, green future. These include:

1. Green precincts: Integrated urban design and planning on a precinct or neighborhood scale allows for innovation in resource efficiency, particularly for water and energy.

2. Green infrastructure: Adapting to climate change will make the provision of open space even more important for shade, biodiversity, and to reduce the 'heat island' effect.

3. Sustainable public transport: Providing sustainable public transport options remains a challenge, but internationally there is significant innovation occurring, particularly with rail in nations facing high urban growth.

4. Renewable energy: Renewable energy is being adopted throughout Australia, with the ACT Government adopting a target of 90% renewable energy by 2020.

5. Sustainable regional development: There is considerable public policy support for sustainable regional development, particularly for renewable energy and tourism.

6. Interdisciplinary research in the built and natural environments, with new partnerships between research, government and community (e.g. Canberra Urban and Regional Futures[36]).

7. Skills and education on cities and climate change supporting innovation and training in zero carbon built environments, including trade skills in sustainable building and construction.

These pathways illustrate how action is possible. With leadership to support the overall direction and institutions, and a planning system that facilitates innovation and implementation, it is possible to see a more sustainable future.

Conclusion

This chapter has sought to connect a number of themes and issues that will influence whether we can provide a sustainable environment for our place and our future. The focus has been on spatial planning, environment change and institutional arrangements. At the international level, discussions between nation states on sustainable development and climate change remains slow. However, at regional and local levels, active alliances are being developed between like-minded communities committed to more sustainable outcomes. In this respect there is a groundswell of local activity that will be hard to ignore over time.

The urban and regional planning system in Australia has in many respects served us well in providing great cities and towns. The challenge now is how to adapt that system to be able to better respond to contemporary challenges of significant urban growth, particularly in coastal regions, and the impacts of climate change. No longer can the nation afford (socially, economically and environmentally) to continue to locate vulnerable communities in vulnerable locations, placing those communities at risk. A review of the planning system is required to ensure that processes are transparent and accountable, and policy development and implementation is coordinated and integrated to implement sustainable development principles that endure beyond the next election.

This chapter concludes on a positive note, as the alternative is not an option. Understanding the strength of vested interests and the politics of 'business as usual', I still consider that if the actions outlined above are taken, then there is every reason that government, industry and the community can

collaboratively provide a more sustainable environment, place and future. The choice is ours.

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