



AWI CMAS Meeting

APRU World Institute of Climate
Mitigation and Adaptation Strategies
Cities and Water Governance

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Climate Change and Water Governance for Sustainable Cities

- Environmental Law and Governance under climate change conditions
- Integrated Water Planning and Governance as a case study



Environmental Law and Governance

- Climate change presents a paradigmatic example of the kind of complex problems at the heart of contemporary environmental law. Godden L., & J., Peel *Environmental Law: Scientific, Policy and Regulatory Dimensions* OUP 2010.
- 'Governance and Actors in Environmental Law' chapter 3
- Case studies of Integration and complexity ch 6 with focus on climate change and integrated water governance.



Integrated governance

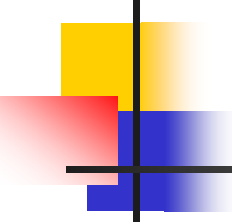
- Moves to provide integrated legal and regulatory frameworks for strategic planning; for development control and natural resource management; and for urban and industrial systems often have to confront the problem that such integration will cross administrative and jurisdictional boundaries.
- Importance of integrating government activities and legal governance systems in the environmental field.
 - institutional integration = ‘horizontal’ integration between organisations or management structures responsible for different environmental sectors,
 - ‘vertical’ integration = coordination between different layers of government involves.
- Need for coordinated environmental legal governance may be well-recognised, resistance from existing institutions and administrative structures is frequently encountered in instituting more integrated legal and regulatory frameworks.



Integration and Complexity

- Climate change presents legal and regulatory frameworks with significant challenges from perspectives of integration and complexity.
- Problems of integration and complexity include:
 - the occurrence of integrated environmental effects (problems of increasing water scarcity and biodiversity loss with climatic changes);
 - inter-relationships between environmental and socio-economic systems;
 - dependence on scientific monitoring tools for measuring climate change impacts and verifying compliance with mitigation requirements;
 - the involvement of a complex array of actors – governments, businesses, environmental groups, scientists and individuals; and
 - need for integration of governance within national (federal systems), as well as inter-linkage between international climate change laws and the domestic legal regime.
 - For discussion of the developed/ developing countries issues re common but differentiated responsibility principle from UNFCCC.

Systemic and adaptive water governance in a climate change world



Australian Case study

- Water governance in Australia is typified by institutional complexity.
- Legislation at multiple levels of government, regulations, cross-boundary markets and different regional planning mechanisms and policy contestants contribute to this complexity.
- Additionally, unprecedented biophysical challenges to water resources are occurring against a political background of a transfer of some powers from the States to the Commonwealth, with a view to extending a national water reform agenda where water planning is gathering strong momentum. Adaptive water governance application to urban areas.
- Godden, L, 'Water and Indigenous Peoples' Rights: Lessons for Climate Change Adaptation from Australia, IUCN Academy of Environmental Law, University of Ottawa Law School, 5 October 2009.
- Godden, L. and A Foerster, 'Climate Change and Water Law: Prospects for Adaptive Governance', *Workshop on Systemic and Adaptive Water Governance*, Monday 14th December, 2009 Melbourne Law School, University of Melbourne.



Governance and Institutions

- Issues of institutional capacity and a consideration of innovative governance structures that can facilitate planning and cope with the uncertainty driven by factors such as climate change.
- *Climate change adaptation is best understood as a co-evolutionary governance dynamic, principally, but not exclusively between human beings and the biophysical world.*
- *Within this conception managing and changing are key concepts as they denote the need to develop institutional and normative frameworks that are flexible and adaptive.*
- Ongoing work with interdisciplinary researchers on water governance, climate change and institutional complexity.



Climate Change as a complex environmental governance problem

- “Climate change presents a paradigmatic example of the kind of complex problems at the heart of contemporary environmental law and governance.
- Need to consider the policies and laws that are emerging nationally and internationally in response to climate change and related concerns such as water conservation.
- Climate change has many interlinkages with other environmental issues such as water scarcity, biodiversity loss, marine pollution and land degradation.
- Climate change law is emerging as a prominent area of study but cogent arguments against viewing it as a self-contained disciplinary and regulatory field.
- A sound understanding of environmental governance structures and legislative arrangements remains a necessary foundation for study, research and practice in the area of climate change law.”
 - Godden and Peel 2010



Market mechanisms and water governance

- Water markets in Australia have operated for some years, under the impetus of National Water Reform policy.
- Extensive realignment of water management institutions has supported water trading.
- While the implementation of water markets has been successful in particular circumstances, such structural reforms need to be coordinated within a comprehensive governance framework.
- Godden, L. 'Communal Governance of Land and Resources as a Sustainable Property Institution' in Grinlinton, D. and Taylor, P., *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (in press 2010).
- Godden, L., 'Governing Common Resources: Environmental Markets and Property in Water' in McHarg, A, Barton, B, Bradbrook, A, and Godden, L., *Property and the Law in Energy and Natural Resources* Oxford University Press (accepted October 2008; in press April 2010).



Urban Water Governance and Property Rights

Property as a governance tool in managing urban water under climate change.

- In urban areas in Australia, the moves to deregulate urban water authorities have created hybrid, corporatised models of governance across these sectors.
- Research examines the changes in urban water regulation assessing whether various models embraced under public/private partnerships and de-regulated structures can promote sustainable use of urban water and provide an effective means of 'balancing' the various interests in water security and climate change.
- New forms of property based measures, and their potential to provide sustainable, long term urban water use in the context of specific water supply projects to deliver water security in urban areas.
- Godden, L. 'Property in Urban Water: Private Rights and Public Governance' in Troy, P. (ed), *Troubled Waters: Confronting the Water Crisis in Australia's Cities*, ANU E Press (2008) 157-185.



Reorienting our water law, institutions and community responses

- 'Adaptive capacity' is a term increasingly used in water management and governance but is rarely defined or converted into practical measures that support policy development or community-based social learning.
- Godden, L. 'Towards a New Ethic in Australian Water Law and Policy' in Sykes, H. (ed.) *Climate Change On for Young and Old, Future Leaders* (2009) 46-60.



Cities as Water Catchments

- Transitioning to Water Sensitive Cities
 - Storm-water management
 - Recycled water and sewer mining
- Integration with legal and planning frameworks to produce adaptive governance.
 - Peel, J., and Godden, L 'Planning for Adaptation to Climate Change: Landmark Cases from Australia' (2009) IX(2) *Sustainable Development Law and Policy: Climate Law Reporter* 37-42



Climate Change Law

- 'The last few years have seen the consolidation of a body of legal rules and principles organised around the central problem of mitigating and adapting to climate change.
- The new climate change law spans from international to local levels of governance and encompasses the activities of a wide range of actors, including governments, businesses and non-governmental environmental groups.' J Peel
- *Australian Climate Law in a Global Perspective* (currently in writing due October 2010) note Godden chapter on water and also Bio-



Adaptation and legal frameworks for water governance of extreme events

- "Attention has been directed toward the role of law in mitigating climate change by UNFCCC and in setting emissions targets in legislation.
 - Clear that there will need to be broadly based adaptations to climate change within the existing environmental law and planning frameworks.
 - Compared with mitigation, which tends to be a focus of national and international regulation, adaptation is at a more local level since the benefits of adaptation measures tend to be quite localised.
 - Consequently, climate change adaptation is becoming an important element of the planning and decision-making processes of State and local governments in Australia. In turn, such laws are generating institutional and organisational change outside the government sector amongst development agencies, property developers, financiers and insurers."
- Godden and Peel *Environmental Law* 2010



Local Councils: Legal Responses to Climate Change

- Local councils around Australia are introducing planning law measures on land use development that are designed to ensure adaptation to climate change impacts.
- The projected impacts range from rising sea levels and increased coastal erosion to more frequent severe weather events like cyclones and natural disasters such as floods and bushfires.
- These legal controls may limit the manner in which property owners can use and/or develop their land. Therefore the controls have been challenged with a several cases coming before planning and environmental courts



Adapting to climate change in Cities—floods and storm water

- Series of cases in Australian courts on adapting to climate change impacts in urban areas.
- Planning laws govern major developments such as new residential and commercial buildings.
- Planning authorities have disallowed construction or placed more stringent conditions on new developments to take into effect climate change on sea level rises, urban flooding and storm water.



Walker v Minister for Planning & Ors: Adapting to Flood Risk

- The case of *Walker v Minister for Planning & Ors* concerned a concept plan for residential subdivision and a retirement home development on coastal plain land near Wollongong NSW.
- The NSW Planning Minister's approval of the plan was challenged by the a third party on a number of bases including that the Minister failed to take account ecologically sustainable development (ESD) and the impacts of the proposal on the environment, including whether the flooding impacts of the proposal would be compounded by climate change.

The Court's reasoning in *Walker*



- Justice Biscoe examined whether the Planning Minister had failed to take account of the public interest and ESD given that he had not considered any climate change-related flood risks.
- In the course of his judgment, His Honour remarked that climate change was 'a deadly serious issue' and that 'climate change flood risk is, prima facie, a risk that is potentially relevant to a flood constrained, coastal plain development'.



Research Collaborations

- Areas of potential collaboration-
 - Defining what is meant by environmental governance for climate change at a variety of scales
 - Case studies of law and regulation for integrated water governance and climate change impacts using a comparative case study approach
 - Exploring the institutional and regulatory frameworks to deal with complexity of climate change principally at a local and community scale.



Where to Now?
