BEST PRACTICE APPROACHES TO WATER LAW AND MANAGEMENT IN A DEVELOPED COUNTRY CONTEXT: EXAMINING INTERNATIONAL POLICIES AND PRINCIPLES WITHIN A FEDERAL FRAMEWORK

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Abstract

Australia has a federal system of government and the Australian constitution accorded primary responsibility for water and environmental management with state governments. However, Australia is a country with a large agricultural sector and the limits of water resources are being reached in the nation's river basins. Responsibility for water resources management is predominantly vested in state governments generating challenges in harmonising management and resolving issues. More recently, the federal government introduced the *Water Act 2007* to regulate the Murray Darling river system in an attempt to address the continuing decline of water resources in the Murray Darling Basin. The Commonwealth government has therefore taken a more proactive role in water law and governance in relation to one river system in Australia. The health of the river and the life that it sustains are essential to the wellbeing of its people. However, more broadly water resources remain degraded and over-allocated in this country and therefore identification of best practice law and governance remains of critical importance. This thesis considers how Australia may move forward in this regard through an examination of the historical context, as well as looking to the lessons that may be learned from multilevel governance, the experience of the European Union (EU) and its Water Framework Directive (WFD), as well as international law.

Statement of Candidate

I certify that the work in this thesis entitled "Best practice approaches to water law and management in a developed country context: Examining international policies and principles within a federal framework" has not previously been submitted for a degree, nor has it been submitted as part of requirements for a degree, to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research, and it has been written by me. Any assistance that I received in my research work and the preparation of the thesis itself has been appropriately acknowledged.

In addition, I certify that all information sources and literature used are referenced in the thesis.

Maureen Papas

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LIST OF ABBREVIATIONS

AusAid	Australia Agency of international Development
CEWH	Commonwealth Environmental Water Holder
CIL	Customary International Law
CoAG	Council of Australian Governments
EPBC Act	Environmental Protection and Biodiversity Conservation Act
ESD	Ecologically Sustainable Development
EU	European Union
EU WFD	European Union Water Framework Directive
GAB	Great Artesian Basin
GABCC	Great Artesian Basin Coordinating Committee
HELP	Hydrology, Environment, Life and Policy
ICJ	International Court of justice
ICM	Integrated Catchment Management
IESC	Independent Scientific Expert Committee
ILC	International Law Commission
IWRM	Integrated Water Resource Management
MDB	Murray-Darling Basin
MDBA	Murray-Darling Basin Authority
MDBC	Murray-Darling Basin Commission
MGCC	Murray Group of Concerns Communities
MLG	Multi-Level Governance
NCP	National Competition Policy
NWI	National Water Initiative
NWC	National Water Commission
UNCED	United Nations Conference on Environment and Development
UNWC	United Nations Watercourse Convention
SD	Sustainable Development
SSPs	Special Purpose Payments
WSAA	Water Services Association of Australia
WWF	World Wildlife Fund

Part I THE BACKGROUND

Introduction

Of al the natural resources, water is one of the most critical; human beings and the environment rely on water for survival.[1] Yet, around the world, the supply of freshwater has is and the resolution of competing uses of scarce water supplies remains one of the major challenges of the twenty first century.[2]

A range of factors have contributed to water scarcity, including the impact of population growth, rural to urban migration, rising wealth and resource consumption, as well as the effects of climate change.[3] In an effort to address these factors, laws and policy have been developed to try to ensure sustainable freshwater resources worldwide.

The challenge of the water crisis[4] that many countries face today has been largely attributed to 'a crisis of governance'.[5] Some authors observe that the multiple levels of decisions making in today's societies today when combined with the diversity of stakeholders in the water sector, make water management is a process that often involves careful balancing of competing interests.[6] Multi-Level Governance (MLG) seeks to capture the complexities of relationships that exist across government levels and stakeholders.[7] In a bid to achieve best practice water management, MLG highlights the difficulties that might arise, and provides an approach to understand

[1] United Nations World Water Development Report 2 (UN WWDR): Water a Shared Responsibility 2006 http://ww2.unhabitat.org/programmes/water/documents/waterreport2.pdf, 6.
[2] David Hunter, James Salzman and Durwood Zaelke, *International Environmental Law and Policy* (2007), 845.
[3] UN WWDR, above n 1, ix.
[4] C. J. Vorosmarty, P. B. McIntyre, M. O. Gessner, D. Dudgeon, A. Prusevich, P. Green, S. Glidden, S. E. Bunn, C. A. Sullivan, C. Reidy Liermann and P. M Davies, 'Global threats to human security and river biodiversity' (30 September 2010) 467 *Nature* 555.
[5] UN WWDR, above n 1, 1.
[6] Joyeeta Gupta, Claudia Pahl-Wostl and Ruben Zondervan, ''Global' water governance: a multi-level challenge in the anthropocene' (2013) 5 *Current Opinion in Environmental Sustainability* 573.
[7] See Rod Hague and Martin Harrop, *Comparative Government and Politics* 2010, 271.

better the capacity to influence and persuade, which is central to fostering problem solving as the dominant mode of interaction.[8]

Transboundary water management presents an even more complex set of challenges to politicians, planners and administrators, due to the involvement of different political and administrative systems.[9] It has been argued that problems in river basin management are exacerbated when water resources cross international boundaries.[10] Transboundary basins cover some forty five percent of the Earth's land surface,[11] a fact that attests to the global dimension of the problem. However, it could be argued that transboundary waters also occur at a domestic level and in this context, water resources allocation fundamentally remains a process of determining how much water is available to share between competing users and the need for cooperation between states, political entities and relevant interests groups.

Australia has a federal system of government, which under the Australian Constitution accords the states primary constitutional responsibility for water and environment management.[12] However, in recent decades, water management challenges have been progressively dealt with through political institutions that require the participation of both federal and state governments.[13] This is especially true in river basins. No region illustrates the point better than the Murray-Darling Basin (MDB). The MDB is often referred to as Australia's agricultural heartland,[14] where the interactions between national and state governments occur in a transboundary context, adding another layer of complexity to the management of water resources. In sum, water resources management in Australia occurs not only

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[8] Adrian Kay, 'Multi-level governance in Australian federalism: The open method of coordination in open economy policy-making', Paper prepared for 1st International Conference on Public Policy, Grenoble, 26-28 June 2013, 14.

[9] Geoffrey Gooch and Per Stalnacke, 'Introduction: identifying and solving problems in an integrated approach', in Geoffrey Gooch and Per Stalnacke (eds) *Integrated Transboundary Water Management in Theory and Practice: Experiences from the New EU Eastern Border*, (2006), 4.

[10] Aaron Wolf, Jeffrey Natharius, Jeffrey Danielson, Brian Ward and Jan Pender, 'International River Basins of the World' *Water Resources Development*, (1999) 15(4), 387-427.

[11] Ibid.

[12] Section 100 of the Australian Constitution provides that

> the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of State or the residents therein to the reasonable use of the waters or rivers for conservation or irrigation

See Australian Politics The Australian Constitution (1901) [s100] www.http://australianpolitics.com/constiution/text

[13] Michael Painter, 'Multi-Level Governance and the Emergence of Collaborative Federal Institutions in Australia', *Policy and Politics* 29(2), 137-150.

[14] Murray-Darling Basin Authority, *About the Basin* http://www.mdba.gov.au/about-basin

across multiple government levels but also at transboundary level (domestically shared), which points to the complexity and potential conflicts for water governance.

More recently, the federal[15] government took a wider role in water management. Yet, there is still much to understand about what the role really entails and how this role is likely to evolve in future. More significantly, it raises the question of whether water should be managed at federal level if water management is to be effective. In this context an important research question remains: given that the federal government now has a greater role to play in water resources management, what might be the implications of federal influence and control for the future direction of Australia's water resource management? The question is particularly salient since much of the debate between scholars about the role of the Commonwealth relates to what level of consultation has been occurring (particularly why and how the changes in consultation have arisen) and how it may improve.

To answer this question, this thesis by publication will examine the merits of federal involvement, consistent with the overall research question in the context of MLG (see below for further details). MLG is used as a normative standard and an explanatory paradigm to understand the changing trends in intergovernmental relations and a recurrent theme throughout the whole thesis. This thesis is also linked structurally by the inclusion of an introductory page between the chapters, to reflect what has been covered in the individual articles and how each article fits within the thesis as a whole.

More broadly, two articles explore the research question from an international perspective because of the question's importance and potential influence on national decision making generally. For example, the interplay between international water initiatives and domestic and policy issues has become significant to the national policy and law agenda.[16] It could be argued that it is important not to underestimate the impact of international treaties and international developments have on government policy and decisions of domestic politics. Indeed, domestic decision makers' ideas are likely to have come from these international instruments, as it would have been impossible to remain insulated from this progress, especially given

[15] A number of terms are used interchangeably throughout the thesis to refer to the federal government. These terms include, Australian, national and Commonwealth government.
[16] See Mark Zacher, 'the Decaying Pillars of the Westphalian Temple: Implications for International Order and Governance', in James Rosenau and Ernst Czempiel (eds) *Governance Without Government: Order and Change in World Politics* (2000) 58.

Australia's extensive engagement on environmental law issues[17]. In addition, although federal Australia is not international as such, it does have transboundary issues between the states and therefore the principles in international treaties could be applied in state law and through Intergovernmental Agreements. Thus, the importance of international influence is explored in some detail. Another chapter examines the policy process in Australia and federal/state negotiations on these issues, in the context of respective spheres of responsibility and the potential of cooperative efforts to yield effective water management.[18] Another article explores Australia and the European Union (EU) in a comparative context. The focus of comparison between the EU and Australia is on river basin water management. The motivation for the comparison is driven by two factors: first, the idea that MLG – a theoretical concept first advanced through the work of Gary Marks and Liesbet Hooghe in the 1990s[19] – was initially developed around the emergence of an integrated Europe, although its application has been used more recently to other areas such as the study of federal systems.[20] Secondly, the belief that the very dynamic relations that exist between EU institutions and member states governments to ensure effective implementation of EU water law and policy are of direct interest to a federal system such as Australia has.

This thesis is a timely contribution to the role of the federal government in the context of federal/state relations at transboundary level. This thesis explores MLG as the main theoretical paradigm to explain the process of policy coordination and cross-jurisdictional capacity (or limitation) in Australia for effective policy response. In addition, this thesis looks at both the interface between international and national levels and between national and state levels, to highlight the wide variety of actors involved in the policy process in addition to national executives. Furthermore, this

[17] These relate for example to the Ramsar Wetlands Convention (*Ramsar Convention*, opened for signature 2 February 1971, 996 UNTS 245 (entered into force 21 December 1975); the Convention on Biological Diversity (*Biological Convention*, opened for signature 5 June 1992, 31 ILM 822 (entered into force 29 December 1993); the Climate Change Convention (*Climate Change Convention*, opened for signature 9 May 1992, 31 ILM 849 (entered into force 24 March 1994); and the Convention on Desertification (*Desertification Convention,* opened for signature 17 June 1994, 33 ILM 1328 (entered into force 26 December 1996).

[18] Robert Boardman, *Global Regimes and Nation-States: Environmental Issues in Australian Politics*, (Carlton University Press Ottawa, Canada, 1990) 97. The book examines the interplay between the domestic and international levels of environmental policy-making in Australia between 1965 to 1985. The period may be regarded by some as dated, although it could be argued that the author clearly captures the challenge of constituencies in Australian politics and that little has changed since then.

[19] Gary Marks and Liesbet, 'European Integration from the 1980s: State-Centric v. Multi-level Governance' (1996) 34(3) *Journal of Common Market Studies* 341-378.

[20] John McCormick, *Understanding the European Union: A Concise Introduction* (Palgrave Macmillan, 4th ed, 2008), 15; See Stein M and L Turkewitsch, 'Multilevel Governance and federalism: Closely Linked or Incompatible Concepts?' (2010) 34(2) *Participation* 34(2) 3-5.

thesis wrestles with the problem of integrating international guidelines and principles within a federal framework, and explores federal/state relationships in the context of transboundary water governance at Commonwealth level.

The three points above relate to or form a part of the research question given that, although now generally accepted that water management is a very complex undertaking, it is further complicated by the role of international institutional frameworks, as well as problems associated with the implementation of national and local water policy and water resources law. On closer examination, it can be seen that water is governed by interrelated levels at which international development and national/state levels are interconnected. As such, water governance has been commonly described as multi-level governance in that state authorities from the local level, national, regional, sometimes supranational and international levels have a say in the outcome.[21]

In this context, this thesis looks at recent developments in the field and as a result provides new insight into the state of play. This thesis then seeks to address the many answers put forward to the enduring problems of water governance, as none are yet entirely satisfactory and aims to refine those answers.

The next section will briefly outline the literature about key influences and the theoretical foundation underpinning contemporary freshwater resources management. The section then briefly explores the literature available on laws relating to water resources and policy in Australia and in Europe in the context of reforms that have been thought necessary to adapt to the needs and demands of contemporary society.

Literature Review

The purpose of the literature review is to briefly identify key publications that underpin this whole thesis. A number of key areas will be considered and the primary and secondary literature will be briefly set out. A more comprehensive analysis of commentators' arguments and counterarguments will be considered in following chapters to highlight how each chapter will address and is likely to answer the overarching research question.

[21] Joseph Dellapenna and Joyeeta Gupta, 'The Evolution of Global Water Law' in Joseph W. Dellapenna and Joyeeta Gupta (eds) *The Evolution of the Law and Politics of Water* (2008), 7.

Over the past forty years, two complementary themes have emerged that significantly influenced the development of both contemporary international and national law in relation to water resources: environmental protection and sustainable development. The origins of both these themes are briefly examined.

The Environmental Movement

Environmental Movement and key literature

The origins of the development of this area are ancient as water law and policy have a long history.[22] However, recent influences can be traced to the end of the Cold War when the environmental movement became more widespread and environmental issues began to be recognised at the global level. The movement was spearheaded by a number of authors who expressed their concerns about the consequences of exponential development and industrialisation on the natural environment. Famously, Rachel Carson pointed out the broad ranging effects of uncontrolled use of toxic substance on both humans and the environment,[23] while Garret Hardin explored the cost of over-exploitation of unregulated resources.[24] In *The Limits of Growth*,[25] the authors examined the consequences of exponential population growth on food production and resource depletion.

A number of authors have written about the key challenges associated with resources depletion and what it means for various sectors. For example, reduced availability – in terms of both quantity and quality – has prompted some authors to renew the call for human rights obligations.[26] Similarly, competition for use (who gets

[22] For more details see Joshua Getzler, *A History of water rights at common law* (Oxford University press 2004) ; Itzchak E. Korfeld, 'Mesopotamia: A History of Water and Law' in Joseph W. Dellapenna and Joyeeta Gupta (eds), *The Evolution of the law and politics of water* (2008), 21-37.
[23] Rachel Carson, *Silent Spring* (Houghton Mifflin, 1962).
[24] Garret Hardin, 'The Tragedy of the Commons' (1968) 162(3859) *Science* 1243.
[25] Donella H. Meadows, *The Limits of Growth: A Report for the CLub of Rome's Project on the Predicament of Mankind* (MacMillan, 1972).
[26] Stephen McCaffrey, 'A Human Right to Water: Domestic and International Implications' (1992) 5(1) *The Georgetown International Environmental Law Review* 1; Peter Gleick, 'The Human Right to Water' (1998) 1(5) *Water Policy* 487-503 ; Helen Greatex, 'The Human Right to Water' (2004) 2 *Human Rights Research Journal* 1 ; S McCaffrey, 'The Human Right to Water Revisited' in E. B. Weiss, L. B. d. Chazournes and N. Bernasconi-Osterwalder (eds), *Fres Water and Interational Economic law* (Oxford University Press, 2004) ; Salman, S. M. A. and S. McInerney-Lankford, *The Human Right to Water: Legal and Policy Dimensions* (The World bank Washington, D.C., 2004) ; Maude Barlow, *Blue Covenant: The Global Water Crisis and the Fight for the Right to Water* (McClelland and Stewart, 2007).

what water, when and why)[27] has been extensively examined in relation to the needs of ethnic groups[28] in countries including Australia,[29] New Zealand[30] and the United States.[31] Similarly, competition for use driven by economic interests and the role of transnational corporations has been analysed by Maude Barlow.[32] Barlow has criticised the role of large private businesses and the devastating effect of their practices on ecosystems and communities around the globe.

A brief overview of the environmental movement provides the backdrop necessary to explore the underlying factors responsible for many of today's environmental problems. Water related issues continue to be vitally important to human beings and to the environment and provides some context and relevance to this thesis.

The next section briefly sets out key international initiatives responsible for raising public awareness about the problems associated with freshwater resources.

Key drivers of water reform

The first water forum exclusively devoted to emerging water resources challenges was held at the Mar del Plata Conference, in 1977. The conference produced a detailed Action Plan (including eleven resolutions and a hundred and two recommendations),[33] which was the first coordinated approach to integrated water

[27] Anthony Scott and Georgina Coustalin, 'The Evolution of Water Rights' (1995) 35(4) *Natural Resources Journal* 821 - 960 ; Getzler, above n 21.
[28] Aaron Wolf, 'Indigenous Approaches to Water Conflict Negotiations and Implications for International Waters' (2000) 5(2) *International Negotiation* 357- 373.
[29] Donna Craig, 'Indigenous Property Rights to Water: Environmental Flows, Cultural Values and Tradeable Property Rights' in Alex Smajgl and Silva Larsen (eds) *Sustainability Resource Use: Institutional Dynamics and Economics* (Earthscan 2007)153 - 172 ; Donna Craig and Elisabeth Gachenga, 'The recognition of Indigenous customary law in water resource management' (2010) 20 (5/6) *The Journal of Water Law* 278 ; Lee Godden and Mahala Gunther, 'Realising Capacity: Indigenous Involvement in Water Law and Policy Reform in South-Eastern Australia' (2010) 20 (5/6) *The Journal of Water Law* 243-253 ; Tran Tran, 'Valuing Water in Law: How can Indigenous cultural values be reconciled with Australia's water law in order to strengthen Indigenous water rights?' (2009) 20(2/3) *The Journal of Water Law* 144.
[30] Jacinta Ruru, 'Undefined and unresolved: Exploring Indigenous rights in Aotearoa New Zealand's freshwater legal regime' (2010) 20(5) *The Journal of Water Law* 236 - 242 ; Linda TeAho, 'Indigenous challenges to enhance freshwater governance and management in Aotearoa New Zealand -The Waikato River settlement' (2010) 20(5) *The Journal of Water Law* 285.
[31] Rachel Paschal Osborn, 'Native American Winters doctrine and Stevens Treaty water rights: Recognition, quantification, management' (2010) 20(5) *The Journal of Water Law* 224 - 235.
[32] Maude Barlow, *Blue Gold: The Fight to Stop the Corporate Theft of the World's Water* (The New Press, New York, 2005).
[33] *Report of the UN Water Conference*, Mar del Plata, 14-25 March 1977, UN Doc. E/CONF.70/29

resource management, a concept adopted by all participants.[34] The notion marked an early attempt to think progressively about future development and its potential impact, with an emphasis on sustainability.[35] At that time, Asit Biswas conducted a study of the status of global water policy dialogue through an analysis of UN Initiatives and World Water Forums.[36] He found their effectiveness at best marginal despite their regular occurrences,[37] while another author raised concern about the apparent lack of commitment to keeping water issues at the top of the international agenda.[38]

The second major UN Conference on Environment and Development (UNCED) took place in Rio de Janeiro in 1992. The UNCED, also called the Earth Summit, adopted a number of instruments that have sustainable development as their main objective; the Rio Declaration[39] and Agenda 21[40] are key sustainable development paradigms. Agenda 21 comprises a preamble and four major sections. Each section is divided into a number of chapters including a separate chapter on freshwater resources.[41] Chapter 18 of Agenda 21 calls for the need to integrate water resources planning and management and that "[s]uch integration must cover all types of interrelated freshwater bodies, including both surface water and groundwater…".[42] The influence of Chapter 18 has been translated at domestic level with varying degrees of success.[43]

A New Paradigm

Sustainable Development and emergence of this new paradigm

[34] Asit Biswas, 'Integrated Water Resources Management: A Reassessment' (2004) 29(2) *Water International* 251.
[35] See Simon Dresner, *The Principles of Sustainability* (Earthscan, 2nd ed, 2009) 31.
[36] Asit Biswas, 'United Nations Water Conference: Implementation Over the Past Decade' (1988) 4(3) *International Journal of Water Resources Development* 148 -159 ; Asit Biswas, 'From Mar Del Plata to Kyoto: an analysis of global water policy dialogue' (2004) 14 *Global Environmental Change* 81.
[37] Asit Biswas and Cecilia Tortajada, *Impacts of Megaconferences on the Water Sector* (Springer, 2009).
[38] Salman Salman, 'From Marrakech Through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?' (2004) 29(1) *Water International* 11 - 19.
[39] *Rio Declaration on Environment and Development, Report of the United Nations Conference on Environment and Development*, UN Doc A/CONF.151/6/Rev.1 (1992).
[40] *Agenda 21, Report of the UNCED, I,* UN Doc A/CONF.151/26/Rev.1 (1992).
[41] *Agenda 21*, Chap 18, above n 39.
[42] Ibid, Ch 18.3.
[43] Roberto Lenton and Mike Muller (eds), *Integrated Water Resources Management in Practice: Better Water Management for Development* (Routledge, 1st ed, 2009) ; Paul Kildea and George Williams, 'The Constitution and the Management of Water in Australia's Rivers' (2010) 32 (3) *Sydney Law review* 505-616.

Since the early 1990s, sustainable development (SD) has become the dominant paradigm for natural resource governance, calling for integration at the economic, social and environmental levels: the 'triple bottom line'. The origin of the concept can be traced to the UN Conference on the Human Environment (UNCHE) held in Stockholm in 1972. However, the term SD was coined in the 1987 UN World Commission on the Environment Development report titled Our *Common Future*.[44] The Commission defined it as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.[45] Although the phrase 'sustainable development' has become widely used its, meaning remains elusive. This has led some commentators to question its worth[46], whereas others have found no grounds to object to the concept or indeed its implementation.[47] Nonetheless, the policy objectives associated with the sustainable management of water are based on an understanding that the management of natural resources is inextricably intertwined with other factors.

Early Law

International Law

The peaceful management of more than 500 international watercourses in various parts of the world suggests that the role of the international legal system to avert water scarcity and water conflict is both complex and paramount. Binding international law comprises of international treaties; there is also much non-binding soft law (declarations, resolutions and action plans) in this area. The evolving body of customary international law as a vehicle to address the need for cooperative management of internationally shared surface water resources has provided the

[44] World Commission on Environment and Development, *Our Common Future*, 1987.
[45] Ibid, 1.
[46] David Pearce, Anil Markandrya and Edward Barbier, *Blueprint for a Green Economy* (Earthscan, 1989) ; Hari Osofsky, 'Defining Sustainable Development after Earth Summit 2002' (2003) 26 *Loyola of Los Angeles International and Comparative Law Review* 103 ; Dresner, above n 34.
[47] Alan Boyle and David Frestone (eds) *International Law and Sustainable Development: Past Achievements and Future Challenges* (Oxford University Press, 1999) ; Michael Jacobs, 'Sustainable Development as a Contested Concept' in A Dobson (ed), *Fairness and Futurity* (Oxford university Press, 1999) 21 ; Hans Bugge and Lawrence Watters, 'A Perspective on Sustainable Development After Johannesburg on the Fifteeth Anniversary of *Our Common Future*: An Interview with Gro Harlem Brundtland' (2003) 15(3) *Georgtown International Environment Law Review* 359-366 ; J. William Futrell, 'Defining Sustainable Development Law' (2004) 19 *Natural Resources and Environmental Law* 9.

framework to assess claims, counter-claims, expectations and anticipations.[48] Article 38(1)(b) of the Statute of the International Court of Justice (ICJ Statute) defines customs as a general practice that has been accepted into law.

The earliest complete formulation and study of these rules can be found in the 1966 *Helsinki Rules on the Uses of the Waters of International Rivers* carried out by the International Law Association.[49] The *Helsinki Rules* are a non-binding codification of those rules, which is comprehensive but does not in itself add to binding law. The *Helsinki Rules* were later updated and adopted as the *Berlin Rules* 2004, which are regarded as a more comprehensive set of international laws, given that it applies to all freshwater resources (including surface and groundwater) and not just to transboundary and international waters. Moreover, the document supersedes its earlier counterpart, focusing instead on ecological integrity, sustainability, public participation and minimisation of environmental harm.

Concurrently, the International Law Commission,[50] which was established as the legal arm of the United Nations General Assembly, carried out the work that would form the foundation of the United Nations Law of the Non-Navigational Use of International Watercourses (UN Watercourses Convention).[51] The UN Watercourses Convention was adopted in 1997 and on August 17, 2014 finally came into force as the only global framework on fresh water.[52] Slow ratification had been attributed to a number of factors including treaty congestion,[53] low awareness and capacity[54] and lack of a champion. As a result, the goal of accelerating the Convention's ratification was tackled by the World Wide Fund for Nature (WWF). In 2006, the WWF launched an international initiative to raise awareness of the Convention, promote its entry into

[48] Malcolm Shaw, *International Law* (Cambridge University Press, 5th ed, 2003) 990.
[49] The ILA is a highly regarded non-governmental organisation of legal experts founded in 1873.
[50] The ILC was established in 1947 as the legal arm of the United Nations General Assembly. Article 1 paragraph 1 of the Statute of the International Law Commission provides that the `Commission shall have for its object the promotion of the progressive development of international law and its codification' see http://untreaty.un.org/ilc/ilcintro.htm#programme
[51] The *UN Convention on the Law of the Non-navigational Uses of International Watercourses* A/RES/51/229.
[52] United Nations treaty Collection, *Convention on the Law of the Non-Navigational Uses of International Watercourses New York 27 May 1997*, Entry into force https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-12&chapter=27&lang=en
[53] Alistair Rieu-Clarke and Flavia Rocha Loures, 'Still not in Force: Should States Support the 1997 UN Watercourse Convention?' (2009) 18(2) *Review of European Community and International Environmental Law* 185.
[54] Ibid.

force and future implementation.[55] Its entry into force represents a renewed commitment by the international community to manage and use freshwater resources through cooperative means.

The discussion above, by way of one chapter, examines how the UN Watercourses Convention can apply in an Australian context given that strictly speaking there are no international watercourses in the country. The article will be filling this gap by exploring how the Framework Convention is intended to provide principles and structures that states can adapt especially for bilateral or regional agreements; that although federal Australia is not international as such, it does have transboundary issues between the states and therefore the principles of the Convention could be applied in state law and through Intergovernmental Agreements.

The next section briefly explores multilevel governance, which is a common theme across chapters/publications and an explanatory paradigm for the thesis as a whole.

Multilevel governance

Multi level governance (MLG) is a concept developed in the early 1990s in conjunction with the emergence of a more economically and politically integrated European Union.[56] An MLG approach attained widespread acknowledgement through the work of Hooghe and Marks,[57] although it is disputed whether they formulated a new theory.[58] They supported the notion that due to European integration multi-level institutions have been created that deliver, or co-deliver some key government outputs in various policy areas, including law and order.[59] Although the idea of MLG was initially developed around the EU, the idea has since then been

[55] WWF, *UN Watercourse Convention* http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/

[56] Gary Marks, 'Structural Policy and Multilevel Governance in the EC', in Alan Cafrunny and Glenda Rosenthal (eds) *The State of the European Community Vol. 2: The Maastricht Debates and Beyond* (Boulder: Lynne Rienner, 1993) 392 ; See Liesbet Hooghe, 'Cohesion Policy and European Integration: Building Multi-Level Governance' (1996) 1(4) *European Integration* online Papers at http://eiop.or.at/texte/1997.004a.htm

[57] Gary Marks and Liesbet Hooghe, 'European Integration from the 1980s: State-Centric v. Multi-level Governance' (1996) 34(3) *Journal of Common Market Studies* 341-378.

[58] Andrew Jordan, 'The European Union: An Evolving System of Multi-Level Governance or Government?' (2001) 29(2) *Policy and Politics* 193.

[59] Gary Marks and Liesbet Hooghe, *European Integration and Democratic Competition* [online] (2004) http://library.fes.de/pdf-files/id/02607x.pdf 1.

applied to other areas of study such as the study of federal states in comparative politics. Most notably, one author argues that “multilevel governance is a conceptual cousin of two other, older concepts”, federalism and confederalism.[60]

In recent years, the concept has been widely used to describe decision-making processes that involve different jurisdictional levels as well as that of non-governmental organisations and public participation.

The next sections turn to the literature about the domestic level, with brief overview of the Australian followed by the European context.

Australian Context

The Australian context provides a case study to explore the influences of international law and policy at the domestic level, the historic antecedents from colonial times that shaped Australian law and policy, and the reforms that have been progressively instigated between different levels of government in Australia to adapt to the needs of the twenty first century.

History of settlement and early law

British colonisation of Australia began in 1788. Settlement by British colonies meant that Australia adopted the principles and practices of the English common law tradition. However, common law rules were not well suited to the use and management of Australia’s water resources, which have been aptly described as both highly variable and poorly distributed.[61] Furthermore, a number of authors have highlighted the implications of English law on the Australian Indigenous population.[62] In summary, it is noted that the settlement of British colonies imposed common law on an existing Indigenous population.[63]

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[60] McCormick, above n 19, 15.
[61] David Smith, *Water in Australia: Resources and Management* (Oxford University Press, 1998) 138.
[62] Darren Posey, 'Introduction: Culture and Nature – The Inextricable Link' in Darren Posey (ed) *Cultural and Spiritual Values of Biodiversity* (Nairobi UNEP, 1999) 3 ; Donna Craig, above n 28, 153 ; Lin Crase, 'An Introduction to Australian Water Policy' in Lin Crase (ed), *Water Policy in Australia The Impact of Change and Uncertainty* (RFF Press, 2008) 1 ; Jennifer McKay, 'The Legal Framewrok of Australian Water: Progression from Common law Rights to Sustainable Shares' in Lin Crase (ed), *Water Policy in Australia: The Impact of Change and Uncertainty* (RFF Press, 2008) 44 ; Jennifer McKay and Simon Marsden, 'Australia: The Problem of Sustainability in Water' in Joseph Dellapenna and Joyeeta Gupta (eds), *The Evolution of the Law and Politics of Water* (Springer, 2009) 177.
[63] Cheryl Saunders, *The Constitution of Australia: A Contextual Analysis* (Hart Publishing, 2011) 2.

In 1901, the Commonwealth of Australia was formed with power being split between the states (former colonies) and the new federal government (national or Commonwealth government). Section 100 of the Australian Constitution provides that:

> the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters or rivers for conservation or irrigation.[64]

A number of authors have written extensively on the main challenges facing water management. For instance, one author pointed out the broad ranging effects of section 100 on the protection of the environment[65] while another explores historical foundation and influence on inter-state disputes,[66] driven by vested interests.[67] In contrast, this thesis will expand on these issues by providing a timely analysis of more recent developments and likely implications for the future direction of Australia's water resources management.

Law reform: influence of international water law and sustainable development

As noted previously, two complementary themes have had immense influence on the development of contemporary international water resources law, namely environmental protection and sustainable development. These themes have influenced and provided aspirational guidance at the national level.

For example, evolution of the river basin concept at national and international levels[68] and more recently, a commitment to the principle of integrated catchment

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[64] Australian Politics, *The Australian Constitution* (1901) [s100] <http://australianpolitics.com/constitution/text/> ; Jennifer McKay, 'Water institutional reforms in Australia.' (2005) 7 *Water Policy* 35.

[65] Daniel Connell, 'Section 100 – A Barrier to Environmental Reform?' (2003) 8(2) *The Australasian Journal of Natural Resources Law and Policy* 85 - 95 ; Nicholas Kelly, 'A Bridge? The Troubled History of Inter-State Water Resources and Constitutional Limitations on State Water Use' (2007) 30(3) *University of New South Wales Law Journal* 639.

[66] Kelly, above n 64, ibid.

[67] Sandford D Clark, 'The River Murray question: part II. Federation, agreement and future alternatives.' (1971) 8 *Melbourne University Law Review* 215.

[68] Ben Boer, 'Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action.' (1995) 31 *Willamette Law Review* 307 ; Ludwik Teclaff, 'Evolution of the River Basin Concept in National and International Water Law.' (1996) 36 *Natural Resources Journal* 359 ; Boyle, above n 46 ; Patricia Wouters, 'The Relevance and Role of Water Law in the Sustainable Development of Freshwater *from "Hydrosovereignty" to "Hydrosolidarity"*.' (2000) 25(2) *Water International* 202.

management (ICM) have been a precursor to a number of initiatives in Australia.[69] These are: the National Strategy for Ecologically Sustainable Development (ESD) in 1992,[70] the Council of Australian Governments (CoAG) Communiqué 25 February 1994[71] and the National Water Initiative (NWI) in 2004.[72] Australia's National Strategy defines ESD as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.[73]

In sum, the National Strategy provides broad strategic direction and frameworks for state governments to direct policy and decision-making. In addition, while water management is vested in governments, the 1994 CoAG Communiqué and the 2004 NWI water reform frameworks were developed in recognition that better management of Australia's water resources was a national issue. The key objectives are to achieve a water industry that is economically efficient and ecologically sustainable and that delivers better environmental outcomes.[74]

One author has raised concerns about the legal implications and lack of commitment across states; and what remains in their view a 'fragmented' approach to the conservation of Australia's water resources.[75] In light of these concerns, it could be argued that more needs to be done to tackle fragmentation and promote a more holistic approach to conservation. Fragmented describes the lack of coherence between jurisdictions particularly in terms of compatible systems of water entitlement, appropriate water allocation for the environment and establishing effective water trading arrangements. Others maintain that much progress has been made in

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[69] Sarah Ewing, 'Catchment Management Arrangements' in Stephen Dovers and Su Wild River (eds), *Managing Australia's Environment* (Federation Press, 2003) 395; See also Department of the Environment, *Integrated Resources Management in Australia: Case studies – Murray-Darling Basin initiative* http://www.environment.gov.au/node/24407. However, the website points out that the information described relates to policies that have no current application.

[70] Department of the Environment, *National Strategy for Ecologically Sustainable Development* (ESD) http://www.environment.gov.au/about-us/esd/publications/national-esd-strategy

[71] Council of Australian Governments (CoAG), *Council of Government's Communiqué 25 February 1994* http://archive.coag.gov.au/coag_meeting_outcomes/1994-02-25/index.cfm

[72] Council of Australian Governments (CoAG) Intergovernmental Agreement on a National Water Initiative (Commonwealth of Australia and the Governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory, signed 25 June 2004) http://www.nwc.gov.au/resources/documents/Intergovernmental-Agreement-on-a-national-water-initiative.pdf ; K Collins, J Colvin and R Ison, 'Building Learning Catchments' for Integrated Catchment Managing: Designing Learning Systems and Networks Based on Experiences in the UK and South" (2009) 59(4) *Water Science and Technology* 687.

[73] ESD, above n 69.

[74] CoAG, above n 70.

[75] McKay, above n 61, 44 ; Douglas Fisher, 'Towards Sustainable Water Resources Development in Australia.' (2009) 20(1) *Journal of Water Law* 17.

legislating new water resources management regimes.[76] This raises the question of why the Commonwealth government would want to expand its role in water affairs, given the questionable merit of federal water reform in achieving effective water management.

More recently, the federal government enacted the *Water Act 2007.* The legislation was said to overcome more than 100 years of inter-jurisdictional conflict over shared water in the Murray Darling Basin (MDB).[77] However, the implications of a Commonwealth takeover of the MDB governance structure raised concerns about the constitutional limits within which the Commonwealth could operate.[78] In *Basin Futures: Water Reform in the Murray-Darling Basin*,[79] the authors examined the many dimensions of water in the MDB from a multidisciplinary approach and provided guidance on the best way to implement a water management plan that could address social, economic and environmental needs.

The literature focused on the early stages of the basin process. In contrast, this thesis provides a timely analysis of more recent developments. Indeed, with the recent passing of the MDB Plan into law, it has been argued that this stage of the process provides a conclusion to a complex and, at times irrational reform process,[80] attesting to the overwhelming complexity associated with implementing a national reform in the MDB.[81]

The next section turns to the literature about the European context, with a brief overview of the Water Framework Directive (WFD).

European Context

[76] Alex Gardner, 'Water Reform and the Federal System' in Paul Kildea, Andrew Lynch and George Williams (eds), *Tomorrow's Federation: Reforming Australian Government* (The Federation Press 2012) 270.
[77] John Scanlon, 'A hundred years of negotiations with no end in sight: Where is the Murray Darling Basin Initiative leading us?' (2006) 23 *Environmental and Planning Law Journal* 1.
[78] Maureen Papas, 'The Proposed Governance Framework for the Murray-Darling Basin.' *Macquarie Journal of International and Comparative Environmental Law* (2007) **4**(2) 90 ; Daniel Connell, *Water Politics in the Murray-Darling Basin* (The Federation Press 2007) 217.
[79] Daniel Connell and Quentin Grafton (eds) *Basin Futures: Water reform in the Murray-Darling Basin* (Australian National University E Press 2011).
[80] Dominic Skinner and John Langford, 'Legislating for sustainable basin management: the story of Australia's Water Act (2007)' (2013) 15 *Water Policy* 871-894.
[81] Lin Crase, 'The Fallout to the Guide to the Proposed Basin Plan' (2011) 70(1) *The Australian Journal of Public Administration* 84-93.

The European Directives established in 2000 provide a framework for community action relating to various policies (the EC Directive). A directive is a legislative act of the EU, which requires member states to achieve a particular outcome. On 23 October 2000, the EU Water Framework Directive (WFD) was finally adopted.[82] The framework sets out an integrated approach to water management throughout the EU for all categories of freshwater including surface water, groundwater and lakes. The decision-making process that ultimately led to the adoption of the WFD has been explored by a number of authors who examined the broad ranging concerns to securing a document that would best reflect the needs of competing interests,[83] particularly across levels of national governments.[84]

An overview of the successes and problems encountered with implementing the EU WFD ten years after it was first introduced[85] provide an insight into remaining challenges.[86] One commentator examines the progress of the EU WFD, in particular river basin planning in relation to the pre-existing initiative of the global UNESCO program, Hydrology, Environment, Life and Policy (HELP)[87], whereas another points to the successful transposition of the WFD into German national law.[88]

In terms of policy style, some argue that the WFD embodies attributes of command-and-control, albeit with a great emphasis on processes.[89] Others point out that although the WFD sets out clear mandates, the reform exhibits a shift in approach whereby the role of the Common Implementation Strategy (CIS) is key to supporting

[82] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy
[83] Giorgos Kallis and David Butler, 'The EU Water Framework Directive: measures and implications.' (2001) 3(2) *Water Policy* 125 – 142; Maria Kaika and Ben Page, 'The EU Water Framework Directive: part 1. European policy-making and the changing topography of lobbying.' (2003) 13(6) *Environmental Policy and Governance Environment* 314 – 327.
[84] A Jordan, *The Politics of a Multi-Level Environmental Governance System: EU Environmental Policy* (1998) CSERGE Working Paper PA 98-01.
[85] Daniel Hering, Angela Borja, Laurence Carvalho, Mike Elliott, Christian K. Feld, Anna-Stiina Heiskanen, Richard K. Johnson, Jannicke Moe, Didier Pont, Anne lyche Solheim and Wouter van de Bund (2010). 'The European Water Framework Directive at the age of 10: A critical review of the achievements with recommendations for the future.' (2010) 408(19) *Science of The Total Environment* 4007 - 4019.
[86] Henrik Josefsson and Lasse Baaner, 'The Water Framework Directive—A Directive for the Twenty-First Century?' (2011) 23(3) *Journal of Environmental Law* 1 - 24.
[87] Sarah Hendry, 'River Basin Management and the Water Framewrok Directive: In Need of a little HELP?' (2008) 19(4) *The Journal of Water Law* 150 - 156.
[88] Juliane Albrecht, 'The Europeanization of water by the Water Framework Directive: A second chance for water planning in Germany' (2013) 30(1) *Land Use Policy* 381-391.
[89] Suart Bell, Donald McGillivray and Ole W. Pedersen, *Environmental Law* (Oxford University Press 8th ed, 2013) 634.

implementation of the WFD.[90] The WFD has been a key influence for water policy in Europe since its entry into force in 2000. The reform seeks to improve and harmonise water resource management in EU member countries.

The above discussion, by way of one chapter, will contribute to the field given that a comparison between the EU and Australia water law reform and policy has not been considered before.[91]

The following section will provide the structure and organisation of the thesis as a whole and how each chapter is likely to answer the overarching research question.

Structure and Organisation of Chapters

This research was completed as a thesis by publication. For organisational purposes, this thesis includes an introduction, a conclusion and is divided into six chapters. An introduction sheet to each chapter has been included to reflect what has been covered, the link to previous chapters and how the article fits within the context of the thesis as a whole. The publication status of each paper is also included on these sheets.

Furthermore, this thesis is broadly organised into three parts. The first part looks at the interface between international and national levels and comprises two articles (chapters 1 and 2).

Chapter 1 provides a broad analysis of the nature of international guiding principles and policies and the role of the international community in raising awareness of the precarious state of the world's water. The purpose of this paper is to identify the key initiatives spearheaded by the UN international conferences outputs – declarations, soft law resolutions and action plans – that address the challenges of the water sector and encourage countries such as Australia to adopt water legislation and integrated water management policies. Chapter 1 also explores the role of the UN

[90] David Trubek and Louise Trubek, "Hard and Soft Law in the Constitution of Social Europe: the role of the Open Method of Co-ordination" (2005) 11(3) *European Law Journal* 343-364.
[91] For the exception of Erin Bohensky, Daniel Connell and Bruce Taylor, '22 Experiences with integrated river basin management, international and Murray-Darling Basin: *lessons for northern Australia*' *Northern Australia Land and Water Science Review full report* (October 2009) 21. The discussion provides a brief overview of European Union's Water Framework Directive and public participation.

Watercourses Convention and its relevance in the twenty first century in the context of the Australian federal system of government. The UN Watercourse Convention was adopted in 1997 and finally entered into force on August 17, 2014. A concerted process to promote the benefits of the Convention and support its entry into force had been led by WWF since 2006. This paper acknowledges the WWF's involvement and questions Australia's standing and efforts in support of the only international water treaty.

Chapter 2 has a specific focus on international groundwater protection in the context of domestically shared aquifer systems. More specifically, this chapter explores the role of the UN General Assembly Resolution on the Law of Transboundary Aquifers as an international framework for bilateral and regional aquifer management. The paper questions whether the important standards set out in the UN resolution recognise the needs of other types of aquifers, namely those which are not transboundary, but do have multiple jurisdictional management issues. To illustrate the point, the paper provides an overview of the domestic legal regimes of the Great Artesian Basin in Australia and the challenges to the effective management of shared aquifers spanning four Australian jurisdictions.

The second part of this thesis concentrates on the interface between national and state relations. One article (chapter 3) looks at the evolution of water governance in Australia, whereas the second article (chapter 4) examines in detail the concept of multi-level governance in the context of federal and state relations.

Chapter 3 briefly explores key aspects of Australian water policy and law, with a focus on tracing the historical development of water governance in the country. The purpose of the article is to identify gradual involvement of the federal government in water affairs, despite the unchanged framework of the national written constitution and implications for federal/state relations. The chapter argues that federal involvement has been incremental – even pivotal – to achieving early water development projects and sustainable water practices nationally. However, the recent legislation enacted by the Commonwealth, namely the Water Act 2007, was contrary to previous initiatives. The way in which the legislation was introduced was seen as the culmination of the Federal extension of activities and powers in relation to water, in relation to the states. While the federal government has become much more proactive in water management since federation was declared, it raises the

question: what might be the implications of federal influence and control for the future direction of Australia's water resource management.

Chapter 4 examines in detail the concept of multi-level governance (MLG) theory to explain and understand multi-level policy coordination and how it contributes to the capacity for, and barriers to, dynamism and innovation in the study of Australian federalism in relation to water management. The paper demonstrates that the MLG which is used as a normative standard and explanatory paradigm to show that the move away from consultation between federal and states governments has serious weaknesses and then considers how it could be rectified. The article argues that while the federal government now holds sway in decisions pertaining to water management, cooperation between levels of government remains crucial to yield the best possible outcome across stakeholders.

The third part of this thesis explores national perspectives in a comparative context (chapter 5), before looking to current decisions in Australian federalism in an effort to understand the country's future direction of water resource management in the country (chapter 6).

Chapter 5 is a comparative study of institutional requirements to promote better coordination and improve cooperation between levels of national governments, for the management of river basin water resources across Europe. The chapter draws linkages between European institutions that have been established to promote cooperation between European and nation state governments and argues that the very dynamic relations that exist between Europe's institutions and the governments of all member states to ensure effective implementation of Europe's water policy and water law (under the Water Framework Directive) are of direct interest to a federal system such as Australia's. Much like Europe, the need for co-operation in Australia between both federal and state governments and the appropriate balance of power sharing among levels of governments is crucial to yield change. The comparison also emphasises the commonalities between transboundary resource management issues in Europe – the threats and pressures, sustainable utilisation and governance issues – and domestically shared water resources. It also provides an opportunity for Australia to take the lessons forward, in relation to improved decision making processes and the role of decision-making bodies that foster cooperation.

Chapter 6 focuses on the recent release of the Coalition's Terms of Reference for a White Paper on the Reform of the Federation. Notwithstanding an increasingly dominant role of the federal government in water, highlighted in previous chapters, the recent announcement of the Coalition's strong preference to limit the role of the federal government across a number of policy areas and boosting that of the states suggests that more changes may be imminent. However, the White Paper needs to be viewed in the context of parallel reforms (the White Paper does not have a focus on water), namely the Environmental Protection Biodiversity Conservation Act (EPBC Act) and the National Water Commission since much of the debate concerning the role of the Commonwealth in water resources is more explicit around the EPBC Act and the National Water Commission more explicitly.

This thesis brings the different perspectives and discussions presented throughout the chapters to the following conclusion, in order to answer the important research question.

Distinct Contribution

This thesis has an interdisciplinary approach to international and comparative national water law, policy and governance. The research sits at the interface between politics and the law. Thus, the knowledge of both legal and governmental systems in relation to public policy in its legal context underpins the research. In this context, an interdisciplinary approach provides an holistic perspective to complex and challenging problems such as the effective regulation and sustainable use of freshwater, which remains one of the most challenging issues of the twenty first century. In contrast, a single discipline approach tends to only provide only a narrow lens through which a particular problem can be viewed.

Some contribution also arises from the international law chapters. For example, both chapters highlight the development of international law to the specific requirements of transboundary freshwater and attest to the need to regulate surface water (UN Watercourses Convention) and groundwater (Law of Transboundary Aquifers) appropriately. More significantly, the UN Watercourses Convention and the Law of Transboundary Aquifers set out important standards that can effectively influence the outcomes of national law and policy. This is especially true in Australia where the Murray-Darling Basin spans multiple jurisdictions and the Basin involves vast

reserves of groundwater. The implications of these international law developments in the Australian context have not been examined in the literature.

In addition, one chapter advances the debate in relation to the concept of multi-level governance (MLG). The paper takes the literature further by applying MLG (an established theory, which is usually linked to European integration and regional policy framework) to the concept of Australian pragmatic federalism and water resource management. This application shows that despite the changing trends in intergovernmental relations in the water domain, genuine cooperation between levels of governments remains crucial and is more effective than a uniform standardised policy framework imposed from the centre.

One chapter is a cutting-edge analysis of a recent reform proposal to Australian federalism, in the context of parallel reforms. The article explores the implications of these reforms for the future of water resource management in Australia. The paper argues that the EPBC Act reform and the abolition of the National Water Commission that are underway are interconnected to the recent reform announcement, since much of the debate concerning the role of the Commonwealth in water is occurring more explicitly in the context of its involvement with the EPBC Act and the National Water Commission.

Finally, this thesis provides a valuable contribution relating to the role of the federal government in relation to the overarching research question. This thesis explores the likely implications of a more direct water resource management role for federal government in the context of intergovernmental relations. In a federal system of government, the power to govern is shared between national and state governments. Under the Australian Constitution, the federal government does not have clear authority over water and rivers, as these powers were left to the states at federation in 1901.[92] However, now that the federal government holds sway in decisions pertaining to water management, federal/state relations would be expected to change since water is clearly no longer a matter of exclusive authority of the states.

Conclusion

[92] Since 1901, the Commonwealth government has not been granted a clear constitutional mandate in this area.

The purpose of this chapter has been to present the key issue addressed throughout the thesis, and the main theoretical paradigm being considered in the different papers. This chapter has also considered the most important publications that underpin the analyses presented in the whole thesis. Consistent with the interdisciplinary approach that draws together law and policy, the literature reviewed has ranged from secondary sources to governmental policy statements and papers to primary materials such as legislation, treaties and international declarations and resolutions.

This introduction has also outlined the structure and organisation of each following chapter to highlight how that chapter will address, and is likely to answer the overarching research question. An introductory sheet to each article in the thesis has been included to reflect what has been covered and how the article fits within the thesis as a whole. The publication status of each paper is included on these sheets. In sum, the chapters have answered the key question presented and sought to contribute to the field of research, as discussed above, by bringing new perspectives for the potential management of one of Australia's most important resources.

Part II INTERNATIONAL/NATIONAL

CHAPTER 1

International Global Water Protection in the 21st Century: Implications for Australian Multi-Layered Governance

Publication Status

Partly published post-conference for the UNWC Global Initiative Symposium *The 1997 UN Watercourses Convention: What Relevance in the 21st Century* 5-8 June 2012, organised by IHP-HELP Centre for Water Law, Policy and Science (under the auspices of UNESCO) and WWF, University of Dundee, Scotland.
The chapter in question is a longer version of the paper that was published post conference.
See http://www.dundee.ac.uk/media/dundeewebsite/water2/documents/policy-briefs/UNWC%20Global%20Initiative%20Symposium%202012%20-%20Proceedings%20(2).pdf

Contribution to the Thesis

This article provides a boarder analysis of the role of international key themes that have influenced the development of contemporary international law (namely, environmental protection and sustainable development) and translated into domestic water management practices. This article explores international influences on the development of Australia's water management practices. In particular, the paper questions whether Australia has been influenced by contemporary developments in international policy and law and, if so, how, in light of Australia's ongoing issues resolving transboundary water resources management. The paper concludes that Australia has benefitted from international developments however, more could be done especially if the federal government is to hold sway in debates on the regulation of watercourses like the Murray-Darling basin. Similarly, as a member of the United Nations and the international water community Australia ought to support the *only* global water framework.

International Global Water Protection in the Twenty-first Century: Implications for an Australian Multilayered Governance[93] System

I INTRODUCTION

Throughout history, society's relationship with water has been vital and complex. Our dependence on water and our ability to manage water resources effectively for development needs have rendered this relationship more complicated. When water resources have been abundant, civilisations have been robust and long enduring.[94] However, when water resources have been scarce, water-management strategies have had to maximise water use to cater for the needs of multiple water-resources users.[95]

Throughout the nineteenth century, water law and policies adopted by resource managers were generally defined by the prevailing management philosophy of the time—the need for growth.[96] As such, prodigious quantities of water have been extracted to meet the demands of agricultural, industrial and economic development. This extraordinary increase in the demand for water has been matched by a severe depletion whereby locally water is over-abstracted or over-polluted. Over the past several decades, the realisation that water use depletes water availability (i.e. water is

[93] The original concept of multilayered governance was initially formulated for, and directly applied to, the European Union, the unique supranational governance that evolved in Europe following the signing of the Maastricht Treaty in 1992: see L Hooghe and G Marks, *Multi-level Governance and European Integration* (Rowan & Littlefield, 2001). However, since then, the concept has been popularised and applied to other structures, namely, in the study of comparative federalism. See M Stein and L Turkewitsch, 'The Concept of Multi-level Governance in Studies of Federalism' (Paper presented at the 2008 International Political Science Association (IPSA) International Conference, International Political Science: New Theoretical and Regional Perspective, Concordia University, Montreal, 2 May 2008) <http://paperroom.ipsa.org/papers/paper_4081.pdf> (accessed 1 June 2013).
[94] S Solomon, *Water: The Epic Struggle for Wealth, Power and Civilization* (Harper Collins, 2010).
[95] DA Caponera and M Nanni, *Principles of Water Law and Administration: National and International* (Taylor & Francis, 2nd ed, 2007).
[96] D Grey and C Sadoff, 'Sink or Swim? Water Security for Growth and Development' (2007) 9 *Water Policy* 545–571.

a finite natural resource) has led to an international appeal more parsimonious use of water resources.

The international community has been actively involved in raising awareness about the precarious state of the world's water resources. Various international initiatives on water policy have been fundamental to providing a framework to discuss the management of water resources globally and nationally. The first international water forum, held at Mar del Plata in 1977, produced an Action Plan and was followed by two global conferences in 1992. The first of these was the United Nations (UN) International Conference on Water and the Environment (ICWE), which was held in Dublin (the Dublin Conference). This conference resulted in a set of recommendations for action based on four guiding principles, which were designed to instil global good practice in water management.[97] Later that year, the UN Conference on Environment and Development (UNCED) was held in Rio de Janeiro. The assembly leaders signed the Rio Declaration and adopted Agenda 21—a blueprint for achieving national strategies for sustainable development in the twenty-first century. Chapter 18 of Agenda 21 set out seven programme areas specifically designed to protect the quality and supply of freshwater resources.[98]

In 1997, the UN Convention on the Law of the Non-navigational Uses of International Watercourses (Watercourse Convention)[99] was adopted, marking a defining stage in appropriate international regulation on shared water basins and in elaborating a global vision for water governance. However, sixteen years later, the Watercourse Convention has not yet entered into force. Critics have tried to explain some of the reasons for the slowing down of the ratification process.[100] Conversely,

[97] The Dublin Principle highlighted the importance of water along four main guidelines: water is finite and essential to life; water management should be based on a participatory approach involving all relevant stakeholders; women play a central role in water management; and water has economic value.
[98] *Towards Earth Summit 2002*, Agenda 21, Chapter 18 'Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources' <http://www.earthsummit2002.org/ic/freshwater/reschapt18.html> (accessed 1 June 2013).
[99] *Convention on the Law of the Non-navigational Uses of International Watercourses* <http://untreaty.un.org/cod/avl/ha/clnuiw/clnuiw.html> (accessed 1 June 2013).
[100] S Salman, 'The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?' (2007) 32(1) *Water International* 1–15.

proponents of the treaty maintain that states should support the Watercourse Convention.[101]

Recently, the World Wide Fund for Nature (WWF) and several national governments have been actively involved in a global campaign for ratification of the Watercourse Convention.[102] Although their support for the Convention is commendable, it raises important questions for the water community generally such as what is the relevance of the Watercourse Convention in the twenty-first century, and what would be the value of this legal instrument coming into force within particular regions. For example, Australia is not a major international watercourse state because it does not share borders with other countries; Australia's waters are domestically shared. Nonetheless, effective river-basin governance and sustainable practices across multiple jurisdictions have historically proved challenging despite several genuine attempts to promote best-practice water management.[103] Today in Australia, the ever-increasing competition between various stakeholders, compounded by threats of climate change, signals the need to ensure the long-term sustainable management of water resources nationally. This goal may be achieved in a variety of ways, and this article aims to explore the international influences on the development of Australia's water-management practices.

This article questions whether Australia has been influenced by contemporary developments in international policy and law, and if so, how it has been influenced in light of Australia's ongoing difficulties in resolving transboundary water-resources management. This article attempts to answer whether Australia should consider its stance on the current campaign global ratification of the 1997 UN Watercourses Convention. This article will conclude that Australia has benefitted from international developments, but could do more, particularly now that the federal government has influence in debates on the regulation of watercourses such as the Murray–Darling

[101] Alistair Rieu-Clarke and Flavia Loures, 'Still Not in Force: Should States Support the 1997 UN Watercourses Convention?' (2009) 18(2) *RECIEL* 185–197.
[102] At the time of writing this article ratification had just been achieved.
[103] J Scanlon, 'A Hundred Years of Negotiations with No End in Sight: Where is the Murray Darling Basin Initiative Leading Us?' (2006) 23 *Environmental and Planning Law Journal* 386; D Connell, *Water Politics in the Murray–Darling Basin* (The Federation Press, 2007) 5; M Papas, 'The Proposed Governance Framework for the Murray–Darling Basin' (2007) 4(2) *MqJICEL* 77; K Hussey and S Dovers 'Trajectories in Australian Water Policy' (2006) 135(1) *Journal of Contemporary Water Research & Education* 36–50.

Basin. Although Australia is not a major international watercourse state, ratifying the Watercourse Convention would reaffirm Australia's international commitment to its foreign-affairs policy on food security and the sustainable management of water resources. Given that Australia is a member of the UN and the international water community, it seems that it should support the only existing global water framework.

This article addresses these issues in three sections. The first section begins with an overview of the current water problems and the challenges of shared international and domestic water resources. It discusses the threats, and sustainable water management and governance issues. This article then briefly reflects on the early attempts of the world community to address existing and emerging problems in the water sector. This article will discuss international conferences such as Mar del Plata, the Dublin Conference and UNCED (with a focus on Chapter 18 of Agenda 21), which have debated some of the major issues regarding management and development of water resources and adopted a number of resolutions, declarations and action plans. Finally, this article will examine the relevance of the global water treaty in the twenty-first century in particular regions, with particular consideration of the context of the Australian federal system. This section will evaluate how the best-practice standards stipulated in the UN Watercourse Convention recognise water resources that are not transboundary but have multiple jurisdictional management issues, and are capable of domestic application.

II FRESH WATER—A GLOBAL ISSUE: WHAT IS THE PROBLEM WITH WATER?

Much has been said about the vital role of fresh water. Yet, there is a great deal of uncertainty about the long-term availability of this precious resource. Water is unevenly distributed across the globe, with continental disparities indicating great variability. [104] The influence of climate change is expected to compound the challenges of water management in the coming years.[105]Climate change is predicted

[104] The Asian continent receives 36 per cent of the world's water resources while supporting 60 per cent of the population. See World Water Assessment Programme, *Water for People Water for Life: The United Nations World Water Development Report* (2003) 9 <http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/wwdr1-2003/downloads/> (accessed 10 January 2013).
[105] Z Kundzewicz et al, 'Freshwater Resources and Their Management' in Parry M (eds), *Climate*

to have devastating effects on water resources and projected to create serious shortages in arid and semi-arid regions across the globe. Such challenges will come in conjunction with other stresses such as population growth,[106] economic development and urbanisation. While redistribution of water across continents has been envisaged,[107] managing water in this manner is generally considered impossible due to large distances and associated costs.[108] International disputes over shared waters are quite common.[109] Nonetheless, the use of the term 'water wars' is generally viewed as unfounded exaggeration by critics who claim that there are many more instances of states cooperating over shared water resources, than struggling over them.[110] In this context, the management of fresh water is highly complex and unpredictable.

Australia faces a number of challenges with the issues mentioned above, and is confronting increasing water challenges domestically. Foremost among these challenges is that Australia is the driest inhabited continent, with the greatest degree of variable rainfall and runoff.[111] The river systems have been extensively degraded due to overallocation and regulation,[112] which has been compounded by increased salinity.[113] Moreover, water regulation is decentralised and each Australian state has different water laws and policies. As such, there has been a great effort made to promote cooperative federalism in water management to achieve national best-

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Change 2007: Impacts, Adaptation and Vulnerability: Contribution of the Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2007).

[106] See UN, Department of Economic and Social Affairs Population Division, Population Estimates and Projection Section, *World Population Prospects: The 2012 Revision* <http://esa.un.org/unpd/wpp/index.htm> (accessed 10 January 2013).

[107] E Benvenisti, 'Collective Action in the Utilization of Shared Freshwater: The Challenges of International Water Resources Law' (1996) 90(3) *American Journal of International Law* 384–415.

[108] M Zeitoun and N Mirumachi N, *Transboundary Water Interaction I: Reconsidering Conflict and Cooperation. International Environmental Agreements* (2008) <http://link.springer.com/article/10.1007%2Fs10784-008-9083-5#page-1> (accessed 10 January 2013).

[109] See PH Gleick *Water Conflict Chronology* (2006) <www.worldwater.org/conflictchronology.pdf> (accessed 10 January 2013)

[110] A Wolf, 'Shared Waters: Conflict and Cooperation' (2007) 32 *Annual Review of Environmental Resources* 241–269.

[111] D Smith, *Water in Australia Resources and Management* (Oxford University Press, 1998) ch 5, 193–243.

[112] See Connell, above n 10; Scanlon, above n 10. See also A Gardner, R Bartlett and J Gray, *Water Resources Law* (LexisNexis, 2009) ch 16 for a detailed analysis of the law of each of the Australian states in relation to statutory provisions for the allocation of water for the environment and other uses.

[113] W Blomquist et al, 'Institutional and Policy Analysis of River Basin Management: The Murray Darling River Basin, Australia' (Working Paper No 3527, World Bank, 2005) 7.

practice resources management.[114] In the past decade, the management of water in Australia's rivers has become critical. Commentators have described the situation as one of the most urgent policy problems facing federal and state governments at every tier of the Australian federation in the twenty-first century.[115]

The international community has long been aware of the precarious state of the world's water sources, and that water-resources management is a significant global problem. Water scarcity is one of the major challenges facing the world today.[116] This was noted by a report published by the UN on the state of freshwater resources worldwide.[117] Moreover, a global policy dialogue regarding water issues emerged more recently, catalysed by the World Water Council.[118] The Council, along with other institutions, has organised six world water forums, the latest in 2012 in Marseilles, France. The goal of these forums and ministerial conferences is to build a global constituency to promote coordinated efforts to resolve water-scarcity issues.[119]

These world water forums have built on a large number of global water initiatives, beginning in 1977 with the Mar del Plata conference, the 1992 Dublin Principles and Chapter 18 of Agenda 21. However, the question that arises is whether these global water-policy dialogues yield value for the international community, and whether they can be of value in Australia.

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[114] National Water Commission, *Australia Water Reform 2009: Second Biennial Assessment of Progress in Implementation of the National Water Initiative* (Commonwealth of Australia, 2009) <http://archive.nwc.gov.au/__data/assets/pdf_file/0004/8428/2009_BA_complete_report.pdf> (accessed 27 November 2014).

[115] Paul Kildea and George Williams, 'The Constitution and the Management of Water in Australia's Rivers' (2010) 32 *Sydney Law Review* 595. Australia is a federation where power and authority are shared between federal (or Commonwealth) and state parliaments, governments and courts. In Australia, three levels of government cooperate across a number of areas: water is one such area.

[116] M Fitzmaurice and G Loibl G, 'Current State of the Development in the Law of International Watercourses' in Surya P Subedi (ed), *International Watercourses Law for the 21st Century: The Case of the River Ganges Basin* (Ashgate Publishing, 2005) 19.

[117] UN, Economic and Social Council, *Comprehensive Assessment of the Freshwater Resources of the World, E/CN.17/1997/9* (4 February 1997) <http://www.un.org/esa/documents/ecosoc/cn17/1997/ecn171997-9.htm> (accessed 10 January 2013).

[118] The World Water Council was established in 1996; it has been defined as the 'international water think tank' and provides a platform to encourage debate and an exchange of experiences among all water stakeholders in the community. See World Water Council (2014) <http://www.worldwatercouncil.org/about-us/vision-mission-strategy/> (accessed 10 January 2013).

[119] D Hunter, J Salzman and D Zaelke, *International Environmental Law and Policy* (Foundation Press, 2007) 848.

Biswas argues that in recent years, many global water problems have become far too complex and interconnected to be handled by one institution or any one group of water professionals, irrespective of their competence and good intentions.[120] He maintains that water problems are now more difficult to resolve because solutions to water issues depend not only on water availability, but also on a number of other factors.[121] He argues that water decisions in the twenty-first century must consider diverse social interests and agendas, rapid technological changes, environmental factors, modes of governance, capacity building and political uncertainty before any theoretical and conceptual approaches can be operationalised.[122]

Despite the complexity and interconnectedness of water problems, efforts have been made to call upon countries, organisations, businesses and civil society to seek new ways to tackle their shared concerns rather than 'retreating in the face of all these challenges'.[123] Dellapenna and Gupta argue that legal systems can create a legitimate framework for national and international cooperation to address a common problem such as the management of the globe's water resources.[124] It is important to recall that global debate on water and the realisation by the world community of the many problems facing the water sector have been foremost in policymaking since the 1970s.[125] However, the response to, and seriousness of, the global water situation was not tackled by the water profession as a whole until the 1990s. This delay has incited sharp criticism by those who pointed to the urgency of the problems years before.[126] Nonetheless, international water initiatives have played a pivotal role in highlighting the importance of water and the value of guidelines despite the complexity of the challenge.

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[120] A Biswas, 'Water Policies in the Developing World' (2001) 17(4) *Water Resources Development* 489.
[121] Ibid.
[122] Ibid 490.
[123] A Grobicki, *Water Security: Time to Talk Across Sectors. Gaining Perspective, Global Water Partnership* (2009) <http://www.siwi.org/documents/Resources/Water_Front_Articles/2009/WaterSecurity.pdf> (accessed 10 January 2013).
[124] J Dellapenna and J Gupta, 'Toward Global Law on Water' (2008) 14 *Global Governance* 437.
[125] A Biswas, *United Nations Water Conference: Summary and Main Documents* (Pergamon Press, 1978)
[126] A Biswas, 'Water Crisis: Current Perceptions and Future Realities' (1999) 24(4) *Water International* 363.

III GLOBAL WATER INITIATIVES

A *Mar del Plata 1977*

The importance of water as a distinct area of global concern was fully recognised by the UN conference held in Mar del Plata in 1977. The conference can be considered the first world water forum.[127] More significantly, Mar del Plata was the only major and substantive water meeting that had ever been held at a high political intergovernmental level.[128] As such, the conference has been described as the most important water meeting in human history.[129] Despite its geographical isolation and small population, Australia became an active participant of the UN system and responded to appeals for international developments such as water protection and resources conservation.[130]

The principal objective of the conference was 'to promote a level of preparedness nationally and internationally, which would help the world avoid a water crisis of global dimension by the end of this century'.[131] The conference produced the Mar del Plata Action Plan,[132] which was the first coordinated approach to integrated water-resources management (IWRM), a concept adopted by all participants.[133] The Action Plan was conceived in two parts, and contained a set of recommendations that covered the essential components of water management, and twelve resolutions on a range of areas. The Action Plan discussed assessment of water use and efficiency; environment; heath and pollution control; planning and management; training and research; and regional and international cooperation.[134] The farsighted water-policy documents highlighted the importance the conference secretariat placed on issues of

[127] S Salman, 'From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?' (2004) 29(1) *Water International* 11.
[128] A Biswas and C Tortajada, *Impact of Megaconferences on the Water Sector* (Springer, 2009) 5.
[129] Biswas, above n 36, 490.
[130] R Boardman, *Global Regimes and Nation-States: Environmental Issues in Australian Politics* (Carlton University Press, 1990) 97.
[131] Biswas, above n 32, 80.
[132] UN, *Report of the United Nations Water Conference Mar Del Plata 14-25 March 1977, E/CONF.70/29* (1977) <http://www.internationalwaterlaw.org/bibliography/UN/Mar_del_Plata_Report.pdf> (accessed 10 January 2013).
[133] A Biswas, 'Integrated Water Resources Management: A Reassessment' (2004) 29(2) *Water International* 251.
[134] Ibid.

water conservation. However, according to Biswas, this foresight and understanding were not duplicated in later major UN water forums.[135]

Mar del Plata was undoubtedly an important benchmark in the area of water-resources management and the success of the conference was attributed to a number of key factors.[136] According to country and region-specific analysis, the activities leading to the final conference produced a wealth of knowledge and information on various aspects of water management.[137] The concept of IWRM was embraced by a number of international institutions during the 1990s.[138] However, scholars argue that while the idea has existed for approximately sixty years, the definition of IWRM continues to be vague.[139] According to Biswas, there is no global agreement on fundamental issues such as which aspects of water management should be integrated, how this could be achieved, and by whom if such integration is even possible.[140]

Despite criticism, the achievements of the Mar del Plata conference and its subsequent effect on water policies cannot be underestimated. It could be argued that the conference marked a definitive milestone in good-practice water-resources management.
However, it is also argued that the Action Plan was not implemented and that transboundary water-resources management was not discussed comprehensively during the debates.[141]

It was never made clear how the ambitious Action Plan could be effectively implemented.[142] Biswas notes that the financial arrangements needed to implement the Action Plan have consistently received inadequate attention in all UN

[135] Biswas, n 27, 491.
[136] A Biswas, 'From Mar de Plata to Kyoto: An Analysis of Global Water Policy Dialogue' (2004) 14 *Global Environmental Change* 82.
[137] Ibid.
[138] Ibid.
[139] The Global Water Partnership (2000) defines IWRM as 'a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems'. Biswas suggests that this definition appears broad, all-encompassing and impressive but provides very little by way of practical resonance for present or future water-management practices.
[140] Biswas, above n 40, 248.
[141] Biswas, above n 43, 83.
[142] Ibid.

megaconferences.[143] While this suggests that international agreements are likely to be reached without full acknowledgement of the cost of change, which leads to uncertainty about their potential to be implemented, it could also be argued that international principles can influence countries to initiate change. Magreed states that Mar del Plata failed to tackle the management of international waters satisfactorily.[144]

While the 1980s were instrumental in implementing the IWRM principle,[145] gradually the issue of water management began to lose its status on international agendas. Wouters suggests that the topic became subsumed by the environment,[146] despite that fact that the preparatory process for the Dublin Conference was underway in the 1980s. It seems that what was achieved at Mar del Plata disappeared from view, which meant that the results of the Dublin Conference were in sharp contrast to those of Mar del Plata.[147]

B Dublin Conference 1992

Fifteen years after the Mar del Plata conference, the 1992 Dublin Conference was held. This conference served as a preparatory event to the Rio de Janeiro UNCED planned in June of the same year. The conference was expected to formulate sustainable water policies and programmes to be considered at UNCED.[148] It is important to recall that the Brundtland Commission Report (WCED, 1987), which laid the cornerstone of the concept of sustainable development, was considered innovative and very influential.[149] The Brundtland Commission Report set much of the subsequent agenda in both academic debate on sustainability and international political debate on development and the environment.[150] In Australia, the term ecologically sustainable development (ESD) was adopted in 1992, attesting to the far-

[143] Ibid.
[144] Y Magreed, 'The United Nations Water Conference: The Scramble for Resolution and the Implementation Gap' (1982) 6(1) *Mazingira* 4–13.
[145] M Rahaman and O Varis, 'Integrated Water Resources Management: Evolution, Prospects and Future Challenges' (2005) 1(1) *Sustainability: Science, Practice & Policy* 16.
[146] P Wouters, 'The Legal Response to International Water Scarcity and Water Conflicts: The UN Watercourses Convention and Beyond' (1999) 42 *German Yearbook of International Law* 293–336.
[147] Biswas, above n 43, 83.
[148] Ibid.
[149] S Dresner, *The Principles of Sustainability* (Earthscan, 2002) 35.
[150] Ibid.

reaching influence of this new concept and the country's commitment to the global debate on sustainable development.[151]

The Dublin Conference reports outlined recommendations for action on water management at local, national and international levels based on the following four principles:

- Principle One recognised fresh water as a finite, vulnerable and essential resource, and suggested that water should be managed in an integrated manner
- Principle Two suggested a participatory approach, involving users, planners, and policymakers at all levels of water development and management
- Principle Three recognised women's central role in provision management and conserving water
- Principle Four stated that water should be considered an economic good.[152]

Principle Four led to a spirited debate by critics who rejected the idea that water should be viewed as a commodity.[153] Yet, it could be argued that those with the least water and money will value it most but are unable to pay. Water as an economic good suggests that water can be bought and sold through the market. In this context, markets perform the simple function of allocating a scarce resource among multiple users. It must be remembered that the involvement of money typically means that the resources end up in the hands of those who value the resource most.[154]

Critics argue that water should not be viewed as an economic good because it is essential for life, and they frequently invoke the basic human right to water.[155] Further, water professionals from the developing world maintain that no water-development initiatives can be sustainable if water is considered an economic good

[151] B Boer, 'Institutionalising Ecologically Sustainable Development: The Roles of National, State and Local Governments in Translating Grand Strategies into Action' (1995) 31 *Willamette Law Review* 307.
[152] International Conference on Water and Development: Development Issues for the 21st Century, Dublin, Ireland, 26–31 January 1992 <http://docs.watsan.net/Scanned_PDF_Files/Class_Code_7_Conference/71-ICWE92-9739.pdf> (accessed 5 April 2013).
[153] G Bergkamp and CW Sadoff, 'Water in a Sustainable Economy' in *State of the World: Innovations for a Sustainable Economy* (Worldwatch Institute, 2005) 113.
[154] D McNeill, 'Water as an Economic Good' (1998) 22(4) *Natural Resources Forum* 253–261; CJ Perry, M Rock and D Seckler D, 'Water as an Economic Good: a Solution, or a Problem?' *IIMI Research Paper 14* (International Irrigation Management Institute, 1997).
[155] P Gleick, 'The Human Right to Water' (1998) 1 *Water Policy* 487–503.

because of issues of poverty and inequity.[156] For example, markets for natural resources cannot operate efficiently unless countries have the support of extensive government institutions such as environmental protection laws and private property rights.[157]

In a country such as Australia, water use is dominated by agriculture. In the mid-1990s, the restoration of overallocated rivers became both an environmental and political priority.[158] The 1994 Water Reform Framework marked a major national shift from administrative water allocation to a focus on the economic development to improving allocation through water markets,and principles of sustainability and resources management.[159] The introduction of the National Competition Policy (NCP) in 1995 was promoted as a means of improving Australia's international competitiveness, although many regarded the reform as a highly contentious policy issue.[160] The decade following the start of the microeconomic reform in Australia saw the development of generally incomplete and small water markets.[161] The problem was largely due to the challenges involved in their implementation and the inadequacy of the existing water-entitlement system for facilitating trade.[162]

While it is possible that the recommendations of the Dublin Conference influenced policy decisions in Australia, it seems more likely that an increased awareness of environmental issues and sustainable practices coincided with the advent of a broader microeconomic reform agenda in the Australian economy.[163] Some commentators

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[156] Rahaman, above n 52, 16. See also Jeff Bennett, 'Markets and Government—An Evolving Balance' in Jeff Bennett (ed), *The Evolution of Markets for Water: Theory and Practice in Australia* (Edward Elgar, 2005) 1–7.
[157] Rahaman, above n 52, 16; Bennett, above n 63, 1–7.
[158] T Garry, 'Water Markets and Water Rights in the United States: Lesson from Australia' (2007) 24 *MqJICEL* 26.
[159] COAG, 'Water Reform Framework (1994) Australian Government Department of the Environment and Water Resources' <http://www.environment.gov.au/water/action/coag.html> (accessed 5 April 2013); Michael Woolston, 'Registration of Water Titles: Key Issues in Developing Systems to Underpin Market Development' in Jeff Bennett (ed), *The Evolution of Market for Water: Theory and Practice in Australia* (Edward Elgar, 2005) 78.
[160] G Griffin, S Svensen and J Teichner, 'Competition and Competitiveness: The Changing Nature of Australian Competition Policy' (1999) 17 *Policy, Organisation and Society* 28.
[161] HM Turral et al, 'Water Trading At the Margin: The Evolution of Water Markets in the Murray–Darling Basin' (2005) *Water Resources Research* WO7011.
[162] Garry, above n 65, 26.
[163] J McKay, 'Water Institutional Reforms in Australia' (2005) 7 *Water Policy* 35–52; J Rolfe, 'Water Trading and Market Design' in Lin Crase (ed), *Water Policy in Australia: The Impact of Change and Uncertainty* (RFF Press, 2011) 202.

maintain that the Dublin Principles (generally) and the concept of water as an economic good (more specifically), received wide acceptance by the world's water professionals despite confusion about what 'an economic good' means.[164] In contrast, other commentators maintain that the influence in Australia of the Dublin Conference remains questionable given that the event was organised and conducted by experts, rather than at intergovernmental level.[165] Biswas points out the following:

> the Dublin Conference of 1992 was a meeting of experts, and thus its recommendations, whatever they were, were never approved by any government, irrespective of the claims to the contrary of the individuals and institutions that were mostly responsible for the organization of this conference.[166]

As such, the conference was regarded as a failure in its outputs and effects because a number of countries objected to the recommendations set out during the meeting, irrespective of the importance or relevance of these recommendations.[167] That said, Principle 4 continues to cause controversy so perhaps the Conference has been disproportionately successful in driving (or reflecting) policy.

Yet, it is important to recall that the Dublin Conference was convened by the UN system and organised as a preparatory meeting to UNCED, which was scheduled to occur four months later. That is, the Dublin Conference was held to discuss the objectives and substantive themes in preparation for the forthcoming UN international gathering.

C *Rio Conference 1992 and Chapter 18 of Agenda 21*

UNCED (also referred to as the Rio Conference) was a major international conference held in June 1992. With over one hundred and fifteen heads of states, thousands of official delegates and nongovernmental organisations (NGOs) attending, the Rio Conference was one of the largest UN gatherings on record.[168] The intention of the

[164] P Rogers, R Bhatia and A Huber, 'Water as a Social and Economic Good: How to Put the Principle into Practice' (Global Water Partnership TAC Background Papers No 2, 1998) 4.
[165] Biswas, above n 43, 83.
[166] Biswas, above n 40, 251.
[167] Biswas, above n 43, 83.
[168] P Shabecoff, 'A New Name for Peace: International Environmentalist Sustainable Development and Democracy' (University Press of New England, 1996) 160.

conference's organisers was to provide a focus for global concerns about development and environmental crises.[169] Maurice Strong, the Secretary General of the Rio Conference, had a plan for what he wanted to achieve, and intended to reach agreements on a number of treaties, as well as broad political consensus on the urgency of sustainable development, which was a notion begun by an earlier UN counterpart.[170] Strong had some level of success with what he set out to achieve;[171] however, the most recent UN Environmental Programme (UNEP) report, *Global Environment Outlook*, demonstrates that nearly all trends and assessments of progress continue to signal cause for profound concern.[172]

As stated, the Rio Conference produced Agenda 21,[173] a detailed Action Plan and nonbinding instrument for the twenty-first century in the area of the environment. The Preamble declares that Agenda 21 'reflects a global consensus and political commitment at the highest level on development and environmental cooperation'.[174] The document 'of mind-boggling complexity'[175] was vigorously negotiated among countries over a period of two weeks, attesting to the significant level of political commitment that the states ultimately made.[176] More significantly, Chapter 18 sets out a number of programme areas to protect the supply and quality of fresh water, as well as its management. For example, Chapter 18 endorses the importance of an IWRM approach,[177] reaffirming the commitment to a principle that was essential to the Mar del Plata Action Plan in 1977.

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[169] S Dresner, *The Principles of Sustainability* (Earthscan, 2009) 40.
[170] The UN Conference on the Human Environment (UNCHE) was held in 1972 in Stockholm, Sweden and adopted the Stockholm Declaration, a nonbinding statement of soft law containing 26 broad policy principles. The Stockholm Declaration was fundamental in introducing the connection between environmental protection and socio-economic development—the concept of sustainable development. However, the Brundtland Commission's 1987 Report entitled *Our Common Future* popularised the concept when it defined sustainable development as 'the development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. See World Commission on Environment and Development, *Our Common Future*, (1987).
[171] Dresner, above n 76, 40.
[172] UNEP, *Global Environment Outlook 5* (Progress Press Limited, 2012) <http://www.unep.org/geo/pdfs/geo5/GEO5_report_full_en.pdf> (accessed 5 April 2013).
[173] *Agenda 21, Report of the UNCED UN Doc A/CONF.151/26/Rev.1* (1992).
[174] Ibid para 1.3, 15.
[175] Dresner, above n 76, 44.
[176] JUS Dernbach, 'Adherence to Its Agenda 21 Commitments: A Five-Year Review' (1997) 27 *Environmental Law Report* 10504, 3.
[177] *Agenda 21*, above n 80, ch 18.8.

The recurrence of the IWRM concept to improve worldwide water management seems to have gained a great deal of popularity.[178] For example, in Australia, the commitment to the principle of integrated catchment management (ICM)[179] was the precursor to a number of initiatives such as the National Strategy for Ecologically Sustainable Development in 1992, the establishment of the Council of Australian Governments (COAG) in 1992, and the National Water Initiative (NWI) in 2004.[180] However, the main concern with this paradigm is that there is still no agreement among the various international institutions about what IWRM means or whether the concept has improved water-management practices anywhere in the world.[181] More recently, the Technical Advisory Committee (TAC) of Global Water Partnership declared that there is no 'universal blueprint' on how the principles underlying IWRM can be put into practice.[182]Their report points out that:

> the nature, character and intensity of water problems, human resources, institutional capacities, the relative strengths and characteristics of the public and private sector, the cultural setting, natural conditions and many other factors differ greatly between countries and regions. Practical implementation of approaches derived from common principles must reflect such variations in local conditions and thus will necessarily take a variety of forms.[183]

In this context, Chapter 18 has proven disappointing, although McCaffrey argues that Agenda 21's freshwater programme has a number of positive attributes.[184] Among them, it recognises the ineluctable effects of land use on watercourses and provides recommendations for a 'river-catchment'[185] or 'drainage-basin'[186] approach to water-

[178] A Biswas, 'Integrated Water Resources Management: Is it working?' (2008) 24(1) *Water Resources Development* 12.
[179] ICM applies to the Murray–Darling Basin, which is the largest river catchment in Australia. In this context, the ICM policy states that it is 'a commitment by the community and governments to do all that needs to be done to manage and use the resources of the Basin in a way that is ecologically sustainable'. See Murray–Darling Basin Commission, *Integrated Catchment Management Policy Statement* (2004) <http://www.environment.gov.au/water/publications/action/case-studies/murray.html> (accessed 5 April 2013). The governance framework of the Murray–Darling Basin radically changed when the Australian Government introduced the first national Act: *Water Act 2007*. See also S Ewing, 'Catchment Management Arrangements' in Stephen Dovers and Su Wild Rice (eds), *Managing Australia's Environment* (The Federation Press, 2003) 395.
[180] Connell, above n 10, 5.
[181] Biswas, above n 85, 12.
[182] Global Water Partnership, *Integrated Water Resource Management* (Global Water Partnership TAC Background Paper Series No 4, 2000) 6.
[183] Ibid.
[184] S McCaffrey, 'The Management of Water Resources' in L Campiglio et al (eds), *The Environment after Rio: International Law and Economics* (Graham & Trotman, 1994) 160.
[185] *Agenda 21*, above n 80, paras 18.21, 18.36.
[186] Ibid para 18.38 (a).

resources management and development.[187] In Australia, the concept of ICM[188] was introduced for the governance framework of the Murray–Darling Basin,[189] although it has proven difficult to implement successfully.[190]

Another area of concern for McCaffrey is the failure to include a comprehensive treatment of the international or transboundary aspects of the protection and management of fresh water.[191] McCaffrey believed that while Chapter 18 refers expressly to catchment and drainage basins, there is no indication whether such references are intended to apply on the national level or where basins extend into two or more countries.[192] He maintains that when states make intensive use of shared water resources, cooperation is not merely desirable but essential, and it is unfortunate that Chapter 18 does not clearly define the mechanisms of such cooperation.[193] Conversely, the nonbinding Helsinki Rules (1966) specifically acknowledge the need for regular exchange by co-riparian states to share data and information about the condition of the watercourse.[194]

It should be remembered that declarations and action plans are merely political statements with no legally binding effects.[195] In addition, action plans focus on targets any part of which countries may or may not meet without peril.[196] More significantly, such actions plan lack specific measurable objectives and programmes.[197] Salman argues that the debate by the world community on the seriousness and urgency of the

[187] McCaffrey, above n 91, 160.
[188] ICM places great emphasis on the strengthening the links between land-use planning and catchment planning. See S Edwing, 'Catchment Management Arrangements' in Stephen Dovers and Su Wildrice (eds), *Managing Australia's Environment* (The Federation Press, 2003) 395. See also Murray–Darling Basin Authority, *Integrated Catchment Management in the Murray Darling Basin 2001-2011: Delivering a sustainable future* (2003) <http://www.mdba.gov.au/kid/kid-view.php?key=G4MxGNNUVErMmwY4W8J/8NdD88HvNEvRC/ISFNuMUMY=> (accessed 5 April 2013).
[189] The Murray–Darling Basin is located in the southeast of Australia and is the largest river catchment in Australia. The shared water resources in the Murray–Darling Basin span five states and one territory, and good governance for effective use of water is paramount for the Murray–Darling Basin, which has been referred to as Australia's agricultural heartland.
[190] Scanlon, above n 10, 386, 388; Connell, above n 10; Papas, above n 10, 77–90.
[191] McCaffrey, above n 91, 158.
[192] Ibid 159.
[193] Ibid.
[194] *The Helsinki Rules on the Uses of the Waters of International Rivers* (International Law Association, 1967) arts 6, 11, 12, 13. See also P Sands, *Principles of International Environmental Law* (Cambridge University Press, 2nd ed, 2003) 464.
[195] Salman, above n 34, 17.
[196] Ibid.
[197] Ibid.

problems facing freshwater resources has become repetitive and perhaps even ideological.[198] Salman also observes that there is insufficient discussion on the strengths and weaknesses of the different reform strategies and that political will is lacking in many countries.[199] However, it can be argued that Australia has made genuine efforts to promote more effective water-management practices and that the contemporary campaign to improve water management based on IWRM (generally) and a river-catchment approach (more specifically) has been influential.

In this context, the role of the UN Watercourse Convention as a global water treaty to promote best practice in the use of shared freshwater resources seems relevant. Indeed, Salman suggests that it is important to distinguish international policy documents from legally binding and enforceable conventions and treaties.[200] Arguably, improving the way in which water is governed at local, national and international levels is of crucial importance, and the Watercourse Convention is the most authoritative text to date on the current status of the law governing international watercourses.[201]

IV GLOBAL LEGAL FRAMEWORK: THE UN CONVENTION ON THE LAW OF THE NON-NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES

The Watercourse Convention is a global-framework instrument setting out general principles to guide the behaviour of states sharing freshwater systems.[202] The Watercourse Convention aims to govern and inform the use, management and protection of the world's international watercourses for present and future generations, considering the special situations and needs of developing countries.[203] The International Law Commission (ILC)[204] worked on developing the Watercourse

[198] Ibid.
[199] Ibid.
[200] Ibid.
[201] Rieu-Clarke and Loures, above n 9, 188.
[202] UN, *Convention on the Law of Non-navigational uses of International Watercourses 1997: Adopted by the General Assembly of the United Nations on 21 May 1997*.
[203] Ibid Preamble and art 1.
[204] The ILC was established in 1947 as the legal arm of the UN General Assembly. Article 1 paragraph 1 of the *Statute of the International Law Commission* provides that the 'Commission shall have for its object the promotion of the progressive development of international law and its codification' see ILC, *Statute of the International Law Commission* <http://untreaty.un.org/ilc/texts/instruments/english/statute/statute_e.pdf> (accessed 5 April 2013).

Convention since the 1970s, with initial Draft Articles available in 1994.[205] Over the years following 1994, a UN General Assembly Working Group was appointed to negotiate a Convention text, and on 21 May 1997, the UN General Assembly endorsed the draft Convention and opened it for signature.[206]

One hundred and three countries voted in favour of the Watercourse Convention, including Australia; three voted against it (Burundi, Turkey and China); twenty-seven abstained from voting; and fifty-two countries did not participate in the vote. Fifteen years later, the Watercourse Convention still needed five more signatures to reach the necessary thirty-five signatures required for the treaty to enter into force.[207]

Slow progress in gaining ratification has prompted researchers to attempt to explain some of the principal reasons behind the lack of support for the treaty.[208] Foremost among these reasons is the manner in which the Watercourse Convention has dealt with the issue of the relationship between equitable and reasonable utilisation (expressed in Article 5) and the obligation not to cause significant harm (embodied in Article 7).[209] The prevention of significant harm is an obligation of conduct, whereby co-riparian states must take 'all appropriate measures' to ensure that activities conducted under the jurisdiction of a given state do not cause harm to another watercourse state or to their environment.[210] Taking such appropriate measures is an obligation of due diligence in water use that governments should be implementing to prevent harm.[211] Such measures may include establishing water rights; creating a participatory water-management structure; establishing a legal system that is coherent at all levels (i.e. local, national, international); protecting water quality for human and

[205] *General Assembly Resolution 2669 (XXV) and GA Resolution 49/52* <http://untreaty.un.org/cod/avl/ha/clnuiw.html> (accessed 5 April 2013).
[206] Ibid.
[207] Article 36 (paragraph 1) of the 1997 Watercourse Convention states that 'the present Convention shall enter into force on the ninetieth day following the date of deposit of the thirty-fifth instrument of ratification, acceptance, approval or accession with the Secretary-General of the UN.
[208] Salman, above n 8, 1–15; Rieu-Clarke and Loures, above n 9, 185. Although signatures closed in 2000, states can still become parties to the Convention by acceding to it, which means that the Convention could still be approved through their legislative process without the need for a signature.
[209] Wouters, above n 53, 293.
[210] A Rieu-Clarke, R Moynihan and B Magsig B, *UN Watercourse Convention User's Guide* (University of Dundee, 2012) 119.
[211] P Wouters et al, *Sharing Transboundary Waters: An Integrated Assessment of Equitable Entitlement: The Legal Assessment Model* (IHP-VI Technical Document in Hydrology No 74, UNESCO, 2005).

ecosystem use; and establishing the necessary institutional framework to enforce such laws.[212]

However, the general principles set forth in Articles 5 and 7 are the two main substantive rules applicable to the law of international watercourses (generally) and the Watercourse Convention (in particular), the relationship between these rules has been cause for a great deal of debate.[213] The debate centres on arguments about which doctrine should have priority, and the likely effect of the doctrines on upper and lower riparian states.[214] Commentators explain:

> the question which takes precedent is probably the most crucial one in the application of both Articles 5 and 7. Downstream states tend to favour the no harm rule, as it protects their existing uses from adverse effects caused by upstream developments; while upstream states tend to favour the principle of equitable and reasonable utilisation, as it allows for a broader use of shared resource for developments that may impact co-riparians.[215]

Whereas Dellapenna suggests that the reluctance to ratify the Watercourse Convention is always due to the unwillingness of upstream states to accept the principle of equitable utilisation and the obligation not to cause harm to downstream states.[216]

Others argue that the general principles used for sharing scarce water resources emphasise the rights of each state—the sense that a riparian (i.e. a land owner on a river bank) is entitled to a certain quantity or use of water, despite the fact that the defining concepts remain intentionally vague.[217] As such, it could be argued that the above norms should be applied in Australia given because whether a watercourse is internationally or domestically shared does not, and should not, diminish the responsibility of a reasonable government not to cause harm. In addition, at the heart of the dispute over water management lies the question of equity, and while the term

[212] A Iza and R Stein (eds), *Rule: Reforming Water Governance* (International Union for Conservation of Nature, 2009).
[213] Wouters, above n 53, 294.
[214] Rieu-Clarke and Loures, above n 9, 189.
[215] D Freestone and S Salman, 'Ocean and Freshwater Resources' in D Bodansky, J Brunnee and E Hey (eds), *The Oxford Handbook of International Environmental Law* (Oxford University Press, 2007) 351.
[216] J Dellapenna and J Gupta, 'The Evolving Legal Framework for Global Water Governance' (2008) 14(3) *Global Governance*, 447.
[217] J Priscolli and A Wolf, *Managing and Transforming Water Conflicts* (Cambridge University Press, 2008) 60.

has been described as 'a vague and relative term in any event', and the criteria for equity are particularly difficult to determine, the application of an 'equitable' water-sharing agreement along all rivers is a prerequisite to hydropolitical stability.[218] However, the Australian approach to water management is characteristic of a federal political system, whereby different hierarchies and scales of government compete for their various interests; this approach undermines best-practice water management.[219]

Another possible reason behind the lack of support for the Watercourse Convention is that regional approaches to transboundary water issues have evolved in recent years. This has raised concerns for both downstream and upstream states about how the 'Convention's provisions may be interpreted vis-à-vis current conceptions of customary law'.[220] Indeed, in countries where appropriate watercourse agreements already exist, for their own transboundary watersheds, the Watercourse Convention may appear redundant.[221] However, according to Rieu-Clarke and Loures those states would still benefit from promoting and joining the Watercourse Convention given that:

> the Convention provides a basis by which to clarify and resolve potential ambiguities within watercourse agreements and has, thus, a key role to play even in basins where such agreements already exist.[222]

The support of such states would strengthen the role of international law, as well as their own foreign-policy commitments to international peace, energy and food security, and sustainable development.[223] In this context, Australia—while not a major international watercourse state—could also provide much needed support for the Watercourse Convention by adding political impetus in establishing and, where necessary, strengthening its current basin-wide agreements.

Another reason why the Watercourse Convention has not been widely ratified is that for many years, the Convention lacked champions to support the ratification process

[218] Ibid.
[219] E Bohensky, D Connell and B Taylor, *Experiences with Integrated River Basin Management, International and Murray Darling Basin: Lessons for Northern Australia. Northern Australia Land and Water Science Review Full Report* (October 2009) 5.
[220] Hunter, Salzman and Zaelke, above n 26, 869. Hunter points to the UNCED Convention and the Southern Africa Development Coordination compact.
[221] Rieu-Clarke and Loures, above n 9, 194.
[222] Ibid.
[223] Ibid.

effectively.[224] In 2006, the WWF (an environmental NGO) reignited a growing wave of support for the Convention by launching an international initiative to raise awareness and knowledge about the treaty.[225] Since then, this international initiative, along with numerous other global and regional stakeholders,[226] has worked tirelessly to deepen knowledge and understanding of the role of the Watercourse Convention among states and other interested parties, and explore its relevance in the twenty-first century.[227]

However, critics maintain that given the Watercourse Convention offers general guidance to the behaviour of states, the vague, broad and occasionally contradictory language contained in the text can result in varied interpretations of the principles incorporated therein.[228] To dispel such confusion, the User's Guide to the UN Watercourse Convention was created (as part of the international initiative) to explain the meaning and purpose of each article and offer guidance on how the rights and obligations contained in the text can be best interpreted by policymakers and decision makers.[229] Some commentators suggest that this legal instrument is 'outdated' in its approach to international water law because it fails to address the water challenges of the twenty-first century (e.g. climate change) that typically arise outside the context of transboundary disputes.[230] Moreover, the Watercourse Convention is considered

[224] Ibid 193.
[225] The WWF, in partnership with the IHP-HELP Centre for Water Law, Policy and Science under the auspices of UN Educational, Scientific, and Cultural Organization (UNESCO) (CWLPS) and others, have been at the forefront of these efforts. For more information on the global initiative see UN Watercourses Convention, <http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/> (accessed 5 April 2013).
[226] These include Green Cross, the Economic Commission of West African States (ECOWAS), the UN Secretary General's Advisory Board on Water and Sanitation, African basin organisations, Norway and France.
[227] For a detailed discussion, see *Special Issue: The 1997 UN Watercourse Convention – What Relevance in the 21st Century? Water International* (2013) 38(2). See also Flavia Loures and Alistair Rieu-Clarke, International Water Law Blog, 'Should We Care Whether the UN Watercourse Convention Enters into Force? Part 1 (2012) <http:///www.internationalwaterlaw.org/blog/2012/07/22/should-we-care-whether-the-un-watercourse-convention-enters-into-force-part-i/> (accessed 5 April 2013). See also Jamie Pittock, 'Renewed Hope for UN Watercourse Convention' (August 2009) *Water21* 12.
[228] A Wolf, above n 17, 18; A Biswas, 'Management of International Waters' (1999) 15 *Water Resource Development* 429–441.
[229] The User's Guide is a reference guide for lawyers and non-lawyers that provides an article-by-article explanation of the content and implications of the Convention's provisions, including case studies and commentaries; see Rieu-Clarke, Moynihan and Magsig, above n 117.
[230] J Dellapenna, 'The Customary International Law of Transboundary Fresh Waters' (2001) 1(3/4) *International Journal Global Environmental Issues* 264–305; Hunter, Salzman and Zaelke, above n 26, 869; Dellapenna and Gupta, above n 123, 437–453.

weak, as it does not include the concept of sustainability despite its rules being created almost one decade after the publication of the Brundtland Report.[231]

Despite such concerns and some level of opposition, it could be argued that the overwhelming number of states that voted in favour of the Watercourse Convention suggests that there was significant support for its text when it was adopted in 1997.[232] Further, international law plays a crucial role in the conduct of states in that it provides rules to govern state conduct and processes for dispute resolution that allow countries to seek not only diplomatic but also legally binding solutions to issues such as water conservation and management.[233] However, in the Australian context, Wolf notes that international law guides conduct only between sovereign states, and as such, grievances of political units within states over the domestic management of international waterways would not be addressed in international law.[234] Further, he maintains that even if the Watercourse Convention were to enter into force, it would only be binding on the nations that have ratified or consented to be bound by the agreement.[235]

Rieu-Clarke and Loures reject this idea, and argue that simply through its adoption by an overwhelming majority, the Watercourse Convention already presents an authoritative statement of customary international law.[236] As such, if the Convention were to enter into force, *all* its provisions would be considered as reflecting customary international law, and thus, they would potentially become binding even on non-parties.[237] Dellapenna further notes that if the Convention were to be ratified, there would be nothing stopping the parties from developing it through amendments.[238] However, while the Convention already enjoys an influential role, there remains much debate about which of its provisions reflect existing or emerging customary law, as well as the content of the principles that are widely accepted as

[231] Surya P Subedi, (2005) 'Regulation of Shared Water Resources in International Law: The Challenge of Balancing Competing Demands' in Surya P Subedi (ed), *International Watercourses Law for the 21st Century: The Case of the River Ganges Basin* (Ashgate Publishing, 2005) 16.
[232] Rieu-Clarke and Loures, above n 9, 190
[233] Dellapenna and Gupta, above n 123, 444.
[234] Wolf, above n 17, 18.
[235] Ibid.
[236] Rieu-Clarke and Loures, above n 9.
[237] Ibid.
[238] J Dellapenna et al, 'Thinking about the Future of Global Water Governance' (2013) 18(3) *Ecology and Society* 32.

custom.[239] Therefore, widespread implementation is crucial for the Convention to consolidate all of its provisions effectively.[240] Finally, from a political perspective, formal and widespread support for the Convention would send a definitive message that international law requires states to cooperate over international watercourses through joint planning and actions, and within the framework of equitable and reasonable use and participation.[241]

In this context, Australia could consider some of the guidelines that the Watercourse Convention provides given the ongoing tensions in Australia between the state and federal levels of government in the pursuit of sustainable transboundary water practices.

V A NATIONAL PERSPECTIVE: THE WATERCOURSE CONVENTION IN THE AUSTRALIAN CONTEXT

Australia has a federal system of government. Australian federation was achieved in 1901 when the six separate colonies were collectively renamed states, and the division of power and responsibility between the federal and state governments was clearly established.[242] Under the Australian Constitution, primary responsibility for water and environmental management rests with state governments.[243] The Australian system of federal government introduced a system of water management that was, in practice, state controlled. However, while it is the nature of a federal system to divide a territory according to artificial political borders,[244] river systems tend to cross such

[239] Loures and Rieu Clarke, above note 134.
[240] Flavia Loures, Alistair Rieu-Clarke and Marie-Loure Vercambre, *Everything You Need to Know about the UN Watercourse Convention* (WWF International, 2009) 13. In June 2012, as part of the UNWC Global Initiative, the UNESCO Centre for Water Law and policy hosted a symposium to debate the existing and potential relevance of this global-framework instrument in the future. See <http://www.dundee.ac.uk/water/news-events> (accessed 5 April 2013).
[241] Loures and Rieu-Clarke, above n 136, Part II; see also arts 5, 8 and 20.
[242] N Aroney, The Constitution of the Federal Commonwealth: The Making and Meaning of the Australian Constitution (Cambridge University Press, 2009) 67.
[243] Peter McClellan, 'Environmental Issues—How Should We Resolve Disputes?' (National Environmental Law Association Canberra, 13–15 July 2006) [3] <http://www.lawlink.nsw.gov.au/lawlink/lec/ll_lec.nsf/vwFiles/Speech_13Jul05_McClellan.pdf/$file/Speech_13Jul05_McClellan.pdf> (accessed 10 July 2012). Section 100 of the Australian Constitution provides that 'the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the water or rivers for conservation or irrigation'.
[244] Paul Kildea and George Williams, 'The Constitution and the Management of Water in Australia's

boundaries and are hydrologically interdependent,[245] rendering their management a complex exercise.[246] Moreover, the need to address domestically shared issues in water management can be a major challenge when the Constitution does not include protocol on the use and control of river water.[247] In effect, conflicts over shared freshwater resources (although undoubtedly none was envisaged at the time the Constitution was drafted) were left to be resolved by the state governments.[248]

For much of the twentieth century, the prevailing policy in Australia was that water resources should be exploited for industrial, domestic and agricultural development driven by consumptive needs.[249] Any deleterious effect on the natural environment was neither recognised nor understood.[250] However, international appeals to promote more efficient and parsimonious water use and protect the environment were spearheaded by the UN system in the 1970s, leading to the Mar del Plata conference. This global international conference provided the necessary platform to explore various aspects of water-resources management. However, as noted, although full of good intentions, the recommendations resulting from some UN conventions on water management produced only overarching norms or provided few resources by which to implement any recommendations.[251] Australia's participation in various international UN conferences was notable and the rise of international development initiatives led to the emergence of a more proactive role for the Australian federal government, and a change in intergovernmental relations.[252]

Rivers' (2010) 32 *Sydney Law Review* 6, 2.

[245] The hydrological cycle refers to the perpetual cycle of water that evaporates from the surface of the globe and comes back to earth in an equal amount. The nature of the hydrological cycle suggests that all waters on earth interact (including surface and groundwater) as water moves continuously from oceans to lands to the atmosphere and back again; see R Ward and M Robinson, *Principles of Hydrology* (McGraw-Hill London, 4th edn, 2000) 343.

[246] Douglas Fisher, *Water Law* (LBC Information Services, 2000) 61.

[247] Gardner, Bartlett and Gray, above n 19, 126.

[248] Nicholas Kelly, 'A Bridge? The Troubled History of Inter-State Water Resources and Constitutional Limitations on State Water Use' (2007) 30 *UNSW Law Journal* 639. Also see Poh-Ling Tan, 'Conflict over Water Resources in Queensland: All Eyes on the Lower Balonne' (2000) 17 *Environmental and Planning Law Journal* 545.

[249] See Warren Musgrave, 'Water Policy in Australia: The Impact of Change and Uncertainty' in Lin Crase (ed), *Historical Development of Water Resources in Australia* (Resources For the Future, 2008) 29–43.

[250] McClellan, above n 150, [3].

[251] Dellapenna et al, above n 145, 28.

[252] Bruce Davis, 'Federalism and Environmental Politics: An Australian Overview (1985) 5 *The Environmentalist*, 270.

Two factors underlie the dynamics of Australia's federal–state relations as concerns international affairs. The first relates to the constitutional division of power between the state and federal governments, and the second arises from the functional division of power between the state and federal governments, reflecting political development[253] rather than legal concerns.[254]

The Australian Constitution does not mention many aspects of the allocation of power and responsibility in relation to foreign affairs.[255] For example, it does not explicitly mention whether the federal government's power extends to the making of treaties or whether that power belongs to the states.[256] Similarly, the Constitution does not specifically confer legislative power on the federal parliament to implement treaties; that is, formal agreements negotiated between national governments.[257] This is perhaps unsurprising given that at the time of federation, treaty power (which is now understood more broadly as international law) was not developed to the extent that it is today.[258] Further, Saunders suggests that 'the relative silence of the Constitution on what is now such a significant constitutional issue reflects both its age and the colonial status of Australia when the Constitution came into effect'.[259] However, in the past 40 years, the need for an ongoing expanded interpretation of Commonwealth powers by both the parliament and the High Court has been necessary to reflect the increasing effect of international law on Australian domestic policy.[260]

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[253] Andrew Parkin and Geoff Anderson, 'The Howard Government, Regulatory Federalism and the Transformation of Commonwealth-State Relations' (2007) 42 *Australian Journal of Political Science*, 295–314.

[254] B Opeskin and D Rothwell, 'The Impact of Treaties on Australian Federalism' (1995) 27 *Case Western Reserve Journal of International Law* 2.

[255] The Australian Constitution was drafted by representatives of the six colonies during a series of conferences in the 1890s, when treaty capacity was in its infancy. The Constitution only makes one reference to treaties when conferring judicial power on the High Court in section 75(i): 'in all matters—Arising out any treaty'.

[256] Opeskin and Rothwell, above n 161, 2.

[257] The Australian Constitution grants power to the federal legislature under the 39 provisions set out in section 51. However, by virtue of section 107, and subject to the Constitution, each state maintains the plenary legislative power that it enjoyed as a colony before federation in 1901. Under section 109 and to the extent that state law is inconsistent with federal law, federal law shall prevail and state law shall be invalid.

[258] D Rothwell, 'International Law and the Murray–Darling Basin Plan' (2012) 29 *Environmental Planning Law Journal* 269.

[259] C Saunders, 'Articles of Faith or Lucky Breaks? The Constitutional Law of International Agreements in Australia' (1995) 17 *Sydney Law Review* 150.

[260] For a history of the expanded High Court interpretation of the Constitution, see L Zines, *The High Court and the Constitution* (The Federation Press, 5th ed, 2008).

Boardman suggests that the determination in the 1970s of the former Labor Prime Minister Gough Whitlam[261] to legitimise a greater role of the federal government in the formulation of domestic Australian environmental policy led to 'tilt[ing] the federal-state balance in the direction of the Commonwealth'.[262] However, some commentators see the growing role of the federal government as a solution to the divisive parochialism of the states, and the inevitable need to compromise.[263] Recently, the enhancement of the Commonwealth's stance in certain policy domains has unequivocally changed the relationship between the state and federal governments.[264] One commentator notes that during the 1990s, various policy initiatives undertaken during the Howard[265] government clearly transformed federal–state relations, creating a more dominant and directive Commonwealth power relative to the capacity of states.[266]

For example, the adoption of the Commonwealth *Water Act 2007* (Cth) as part of *The National Plan for Security* (renamed *Water for Our Future* under the Australian Labor Party the following year) was not only a landmark in Australian water law, but also constituted a further illustration of the Commonwealth's power to enact new law dealing with matters well beyond its jurisdiction, namely water management and most prominently, the Murray–Darling Basin system.[267] More significantly, the Commonwealth proposal under the plan to reform rural management was viewed as acting contrary to previous joint initiatives between the federal and state governments because it proposed to act *unilaterally* to address the water crisis in the Murray–Darling Basin.[268]

Gardner argues that Commonwealth appropriation of water-resources management in the Murray–Darling Basin, or in any other parts of Australia, would be inconsistent

[261] Boardman, above n 37. Gough Whitlam led the Australian Labor Party (ALP) to power at the 1972 election. He was subsequently dismissed by the Governor General of the Commonwealth of Australia Sir John Kerr (the representative at federal/national level of the Australian monarch—currently Elisabeth II) who exercises the supreme executive power of the Commonwealth.
[262] Boardman, above n 37, 97.
[263] M Crock, 'Federalism and the External Affairs Power' (1985) 14(2) *Melbourne University Law Review* 242.
[264] Parkin and Anderson, above n 160, 295–314.
[265] The Coalition (conservative) Government led by the Prime Minister, John Howard was in power from 11 March 1996 to 3 December 2007.
[266] Parkin and Anderson, above n 160, 296.
[267] Rothwell, above n 165, 269.
[268] Papas, above n 10, 90.

with the basic tenets of Australia's federal system of governance.[269] He maintains that the merit of gradual federal water reform is that states have made considerable progress in legislating new water regimes for water-resources management over the past fifteen years, guided by the NWI adopted by COAG.[270] While these measures have been able to demonstrate their worth, national governments become involved in areas of state responsibility due to international treaty obligations, national interests[271] and resource disputes that state governments often struggle to manage effectively.[272] That is, when more than one government operates in the same geographical space, the management of this space becomes more complex, and this includes the management of waterways in Australia.[273] As such, when considering developments in international law and policy, Australia must consider its federal–state dynamic and the governance authority that exists in its system.

A *1997 UN Watercourse Convention and Australian Federalism*

The UN Watercourse Convention has four points that are important for Australia. First, Australia shares no borders with other countries. Consequently, the Watercourse Convention might seem irrelevant given that this treaty relates to international and transboundary issues. Nonetheless, the Convention codifies minimum standards of cooperation and equitable management of international rivers that can be applied domestically. For example, McKay notes that in the drafting of the *National Water Act 2007*,[274] there is no reference to the Watercourse Convention or the concept of a general duty to cooperate.[275] The *Water Act* was introduced in 2007 and required the preparation of a Basin Plan to set environmentally sustainable levels of water extraction to reduce the overallocation of water entitlements threatening water

[269] A Gardner, 'Water Reform and the Federal System' in Paul Kildea, Andrew Lynch and George Williams (eds), *Tomorrow's Federation: Reforming Australian Government* (The Federation Press, 2012) 270.
[270] Ibid.
[271] Twomey rejects this idea and argues that federal intervention by a national government in state affairs is often driven by ideological and political purposes rather than to satisfy national needs and objectives. See A Twomey, 'Aspirational Nationalism or Opportunistic Federalism' (2007) 51(10) *Quadrant* 41.
[272] Bohensky, Connell and Taylor, above n 126, 17.
[273] Ibid.
[274] J McKay, 'Evidentiary Issues with the Implementation of the Sustainable Duty to Care in the Basin Plan' in Daniel Connell and Quentin Grafton (eds), *Basin Futures Water Reform in the Murray–Darling Basin* (ANU E Press, 2011) 233.
[275] Ibid.

security.[276] McKay maintains that the concept of a joint-cooperation mechanism is sound, and should form the basis of the Basin Plan.[277] A joint-cooperation framework has been used as a consultation mechanism for projects for transboundary aquifer systems to identify transboundary risks, and formulate joint policy implementation.[278] In the context of the Basin Plan, the concept of joint cooperation would promote informed decision making and wide consultation among relevant stakeholders.

Second, since its adoption, the Watercourse Convention has influenced negotiations on regional[279] and basin-specific agreements,[280] which attest to its value (at least as a reference and nonbinding framework) and its role as a key mechanism to address water challenges globally. Australia could refer to these standards in its decision making on shared water resources within its federal structure, just as other federal states could. It could be argued that provisions such as equitable utilisation and no-harm principles could provide significant co-benefits for riparian states in a domestic setting. Given that Australian rivers cross political boundaries, it is clear that policies for sharing transboundary waters equitably, and with no adverse effects to upstream or downstream users, must be employed to alleviate conflict of use.

Gardener notes that water legislation in each state provide little recognition of the problems of overallocation and overuse, and no state legislation mandates government actions to address these problems in any particular way or within a particular period.[281] Such legislation should provide substantive guidelines to define clearly

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[276] Dominic Skinner and John Langford, 'Legislating for Sustainable Basin Management: The Story of Australia's Water Act (2007)' (2013) 15 *Water Policy* 871.
[277] McKay, above n 181, 233.
[278] RM Stephan, 'Transboundary Aquifers in International Law' in Christophe Darnault (ed), *Overexploitation and Contamination of Shared Groundwater Resources* (Springer, 2008) 41.
[279] For example, see the regional approach to the 2000 *Revised Protocol on Shared Watercourses of the Southern African Development Community (SADC)* <http://www.internationalwaterlaw.org/documents/regionaldocs/Revised-SADC-SharedWatercourse-Protocol-2000.pdf> (accessed 5 April 2013).
[280] For example, *Framework Agreement on the Sava River Basin* (3 December 2002) <http://faolex.fao.org/docs/pdf/mul45452.pdf> (accessed 5 April 2013); *Protocol for the Sustainable Development of the Lake Victoria Basin* (29 November 2003) <http://faolex.fao.org/docs/texts/mul41042.doc> (accessed 5 April 2013); *Mahakali Treaty between India and Nepal* (12 February 1996) <http://faolex.fao.org/docs/pdf/bi-17432.pdf> (accessed 5 April 2013). See also A Nollkaemper, 'The Contribution of the International Law Commission to International Water Law: Does It Reverse the Flight from Substance?' (1996) 27 *Netherlands Yearbook of International Law* 39–73; A Tanzi and M Arcari, *The United Nations Convention on the Law of International Watercourses: A Framework for Sharing* (Kluwer Law International, 2001).
[281] Gardner, above n 176, 280.

appropriate timelines and set targets to address issues of overallocation and overuse. However, in federal–states relations, cooperation between the two tiers of government has proved elusive. Indeed, critics have observed that there is difficulty in discussing cooperation when 'one party is more powerful than the other'.[282] There are a number of causes for this disparity, including the Commonwealth's growth in power and influence largely due to its fiscal domination and expanding legislative capacity.[283]

Some commentators argue that the current state of federalism in Australia has become sub-optimal because of its costs and inefficiencies, and its failure to capitalise on the strengths of divided government such as diversity and innovation.[284] Others assert that failures of the Australian federal system are not driven by such imbalance but by a fundamental lack of responsibilities from relevant governments.[285] They observe that while a division of government powers necessarily makes the functions of governments less efficient than a unitary state, the onus is with all governments (at the federal, state or even local level), which includes government acting through 'cooperative' arrangements to respond to emerging issues with efficiency and effectiveness.[286]

According to Appleby, policy failure and not failures in the constitutional distribution of power have characterised most appeals reform of the Australian system.[287] As such, the fundamental responsibilities of Australian governments in their duty to cooperate and the procedures to achieve that outcome (as detailed in the Watercourse Convention) are crucial for future decision making and federal–state relations in pursuit of effective and genuine policy implementation.

The third area in which ratifying the Watercourse Convention could be of relevance to Australia is in its international-aid policy agenda. In Australia, as for a number of

[282] L Zines, 'Changing Attitudes to Federalism', in Robert French, Geoffrey Lindell and Cheryl Saunders (eds), *Reflections on the Australian Constitution* (The Federation Press, 2003) 97.
[283] Paul Kildea, Andrew Lynch and George Williams (eds), *Tomorrow's Federation: Reforming Australian Government* (The Federation Press, 2012) 1.
[284] Ibid.
[285] G Appleby, A Aroney and T John, *The Future of Australian Federalism: Comparative and Interdisciplinary Perspectives* (Cambridge University Press, 2012).
[286] Ibid 10.
[287] Ibid.

other countries, water is an integral part of its international-aid policies.[288] For example, Australia has had a longstanding engagement in the Mekong region through the Australian Agency for International Development (AusAid).[289] The goal of the Australian Mekong Water Resources Program is to assist countries in the Mekong Subregion to reduce poverty and achieve development through the equitable and efficient use and management of water resources.[290] The aim of the programme is to contribute to improving the region's water governance and promote greater cooperation between Mekong countries.[291] Thus, given Australia's strong international development agenda, it is surprising that it has not been more forthcoming to become a contracting party to the Watercourse Convention.[292] Australia ratifying the Convention would support and complement the accountability of AusAid's water policies in the Mekong.[293] That is, Australia would show its application to nations that rely on foreign-aid policies and programmes to assist with their issues in international transboundary watercourse development.

Finally, it is important to recall that Australia voted in support of the Watercourse Convention in 1997, which suggests some level of political engagement and an acknowledgement of the work and valuable contribution to the international protection of water resources. As a member of the UN and the international water community, Australia should take the next step and solidify its commitment to the rule of international law in water-resources management.

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[288] Major donors in the water sector include the EU (including members such as France, Germany and the United Kingdom), as well as Japan and the United States of America. See J Benn, 'Water Aid and Development: Improving the Flow' *OECD Observer* (March 2003) <http://www.oecdobserver.org> (accessed 5 April 2013); see also *Communication from the Commission to the Council and European Parliament on Water Management in Developing Countries*, COM (2002) 132 final (12 March 2002).
[289] Australian Government, *AusAid Sharing the Mekong River and Water Resources, Australian Mekong Water Resources Program* <http://www.ausaid.gov.au/countries/eastasia/Pages/mekong-water-resources.aspx> (accessed 5 April 2013)
[290] Ibid.
[291] Ibid.
[292] See the *National Platform and Constitution 2007*. Australian Labor <http://parlinfo.aph.gov.au/parlInfo/download/library/partypol/1024541/upload_binary/1024541.pdf;fileType=application%2Fpdf#search=%22library/partypol/1024541%22> (accessed 5 April 2013).
[293] R Kinna, *When Ratification Speaks Louder than Aid: Why Australia Ratifying the UN Watercourse Convention Can 'Aid' Water Resource Management in the Mekong River Basin and Beyond* <www.iucnael.org/zh/documents/doc_download/973-kinna-remy.html> (accessed 5 April 2013). See also Australian Government, *Independent Review of Aid Effectiveness* (April 2011) <http://www.aidreview.gov.au/publications/aidreview.pdf> (accessed 5 April 2013).

VI CONCLUSION

Global water problems is a major concern for the international community, and the UN system has been actively involved in raising awareness about the precarious state of the world's water resources, and appealing to governments to rethink their approach to water conservation and management. Since the 1970s, a number of major international conferences have been organised to promote key guiding principles for water-management reform. The contemporary campaign to improve worldwide water-resources management based on an integrated approach was spearheaded at the Mar del Plata conference in 1977. The ideas emanating from this conference were reintroduced at the Rio Conference in 1992 and at the preparatory conference on water and sustainable development held in Dublin in the same year. Since then, the principle of IWRM has been widely adopted, although there remains much doubt about what the concept IWRM means and the best way for it to be implemented.

In the past 40 years, Australia has undertaken a number of comprehensive reforms under COAG specifically to prevent the decreasing supply of water nationally and to preserve the environment. While the decisions have been largely influenced by contemporary developments in promoting a more integrated approach to water management, the current situation in Australia's rivers remains critical. In a period in which competition over domestically shared water resources is critical and political control of these resources is increasingly contested, it seems relevant that Australia should reconsider its stance on the current global ratification campaign of the Watercourse Convention. This is particularly true given that the federal government now holds sway in debates on the regulation of watercourses such as the Murray–Darling Basin. Ratifying the Convention would have multiple benefits: the legal principles and procedures contained in the Convention are applicable to domestic transboundary watercourses; ratification would support future commitments in the Mekong region under AusAid; and Australia's endorsement would be particularly noteworthy given that it is not a major international watercourse state. As a member of the UN and the global water community, Australia should support the *only* global water framework.

CHAPTER 2

Transboundary Aquifers: Challenges and New Directions
Beyond 'transboundary' Aquifers: *Australia's Great Artesian Basin*

Publication Status

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Link to Previous Chapter

While the previous chapter focuses on a broader analysis of the role of international development in international law, and how key themes such as environmental protection and sustainable development have been translated into domestic water management practices, this article has a specific focus on an international framework for the protection of groundwater.

Contribution to the Thesis

The article points out that the United Nations General Assembly Resolution on the 'Law of Transboundary Aquifers' attest to the need to regulate groundwater resources appropriately. However, the paper argues that the important standard setting set out in the UN Resolution need to recognise other types of aquifers, namely the ones that are not transboundary but do have multiple jurisdictional management issues. The article concludes that although the UN General Assembly Resolution on the 'Law of Transboundary Aquifers' sets out to fill a considerable gap in relation to a certain type of aquifer, the scope of the instrument does not encompass adequate protection for groundwater systems that are beyond 'transboundary' and are located in arid and semi-arid regions, which is where the Great Artesian Basin is situated.

Transboundary Aquifers: Challenges and New Directions
Beyond 'transboundary' Aquifers: *Australia's Great Artesian Basin*
UNESCO-IAH-UNEP Conference, Paris, 6-8 December 2010

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ABSTRACT

Australian's Great Artesian Basin (GAB) lies beneath one-fifth of the Australian continent and is estimated to be the largest supply of groundwater in the world. The groundwater from the GAB plays a major role in meeting domestic, farming and irrigation demands and remains a vital 'life line' for rural Australia. The recent UN General Assembly Resolution on the 'Law of Transboundary Aquifers' attests to the need to regulate groundwater resources appropriately. It calls for an international instrument to provide a framework for bilateral or regional aquifer management. While, the GAB is not a transboundary aquifer it is a shared groundwater resource. The domestic legal regime regulating the GAB operates under a 'cooperative federalism' model spanning four Australian jurisdictions. The important standards set out in the UN Resolution need to be recognised for other types of aquifers, namely the ones that are not transboundary but do have multiple jurisdictional management issues. This paper will explore the commonalities between transboundary and domestically shared aquifer systems – the threats and pressures, sustainable utilisation and governance issues. Finally the paper will demonstrate the greater standard setting role that an international instrument on transboundary aquifers could play in facilitating good governance, capacity building and sharing best practice of all shared groundwater resources.

Keywords: groundwater, shared aquifer, cooperative federalism

1. THE GREAT ARTESIAN BASIN

1.1 Introduction

The Great Artesian Basin (GAB) is regarded as one of the largest underground collections of artesian water supply in the world. The Basin underlies approximately one fifth of the Australian continent, extending beneath the arid and semi-arid regions of four Australian jurisdictions, namely the Northern Territory (NT), Queensland, New South Wales (NSW) and South Australia (SA). However, the most important source of water is found in western Queensland, parts of regional NSW, SA and the NT and supports rural and mining industries (Welsh et al., 2005). The GAB is a confined multi-layered groundwater system which

consists of highly permeable sediments mainly continental sandstones and non-water bearing siltstones and mudstones (Radke., 2000). The groundwater contained in the aquifers is generally of good quality and can be used for stock and in most areas is under sufficient pressure to provide a naturally flowing water resource when tapped by water-bores (Welsh et al., 2005).

However, a number of bores have been allowed to flow 'uncontrolled' into open bore drains, which has led to a unnecessary waste of this precious resource (Welsh et al., 2005). In addition, the constant discharge of water through bore drains is reducing groundwater pressures in parts of the Basin and in some naturally occurring artesian springs (Welsh et al., 2005). Lastly, groundwater contamination is a very real problem, particularly when the hydraulic pressure in one aquifer falls below the pressure of an adjacent aquifer. In this instance, cross-contamination due to excess salinity can occur and remediation of contaminated groundwater can be generally difficult (Welsh., 2000 ; Hardisty et al., 2005). Under the Australian Constitution, primary responsibility for water and water resources rests with the state governments.[294] However, 'cooperative federalism' can prove difficult when it has been necessary for each state to legislate to manage its water and provide adequate mechanisms towards both the control and fair distribution of Australia's subterranean water system.

This paper will explore the commonalities between transboundary and domestically shared aquifer systems – the threats and pressures, sustainable utilisation and governance issues. Finally the paper will demonstrate the greater standard setting role that an international instrument on transboundary aquifers could play in facilitating good governance, capacity building and best practice of all shared groundwater resources.

2. A BRIEF HISTORY OF GROUNDWATER IN AUSTRALIA

2.1 The background

The 1880s marked the discovery of the artesian water supply in Australia. From that point on, groundwater became a raw resource that could be drilled, piped and exploited (Cathcart., 2009). For instance, artesian water would allow marginal grazing to extend thousand of kilometers into what was previously hostile country (Cathcart., 2009). In addition, the building of pipelines and great water projects became the means by which the new settlers

[294] Section 100 of the Constitution provides that: 'The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters or rivers for conservation or irrigation'.

sought to bring progress to the land they colonized and bring life and prosperity to this arid country (Cathcart., 2009). In other words, hydro-engineering was though to 'triumph over the shortcomings of nature' (Cathcart., 2009).

However, the discovery of a 'new found' water supply would prove devastating for Aboriginal people, who had relied on the access to healthy freshwater for their survival since they first arrived in Australia thousands of years ago. Artesian water attracted a flood of colonial squatters into the inland of Queensland, NSW and SA and as the pastoral industry rapidly expanded the fragile ecosystems soon became trampled into dust by the herds of sheep and cattle (Cathcart., 2009). More importantly, however, Aboriginal people base most of their culture, identity and spirituality on their close association with the land and with groundwater and they have a profound understanding about the fate of the water systems in Australia (Yu., 2009 ; Craig., 2007). In a dry land where water is scarce, Aboriginal people value their own water resources 'to the last drop'(Cathcart., 2009).

As the colonial period was slowly drawing to a close, the bores kept gushing water from the earth but they did not open the country to more intensive settlements nor create new cities in the middle of the wilderness (Cathcart., 2009). However, the constant discharge of artesian water would point out to a lack of water conservation practices in a country where fresh-water can be hard to find.

2.2 The current governance

The GAB underlies four different jurisdictions, each of which operates under different legislation frameworks, policy and resources management approaches. Therefore, the implementation of consistent policy and water management practices between jurisdictions has proved difficult. In addition, the pastoral industry is regarded as central to the improvement of the management of the GAB, as pastoralists are the main - and often the most inefficient - users of its groundwater (Postel., 1999).[295]

In 1994, the Council of Australian Governments[296] (CoAG) set out to adopt a new agenda to introduce significant changes to the way in which Australia's water resources were managed.

[295] In most countries, farmers who can afford to sink a well can extract groundwater unrestrained. In addition, traditionally ownership of the land typically implies the right to access the water on the surface and beneath the land.

[296] CoAG is an entity comprising the nine heads of federal, state and territory jurisdictions. The role of the CoAG is to initiate, develop, monitor and implement policy reforms that are of national significance. Water is one such area.

One such change recognised the need for cooperative action by all Australian Governments in order to achieve consistent best practice management across water resources. In addition, under the Great Artesian Basin Sustainability Initiative (GABSI), the Commonwealth (that is, the federal government) has committed in excess of A$140 million over the next fifteen years (1999-2014) to accelerate the repairs and replacement of open bores with piped water reticulation systems and to stop the wasteful use of GAB's water. The GABIS initiative is being delivered through state agencies and the Commonwealth Government makes its contribution jointly with state governments and pastoral bore owners.

The Great Artesian Basin Coordinating Committee (GABCC) was established in 2004 to replace the Great Artesian Basin Consultative Council, which had ceased operation in December 2002. The GABCC provides advice between community representatives and agencies to key Ministers on how to encourage a strong commitment from governments and industry leaders to a sustainable management of the resources across the basin.

Lastly, the Great Artesian Basin Strategic Management plan was released by the GAB Consultative Council in 2000 and marks a significant stage in the history of the GAB. The Strategic Management 15 year plan provides the first comprehensive framework within which States, Territory and the Commonwealth Government can coordinate the management of the Basin's groundwater resources (Papas., 2007). However, the plan and what it can achieve remains confined by the constitutional limits, within which each state government and the Commonwealth must operate. Even the introduction of the Commonwealth *Water Act 2007* does not adequately promote an integrated approach to water management in Australia, let alone in the subterranean aquatic ecosystems.[297] Therefore, there still remains scope for much improvement.

3. TRANSBOUNDARY AND DOMESTICALLY SHARED AQUIFER: LOOKING AT COMMONALITIES

3.1 Characteristics

Whether an aquifer lies within a country and is domestically shared, internationally shared or transboundary does not diminish the value of its resources as a significant reservoir of

[297] The Commonwealth *Water Act 2007* is said to implement key reforms to water management in Australia. However, the Commonwealth government has taken a more proactive role in water law and governance in relation to one river system in Australia - the Murray-Darling system.

freshwater storage. Today, groundwater is the most extracted raw material in the world. Worldwide, a number of large cities and medium-sized towns depend on groundwater for everyday use. For people living in arid and semi arid regions, groundwater is the most important and safest source of drinking water. Although groundwater storage varies between regions, a number of countries rely to a greater degree on their groundwater resources for irrigation than their surface water.[298]

3.2 Challenges: Political and legal environmental context

Groundwater characteristics vary with each 'type' of aquifer. Aquifers are generally classified as 'confined' or 'unconfined'; however, their area of recharge[299] may lie within the territory of one state (country) or may be situated within the territory of a different state (country) (Barberis., 1991).[300] It is crucial therefore that the recharge zone, which primarily captures water at the surface, is protected so that the quantity and quality of water flowing into the ground is neither diminished nor polluted. In addition, an aquifer with a consistent source of recharge can be drawn upon sustainably, whereas any continuous withdraws from a non-recharging aquifer will result in the exhaustion of the resources (Eckstein., 2005). Postel (1999) suggests therefore that the rate of recharge for each type of aquifer should be assessed to provide a clear indication to scientists, irrigators and government agencies of how much groundwater can be safely extracted without exceeding sustainable limits.

Barberis (1991) points out that aquifers that are lying wholly within one state (country) are regarded as "state-owned" and subject to the domestic law of the state (country) concerned. However, aquifers that lie between or across countries are regarded as transboundary or internationally shared and subject to two or more domestic regulatory regimes (Mc Caffrey., 2003). Nonetheless, under a Federal system, groundwater is also a resource that often extends across jurisdictions where comprehensive regulation can prove difficult even when such regulation may be seen to be in the national interest.

[298] United Nations World Water Development Report (UNWWDR) points to countries such as India, Bangladesh, Iran and Saudi Arabia in particular.
[299] Recharge is the process by which water is allowed to replenish an aquifer.
[300] There are four cases in which the hydrological system of one aquifer is shared between different countries: (i) where a confined aquifer is divided by an international boundary (ii) where an aquifer lies entirely within the territory of one state (country) but is hydraulically linked with an international river (iii) where an aquifer is situated entirely in the territory of one state (country) and is linked hydraulically with another aquifer in a neighbouring state (country) and (iv) where an aquifer is situated entirely within the territory of one state (country) but has its recharge zone in another state (country).

Another issue worthy of concern is the threat of climate change to groundwater resources. Prolonged higher temperatures are forecast to increase evaporation, reduce surface water and therefore reduce the amount of groundwater available in recharge rates (Ludwig et al., 2009). More recently, progress in hydrological research has greatly influenced the treatment of shared resources (Barbaris., 1991) and an hydrogeological perspective - the science dealing with groundwater - has been a strong focus for Special Rapporteur Yamada in formulating the draft articles on transboundary aquifers (Eckstein., 2005). However, there seems to remain some ambiguity whether all aquifers can be bound by the same rules for the purpose of regulating their resources (Eckstein., 2005).

4. THE LAW OF TRANSBOUNDARY AQUIFERS: STANDARD SETTING ROLE

4.1 What are the standards?

The UN Resolution on *the Law of Transboundary Aquifers* marks a very important stage in the development of international law to the particular requirements of groundwater resources. However, one shortcoming for the purpose of the protection of groundwater generally, and transboundary aquifers in particular, is that the proposed legal instrument does not clearly address those aquifers that are not international and not transboundary, but rather are domestically shared. Yet, a UN Resolution, by definition, would be expected to focus on international and transboundary issues but that does not mean that other aquifers are not seen as important. Therefore if the proposed UN Resolution actually provides a world's best practice regime for the management of aquifers, it would be expected that the same Resolution would state international standards, which are capable of domestic application.

4.2 Standards in Australia

In Australia, primary responsibility for water and environment management rests with state governments. Since 1994, the Commonwealth and the states governments have agreed to a system of coordinative federalism in which planning and decision making are made so that progress can be made to implement reforms for effective water management. However, progress has been mixed (Papas., 2008). In addition, the recent political and popular debate about the desirability of a 'bigger Australia' suggests that the demand for water will increase in the future.[301] Declining surface-water resources due to over-allocation for irrigation

[301] Former Australian Prime Minister Kevin Rudd announced during his time in office a strategy for a 'big Australia', in which he suggested a population target of 36 million by 2050 - representing a 60 per cent growth in population over the next four decades.

purposes, coupled with prolonged periods of drought and the impact of climate change also means that there will be increasing demand from supplements from groundwater resources. However, the long term impacts of increasing extraction of groundwater Australia wide are not well understood.

More recently, the Australian Government has shown some level of engagement with and commitment to these issues, by launching the 'National Centre for Groundwater Research and Training' set up at Flinders University in Western Australia, which suggests a very real prospect for reform in this area. While the new centre is regarded as "an important investment" to help secure and improve groundwater management and knowledge for Australia's future water supplies, it remains too early to tell what the outcomes will be. In the meantime, the long term political commitment to the protection of groundwater nationwide is paramount, given that groundwater has become such an integral component of life in Australia. Capping the GAB has also been strongly suggested by some, although no governments to date have made a clear commitment as to how this would be implemented (Cullen et al., 2002).

5. CONCLUSION

Groundwater constitutes the only reliable reserve and resource of fresh-water in arid and semi-arid regions. In Australia, the GAB underlies one fifth of the continent across four different jurisdictions each operating different legislation frameworks, policy and resources management approaches. In the early 1990's, CoAG agreed that reform was required to address the economic, social and environmental implications of water use. In addition, the release of the recent Great Artesian Basin Strategic Management Plan offers the hope of effective national governance structures and adequate guideline of groundwater usage. However, the long term impact of groundwater over-extraction across the GAB is not well understood and the rate of recharge poorly evaluated.

The recent UN General Assembly Resolution on the 'Law of Transboundary Aquifers' sets out to fill a considerable gap in the law in relation to a certain type of aquifer. Nevertheless, the scope of the instrument needs to encompass adequate protection for groundwater systems that are beyond 'transboundary' and are located in arid and semi-arid regions which is where the GAB is situated. However, it provides an important starting point and it would be expected that the UN Resolution would state international standards which are capable of domestic application.

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Part III NATIONAL/STATE

CHAPTER 3

The Development of Water Law and Governance in Australia: The Evolving Role of the Federal Government

Publication Status

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Link to Previous Section

This chapter links Part II and Part III. Part II looked at the global context, whilst Part III moves to Australia. This article traces the history of gradual involvement of federal government in water affairs, despite the unchanged framework of the national written constitution.

Contribution to the Thesis

The focus of the paper is to demonstrate that the legacy of constitutional division and policy decisions over how best to develop water resources management in Australia poses challenges. Today, water law and policy seek to influence highly complex and interdependent systems to promote sustainable use at social, economic and environmental levels. The paper argues that the evolving role of the federal government in water affairs could largely be understood in terms of incremental steps to tame state sovereignty over water resources. However, the enactment of the Commonwealth Water Act 2007 suggests that the federal government has become much more proactive in water affairs since federation. The article explores the likely implications of federal influence and control over the future directions of Australian water resources management. The paper concludes that a unilateral intervention by the Commonwealth seems to have inflamed rather than aspiring to tame state sovereignty over shared water resources and does not promote best practice water management.

The Development of Water Law and Governance in Australia: The Evolving Role of the Federal Government

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Abstract

From the time of European settlement, the demands of the developing new nation, coupled with the needs to secure future growth and prosperity, led to the creation of water law and governance that promoted irrigation nationwide. With federation in 1901, the colonies united and the distribution of legislative powers—particularly in relation to water management—emerged from the creative tension between the Commonwealth (Australian or national Government) and States. The onus of water management and development was given to the states. However, the gradual involvement of the Federal Government in water affairs, despite the unchanged framework of the national written constitution, has arguably been incremental—even pivotal—to achieving early water development projects and sustainable water practices nationally. More recently, the legislation enacted by the Commonwealth—the *Water Act 2007*—suggests that the Federal Government has become much more proactive in water affairs since federation. What are the implications of federal influence and control for the future directions of Australian water resource management? This article will explore these arguments in turn and provide a critical evaluation of the current national debate on the role of the Federal Government in water issues.

Keywords: riparian doctrine, Australian Constitution, federation, water resources management, ecologically sustainable development, Federal–State dynamic.

Introduction

The colonisation of Australia began in 1788 following the establishment of the first British colony on the continent's eastern seaboard. Settlement ensured that the newly founded colonies inherited England's rules of Common Law relating to the use and management of water resources. According to Common Law, landowners adjacent to rivers had access and use rights, but ownership remained in the Crown (Clarke and Renard 1970, pp. 475-506). However, the riparian principle (the right to make reasonable use of an adjacent body of water) was unsuited to the use and management of Australia's water resources, which have been aptly described as both highly variable and poorly distributed (Smith 1998). Nonetheless, for the first hundred years of European settlement, water resource policies aimed to assist development and promote growth (Crase 2008, p. 2).

In 1901, Australia became federated with a division of responsibilities created between the Federal (Commonwealth) and State Governments. [302] Federation established the Australian system of government, including primary legislative and policy responsibility for water development and environmental management with state governments. Each state has independently developed legislation for the protection of water, ecosystems and the environment. Although their legal arrangements disclose a number of common characteristics, there has been no consistency of structure and initiatives across state jurisdictions, generally. In addition, policy leadership between levels of government has proven challenging.

By the 1990s, the need for substantial changes to water policy and law was prompted by the increasing demands for water resources and, in particular, the emerging dimension of environmental degradation. In 1994, a reform was initiated through the Council of Australian Governments (COAG) (Federal and States) with the framework endorsing a number of guiding principles. Australian governments progressively legislated to implement COAG objectives, but achievement of the framework's objectives was slow. In 2004, COAG agreed to develop a *National Water Initiative* (NWI)—Australia's national blueprint for best practice approaches to water management—attesting to COAG's ongoing commitment.

For the past twenty years, Australian policies have embraced the concept of sustainability by explicitly recognising the need to protect water resources for current and future generations (World Commission on Environment and Development 1987). More significantly, the Federal Government enacted the *Water Act 2007* as part of *The National Plan for Water Security* in an attempt to remedy a longstanding over-allocation of water identified as having a detrimental environmental effect on the Murray Darling Basin (MDB). The decision was made following a perceived lack of co-operation between state governments across the MDB, compounded with the worst drought since European settlement.

[302] the Commonwealth of Australia Constitution Act 1900 (UK).

The constitutional basis of this Act remains of interest in the absence of state referrals under Section 51 (xxxvii) of the Australian Constitution and the Commonwealth relies on a number of heads of power. The *Water Act* deals with a range of issues relevant to the use and management of water across the MDB, regarded as Australia's most prominent agricultural region. Additionally, it implements key reforms for water management including establishing an independent Murray Darling Basin Authority (MDBA). The MDBA is intended to play a strategic role for the MDB in that it will, for the first time, ensure water resources are managed in an integrated and sustainable way across the basin, rather than state-by-state. The Federal Government has now taken a more proactive (and at times controversial) role in relation to the most important river system in Australia.

How did Australia get here? What implication does this historical trajectory of growing federal influence and control have for the future direction of Australian water resource management? Answering these questions requires a detailed analysis of how the history of water law and water management has developed in Australia. The legacy of constitutional division and policy decisions over how best to develop water resource management nationally poses challenges. Today, water law and policy seek to influence highly complex and interdependent systems to promote sustainable use at social, economic and environmental levels. It can be strongly argued that the evolving role of the Federal Government can largely be understood in terms of incremental steps to tame state sovereignty over water resources.

This paper will examine this core argument in three parts, with the primary concern focusing on water extraction rather than water quality—the latter lending itself to a different analysis. Firstly, this paper will trace the early Common Law history of water resource management that predates the emergence of sustainable development (SD). The role of the Federal Government will be examined, particularly in relation to early water development projects, such as irrigation schemes and dam construction, to illustrate its early involvement in promoting the exploitation of state waters.

Secondly, the paper will briefly explore the progression to statutory regulation and more recently, how SD principles have been implemented and incorporated into Australian water law and policy. The dynamic transformation of the federal–state relationship will be explored, with a focus on the relationship between states and the Federal Government, rather than users. Finally, this paper will critically evaluate the Federal Government's decision to play a more active leadership role in water management and the implications of a Commonwealth takeover of the MDB governance structure. It will conclude by assessing the remaining legal challenges facing the Commonwealth in this new role, as well as future directions for the management of the MDB system and Australian water resources nationally.

Common Law heritage: characteristics and adaptability

The Australian colonies inherited English Common Law rules regarding water, or riparian law. Riparian law is the Common Law of surface water flowing in defined waterways.[303] Riparian water rights (also called riparian rights) refer to a system of allocating water among landowners contiguous to a body of water (Tarlock 1988). However, these rights are limited to the use of water only on, or for the benefit of the riparian land itself (land that is bordering upon the banks of a stream) (Teclaff 1985). In Australia, traditional riparian rights were regarded as manifestly unsuited to an arid country (Cathcart 2009, p. 8) where water from existing streambeds need to be distributed as widely as possible to ensure development, irrigation demands and to sustain life (Clarke et Renard 1970, p. 477). Limitations of the inherited English Common Law of water in Australia prompted the call for the development of a different legal regime. By the late nineteenth-century, the Australian colonies set out to develop a legal regime that would best suit the needs of a dry country by vesting control and allocation of surface water with governments.

However, the introduced English legal norms on the Indigenous system of customary law during the colonisation process at the time of British settlement is both important and relevant. It is important from an historical perspective as it depicts the origins of legal regime brought by European settlement. Further, it is relevant as it illustrate the impacts of a legal framework on an existing population.

Common Law: why terra nullius?

Settlement of British colonies in Australia in the late eighteenth-century imposed the Common Law of the incoming colonialists on an existing Indigenous population (Saunders 2011, p. 6). The manner in which the law was introduced depended on the basis by which sovereignty over the territory was claimed and its consequences for the native inhabitants and policies of the settled territory (McKugh 2004, p. 4).

In the late nineteenth-century, the prevailing policy classifications distinguished between colonies acquired by conquest or cession, in which case the existing law remained in place for local, indigenous inhabitants (Saunders 2011, p. 6) and those colonies acquired by occupation, which were '*aptly* described as blank' or 'uninhabited' and where English law was automatically adopted (Freeman 1980, p. 26). One author argues that there was nothing unusual about the idea that colonisers take with them the law of their homeland (Saunders 2011, p. 6), further maintaining that this, 'familiar colonial technique' was given additional impetus by the belief in the superiority of the Common Law (Saunders 2011, p. 6).

[303] Another characteristic of Common Law is that it treats groundwater (water confined deep beneath the surface in reserves called underground aquifers) differently. According to the traditional English Common Law, riparian landowners have exclusive rights to unlimited use of waters below the surface of their land.

From the outset, Australia was treated as an 'uninhabited' or 'unknown land'—*terra nullius*—acquired by occupation (Banner 2005, p. 99). There are few convincing reasons to explain Australian territory being regarded as a *terra nullius*. One author goes so far as to suggest that 'a wilful blindness' must have compelled colonialists to develop Australia on its constitutional foundation (McKugh 2004, p. 4). Other commentators have observed that the land was immense and sparsely populated and it was possible, given the size of the country, that the interior could be totally uninhabited (Banner 2005, p. 100). Arguably, the presence of Indigenous peoples—even if they were few—contravened the notion that Australia was an empty continent. Nevertheless, the reception of the Common Law on this basis had a profound effect on Aboriginal Australians (Saunders 2011, p. 7).

Australian Aboriginals have a spiritual and cultural connection with the various lands and waters—a connection nurtured for thousands of years (Craig 2007, p. 153-172 ; Langton 2004). Moreover, this cultural identity has been described as a manifestation of a spiritual connection and memories that unite communities, families and traditional knowledge (a unique knowledge concerning the local environment) (Craig and Gachenga 2009, p. 279). As such, Aboriginal Australians do not distinguish, nor do they compartmentalise their water rights from their land rights (Craig and Gachenga 2009, p. 279). Instead, they have an integrated approach (Crase 2008 p 4 ; McKay and Marsden 2009, p. 180), attesting to a fundamental understanding of the interconnectedness between natural resources and the value of protecting the land. Yet the richness of Indigenous traditional knowledge was never clearly appreciated by the first European settlers (Craig and Gachenga 2009, p. 279 ; Rose 1996 ; Burnam 1987; Whitelock 1985), nor was it incorporated into any governance structure of water use management.

It would take more than two hundred years before the manner in which the Crown claimed sovereignty authority for itself was revised by the High Court of Australia.[304] *Mabo v. Queensland (No 2)*[305] is a landmark decision that acknowledged the presence of Indigenous peoples at the time of British settlement and their native title to the land (the traditional connection to or occupation of the land). The decision does not disturb the monopoly of the Common Law or the claim of sovereignty itself (Saunders 2011, p. 7). Nor has it affected water law in its own right.

The first European settlers were wet country people who had grand 'visions' for the dry continent (Carthcart 2009, p. 8).[306] Their vision would shape the foundation for future water developments in which law and policy would play a key role.

[304] *Mabo v Queensland (No 2)* (1992) 175 CLR 1.
[305] See also *Kaurareg People v. Queensland* [2001] FAC 657; *Wik Peoples v. Queensland* [2000] FCA 1443.
[306] The First Fleeters sailed from England - a water soaked land.

Pre-federation (1788–1901): towards colonial permanent settlement

Pre-federation marked a period of a little over a hundred years during which colonisers began to establish permanent settlements across Australia and to secure water development for the needs of the newly founded independent colonies (Dovers 2000). Further, the transition from early settlement to independent colonies led to the division of Australia along political borders (Taylor 2006). For example, the proposed new boundaries between New South Wales and Victoria in the late 1830s raised questions over whether the River Murray or the Murrumbidgee should define the new geographic divisions between the colonies (Powell 1989). Arguably, the land adjacent to both rivers was prized by prospective landholders for whom the riparian doctrine guaranteed rights of access and use of water adjoining their land.

However, the needs of irrigated agriculture, compounded with a long period of 'crippling' drought in Victoria in 1877–1881 called for governmental initiatives and legislative action to address water variability (Powell 1976). A Royal Commission on Water Supply was launched in 1884 in a bid to discover a system of water conservation and distribution that would best avert the disastrous consequences of periodical droughts. Water had become a political issue, resulting in the passage of a number of pieces of legislation (Musgrave 2008, p. 31).[307] Of these, the *Irrigation Act 1886* has generally been regarded as the seminal piece of irrigation legislation in Australia (Musgrave 2008, p. 34).

Alfred Deakin, who was appointed chairperson of the Royal Commission and later served as prime minister of Australia, argued that irrigation was vital to growth and the future prosperity of Victoria (Powell 1976, p. 131). Many of the basic elements of Australian water law stemmed from his assessment of irrigation systems in western America, in which he saw, 'the close resemblance of the peoples, their social and political conditions, and their natural surroundings, [rendering] the parallel between Southern Australia and the Western States of America as complete as such parallels can well be'. Moreover, he decided that the system of riparian rights then in force in Victoria should be abolished (Davis 1968, p. 651). The resulting *Irrigation Act 1886* was vociferously criticised as too ambitious, too visionary and too radical (Tyrrell 1999, p. 126). Yet, the Act represented a breakthrough in thinking and would establish a pattern for water use development in Australia (Davis 1968, p. 651).

Irrigation became the precursor to the development of largely autonomous administrations in the colonies—with some consistencies, particularly with the general abandonment of the riparian doctrine (Musgrave 2008, p. 30). In addition, each colony became an active participant in the decision-making process pertaining to the allocation and use of water within their borders (Musgrave 2008, p. 30). However, this framework of colony control would prove a significant challenge for future attempts to exercise federal control in the national interest, as the Federal Government had to work with the states, rather than directly compel them to undertake changes. Political and legal disputes around how best to

[307] For example a previous legislation relate to the Water Conservation Act 1883, Act No. 778 (Vict).

develop the River Murray and its tributaries illustrate the prevailing tensions arising from inter-colony administrative control of rivers.

The River Murray: a contentious issue

The River Murray System (the Murray) is located in the southeast of Australia and its shared water resources lie across New South Wales, Victoria and South Australia. In the decade prior to Federation, water issues around the future development of the Murray reflected the competing water management objectives of the time (Clark 1971, p. 24). According to Clark (1971, p. 24), the respective positions of the colonies regarding the Murray were in place as early as the mid-1850s. However, the positions taken by the colonies prior to the Constitutional Conventions in the early 1890s reflected three contentions. Each colony wanted to protect their own interests; Victoria and New South Wales were primarily concerned with water for irrigation, South Australia with maintaining navigability (Clarke 1971, p. 25). The influence of these competing objectives would prove crucial to future constitutional provisions dealing with water (Kelly 2007, p. 640).

The controversy around the Murray was an outstanding example of the type of issue proponents of federation hoped would be resolved by federation itself (Nauze 1972, p. 30). By contrast, those who were opposed to federation suggested that a union would adversely affect the life of individual colonies by unnecessarily intruding into their affairs (Davitt 1898, p. 132). By all accounts, the colonies had enjoyed the benefits of local self-governing and representative institutions since the 1850s (Lumb 1992, p. 4). The decision to federate entailed a commitment to unity and a joint constitutional destiny, yet it also presented a potential challenge to their continuing independence (Aroney 2009, p. 300). Arguably, the intention to form a union was unrelated to managing water rights or its implications over those arguments relating to inter-colony water disputes. Nonetheless, federation would have an irreversible effect on water governance and the extent of state and federal future influence over the management of water resources.

Federation: new constitution for old water disputes?

On January 1901, the six self-governing colonies of New South Wales (NSW), Queensland (QLD), Victoria (VIC), South Australia (SA), Western Australia (WA) and the island of Tasmania (TAS) formed one nation. The Australian Constitution created a federal system of government. The colonies were collectively renamed states and the Commonwealth Government (also known as the Australian Government) was established (Saunders 2009, p. 22).

In relation to water, the new Australian Constitution provided few provisions that related specifically to the management of Australia's rivers. Of these, Section 100 made direct reference to water and has attracted the greatest attention (Connell 2003, p. 84). Section 100 states:

> the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters or rivers for conservation or irrigation (The Australian Constitution 1901).

However, the interpretation of this section[308] has caused many critics to question its legal significance. Deakin referred to Section 100 as 'the most complex' and 'the most obscure' of the whole Constitution (Clark 1971, p. 40). Since then, Section 100 has frequently been interpreted as a threat to environmental policy and natural resources management reform rather than a source of constitutional power (Connell 2003, p. 84). Similarly, Section 100 has been described as acting as a very specific expression of intent to limit Commonwealth activity in water affairs (McRac 2002, p. 97).

Building on these interpretations, Clark (2002, p. 14) indicates that the section could have a broad reach, citing, for example, the possibility of a Commonwealth compulsory resumption of water licences. However, Clark (2002, p. 19) cautions against this idea and maintains that, '[s]uch action may raise constitutional problems and would certainly provoke undesirable and expensive litigation. Section 100 of the Constitution may prove insurmountable'.

It should be noted that the Constitution is silent on matters relating to water management and disputes arising therefrom (Kelly 2007, p. 640). Agreement was not reached on the constitutional mechanism to deal with water disputes, although by default it was agreed that the High Court would determine any rights or limits on states in the course of future discords (Kelly 2007, p. 640). It remains unclear whether the High Court of Australia would have jurisdiction over an interstate water disagreement (Webster and Williams 2012, p. 281).

The Commonwealth Government was not granted a complete legislative ambit to participate in water resource matters (Fisher D 2000, p. 37). For example, Section 51 of the Constitution sets out a number of provisions (four primary heads of power)[309] that may allow for Commonwealth legislative competence on water issues, although none specifically concern water (McKay 2008, p. 50). Kildea and Williams (2010, p. 608) argue that each head of power provides a potential avenue for Commonwealth laws to be enacted for water management. One observer points out that given the acceleration of international activity on matters such as global warming and deforestation (s.51 (xxix))

[308] The High Court of Australia has recently held that s.100 does not extend to underground waters in aquifers, as artesian water would not have been within the contemporary understanding of the concept of waters in rivers at the time of drafting. *Arnold v. Minister Administrating the Water Management Act 2000* (2010) 240 CLR 242; G Bates (2010, updated 2012) *Environmental Law in Australia* (7th ed.), 5.1. For further information on s.100 see also *Commonwealth v. Tasmania* (1983) 158 CLR 1; *Morgan v. Commonwealth* (1947) 74 CLR 421.

[309] The four primary heads of power, in this respect, are the trade and commerce, the corporations power, the power to acquire property on just terms and the external affairs power.

external affairs[310] would continue to be a major source of power with respect to environmental issues (Crawford 1991, p. 11). The role of the external affairs power will be further discussed regarding the *Water Act* and MDB.

The Constitution established a system of water management that was, in practice, state controlled. Having the vested control of water provided the momentum necessary for state governments to become extensively involved in the water industry as developers of rural supply schemes, such as dams and irrigation (Musgrave 2008, p. 34). For most of the twentieth-century, irrigation development was driven by a regime dedicated to drought proofing and dominated by engineering objectives (Tisdell et al. 2002, p. 17). However, Davidson (1969) criticises the level of government expenditure on irrigation schemes, claiming that extensive irrigation development was economically irresponsible.

The Snowy Mountains Scheme: the active involvement of the Commonwealth Government

Political commitment was a key role in maintaining irrigation expansion (Musgrave 2008, p. 36). Notably, the renewed interest in diverting the waters of the Snowy River for a range of purposes gained fresh momentum in the 1940s when both New South Wales and Victoria proposed independent schemes for the project (Lloyd 1988). More significantly, the Commonwealth's active involvement in the scheme marked a turning point in the dynamic relationship between the states and the Commonwealth. The process by which the project came about has been hailed, 'an example of the potential for the Commonwealth to provide leadership in the resolution of conflict between the states over-boundary and trans-boundary rivers' (Musgrave 2008, p. 37). It could be argued that the role of the Commonwealth in the project was pivotal in shifting the respective spheres of responsibility over water resources between governments (Federal and States), notwithstanding the value of cooperative efforts between the two.

The Commonwealth became actively involved in 1949 when it established the Commonwealth and States Snowy River Committee as a result of protracted and spirited negotiations between New South Wales and Victoria (Anon 1948). Further, the Commonwealth's involvement, pushed vigorously by Prime Minister Ben Chifley, soon added both urgency and a degree of objectivity to the long-running disagreement between the states (Collis 2002). Development proposals for a diversion scheme were extensively investigated and culminated in a compromise plan for a project that could generate electricity and provide water for irrigation. The Snowy River's water and tributaries were to be divided between the two states (Musgrave 2008, p. 37). The Snowy Scheme was completed after twenty-five years, at an estimated cost of $819 million in 1974, or the equivalent of $6 billion today.

Apart from its considerable engineering virtues, the process by which the Snowy Scheme was completed emphasises the Commonwealth's ability to negotiate a favourable outcome amidst

[310] The use of the external affairs power gives the Commonwealth (Australian or National Government) authority to legislate within Australia by virtue of its obligations under international treaties and related instruments.

conflicting interests. However, it should be noted that while the outcome over the utilisation of the waters of the Snowy was decided between the Commonwealth, New South Wales and Victoria, no provisions were made for the interests of South Australia, which had not been party to the negotiations (Hardman 1968, p. 232). Hardman (1968, p. 232) suggests that the exclusion of the southern state was perhaps a legacy from colonial days when New South Wales and Victoria grappled over the development of the River Murray. Similarly, the relationship between New South Wales and Victoria and between the two states and the Commonwealth were ones of tension to preserve state rights over the rivers (Hardman 1968, p. 232). Arguably, under the constitution, water rights were a matter for sovereign state administration, whereas the Commonwealth held statutory rights to use the Snowy for hydroelectric purposes.

State approval of the Commonwealth's role in the Snowy Scheme was likely to have been driven by the financial realities of the cost of a project on the scale envisaged (Smith 1998, p. 167). The Commonwealth's substantial financial support towards the construction of the Snowy Scheme made the project possible (Musgrave 2008, p. 39).

Lessons from the Snowy Mountain Scheme

The level of government expenditure on irrigation schemes increasingly alarmed critics (Davidson 1969, p. 102). Their concerns stemmed from the belief that the development of irrigation in Australia had been, from the outset, driven by pro-irrigation leaders—prophesising national interest—with no forthcoming input from economists in the assessment of irrigation projects (Musgrave 2008, p. 38). According to Musgrave (2008, p. 38), the battle between economists and the pro-irrigation forces in the 1960s led to general discord, with leaders of water and engineering agencies dismissing criticisms with magisterial contempt.

Nonetheless, the irrigation tide was turning and with the passage of time, economists called into question the value of future irrigation projects and the need to subsidise water supply (Davidson 1969 ; Powell 1989). Their views were supported by the suggestion that Australia was entering a mature water economy phase, characterised by the need to discover alternative solutions to those of the earlier, expansionary phase (Randall 1981, pp. 195-219). Additionally, a number of emerging and alarming issues about environmental degradation in relation to the unabated expansion of irrigation development were raising concerns. These concerns related to both the long-term sustainability of existing levels of water in riverbeds, as well as questions over water quality, including salinity (Musgrave 2008, p. 39). Water management objectives were changing and the institutions created in the nineteenth-century for development would prove no longer appropriate. Fundamental reforms were necessary.

Although the Constitution established a system of water management that was, in practice, controlled by State Governments, the constitutional framework was undergoing a shift. The shift, as described

earlier, had occurred as a result of the general inability of states to facilitate co-operative action over shared rivers. Interstate rivalry opened the way for more direct Commonwealth involvement.

The late twentieth-century marked the end of the centenary of the Australian Constitution and the call for a more efficient and parsimonious water use. Further, the emergence of sustainable development (SD)[311] had implications for federal–state cooperation in the determination of its implementation.

Calls for a renewed approach: towards collaborative federalism

In response to action plans at the international level,[312] Federal, State and Territory Governments established the first national policy formally to detail and adopt the concept of Ecologically Sustainable Development (ESD).[313] Their efforts culminated in the *National Strategy for Ecologically Sustainable Development 1992*, outlining the progression in government thinking (Boer 1995, p. 307). The inclusion of the prefix 'ecologically' before the term 'sustainable development' was regarded as an important Australian innovation (Lyster et al 2009, p. 24). The *National Strategy for ESD* committed all levels of Australian government to development that improved the total quality of life, both now and in the future, in a way that maintained the ecological processes on which life depends (Australian Government Department of Sustainability, Environment, Water, Population and Communities ESD 1992). Tietenberg (2007, p. 15) criticised the concept and argued that conceiving the environment within an economic framework implied that the environment was viewed as a resource or an asset that could be used.

Nonetheless, since 1992, the pursuit of ESD has been increasingly incorporated into the policies and programs of Australian governments as a significant policy objective (Australian Government Department of Sustainability, Environment, Water, Population and Communities 2012). Moreover, the *National Strategy for ESD* was a pivotal stage in spearheading a new pattern of intergovernmental relations (Painter 1998). Painter (1998, p. 1) contrasts 'arm's length' federalism, which typically provided little in the way of joint action, with the more collaborative approach that characterised the new federalism of the early 1990s. Painter (1998, p. 1) maintains that each level of government (federal and state) have recently found themselves, often against their immediate wishes, cooperating on joint ventures of policy and administration.

[311] The World Commission on Environment and Development (WCED) also know as the Bruntland Commission after Gro Harlem Brudland, chairman of the Commission did not coin the term SD. However, it did popularise the concept when it defined SD as the 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.
[312] Australia participated in the United Nations Conference on the Environment and Development (UNEP) in 1992 and adopted the *Rio Declaration on Environment and Development and Agenda* 21.
[313] Australia adopted the *National Conservation Strategy for Australia* in 1983 and in 1992 agreed upon the *Intergovernmental Agreement on the Environment* (IGAE).

The influence exerted by ESD on Australian governments can be observed in their increasing interest in using market instruments to manage natural resources, including water (Lyster 2002, pp. 34-57). The *National Competition Policy* (NCP) *Agreement* of April 1995 negotiated under the Keating Labor Government is significant (Griffin 1999, p. 28 ; Argy 2002, pp. 33-46). A major impetus to the reform was an Independent Commission of Inquiry into National Competition Policy (also known as the Hilmer Report) commissioned by the Council of Australian Governments (COAG) in 1992. A central feature of the NCP was its focus on competition reform in the public interest.

The NCP has been credited with transforming the dynamic between the states and the Commonwealth by providing the, 'Commonwealth [with a] new found capacity to pressure the states' and shaping their resistance to change (Hollander 2006, p. 34). It could also be argued that the NCP was pivotal in formalising Australian collaborative federalism by demonstrating the capacity for federal and state governments to work together to achieve a unified outcome.

Aside from the NCP focus on microeconomic reform, the Commonwealth's promise of financial compensation[314] (in recognition that reform would likely result in revenue losses to the states) was pivotal in the states agreeing to a new competitive regime (Hollander 2006, p. 34). Eligibility for these payments was to be assessed by the National Competition Council (NCC) over three tranches of payments in June 1997, 1999 and 2001 (National Competition Council Annual Report 1997-98). In 1994, the COAG agreement on water reform was linked to the NCP payments. Thus, the Commonwealth's stake in Australia's affairs changed significantly, following two major phases of water reforms (McKay 2008, p. 50).

The beginning of water reforms under COAG

COAG is regarded as the peak intergovernmental forum in Australia.[315] This political forum was formally established in 1992 following a series of *ad hoc* Special Premier's Conferences that began in late 1990 (Galligan and Roberts 2007). COAG, which includes federal and local representatives, assumes a fundamental position as an institutional structure in the Australian Federation (Kildea and Lynch 2010). For example, while the text of the Australian Constitution remains structurally entrenched and the prospects of amendment slim, rapid changes are occurring at the political level that reflects the flexibility and dynamic of the Australian federal system (Kildea and Lynch 2010). Further, the near absence of intergovernmental provision in the constitutional text to facilitate federal and state interaction elevates COAG as a worthy political forum for debate.

COAG's engagement with water issues in 1994 involved a strategic framework for the reform of the Australian water industry involving water pricing, water allocations, institutional reforms and market

[314] The Commonwealth agreed to make special payments of A$16 billion over 1997-1998 and 2005-2008 to states and territories upon satisfactory progress in implementing NCP reforms.
[315] COAG is comprised of the Prime Minister, the six States Premiers, the two Territory Chief Ministers and the President of the Australian Local Government Association.

measures to support environmental protection. A key component of the COAG agreement was that the principle of ESD should underpin all water management in recognition of the fact that past practices of over-allocation had heavily affected wetlands and the environment (McKay 2008, p. 50). The COAG reform was thus the primary motivation to amend policy and resulted in the restructuring of water management regimes and institutions through new water law in each state (McKay 2008, p. 50).

The function of sustainability, or ESD in Australia, continues to be a matter of some ambiguity and its implementation within policy and law can prove immensely challenging (Dovers and Connor 2006, pp. 21-60). Fisher D (2009, p. 17) suggests that the function of sustainability depends on the language of its creation and once the function has been identified, it is only then that its legal status may more credibly emerge. Moreover, while each state passed its own laws, and each piece of legislation clearly acknowledges the concept of sustainability, ESD receives a variety of interpretation and performs different functions in each of the relevant sets of statutory arrangements (Fisher D 2009, pp. 18-20).

Similarly, different state water legislations have prevented further efforts towards collective action between the states or even between regions within a state (McKay and Marsden 2009, p. 181). Despite these challenges and as previously mentioned, the Commonwealth agreed to make substantial payments to reward state and territory commitment in implementing the reforms. However, it would appear that the NCC assessments embraced two distinct, contradicting concepts. The first concerns ESD, with a focus on broader social values and the other NCP, emphasising markets. It is perhaps unsurprising that implementation has proven difficult under such bewildering objectives (McKay 2009, p. 180).

State governments have progressively legislated to implement reforms, although difficulties encountered by some governments in fully meeting their commitments have resulted in slow progress (National Competition Council 2002). COAG then agreed on a new approach to water management and announced two new agreements, namely the *Intergovernmental Agreement on a National Water Initiative* (NWI) and the *Intergovernmental Agreement on Addressing Water Over-Allocation and Achieving Environmental Objectives in the Murray–Darling Basin*. Together, they represented the most significant policy statements on water resource management to date (Lyster 2002, p. 237).

The second stage of water reform under COAG: the National Water Initiative and the Living Murray Initiative

The NWI was signed at the COAG meeting on June 29, 2004 between the Commonwealth, NSW, Victoria, Queensland, the ACT, South Australian and the Northern Territory. The NWI builds on the original *Water Reform Framework* of 1994. The overall objective of the NWI is to achieve a nationally compatible water market and a regulatory and planning-based system for promoting the sustainable management of all Australian waters, across both rural and urban use. However, given the

contradicting objectives set out in the previous water reform (attempting to achieve economic and environmental improvements) by reorganising the management of water, the NWI had taken on a task of great complexity (Connell et al 2005, p. 81).

To assist with the implementation of the NWI, COAG agreed to establish a National Water Commission, which took over from the NCC's functions (operating under the *Water Framework 1994*), monitoring progress and state commitments (Connell et al 2005, p. 81). Moreover, given that the Commonwealth Government will be solely responsible for its funding, it is reasonable to expect that state influence will be potentially reduced (Connell et al 2005, p. 105). This raises an important and recurring question about federal–state financial relations and what Bannon (1987, p. 1) has described as, 'the issue of the administration of Commonwealth and state programs'.

There are two issues worth exploring. First, from the states' perspective, the erosion of their financial independence since Federation in 1901 and the rise of the Commonwealth to uncontested dominance of the public finance system are undeniable (Galligan 1995 ; Parkin 2003, pp. 101-112). The erosion of state finances has been described as a, 'structural disparity between revenue-raising capacities and the expenditure needs of the two tiers of government' (Parkin and Anderson 2007, p. 297). The implications of this 'vertical fiscal imbalance' (Parkin and Anderson 2007, p. 297) suggest that the states do not have the capacity to provide the necessary funds to improve water development infrastructures. Subsequently, some states have had to rely on Commonwealth financial assistance (Parkin and Anderson 2007, p. 297).

Secondly, as Commonwealth and the states have become increasingly committed to undertaking cooperative joint ventures of policy and administration, the Federal Government has necessarily encroached in state affairs. Twomey questions the motivations of the Commonwealth's involvement in some areas and warns against 'opportunistic federalism' (Twomey 2007, p. 42). Twomey (2007, p. 43) maintains that while there are serious complications with giving the states the capacity to raise the taxes necessary to support their expenditures, the problem in Australia is that the Commonwealth treats the tax as its own money.[316] The consequences of this give the Commonwealth increased power and an opportunity to remain impartial amidst state squabbling, blame shifting, failings and general outbursts of parochialism.

The NWC is required to prepare triennial assessments of the performance in each jurisdiction to ensure consistency, the first of which is due in 2014.[317] Providing the political will exists, the NWI does

[316] Twomey argues that it generally makes more sense to have taxes that are uniform and collected on a national basis. She explains

> [t]his avoids the economic cost of dealing with different complex tax regimes across Australia with different exemptions, rebates and deductions involved. Further, where the subjects of taxation are capable of movement interstate, economic distortions will result from people attempting to avoid different state taxes. Finally, some states do not have a sufficient economic base support themselves through raising tax, and will continue to require assistance.

[317] Previously, these assessments were conducted biennially.

provide some of the elements that are required to enforce compliance (Connell et al 2005, p. 96). For example, the states and territories, 'agree to modify their existing legislation and administrative regimes where necessary to ensure that their water access entitlement and planning frameworks incorporate the features identified in the *Intergovernmental Agreement on the National Water Initiative*'.

The 2014 NWC assessment is proposing to consolidate audits, present a coordinated view of progress of the NWI implementation and make recommendations to COAG on actions that the NWI signatories might take to achieve NWI objectives and outcomes. It remains too early to tell what these might be, although Fisher T (2000, p. 54) questions the NWC model against that of the NCP, arguing that the NCP is:

> the 'glue' that holds COAG water resources policy together … In particular, the incentive of cash payments from the Commonwealth promote at least the appearance of reform, as States and Territories are subject to periodic review and assessment by the NCC. Progress in water reforms would be unlikely to have progressed as far as it has without it fitting into National Competition Policy framework.

Fisher T (2000, p. 54) suggests that the effectiveness of the NWC regulatory structure may ultimately prove more attractive if the Commonwealth is willing to add inducements similar to the payments made under the NCP.

The second proposal under COAG, the *Living Murray Agreement* (the Agreement) promised 500 gigalitres of water for iconic ecological sites along the River Murray (Connell 2007, p. 6). The Agreement applies to the Murray–Darling Basin, which is located in southeast Australia and where the river extractions from the MDB system are used mainly for irrigation.[318] The Agreement was signed and implemented by the Commonwealth, New South Wales, Victoria, South Australia and Australian Capital Territory Governments. Moreover, the Agreement is the culmination of a number of legislative and policy instruments designed to achieve integration and coordination across the MDB.

The governance framework of the MDB has evolved. The first agreement between the Governments of the Commonwealth, New South Wales, Victoria and South Australia was signed in 1915. In 1992, a new governance framework for the MDB was established under the *Murray-Darling Basin Agreement 1992* to promote and co-ordinate management and sustainable use of the MDB, as a whole. Further, the commitment to the principles of SD has been the precursor for a number of initiatives, such as the *National Strategy for ESD* in 1992 and COAG in 1994. Finally, in 1995, a cap was placed to prevent further levels of extraction of water from the MDB.

[318] The MDB takes its name from two dominant rivers, the Murray and the Darling. The MDB is defined as the most prominent river catchment in Australia, covering an area of more than one million square kilometres or the equivalent to 14 per cent of the country's land area.

The Living Murray Program (the Program), established in 2002, was regarded as Australia's most significant river restoration project and proposed to spend AUD$500 million over five years to recover water and use it to achieve specific, environmental objectives. The launch of the Program was in response to evidence showing the declining health of the MDB system. However, Connell et al (2005, p. 83) argues that the growing national public agitation about the degradation of Australia's most prominent and largest river system acted as the catalyst to political engagement. Nonetheless, this program reflects national concerns on the need to achieve environmental sustainable levels of extraction.

The Murray Darling Authority claimed, in the publication titled *The Living Murray Annual Environment Watering Plan 2012–13* that 479.9 gigalitres of the proposed 500 had been recovered. While the progress in achieving the target under the Agreement is commendable, concerns remains over whether future forecasts will, in fact, increase environmental flows (the amount of water needed in a watercourse to maintain healthy ecosystems) down the river (Pye 2006, p. 146). However, it would seem that federal funding has been instrumental to achieving some progress.

The way water was managed and the governance framework in the MDB changed significantly on 25 January 2007 when, in an address to the National Press Club, Prime Minister John Howard announced a *National Plan for Water Security* (the National Press Club 25 January 2007). This plan was based on the assumption that all state and territory leaders would refer the power of the MDB water resources management over to the Commonwealth Government.

A more proactive function for the Federal Government

The third phase of water reform: a departure from cooperative federalism

The *National Plan for Water Security* or the 'Ten Point Plan' (the Plan) referred to a $10 billion investment over ten years that the Commonwealth Government proposed to spend to improve water efficiency and address over-allocation of water in rural Australia. Under this plan, Howard proposed to modernise Australia's irrigation infrastructure, address over-allocation in the MDB 'head-on', establish a new governance framework in the MDB and provide substantial funding to improve water technology, which is a cornerstone of the NWI water data collecting.[319]

Of particular significance was the fact that the Commonwealth Government sought a referral of powers of all states and territories to implement the Plan (Godden and Pell 2010, p. 311). However, given the recent joint initiatives between the states and the Commonwealth (namely the NWI and the Living Murray), which had been implemented to better preserve the environment and address over-allocation in the MDB, a streamlined approach under Commonwealth control was viewed as acting contrary to these initiatives (Papas 2007, pp. 77-90). Further, without details on how the Plan might work, there

[319] The funding is part of an overall package that also includes funding for upgrading water information, funding for Northern Australia and the Great Artesian Basin – one of the largest artesian basin in the world underlying approximately a fifth of the Australian continent.

was much room left for speculation and unpredictability (Fisher D 2009, p. 21). One critic argued that the Plan had been produced in haste and was, at best, 'cobbled together … in Canberra over Christmas', which resulted in a structure where details had been kept to a bare minimum (Toohey 2007, p. 29).

Despite some initial concerns, three states agreed to the Plan, although Victoria stalled the process until the Howard Government reviewed the Commonwealth draft legislation (Papas 2007, p. 87). This suggests that the states did have some means of pushing back against the Commonwealth's decision. Nonetheless, by September 2007, the *Water Act 2007* (Cwlth) was assented to, and was due to commence in early March 2008 under a new government.[320]

In July 2008, following the election of the Rudd Government, the Commonwealth and the Basin states[321] signed the *Intergovernmental Agreement* (the Agreement) on MDB reform. This Agreement was implemented by the *Water (Amended) Act 2008* (Cwlth) to amend the *Water Act 2007* and, 'to improve planning and management by addressing the Basin's water and other natural resources as a whole', in the context of a federal–state partnership.[322] At the outset, it highlighted some attempt to foster a more cooperative approach between levels of government.

In October 2010, the MDBA released the *Guide to the Proposed Basin Plan* (the Guide) as required by the *Water Act 2007*. The Guide was subject to much criticism by those who were concerned about what was proposed and what might happen should the reform continue on its path (Connell and Grafton 2011). Competing interpretations of the Act are broadly divided between two groups. Some are of the view that the Act gives equal consideration to economic, social and environmental factors, while others maintain that the Act gives priority to environmental factors over social and economic factors (Hall 2010).

These and other concerns led to various government inquiries into the *Water Act* and Basin planning process. In February 2011, opposition water spokesperson Barnaby Joyce questioned the 'ambiguous' powers that enable the Commonwealth Government to acquire water under the Commonwealth Environmental Water Holder (CEWH) and welcomed the finding of a new Senate Inquiry into the *Water Act* (Wilson 2011). Under the MDB reform plan, the Commonwealth Government has acquired water entitlements through direct buybacks from irrigators or obtained them by upgrading infrastructure. The Objectives of the CEWH is to return water to the environment. However, the

[320] The Coalition Government led by the Prime Minister John Howard was defeated on 24 November 2007. A new Government led by the leader of the Australian Labor Party, Mr Kevin Rudd, was sworn in.

[321] The Basin States are New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

[322] The Agreement was in response to a Memorandum of Understanding for Murray–Darling Basin Reform whereby the Commonwealth and Basin States had agreed to set out principles, 'for the co-operative, efficient and effective planning and management of the Basin's water and other natural resources'.

CEWH[323] is emerging as a powerful new institutional tool for the Federal Government allowing autonomous power to shape future management in the MDB for the first time, even if the states do not give their support (Connell 2011, p. 328).

By June 2011, the findings into the *Water Act* by the Senate Legal and Constitutional Affairs References Committee (the Committee) raised concerns about the constitutional validity of the Act and ambiguous interpretations in its current draft (Senate Legal Committee 2011).[324] On 28 November 2011, the MDBA released the *Altered Proposed Basin Plan* (the Plan) to revise and improve on the Guide of 2010 and determine the sustainable diversion limits (SDLs) (water that can be used for consumption) throughout the Basin (MDBA 2011). The Plan recommended that a long-term SDLs level water taken from the Basin will be achieved by reducing consumptive use of water by 2,750 GL/y (from a 2009 baseline level) to the environment by 2019.[325] Further, SDLs are to be reviewed in 2015 (and possibly amended) based on new lines of evidence (MDBA 2011, p. 26). The political fallout from the release of the Plan quickly became evident.

The NSW (Stoner and Hodgkinson 2012) and Victorian (Government of Victoria 2012) Governments expressed their support in remaining committed to effective water reform in the Basin. However, each were opposed to the proposed Plan in its current form. Additionally, the South Australian Government appeared to be developing a potential High Court challenge around scientific reviews of the Plan (Government of South Australia 2012). The Queensland Government was dissatisfied with the proposed cutbacks in terms of water usage for people on the land and its implications for the State of Queensland generally (Wentworth Group 2011). Lastly, the Federal Opposition spokesman Barnaby Joyce made his position clear when he stated that he would only support the Plan in Parliament if all stakeholders 'overwhelmingly' endorsed it (Morris 2012). To date, the ACT Government appears to be the only Basin Territory that supports the Plan (Legislative Assembly ACT Hansard 2012).

While the release of the Plan and the reaction of various stakeholders clearly illustrate the overwhelming complexity associated with reallocating resources in the region, there can be no doubt that water remains one of the most politically contentious resources (Crase 2011, p. 84). Further, federal involvement in the latest round of reform appears to have inflamed rather than tame the states' stance over shared water resources.

What does the future hold for the MDB framework?

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[323] The Australian Government created the CEWH through the Watr Act to manage these holdings.

[324] The Committee states:

> we are strongly concerned that, given the wide range of interpretations applied to the Act in the evidence provided to this imquiry, any plan delivered, whether balanced or not, will be subject to arguments that it may not comply with the requirements of the Act and may therefore be the subject of potential legal challenge (Senate Legal Committee 2011, p. 62)

[325] SDLs represent the maximum long-term annual average quantity of water that can be withdrawn from Basin water resource as a whole, so that enough water is left in the river system to meet environmental needs.

Clearly, the management of the MDB is an extraordinarily complex undertaking, despite several attempts to remedy the situation. It appears that the latest round of water reforms, spearheaded by the Howard's *National Plan for Water Security*, have aggravated what was arguably already a fragile state of balance. One scholar illustrates the point, stating that previous reforms were about sustainability and integrated management through both collaborative and market mechanisms (Daniell 2011, p. 415). Under the Howard reforms, the focus changed to a centralised authority (the MDBA), market efficiency (such as buybacks), with a technocratic and directive tone (the Ten Point Plan was conditional on the states relegating their water powers to the Commonwealth) (Daniell 2011, p. 415).

Parkin (2007, p. 295) goes further and observes that while the Howard Government championed a more dominant and directive Commonwealth Government, this new trajectory remained constrained by aspects of the federal system that are structurally entrenched and continue to make sensible intergovernmental collaboration. Kildea and Lynch (2010, p. 2) illustrates the point clearly, stating:

> the Constitution establishes a federal system that is concurrent, rather than coordinate, in nature, meaning that a large number of powers and responsibilities in the federation are held concurrently by the Commonwealth and the States. This ensures that neither tier of government may act substantially independently of the other. In particular, the Commonwealth, despite its increasing dominance, not infrequently requires State assistance to overcome some deficiency in its own power or expertise.

In the meantime, the *National Water Plan for Security* was renamed the *Water for the Future Plan* to reflect the instalment of the Rudd–Gilliard Government in 2007.[326] Further, the Commonwealth Government has expressed its intentions to implement the Basin plan by the end of 2012 (Martin 2012).[327] However, The disputable lack of support for the plan (the states will be responsible for its implementation) and the legal complexities that remain in successfully managing the MDB will prove interesting for the future. The complexities arise from the practical difficulty in balancing social, economic and environmental factors and the limitations and prohibitions on Commonwealth power and the scope and referral of state powers (Montoya 2012).

Conclusion

The historical trajectory of evolving federal influence and control is perhaps best described as contradictory and directive, rather than incremental. The implications of the Commonwealth's most recent water reforms in the *National Water Plan for Security* have arguably inflamed rather than tamed state sovereignty over shared water resources. By building the case on the relationship between the

[326] Australian Prime Minister Julia Gilliard has since defeated Prime Minister Kevin Rudd in a Labor Party leadership ballot in June 2010.
[327] The Federal Water Minister Tony Burke signed the revised Basin Plan into law on 21 November 2012. Australia now has a single, national plan for managing water in the MDB system.

dynamic role of the states and the Commonwealth, the aim was to show the reasons that compelled the Commonwealth to become more involved in state water affairs.

During early Common Law history, the riparian rule created rights and duties that clearly failed to provide for the needs of a newly founded and developing nation, in what has been described as one of the driest continents on earth. The colonies (which became states) set about building the infrastructure required to promote irrigation development during the late nineteenth- and early twentieth-century. The influence of Alfred Deakin in this respect and his strong belief in the role of irrigation as the backbone to nation building played a key role in establishing water resource management on a legal footing. In 1901, Australian Federation was declared and each colony joined to form one nation. Moreover, the ways in which water management was shaped in the constitutional settlement left primary legislative and policy responsibility for water development largely in the hands of the states. From this stage onwards, the Commonwealth's involvement in water development would be by way of fiscal subsidies.

By mid-century, the states became active participants in the development of the protection of water and the environment in their jurisdiction, devising laws and policies that best suited their needs. In the 1960s, the role of the Federal Government in water development projects such as irrigation schemes began to illustrate the capacity in which the Commonwealth could influence competing state interests, particularly by way of financial support. The irrigation tide was turning as unabated levels of extractions from Australia's river systems soon prompted the need to amend water policy and law to address the emerging dimension of environmental degradation.

In the 1990s, a reform defined as cooperative federalism was initiated through COAG, with the framework endorsing a number of principles. The introduction of ESD in water policies and water law was a primary factor for change. Although the Australian states have progressively legislated to implement COAG objectives, progress has been slow, despite substantial Commonwealth fiscal incentives.

In 2004, COAG agreed to the next stage of water reform, the NWI, in a bid to devise a system of governance for the sustainable use and development of all water resources nationwide. Once again, the Commonwealth was directly involved with the process by providing the funding necessary to initiate, as well as reward compliance. However, the recent introduction of the *Commonwealth Government Water Act 2007*, as part of the *National Plan for Water Security*, to remedy the longstanding over-allocation of the MDB was regarded as both a stoke of unilateralism and seemed to sit in stark contrast to the direction carried out in previous water reforms. Arguably, the decision of the Commonwealth to become more proactive in state water affairs reflects a shift from the vertical fiscal imbalance that typifies Commonwealth–State relations. However, the legal standing of these new arrangements remains to be determined.

Based on the above analysis, some lessons can be observed. Unless a radical overhaul of constitutional powers takes place, which seems unlikely; states will need greater funding to deliver water reforms, particularly national objectives under the NWI. Unilateral interventions by the Commonwealth, unless managed correctly, do not yield favourable outcomes nor do they promote best practice water management. Instead, they enliven power struggles, posturing and a lack of cooperative federalism across various stakeholders. There is also the ongoing collective action problem of water management under the Australian Constitution and in the MDB. The current approach to resolving the former is to rely on a cooperative body—such as COAG—and the later on a superstructural actor, as in the MDBA. Lastly, when it comes to facilitating cooperation, financial incentives from the Commonwealth to the states have yielded some success. In this capacity, the Federal Government has been proactive by virtue of state support. Federal influence in the future would be best served to remember this valuable lesson.

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CHAPTER 4

Recent Reforms to Australian Water Law – 6 years on: Why has the Federal Water Act been so difficult to implement?

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While the previous chapter focuses on an exploration of gradual involvement of the federal government in water affairs and motivations for acting in a more centralist manner, this article seeks to identify the capacity for, and barriers to implementing the Commonwealth Water Act 2007.

Contribution to the Thesis

Australia's most recent water reform created by the Commonwealth Water Act 2007 was the first attempt to manage Australia's most important water basin – the Murray-Darling Basin (MDB) through national legislation. However, implementation has proven very difficult, both in terms of the preconditions attached to the reform going ahead and the way in which the policy development process was carried out. This paper examines the conceptual framework of multi level governance (MLG) theory to identify the inherent complexities that exist between levels of governments, particularly when the capacity for change may be hampered by a perceived lack of cooperation. The paper argues that the MLG concept can be used to bring new insight to the changing trends in intergovernmental relations and policy making for the management of water resources. Finally, the paper concludes that, while the federal government now holds sway in decisions pertaining to water management, cooperation between levels of governments remains crucial to yield the best possible outcome across stakeholders.

Recent Reforms to Australian Water Law—Six Years On: Why Has the Federal Water Act Been So Difficult to Implement?

Abstract

Australia's most recent water reform, created by the Commonwealth *Water Act 2007*, was the first attempt to manage Australia's most important water basin—the Murray–Darling Basin (MDB)—through national legislation. The Water Act was introduced in response to the most severe period of drought since European settlement, and concerns over future water security for the nation. However, implementation has proven very difficult because of the preconditions attached to the reform proceeding and the manner in which the policy-development process was conducted. This article examines the multilevel-governance (MLG) theory to explain and understand multilevel policy coordination and how it contributes to the capacity for, and barriers to, dynamism and innovation in the study of Australian federalism in relation to water management. This article argues that MLG can be used to gain new insight into the changing trends in intergovernmental relations and policymaking for the management of water resources in Australia. This article concludes that while the federal government now holds sway in decisions pertaining to water management, cooperation between levels of governments is crucial to yield the best possible outcomes for all stakeholders.

Keywords: Murray–Darling Basin; Water Act 2007; multilevel governance; pragmatic federalism.

Introduction

Managing water resources is challenging. This is especially true in Australia, where water availability is highly variable and water resources in Australian rivers have been steadily declining due to overextraction for consumptive use. Under Australia's federal system of government, the states maintain primary constitutional responsibility for land and water management and each jurisdiction has implemented its own water-reform package.[328] However, in recent decades, water-management challenges are increasingly managed through political institutions that require the participation and cooperation of both federal and state governments (Painter, 1998, 2001) in designing water policy. This requirement adds another layer of complexity to the water-resources management. The region of the Murray–Darling Basin (MDB) best illustrates this problem.

The MDB is often referred to as Australia's agricultural heartland and shares its waters throughout four states and one territory (Queensland, New South Wales, Victoria, South Australia and the Australian Capital Territory). The Basin's agricultural production greatly contributes to the national economy and supports many jobs (Australian Government, Murray–Darling Basin Authority [MDBA], 2014b). However, the depletion of water resources in the system remains a serious problem. The continuing decline of water resources in Australia, compounded by the worst drought since European settlement (Connell, 2007, p. 5), prompted former Prime Minister John Howard to introduce the federal *Water Act 2007* as part of the National Water Plan for Water Security in an attempt to prevent the further decline of water resources in the Basin. The scope of the reform was unprecedented because the federal government proposed to take control of the MDB from the states.

[328] Section 100 of the Australian Constitution provides that 'the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of State or of the residents therein to the reasonable use of the waters or rivers for conservation or irrigation' (Australian Politics.Com).

In March 2008, at the first Council of Australian Governments (COAG) meeting following the election of the Rudd government,[329] the Commonwealth and the Basin states' governments signed a Memorandum of Understanding on MDB reform (Council of Australian Governments [COAG], 2008a). In July 2008, this Memorandum of Understanding was implemented through an intergovernmental agreement (IGA) under which the states would refer their powers to the Commonwealth and agree to establish a new governance structure for the MDB. Negotiations over the management of the Basin during the term of the Rudd government provided a stark reminder that federalism involves not only respecting the role of the states in the Australian federation, but also leveraging cooperative federal–state relations to achieve worthwhile reforms.

The need to reconcile good governance across the states' interests and to establish best-practice management for the MDB system leads to the question of why the Howard government would have wanted to expand its role to address the water crisis in the MDB. To answer this question, this article explores the concept of multilevel governance (MLG) to explain the capacity of intergovernmental policy in the water domain, and explore the tensions inherent in MLG. While the idea of MLG was initially developed around the European Union (EU), the concept has more recently been used to examine other areas such as the study of federal systems (McCormick, 2008). There is a strong argument that MLG can be used to understand and create new insight into the changing trends in intergovernmental relations, and policymaking for the management of water resources in the Australian federal system.

To demonstrate this argument, this article proceeds in four sections. The first introduces MLG theory and key literature to understand multilevel policy

[329] The Coalition Government led by former Prime Minister John Howard was defeated on 24 November 2007, and a new government, led by the Australian Labor Party's Kevin Rudd, was sworn in.

coordination and demonstrates how MLG relates to the study of Australian federalism. The second section outlines the aims and aspirations of the National Plan for Water Security (more recently rebranded Water for the Future under Rudd's Australian Labor Party) and the role of the Water Act. The third section briefly explores key implementations between 2007 and 2012, and the final section assesses what the federal Labor government achieved in water management throughout its last term in government and what the new Coalition government should be learning from that experience about what can be achieved in this area. This article will conclude that while the federal government now holds sway in decisions pertaining to water management, genuine cooperation between the levels of governments is crucial for creating the best possible outcome for all stakeholders. It also reflects on the broader implications of MLG theory for understanding Australian federalism and future steps to advancing water management in the MDB.

What Is MLG?

The concept of MLG originated in the early 1990s, and was first developed from research on the EU (Hooghe, 1996; Marks, 1993). Hooghe and Marks (Piattoni, 2009) first developed the concept as a useful approach to understanding some of the decision-making dynamics within the EU. An early explanation of MLG referred to it as 'a system of continuous negotiation among nested governments at several territorial tiers' (Marks, 1993, p. 392) and described how 'supranational, national, regional and local governments are enmeshed in territorially overarching policy networks' (Bache, 2005). The theory emphasised both the increasingly complex interactions between levels of governments and the increasingly important dimension of non- state actors that are mobilised in cohesion policymaking and in EU policy more generally.

The MLG approach considers the EU as a political system in its own right, one that shares more similarities with national political systems than international organisations.[330] As such, despite the fact that the idea of MLG was initially developed around the EU, there are a number of other areas to which this framework has been applied, namely to the study of federal states in comparative politics (McCormick, 2008). According to McCormick, 'multilevel governance is a conceptual cousin of two other, older concepts, federalism and confederalism' (McCormick, 2008, p. 15). However, the term is now applied to the EU more generally (Hooghe & Marks, 2001), and has received widespread acknowledgement through the work of Hooghe and Marks (2001, 2004).[331] However, it is disputed whether these researchers formulated a new theory (Bache & Flinders, 2004; Conzelmann & Smith, 2008; Jordan, 2001).

Over the past decade, developments in the EU have revived debate about the consequences of EU integration on the autonomy and authority of the states in Europe (Marks, Hooghe & Blank, 1996). It is widely accepted that the institutional system of the EU is 'new and open ended' (Olsen, 2007, p. 16). However, state-centrism has long been the cornerstone for the interpretation of Western political systems and of international relations. A number of theories on the EU still take this approach, namely those that present the EU as a 'highly institutionalized negotiating system among states' (Jachtenfuchs, 2007, p. 159; see also Moravcsik, 2002, p. 603). Marks et al. (1996, p. 341) challenge traditional views on state-centrism, arguing that the

[330] Traditionally the EU was considered an international organisation like the UN or North Atlantic Treaty Organization (NATO). However, signing the Maastricht Treaty in 1992, along with the growing competence of the supranational institutions of the EU, changed that perception.

[331] Hooghe and Marks (2004) argue that due to European integration 'a multi-level polity has been created that delivers, or co-delivers, several of the chief outputs of government, including monetary policy, competition policy, regional policy, market negotiations, and elements of industrial relations, law and order and education'.

sovereignty of European states is limited by the application of collective decision making and by the growing competence of supranational institutions.

Moreover, these researchers challenge the notion of the state as the singularly most important and dominant actor within the EU policymaking process, and propose that MLG provides an alternative view to our understanding of the changing nature and role of the state (Marks et al., 1996, p. 342). They argue that MLG refers to 'a system of continuous negotiating among nested governments at several territorial tiers' (Marks, 1993, p. 392). By this premise, European integration is viewed as a policy-creating process in which authority and policymaking are shared across multiple levels of governments, including subnational, national and supranational (Marks, 1993, p. 392). The term 'MLG' stresses the nonhierarchical, informal and deliberative aspects of negotiations and suggests that legislation and policy processes involve a wide variety of actors (Marks, 1993, p. 392). Indeed, according to some commentators, MLG emerges 'when experts from several tiers of government share the task of making regulations and forming policy, usually in conjunction with relevant interests groups' (Hague & Harrop, 2007, p. 282).

While MLG stresses a nonhierarchical structure to the extent that the traditional hierarchical control role of the state has changed, commentators have explored the manner in which such transformations have affected the nature of exchange across a potentially wider cast of policy actors (Peters & Pierre, 2001, pp. 131–135). Peters and Pierre stress the governance aspect of MLG, arguing that the transformations in governing hierarchy yield multiple outcomes. First, in this analysis, MLG is a subset of governance whereby the distribution of authority and policy capacity must be considered across different sectors and spheres, including states (Peters & Pierre, 2004). Second, these transformations are viewed as evidence of the

need for institutional mutual dependency and a change in the zero-sum nature of intergovernmental relations (Peters & Pierre, 2004, p. 83). Third, the emphasis of MLG on interconnectedness and a nonhierarchical and multiple-actor nature of governance encapsulates the reconfiguration of policymaking in the EU, and further promotes the recognition of a positive-sum and problem solving capacity within contemporary governance (Awesti, 2007, p. 4).

MLG and Australian Federalism

Considering this explanation of MLG, it is interesting to consider what the concept of MLG adds to the study of Australian federalism, particularly concerning intergovernmental processes and federal–state relations. It can be argued that while the EU is not a federal state, it has enduring formal institutional architecture in which many competences are shared across the EU Commission and the Member States (Hooghe & Marks, 2001, pp. 236–237). As such, the EU operates on federal principles and the concept of MLG has been, as previously mentioned, branded akin to ‘a conceptual cousin of federalism’ (McCormick, 2008). Thus, under these conditions, the EU can be reasonably located at the edge of comparative study of federalism (Stein & Turkewitsch, 2010, pp. 3–6).

The contribution of MLG in the context of Australian federalism can serve to highlight potential sources of, and barriers to, dynamism and institutional innovation in Australian policy (Kay, 2013, p. 5). Moreover, it can provide an insight into the relationship between intergovernmental processes and the manner in which different jurisdictions can achieve a shared approach to problem solving in a particular policy sector (Kay, 2013, p. 5). As such, the contribution of MLG strongly resembles the concept of ‘pragmatic’ federalism advanced by Hollander and Patapan (2007) in which there is a dynamism within federation that allows for political ideas to be

continually reshaped to meet the policy demands of the day in the absence of an overarching political theory of federalism to either inform party ideology or judicial policymaking.

The nature of Australia's pragmatism is manifested in the development of COAG, which was established in the 1990s as a permanent and standing body for the systematic organisation of intergovernmental relations in Australia (Carroll & Head, 2010). COAG is an entity comprising the nine heads of the federal, state and territory jurisdictions (COAG, 2014). The role of COAG is to initiate, develop, monitor and implement policy reforms that are of national significance—water is one such area. COAG assumes a fundamental position as an institutional structure through which the Commonwealth, states and territory governments can address shared problems and foster collaborative solutions (Kildea & Lynch, 2010, p. 1). COAG's efforts to establish intergovernmental coordinated approaches in both the environment and water sectors are attested to by initiatives such as the 1992 Intergovernmental Agreement on the Environment (Australian Government, Department of the Environment, 1992); the 1994 Water Reform (Australian Government, Department of the Environment, 2004b); and the 2004 National Water Initiative (Australian Government, Department of the Environment, 2004a).

While COAG's achievements in various policy reforms are noteworthy, Kildea and Lynch (2010, p. 3) argue that in the absence of a firm legal and constitutional footing, COAG's future is uncertain and its operation remains at the discretion of the prime minister of the day. Indeed, it is the prime minister who determines the frequency and timing of COAG meetings (Kildea & Lynch, 2010, p. 3).[332] Although the core executive of the Commonwealth Government exercises

[332] The frequency of meetings is usually four meetings per year. However, in the period 1992–2007, COAG did not meet in 1998.

substantial influence and control over COAG, proponents argue that the role of this body, as a counterpoint to centralising tendencies, is crucial to the potential for multilevel collaborative governance in the Australian federation (Kildea & Lynch, 2010, p. 3; Painter, 2001).[333]

The continuing development of COAG demonstrates that while the text of the Australian Constitution remains fixed and the prospects of amendment unlikely, rapid changes are occurring at the 'subconstitutional' level of governments that require effective management of intergovernmental relations (Carroll & Head, 2010, p. 407). Indeed, the Australian Constitution established no formal mechanisms through which Commonwealth and state interaction might be facilitated (Anderson, 2008; Tiernan, 2008). Instead, the Constitution established a federal system that is concurrent, rather than coordinated, with the Commonwealth and the states holding many powers and responsibilities in the federation concurrently (Kildea & Lynch, 2010, p. 2). This arrangement ensures that neither tier of government acts independently to a substantial degree (Kildea & Lynch, 2010, p. 2).

Moreover, it provides that the Commonwealth, despite its increasing dominance,[334] continue to rely on the willingness of the state governments to enter or engage in a process of negotiation (Kay, 2013, p. 7). Kay (2013, p. 7) illustrates this:

> The distinguishing feature of Australia as a federation is the constitutionally entrenched position of the states in policy areas where they enjoy concurrent formal powers with the Commonwealth, as compared to policy coordination in non-federal multilevel systems where lower levels can be more easily

[333] The extent of the Commonwealth's control over COAG is reflected by the prime minister's occupancy of the chairperson's role for all meetings, and the location of COAG's secretariat within the Department of the Prime Minister and Cabinet.

[334] The introduction of the National Competition Policy (NCP) in 1995 changed the general trajectory of Australia's political economy, whereby the Commonwealth (National/federal government) started to assume increasing power, particularly in respect of control over taxation. The aim of the NCP was to promote economic reform and economic efficiency.

reorganised. The states are a potential veto player in the process of federalism adaptation.

The recent reform to Australian water law and policy highlights the complexities that exist when a new reform is introduced. This is particularly true for this this water reform, as it changes the institutional landscape of water governance from a national priority pursued through established mechanisms of cooperative federalism (as described above) to a top–down governance approach led by the Commonwealth.

The National Plan for Water Security: Aims and Aspirations

The National Plan for Water Security (renamed Water for the Future under the Australian Labor Party) was announced by Prime Minister John Howard 25 January 2007 and referred to an AUD$10 billion investment the Commonwealth was proposing to spend to address the challenges of water inefficiency, and water allocation in rural Australia. Although the Plan was national in scope, the primary focus was on the MDB.[335] Under the Plan, Howard proposed to address overallocation in the MDB 'once and for all', establish a new governance arrangement for the Basin, implement a sustainable cap on surface and groundwater use, and create major engineering projects at key sites along the MDB, including the Barmah Choke and the Menindee Lakes (Howard, 2007).

According to Howard, the proposed plan was in response to the scale of the water crisis in the MDB, an acknowledgement that the governance system at the time was clearly inefficient in its capacity to reduce the decline of water resources in the Basin. Moreover, concerns over declining resources had been compounded by the worst period of drought since European settlement (van Dijk et al., 2013, p. 1040).

[335] Much of the proposed expenditure was not to be used exclusively for the MDB. It was part of an overall package that also included funding for Northern Australia, the Great Artesian Basin and investments in water information (Howard, 2007).

Howard maintained that the Commonwealth was offering to assume the responsibilities for the problems created by the states (Howard, 2007). He argued that the core of the problem was the states' competing interests, which made even the best national agreements difficult to implement. Thus, he claimed that a central aim of the new governance structure was to centralise decision-making responsibility at the federal government level, rather than leave it to a state-by-state basis, to expedite adaptation and to manage the MDB as a whole in the national interest.

However, as a precondition of the proposal proceeding, all states and the territory had to refer their water-management powers to the Commonwealth (Howard, 2007). Three of the four Basin states agreed to refer their legislative power over water to the Commonwealth. However, the position of the Victorian government was stated clearly in May 2007 by the former Victorian Water Minister John Thwaites:

> We have said from day one. We are prepared to have a sensible system. We are prepared to give to the Commonwealth, but we are not prepared to have a full constitutional handover. (ABC News, 2007)

Ongoing negotiations over the next few months continued to raise legitimate issues about the Commonwealth draft legislation (Toohey, 2007, p. 29). Nonetheless, by September 2007, the Water Act 2007 was assented and due to commence in early 2008. That is, the Act was drafted despite not reaching full referral of legislative powers to allow the Commonwealth control over the waters of the MDB. Instead, the government decided to circumvent the requirement for state referral based on its various constitutional powers, including its external-affairs power over international environmental treaties (Skinner & Langford, 2013, p. 880). It was claimed that the Water Act marked a distinct shift away from the principles of consensus and

negotiation that had been central to the decision-making processes concerning the MDB in previous decades (Connell, 2011, p. 3993).

Howard conceded that the failure to achieve a cooperative arrangement influenced the framing of the Act (Kildea & Williams, 2011, p. 9). Some commentators argued that the National Plan for Water Security had at best been 'cobbled together with unprecedented speed in Canberra over Christmas' (Toohey, 2007, p. 59), which demonstrated a complete disregard for normal policy-development processes. Further, the Howard's unequivocal assumption that the states would refer their powers over water suggested that the Commonwealth was willing to prioritise short-term political objectives over the long-term goals of water policy. In 2007, there was to be a federal election, and it seemed the Coalition government under Howard was likely to lose (Peatling, 2007). The election coincided with the most severe period of drought and annual recorded inflows to the MDB, which became a major public issue (Kendall, 2013, p. 451). It has been argued that the environmental vote became the deciding factor in the election, and likely influenced the drafting of the water reforms that year (Skinner & Langford, 2013, p. 878).

It can be argued that the Commonwealth's unwavering assumptions in this instance blurred the policy process, making 'cooperative federalism' a euphemism for centralisation. Moreover, while the aim of the National Plan for Water Security was to introduce the Commonwealth's Water Act (which would enable the water resources in the MDB to be managed at the national level for the first time), the constitutional limits within which the Commonwealth's plan could operate remained unresolved. Indeed, under the Australian Constitution, there is no express legislative power for the Commonwealth to enact a law providing for regulation of water usage.

By 24 November 2007, Howard had been defeated in the federal election and a new government led the Australian Labor Party's Kevin Rudd was sworn in. The new Labor government inherited Commonwealth water reform that continued to create much division between the federal and state governments.

New Government—Same Reform

Following the election of the Australian Labor Party, Rudd promised a more cooperative working relationship between the federal and state governments to address the unfolding water crisis in the MDB more effectively (Government of South Australia, Department of Water, Land and Biodiversity Conservation, n.d., p. 2). Rudd moved to implement his election promise on 3 July 2008 when the Basin states signed an IGA on MDB reform (the 2008 IGA Reform), which gave effect to a Memorandum of Understanding to which the parties had agreed at a COAG meeting March that year (COAG, 2008b). The 2008 IGA Reform set out further details of the proposed cooperative arrangements, and the Basin states agreed to the negotiation of a revised MDB agreement and a limited text referral of constitutional powers to the Commonwealth under s 51(xxxvii) of the Constitution.[336]

The purpose of the referral of power was limited to enabling the Commonwealth to make a number of amendments to the Water Act (Australian Government, ComLaw, 2008). As such, the Memorandum of Understanding provided the framework necessary to promote intergovernmental participation towards a mutually agreed outcome (rather than bargaining positions), and hence an approach more consistent with MLG.

[336] This article provides that the Commonwealth Parliament may make laws on matters referred to it by the parliament of any state, but such laws can extend only to the states by whose parliament the matter is referred or that afterwards adopt the law. The states introduced referral legislation into their respective parliaments through the remainder of 2008 (Water (Commonwealth Powers) Act 2008 (NSW).

Notwithstanding the states' referral of powers under s 51 (xxxvii), the Commonwealth Parliament also had to rely on a variety of other heads of powers, although none directly related to water regulation or indeed any natural resources (Gardner, 2012, p. 273) for the reasons stated above. The most significant of these heads of powers are external-affairs power s 51 (xxix), corporations' power s 51 (xx), interstate trade and commerce power s 51 (i), and the power relating to meteorological observations s 51 (viii). However, the use of the external-affairs power has been subject to a great deal of criticism because it is considered an indication of the Commonwealth's ability to reshape federalism (Durack, 1993).

The external-affairs power promotes the implementation of Australia's obligations under international treaties. That is, this power presents an opportunity for the Commonwealth to harmonise domestic laws with international norms (e.g. Fisher, 1984, p. 175). However, Durack argues that the High Court's interpretation of the external-affairs power has been its greatest failure in its role as the interpreter of the Constitution (Durack, 1993, p. 1). He maintains that this it is an extremely wide and vague head of power (Durack, 1993, p. 2). Further, he believes that there is a real difference between a convention on pollution of the atmosphere or the sea (Durack, 1993, p. 2)[337] and one that is considered to give the Water Act and Basin Plan the objective, purpose and scope to achieve certain objectives.

In contrast, Rothwell suggests that the development of international law throughout the twentieth century, combined with the Australian High Court's treatment of s 51 (xxix), has raised the option for the Commonwealth to take a more proactive approach towards regulating the management of certain rivers, in particular

[337] Rothwell (2012, p. 272) provides a detailed explanation employing an analysis of the treaties identified in the Water Act, and discussing how they have or have not been relied on in the formulation of the Basin Plan.

the MDB system, which is the most prominent in Australia (Rothwell, 2012, p. 269). He notes:

> The adoption of the *Water Act 2007* (Cth) was not only a landmark in Australian water law, but a further illustration of the constitutional power of the Commonwealth to enact new law dealing with matters well beyond the contemplation at Federation via the treaties power in the Constitution. (Rothwell, 2012, p. 269)

Ultimately, the Commonwealth may legislate unilaterally to implement international agreements where it perceives such action to be in the national interest. As noted, the reliance that the Commonwealth has placed on such agreements has not only provided a constitutional basis by which to enact the Water Act, but also a framework of mechanisms for giving effect to Australia's obligations under those treaties (Rothwell, 2012, p. 274).

However, Rothwell (2012, p. 279) argues that it remains unclear whether Australia is meeting the required international law obligations to give effect to those treaties, and maintains that this will need to be assessed in light of the Commonwealth's and states' legislative and policy response. Indeed, international treaties require state cooperation for their domestic implementation and accordingly, discussions with state and territory governments occur at a number of levels ranging from that of experts to standing Ministerial Committees and Councils (Australian Government, Department of Foreign Affairs and Trade). This approach aligns with the idea of MLG.

This suggests is that despite the Commonwealth's purported legislative capacity, there remains a need for a great deal of cooperation, and mutual dependency with the states remains vitally important, particularly when the Commonwealth

Government is eager to introduce a new water reform. The Rudd government acted wisely in seeking an intergovernmental MDB agreement and to do so at the executive level, highlighting the centrality of MLG to Australia's water reforms. Rudd called the agreement 'historic' (Franklin, 2008, p. 1), while the former Victorian Premier, John Brumby, described it as a 'great step forward' (Wiseman, 2008, p. 4). In this context, MLG can be understood as a process by which authorities and key decision makers negotiate a mutually agreed outcome to enhance the chance of achieving broad policy objectives.

Implementation: 2007–2012

On 25 September 2008, the Commonwealth *Water (Amended) Bill 2008* was introduced into the House of Representatives. The Bill was passed and came into effect on 15 December 2008. Under the Commonwealth *Water (Amendment) Act 2008*, a new governance structure for the MDB was formally created. The purpose of the states' referral of powers in this situation was to enable the Commonwealth to transfer existing powers and functions of the Murray–Darling Basin Commission (MDBC) under the previous legal framework, to the MDBA; thus, establishing the MDBA to act as the sole body responsible for the management of the MDB's water resources (Australian Government, MDBA, 2014a). Relevant responsibilities held by the MDBA include the development, implementation and monitoring of a Basin Plan; advising the Commonwealth Minister on the accreditation of state water-resources plans; and managing water sharing between the states (Australian Government, MDBA, 2014a).

The Basin Plan's primary focus was to set limits on the long-term average volumes of water that could be used for consumptive purposes after environmental water requirements had been met (Australian Government, MDBA, 2010). Before

developing the Basin Plan, the MDBA attempted to develop a guide to outline its initial views on what these new water limits should be (Victorian Government, 2012). However, the perceived lack of genuine consultation across multiple stakeholders leading up to the release of the *Guide to the proposed Basin Plan* (Australian Government, MDBA, 2010) caused 'outcry across the Basin' (Arup, 2010; see also Woods, Ainsworth & Myers, 2010). Public disputes—particularly in regional communities—over the 'drastic' reductions to water use by farmers underscored the enduring implementation challenges of a basin-wide approach (Garrick & Bark, 2011).

In addition, critics saw what they considered the Commonwealth Government's top–down, 'government knows best', decision-making approach to the Basin Plan as affecting significant progress on water reform. (Connell, 2007, 2011) Indeed, when the MDBA released the guide, it was acting on the advice of the Australian Government Solicitor (AGS, 2014)[338] to ensure that the MDBA had the 'proper interpretation' of the Water Act (Arup & Ker, 2010). It could be argued that if MLG had been adopted as the dominant paradigm in negotiations on water management in this situation, genuine consultation between the levels of governments and across various sectors, including the Basin communities, would have occurred instead.

When the federal government introduced the Water Act in 2007, the key objective of the legislation was to ensure the return to environmentally sustainable levels of extraction for water resources that were overallocated in the Basin (Commonwealth, 2008). The focus of the Water Act 2007 was on the environment (Briese, Kingsland & Or, 2009, p. 5). Thus, when the proposed Basin Plan was

[338] The AGS is a Commonwealth government agency established to provide legal services to the government of Australia and its agencies. The AGS played a key role in providing advice to both the MDBA and the Commonwealth minister (AGS, 2014).

released in October 2010, the MDBA acted in accordance with the Water Act 2007 under sections 22(1)[339] and 23(1),[340] and prioritised the needs of the environment over social and economic uses of the Basin. Although commentators questioned the efficacy of such legislation (Bonyhady, 2012, p. 321), it was argued that such an approach was necessary because the Act sourced its primary constitutional power from the external-affairs powers granted to the Commonwealth under section 51 (xxix), and as such, relied on a number of international environmental treaties and conventions (Kildea &Williams, 2011, p. 3).

With focus on the environment, the proposed Basin Plan would presumably have major implications for the economic and social values of the MDB. Economic forecasting of the Basin Plan from the Australian Bureau of Agricultural and Resource Economics (ABARE) was criticised when it was predicted that the Basin Plan would cause more than 1,200 jobs losses (Bonyhady, 2012, p. 321). Bruce Simpson, Chair of the newly created Murray Group of Concerned Communities (MGCC), declared that the 'Water Act is completely imbalanced; environmental values are now being held more strongly than those of people' (Herbert, 2010). A further complicating factor was included in the 2008 amendments to the Act because a new requirement was introduced to prepare the Basin Plan by considering critical human water needs (Fisher, 2009, p. 23). According to Fisher (2009, p. 23), these human needs are partly economic and partly social but clearly not environmental. However, this amendment should have assuaged the MGCC's concerns.

[339] Section 22(1) sets out the content of the Basin Plan, which includes a specific limit on the quantity of water that may be taken, on a sustainable basis, from the Basin water resources as a whole. It also sets out specific limits on the quantities of water that can be taken from the water resources, or parts of the water resources, of each catchment area. These limits must reflect an 'environmentally sustainable level of take'.

[340] Section 23(1) relates to the level of take of water from a water resource, which, if exceeded, would compromise the resource's key environmental assets and functions.

Meanwhile, the Commonwealth government repeatedly emphasised its commitment to a balanced approach, which signalled that the issue had to be resolved with fairness and equity (Bonyhady, 2012, p. 322) and highlighted a rhetoric consistent with MLG. However, it is important to recall that the design of the Water Act 2007 was developed to circumvent full state referral of powers to the Commonwealth, and the need to draw on its various heads of powers (Submission Legal and Constitutional Affairs Committees, 2007). Kildea (2012, p. 3) clarifies this point:

> Had the Howard government been able to secure a referral of state power to support the reform, it would have been possible to empower the MDBA and the Minister to give equal priority to environmental, social and economic factors in the development of the Plan.

Hence, without state support, the federal parliament had to adapt the draft of the Water Act 2007. However, this approach raises the important question of whether the basis of the Act was created in the best long-term interests of the nation. Failing that, it further illustrates the political haste that accompanied the introduction of Australia's major national water policy and the general disregard for MLG application.

Over the next few months, the framing of the Water Act 2007 shaped the negotiations of the development of the Basin Plan. However, there was a great deal of confusion over whether the MDBA would develop a Basin Plan that would promote environmental considerations over social and economic factors. The confusion arose due to the constitutional foundation of the Act, and further illustrated the barriers to dynamism in the Australian federation.

The Basin Plan: Development to Implementation

Following the release of the draft proposed Basin Plan in 2010, MDBA Chair, Mike Taylor, resigned on 7 December and was replaced by Craig Knowles, the former New South Wales water minister and member of the Minister Council, as the new Chair of the MDBA. In his media release, Taylor noted that balancing the requirements of the Water Act 2007 (which has its legislation based against the potential social and economic effect on communities) was a significant challenge (Ker, 2010). He declared that on this basis, he could not 'compromise the minimum level of water required to restore the system's environment on social or economic grounds' (Ker, 2010). Conversely, Knowles rejected this view on prioritising the environment, and argued that there was 'enough scope in this Act to work on a balanced approach' and that the MDBA was moving towards a plan that would seek such an approach (Morton, 2011; see also Kelly, R., 2011, p. 178).

The quest for what was now widely described as the need for *balance*, quickly led a number of commentators to recognise how the government was exploiting the debate surrounding the Basin Plan as a means to reinterpret the Act. Taylor (2010) wrote that the federal 'Water Minister Tony Burke obviously needed something to calm the political frenzy that broke out with the release of the guide to the draft Murray–Darling plan […] And his "new" legal advice seems to have done the trick'. Kerr observed that the blueprint for reforming the MDB river system was 'in tatters' after the government insisted that the MDBA give more weight to social and economic factors (Ker, 2010).

Meanwhile, a Senate Inquiry into the effect of the Basin Plan on regional Australia released its findings (Parliament of Australia, House of Representatives Committees, 2011). The Senate Inquiry found that the Water Act did not provide

adequate certainty on how water resources should be managed under the Basin Plan. In addition, it stated the following:

> the wide range of interpretations applied to the Act in the evidence provided to this inquiry, any plan delivered, whether balanced or not, will be subject to arguments that it may not comply with the requirements of the Act and may therefore be the subject of potential legal challenge. (Parliament of Australia, House of Representatives Committees, 2011)

The debate over the interpretation of the Water Act gave rise to additional comments from various legal commentators (e.g. Australian Network of Environment Defender's Offices, 2011, pp. 6–7; Godden, 2011, pp. 1–2; Kelly, J., 2011, pp. 2–3). However, these inquiries produced no change in the Act itself and the planning process continued.

On 28 November 2011, the MDBA released the proposed Basin Plan for consultation. A number of significant changes had been made to the draft plan released the previous year. According to the MDBA, these changes were made on the basis of extensive community consultation, which was a central feature in the development of the Basin Plan (Australian Government, MDBA, 2011). Arguably, the most important change was the recommendation to set a long-term environmentally sustainable level of extraction (based on hydrological modelling conducted to inform the proposed Basin Plan) at 2,750 GL/y (Skinner & Langford, 2013, p. 884). This limit, or the 'cap', on water use had been set by the MDBA as an appropriate trade-off between competing interests, largely the environmental and agricultural needs (Australian Government, MDBA, 2014e).

The proposed cap raised concerns by critics who claimed that the level of 2,750 GL/y was insufficient to achieve a healthy river system. For example, Pittock

and Finlayson (2011) maintained that the proposed volume of water would not account for substantial losses of freshwater biodiversity anticipated by the risk of climate change. The Wentworth Group of Concerned Scientists (2012) argued that the MDBA had failed to produce a viable plan, and was more concerned with engineering a favourable political outcome than a scientifically defensible outcome. Another criticism levelled at the government was that it neglected to communicate its rationale clearly (Philips, 2012). Quiggin stated:

> The central problem in water policy is not the volume of water to be restored to the Basin but the way in which this water is to be obtained […] Two years later, and buried in the 'mythbusting' section, we finally have a clear statement that 'No-one in the Basin will be forced to give up their water entitlements as a result of the Basin Plan either in the seven years before the plan is fully implemented or after 2019'. (Philips, 2012)

By mid-2012, no consensus had been reached on the proposed Basin Plan. The South Australian Premier Jay Weatherill was threatening a High Court challenge, questioning the science behind the Basin Plan and maintaining that not less than 4000 GL/y should be returned to the river (Caica, 2012; Owen, 2011). Equally, the New South Wales and Victorian governments, while committed to effective water reform, were raising their own concerns about the modelling used by the MDBA (Wroe & Arup, 2012; Stoner & Hodgkinson, 2014).

The debate surrounding the policy process involved in resolving and untangling previous MDB arrangements illustrates the challenges of coordinating interjurisdictional water governance in a federal system. It also raises an important question about political decision making and the commitment and responsibility to policy processes more generally. The Howard government must have been aware

when the Water Act was introduced in 2007 that good policy is not just about compromises and acting *unilaterally*. Indeed, the process of developing the Basin Plan has been extremely difficult, leading some critics to refer to the process as 'fundamentally confused' (Byron, 2011) and 'complex, messy and, at times, irrational' (Skinner & Langford, 2013, p. 871). Nonetheless, the Water Act has also been described as one of the most progressive pieces of legislation to set an ambitious reform agenda for the MDB, particularly now that the states and the Commonwealth share legislative power over water (Gardner, Bartlett & Gray, 2010, p. 415).

A third version of the Basin Plan was released in May 2012, which incorporated a formal publication process (Vidot, 2012). This phase marked the final negotiating stage, culminating in the Basin Plan being signed into law by the Commonwealth Parliament in November 2012. In the past two years, the MDBA has been working collaboratively with the Basin states, Basin communities and key stakeholders to achieve a sustainable Basin system (Australian Government, MDBA, 2014c). As a result, much has been achieved in the tasks and deadlines to which the governments agreed (Australian Government, MDBA, 2014d), which suggests that greater cooperation between agencies and governments working collaboratively (which conforms to the idea of MLG) can create favourable results.

Lessons for Federal Governments

While the water reform created by the Commonwealth Water Act was the first attempt to manage the MDB through national legislation, and was introduced in response to the most severe drought since records began, as well as concerns over future water security for the nation, implementation of the Act has proved extremely difficult. The difficulties arose from the preconditions attached to the reform proceeding, and the manner in which the policy-development processes were

conducted. From the outset, there were constraints on the development of a Basin Plan related to the constitutional limits within which the Commonwealth could implement changes.

There are a number of key lessons that can be learnt from this experience. First, Australian water governance is defined by an intermingling of roles and responsibilities such that the water sector is now governed by both the federal and the states governments. From one perspective, governments compelled to cooperate through the development of intergovernmental agreements might be frustrated when reform efforts are hindered such as with the lack of progress of the National Water Initiative. However, these governments need to come to agreement on institutional reform, particularly when the redistribution of power requires the support of the states. For example, when the MDBA (a national institution) was established, the process of governance in the Basin became institutionalised in a novel manner. However, as Evans and Dare (2013, p. 5) explained:

> [the MDBA] was provided with Commonwealth statutory powers to support positive patterns of behavior across the federation. However, the implementation of the plan requires the constructive involvement of implementation partners and funding at the state level. This affords the states a tacit veto power that can undermine the formal rules of water governance.

Considering this interpretation, it can be argued that the challenge of implementing the recent national water reform required skilful political leadership, extensive consultation across relevant stakeholders and effective communication to support positive patterns of change. Instead, the recent policy trajectory was influenced by centralist tendencies (or imposed from the centre), a modus operandi

that some argue defined the Howard government more ‘than any of its predecessors’ (Hollander & Patapan, 2007, p. 284).

Further, it is important to recognise that participatory water management and consultation with stakeholders can harness the capacity and commitment needed to protect and manage the water resources of the MDB. The MLG literature varies in its recommendations on the extent to which nongovernment actors need to be included in the process. Some commentators argue that certain aspects of MLG introduce the potential for a wider cast of policy actors than conventional accounts of intergovernmental relations (Peters & Pierre, 2004). From this perspective, MLG constitutes a subset of governance whereby the distribution of authority and policy capacity must be taken across different sectors and spheres of influence, including states and public organisations (Kay, 2013, p. 4).

However, the sphere of influence within Australian water governance is particularly diverse. This sphere includes organisations such as COAG, and Commonwealth, state and regulatory authorities and individuals, including politicians, farmers, environmentalists and the electors. Thus, the interdependence that exists across jurisdictions and with the diverse organisations and individuals suggests that cooperation is vital to the success of the sustainable implementation of national water policy and law in Australia.

As previously discussed, MLG processes are generally considered nonhierarchical and relatively informal. In the Australian context, MLG suggests that despite governance changes in the MDB, the relationships between the Commonwealth Government and the state governments and stakeholders need to be negotiated and maintained for effective policy process and response. To illustrate the point, Kay (2013, p. 5) maintains that the central point of MLG is that policy

coordination between levels of government cannot be read off or anticipated in formal legal instruments or constitutional provisions. Rather, the MLG paradigm is a negotiated order.

When the federal Labor government under Rudd came into power, it recognised the need to work with the states and find the means by which water reform could be implemented. It was observed that greater advances were made when an approach more closely aligned to MLG was followed. Admittedly, the relationship between intergovernmental processes is proving a little more promising. Gardner (2012, p. 270) explains the following:

> We are likely to see future reforms increase the role of the Commonwealth in water management, but it will be more of a continuing gradual accretion of Commonwealth functions that facilitate and guide the states' water resource management rather than a torrent of Commonwealth reforms sweeping away the states regimes.

The current Coalition government headed by Prime Minister Tony Abbott would be well advised to reflect on the advantages of MLG and to consider the most significant of these, which is that MLG allows for circumventing some of the limitations inherent in the constitutional boundaries of Australian federation by promoting negotiation rather than the division that tends to undermine the capacity for resolving mutual problems.

Conclusion

The Basin Plan, developed under the Water Act 2007, came into effect in 2012. The successful implementation of the Basin Plan over the next six years will require genuine collaboration between the MDBA, state governments, Basin communities and key stakeholders to achieve change, particularly considering the

poor foundation the MDB process has so far laid. Indeed, the complex nature of the reform presents a new set of challenges within and across jurisdictional borders, and unless governments and stakeholders work together, it is unlikely that substantial improvements will be delivered in the future. As such, the MDBA has a significant role to play to ensure that the Basin water resources are managed in the national interest.

While there are some insights that can be drawn from the experience of the Australian Water Act, the reform highlights the manner in which problems can be influenced by the politics of the day. Australia has a particularly difficult challenge to overcome in the legacy of state water control and the self-interest of various stakeholders involved in water management. It is in this context that the difficulty of implementing this reform must be viewed. Employing MLG processes will help progress water reform in Australia and it must be remembered that the recent reform has already created new opportunities through implementing Basin-wide improvements, including the capacity to share power and develop mechanisms for policy coordination that respond to the many challenges posed by contemporary water governance.

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Part IV COMPARATIVE/FUTURE LESSONS

CHAPTER 5

River Basin Water Management between European Union Member States: What can Australia Learn from Another Multilevel Governance System?

Publication Status

The paper has been accepted with 2014 date in the *Australasian Journal of Natural Resources Law and Policy* pending changes.

The changes in question relate to: first, shortening the section, which compares Australia/Europe in relation to climate, population and water governance. Secondly, providing additional signposting to aid clarification about the role of the legislative instruments and their impacts on institutions and nation states. Finally, clarifying my statement about the White Paper on Reform of the Federation, which does not have a specific focus on water whereas other parallel reforms to the *Environmental Protection and Biodiversity Conservation* Act (EPBC Act) and the National Water Commission do.

Link to Previous Chapter

While the previous chapter focuses on identifying how the MLG theoretical framework can bring new insight to changing trends in intergovernmental relations and policy making in the context of water resources management, this article is a comparative analysis between European and Australian systems.

Contribution to the Thesis

This article is a comparative analysis of Europe and Australia's water reform in the context of river basin management. The paper argues that Australia could look to the European Water Framework Directive (WFD) and associated European institutions for lessons and insights into how co-decision making between levels of governments is fostered and crucial to sound water management practices across multiple jurisdictions. The paper concludes that, while the Australian federal government now plays a more proactive role in water management, the involvement of stakeholders and genuine cooperation between levels of government, as achieved through cooperative structures like those evidenced in the EU, remains crucial to implementing future reforms effectively and equitably.

RIVER BASIN WATER MANAGEMENT BETWEEN EUROPEAN UNION MEMBER STATES: WHAT CAN AUSTRALIA LEARN FROM ANOTHER MULTILEVEL GOVERNANCE SYSTEM?

ABSTRACT: Comparing Europe's approach to river basin management to Australia's approach, in the same context, may seem like an unlikely idea. After all there are probably more differences of climate, population, landscape and system of governance than similarities between the two areas. Yet, it could be argued that the very dynamic relations that exist between Europe's institutions and the governments of all member states to ensure effective implementation of EU water policy and water law are of direct interest to a federal system like Australia. Much like in Europe, the need for co-operation in Australia between federal and state governments and the appropriate balance of power sharing among levels of governments is crucial to yield change. To explore these issues, this paper looks at what insights Australia can learn from Europe, in relation to improving decision-making processes and the role of decision-making bodies that foster cooperation. The paper concludes that, although the Australian federal government now plays a much more proactive role in water management, the involvement of stakeholders and genuine cooperation between levels of government, as achieved through cooperative structures like those evidenced in Europe, remains crucial to implementing reforms and is an essential approach to sound water management.

INTRODUCTION

Water availability affects many regions across the world. In Europe, the introduction of the EU Water Framework Directive (WFD) in 2000 stemmed from concerns among EU member states over the disparate ways in which water was protected within communities and reflected the need for a more integrated approach. The WFD is an overarching legislative instrument that aims to harmonise existing European water law and policy. Fourteen years on, the impact of this comprehensive Directive has had a profound effect on how water is managed in a multilevel governance system like Europe, and will continue to do so in the future. The concept of river basin management is one of the key features of the EU WFD and according to this Directive, all member states (including river basins that cross international borders – a common situation in Europe)[341] are obliged to restore and upgrade the quality and quantity of their water resources to a "good status", and to ensure their sustainable

[341] The River Rhine is one of the longest in Europe flowing through six counties. The Danube originates in the Black Forest Mountains of western Germany and flows through ten countries, whereas the Dnepr river finds its source in Russia and flows through Belarus and Ukraine into the Black Sea.

use by 2015.[342] The WFD was created through the co-decision process, in which the Council of Ministers and the European Parliament had joint influence over the final text.[343]

Australia also faces water availability problems similar to Europe. Consumptive demands across a number of states, principally for agricultural irrigation purposes, exceed sustainable rates of extraction.[344] To compound the problem, Australia is one of the driest inhabited continents, which poses unique problems for the management of the nation's water resources. While there has been genuine reform efforts made to implement strategies to maintain healthy river systems and encourage sustainable water use, more recently, the need to restore over-allocated rivers became both an environmental and political priority, when the federal Coalition government introduced the Water Act 2007 (Cth). This water reform marked a shift across tiers of state and federal (or Commonwealth) governments towards centralisation of power and away from multi-level policy making, which until then had defined the governance process. The reform, however, seemed to run counter to Australia's Council of Australian Governments (COAG) principal water policy agreement set out in the National Water Initiative (NWI). Moreover, the Commonwealth used its financial and legislative powers to intervene in an area of traditional state responsibility – water management. In doing so, its action was viewed by some scholars as undermining the benefits of federalism and exacerbating water management problems nationally.[345]

Comparative experiences have been made in various sectors of policy-making, across multilevel systems involving the European Union (EU) and the United States[346] or Canada.[347] By contrast, Australia is usually compared with the United

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[342] European Commission, Environment, *Introduction to the new EU water framework directive* <http://ec.europa.eu/environment/water/water_framewrok/info_en.htm>.
[343] Peter Chave, *The EU Water Framework Directive: An Introduction* (2002), 8.
[344] M. D. Young and J. C. McColl "Robust Reform: The Case for a New Water Entitlement System for Australia", *The Australian Economic Review* (2003) 36 (2) 225, 226.
[345] Federalist Paper 1 Australia's Federal Future, *A Report for the Council for the Australian Federation,* prepared by Anne Twomey and Glenn Withers (2007).
[346] Alberta Sbragia, "The United States and the European Union: Comparing two *Sui Generis* Systems" in Anand Menon and Martin A. Schain (eds), *Comparative Federalism: The European Union and the United States in Comparative Perspective* (2006), 15.
[347] Comparing Modes of Governance in Canada and the European Union: Social Policy Engagement Across Complex Multilevel Systems, *Summary of Proceeding from University of Victoria Conference October 14-15, 2011,* Compiled by D. Wood and A. Verdun December 2011. The conference proposed that both Canada and the EU are complex multilevel governance systems and explored Canadian and EU approaches to social policy governance to assess whether the EU ideas through the Open Method of Coordination (OMC) might improve collaborative governance in Canada. Also see Robert

States,[348] which suggests that the existing literature provides little or no comparison between the EU and Australia in the water sector. However, it is argued that the very dynamic relations that exist between the EU and the governments of Member States to ensure effective implementation of EU policy and law are of direct interest to federal systems like Australia, as well as the United States and Canada. Much like in the EU, the need for co-operation between federal and state governments and the appropriate balance of *power sharing* among levels of government is crucial to yield change. The central argument of this paper is that the operation of the EU institutions and the EU WFD legislation can provide important insights in relation to improving decision-making processes between different levels of government in Australia. These insights include the role of decision-making bodies that foster cooperation, such as the European Parliament and the EU Council of Ministers in policy implementation and the challenges arising from implementation that is common to all Member States particularly across international basins. These challenges relate, in particular, to a lack of capacity building, access to reliable statistics, political will, transparency, public participation and stakeholder's interests in decision-making.

To support this argument, the paper proceeds in four sections. The first introduces the value of comparing the EU with Australia as a vehicle for understanding the character of EU policy making generally, and implications for its water policy in particular. The second part of the paper briefly outlines the EU WFD key mechanisms and critically evaluates their performance in the context of river basin water management. The third part of the examines the current status of Australian water law and policy and the implications of a Commonwealth take over of the governance structure of the country's most prominent river basin, while the final section of the paper assesses possible lessons that can be drawn from the EU experience for Australia. The paper will conclude that, while the Australian federal government now plays a much more proactive role in water management, the involvement of stakeholders and genuine cooperation between levels of government, as achieved through cooperative structures like those evidenced in the EU, remains crucial to implementing future reforms effectively and equitably.

Broadman, Environmental Policy in the EU and Canada in Finn Laursen (ed) *The EU and Federalism: Polities and Policies Compared* (2011), 81.

[348] There are distinct similarities between Australia and the western United States, which lends itself to comparisons in terms of aridity, English common law roots and cooperative federalism. In addition, both regions experience water reallocation problems. Thomas Garry, "Water Markets and Water Rights in the United States: Lessons from Australia" (2007) 4 *MqJICEL* 23-60.

COMPARATIVE ANALYSIS: why compare Europe and Australia?

Comparing the water governance arrangements of the EU and Australia may seem like an unlikely idea. After all, there are significant disparities of landscape[349] and population size between the two areas. Moreover, the climate characteristics of the EU and Australia are distinct, although arguably these differences can shape their respective agendas on water policy and law. However, it is argued below that there are commonalities and on that basis the comparison is worth exploring.

Australia is regarded as the world's driest and flattest continent.[350] The Australian landscape is ancient and highly weathered, with fragile soil exhibiting high levels of salinity buried deep within in.[351] Salinity is an inherent aspect of the Australian landscape, although if left unmanaged, it has serious implications for water quality, biodiversity, land production and the supply of water generally.[352] By contrast, Europe is classified as a supercontinent with a rich diversity of landscape spanning from north to south.[353] The European landscape can be divided into four distinct regions each exhibiting its own characteristics, these are: the Western Uplands, the Northern Plains, the Central Uplands and the Alpine Mountains. For example, the vast northern European plains are home to many navigable rivers and are the most densely populated region of the four. However, while the EU is not considered an arid continent, the consumption of freshwater exceeds its renewable supplies, which is a real concern.[354]

Australia's population is a fraction of the EU's and stretches along the eastern and southeastern coats, while the abundant spaces of the world's sixth largest country

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[349] The landscape is also referred to as geomorphology or the study of land surface with an emphasis on origin, form, evolution and distribution across the physical landscape.
[350] A flat continent suggests very low or no mountain ranges, with no permanent snow and glaciers, therefore no additional resources of freshwater other than from rivers and aquifers (receptacle for groundwater). Peter Cullen P. et al, *Blueprint for a Living Continent : A Way Forward from the Wentworth Group of Concerned Scientists* (2002) <http://wentworthgroup.org/publications/> 5.
[351] Ibid.
[352] Nature and Society Forum, *Soil Salinity, Dryland Salinity* <http://www.natsoc.org.au/biosensitivefutures/part-4-facts-and-principles/ecological-issues/soils-salinity#impacts>
[353] A supercontinent is the assembly of most or all earth's continental blocks to form a single large landmass. John Rogers and M Santosh, *Continents and Supercontinents* (2004).
[354] European Commission, Environment, *Water Scarcity & Drought in the European Union* <http://ec.europa.eu/environment/water/quality/scarcity_en.htm> ; S Demuth and K Stahl (eds) *Assessment of the Regional Impact of Droughts in Europe. Final Report to the European Union,* (2001) ENV-CT97-0553, Institute of Hydrology, University of Freiburg, Germany.

are dominated by a remote sparsely populated dry interior (known as the outback).[355] Yet, projections of a major increase in Australia's population in the next decades is seen by some as inevitable,[356] while others have raised questions about such an increase given the impact of more people on the environment, and the greater demands on water resources.[357] By contrast, population growth in the EU is expected to slow down, although wide variations in demographic patterns between and within Member States are also anticipated.[358] This variability is attributed to factors such as fertility rates, health and demographic pattern of ethnic groups.[359]

There is also the question of their respective climates. Australia has a highly variable climate with a seasonally occurring cycle of wet and dry periods.[360] Droughts are an expected product of this variability. As a result, many rivers do not have permanent flow regimes and are marked by periods of intermittent flows. Groundwater also plays a crucial role particularly in the context of integrated management, which is embraced by the National Water Initiative. By contrast, while Europe is largely considered to have adequate water resources, water scarcity and drought are increasingly frequent and widespread throughout the EU.[361] In 2007, the European Commission carried out an in depth assessment, which confirmed that water availability is a serious concern for the region, and that the problem is by no means limited to Mediterranean countries.[362]

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[355] The Australian population is around 24 million. Europe has an estimated 500 million inhabitants – the world's third largest population after China and India.

[356] Former Australian Prime Minister Kevin Rudd announced during his time in office a strategy for a 'big Australia', in which he suggested a population target of 36 million by 2050 - representing a 60 per cent growth in population over the next four decades.

[357] Australian Bureau of Statistics, *Population clock*, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Web+Pages/Population+Clock?opendocument> It might be worth mentioning that it is agricultural use of water that is the main user of water. By contrast, agricultural production is obviously affected by population growth, although it also has an international market.

[358] Commission of the European Communities, *Regions 2020 Demographic Challenges for the European Regions*, (November 2008) <http://ec.europa.eu/regional_policy/sources/docoffic/working/regions2020/pdf/regions2020_demographic.pdf >.

[359] Ibid, p 3.

[360] Australian Government, Bureau of Meteorology, *The Review of Australian Water Resources Assessment 2012 Summary Report* <http://www.bom.gov.au/water/awra/2012/documents/summary-lr.pdf>

[361] Water scarcity occurs when demand of water exceeds the available sustainable resources. European Commission, Water. *Water Scarcity & Droughts – the European Union is taking action!* <http://ec.europa.eu/environment/water/>.

[362] European Commission, Environment, *Water Scarcity & Drought in the European Union* <http://ec.europa.eu/environment/water/quality/scarcity_en.htm> ; See G. Forzieri, L Feyen , R Rojas, M Floke M, F Wimmer F and A Bianchi (2014) "Ensemble projections of future streamflow droughts in Europe" (2014) 18, *Hydrology Earth System Science* 85-108.

The disparities between the two areas in terms of their landscape, population and climate characteristics are clearly evident. Yet, Australia faces similar challenges to the EU. Firstly, due to an increase in frequency and intensity of droughts, Australia[363] and the EU[364] will experience a reduction of water supply, which will intensify competition among water users. Secondly, consumptive demands in Australia[365] and the EU[366] exceed sustainable limits of extraction, which suggests that more work needs to be done to maintain existing rivers. Thirdly, both countries manage their water resources across state and national political borders respectively, and coordinated transboundary river basins management and stakeholders dialogue are paramount in times of water scarcity. These shared water law and policy challenges suggest significant and relevant insights can be gained from comparing Australia's and Europe's water governance systems.

COMPARISON OF SYSTEMS OF GOVERNANCE

There are important similarities that allow for Australia to learn from the European experience. Beyond the shared water problems, namely due to drought conditions and over-consumption, their systems of governance are also instructive. For example, according to the multilevel governance approach (MLG) the EU has been described as a distinctive political system that shares many similarities to national political systems.[367] Indeed, the concept of MLG has its origins in the early 1990s and was first developed from the study of the EU.[368] However, although the idea of MLG was initially developed around the EU, there are a number of other areas where this framework can be applied, namely in the study of federal states in comparative politics.[369] More significantly, the concept of multilevel governance has been described as a conceptual cousin of another older concept – federalism (the basis of

[363] Australian Government, Bureau of Meteorology, above n 20.
[364] European Parliament, Directorate-General for Internal Policies, Policy Department Economic and Scientific Policy, *Current state and future challenges of Europe's waters,* Study (March 2012) <http://www.europarl.europa.eu/RegData/etudes/etudes/join/2012/475095/IPOL-ENVI_ET%282012%29475095_EN.pdf> 24.
[365] Young, above n 4, 225-226.
[366] European Environmental Agency, *Water for agriculture,* <http://www.eea.europa.eu/articles/water-for-agriculture>.
[367] See Gary Marks and Liesbet Hooghe, "European Integration from the 1980s: State-Centric v Multi-level Governance" (1996) 34(3) *Journal of Common Market Studies* 341-378 ; Gary Marks and Liesbet Hooghe, *European Integration and Democratic Competition* (2004) <http://library.fes.de/pdf-files/id/02607x.pdf>
[368] Gary Marks, "Structural Policy and Multilevel Governance in the EC" in Alan Cafrunny and Glenda Rosenthal (eds), *The State of the European Community* (1993) 392.
[369] See John McCormick, *Understanding the European Union: A Concise Introduction* (2008).

Australia's federal system of government).[370] It is on this conceptual basis, therefore, that their respective system of governance is explored.

In relation to Europe's approach to water management, the area has been very proactive in its efforts to address some of the above challenges and preserve Europe's waters. In 2000, the EU introduced the WFD for community action in the field of water policy.[371] The WFD is regarded as the most significant, and ambitious legislative instrument in the water field to be introduced for many years.[372] Similarly, Australia has been proactive in its approach, when in 2004[373] COAG, comprising the federal and state governments adopted the NWI with a commitment to "…the adoption of the best practice approaches to water management nationally…".[374] The NWI is a comprehensive reform agreement containing objectives, outcomes and agreed actions to be undertaken by governments across Australia, to achieve a more cohesive approach to water management.[375]

In relation to the European legislation more specifically, the aim of the reform is to create a more participatory decision making approach to safeguard all water bodies (surface, groundwater and coastal), and achieve good ecological status by 2015.[376] However, because the WFD is a general framework, it remains unclear whether Member States' governments will make the necessary change from "business as usual" to a more integrated approach, as the WDF requires.[377] Nonetheless, the WFD is a great improvement, given that the framework replaced many of the earlier

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[370] Ibid.
[371] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 (the Water Framework Directive) <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2000L0060:20011216:EN:PDF>.
[372] Chave, above n 3, 8.
[373] The water reform began in 1994 and these are discussed in more detail below.
[374] Council of Australian Governments, *Council of Australian Governments' Meeting* (25 June 2004) <http://archive.coag.gov.au/coag_meeting_outcomes/2004-06-25/index.cfm> The National government is also called Commonwealth or Federal government.
[375] Jennifer McKay, "The Legal Frameworks of Australian Water: Progression from Common Law Rights to Sustainable Shares" in Lin Crase (ed), *Water Policy in Australia: The Impact of Change and Uncertainty* (2011), 52.
[376] Water Framework Directive, above n 29 art 14 ; also see Ph. A. Ker Rault and P. J. Jeffrey "Deconstructing public participation in the Water Framework Directive: implementation and compliance with the letter or with the spirit of the law?" (2008) 22 *Water and Environment Journal* 241-249. The 2012 report from the European Commission indicate that although progress has been made towards this objective, good status will not be reached by 2015 for a significant proportion of bodies. See Report From the Commission to the European Parliament and the Council on the implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans/*COM/2012/0670 final, 2.
[377] World Wide Fund for Nature and European Environmental Bureau, *Tips and Tricks for Water Framework Directive Implementation: A resource document for environmental NGOs on the EU guidance for the implementation of the Water framework Directive* (March 2004), 5.

directives and centralised EU water policy into one piece of legislation[378], and in doing so, takes a much more holistic approach to water management.[379] Similarly, Australia's commitment to the principles of integrated management is embodied in the NWI, hence the reform has the potential to produce great benefits.[380] As such, the NWI's approach resembles in many ways that of the EU WFD.[381] Like the WFD, the NWI also depends on constituent entities (in this case, states and territories within the Federation) to interpret the NWI agreement and make the necessary changes (discussed further below).

One key aspect of the WFD is the introduction of river basin districts. Consistent with notions of catchment and integrated water resource management[382], these districts are designed not according to national or political boundaries, but rather according to natural and hydrological units (the spatial catchment area of rivers). However, implementation of the WDF raises a number of shared challenges to the member states, given that many European river basins are international, crossing administrative and territorial borders.[383] Subsequently, a common understanding and approach is crucial to the successful and effective implementation of the WFD.[384] Australia also shares river basins that extend beyond domestic political state boundaries, where comprehensive regulation can prove difficult, even when such regulation may be seen to be in the best national interest. Nonetheless, the NWI provides the framework necessary to reduce the significance of state borders and promote a more unified national approach to water management.[385]

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[378] For more details on the earlier directives see Maria Kaika and Ben Page B "The EU Water Framework Directive: Part 1. European Policy-Making and the Changing Topography of Lobbying" (2003) 13, *European Environment*, Published online in Wiley InterScience (www.intersceince.wiley.com). DOI: 10.1002/eet.331

[379] Chave, above n 3, 8.

[380] Australian Government, Department of the Environment, *Intergovernmental Agreement on a National Water Initiative* <http://nwc.gov.au/__data/assets/pdf_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf> [paragraph 24(iv)].

[381] Erin Bohensky, Daniel Connell and Bruce Taylor, "22 Experiences with integrated river basin management, international and Murray Darling Basin: lessons for northern Australia" (2009) *Northern Australia Land and Water Science Review*, 21.

[382] Global Water Partnership 2000, *Integrated water resource management.* TAC Background Paper No. 4. GWP, Stockholm, Sweden.

[383] European Commission, Environment, *Implementing the Water Framework Directive & the Floods Directives* <http://ec.europa.eu/environment/water/water-framework/objectives/implementation_en.htm> Also see G Gooch and P Stalnacke (eds), *Integrated Transboundary Water Management in Theory and Practice: Experiences from the New EU Eastern borders* (2006).

[384] Chave, above n 3, 11.

[385] Australian Government, Department of the Environment, *Intergovernmental Agreement on a National Water Initiative* <http://nwc.gov.au/__data/assets/pdf_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf> Preamble.

European integration has led to a fundamental change in decision-making, and a broadening of participation.[386] According to some commentators, the EU decision-making has become politicised.[387] There is also an emerging consensus that policy cooperation across political levels can yield better results, rather than independent action, which can lead to unnecessary competition and duplication.[388] By contrast, Australia's unification (under the Australian Constitution of 1901, which created a federal system of government)[389] took place over a century ago. Yet the need for cooperation among its constituent political elements is as pertinent in the Australian context, as it is in Europe. Like the EU, Australia also raises sovereignty issues, albeit within a constitutional framework where states have their powers, and so does the federal government.[390]

In a recent paper, Kay argued that the concept of multi-level governance (MLG) is particularly linked to the EU policy framework where new policy and administrative territorial spaces have been created, often overlapping existing national and sub-national boundaries.[391] He suggests that the concept has yet to gain wide currency in discussions of policy making in Australia.[392] Kay applied this notion to the study of Australian public policy to emphasise the ways in which multiple actors at all levels of governments interact, and influence policy developments in different sectors.[393] In a recent paper[394], the present author contributed to the debate by arguing that the concept of MLG can be used in another sector. Namely, it can bring new insights to the changing trends in intergovernmental relations and policy making, for the management of water resources in the Australian federal system.[395]

The idea of MLG was initially developed around the emergence of a more economically and politically integrated Europe. The concept has more recently been

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[386] Gary Mark and Liesbet Hooghe, "*The Making of a Polity: The Struggle over European Integration"* (1997) 1(4) *European Integration*, <http://dx.doi.org/10.2139/ssrn.302663>
[387] Ibid, 4.
[388] McCormick, above n 28, 118.
[389] Cheryl Saunders, *The Constitution of Australia: A Contextual Analysis* (2011).
[390] The National government is also called Federal and Commonwealth, after the Constitution of a federal Commonwealth. These three terms will be used interchangeably throughout this paper.
[391]Adrian Kay, "A Multi-level governance in Australian federalism: The open method of coordination in open economy policy-making", *Paper prepared for the 1st International Conference on public Policy, Grenoble, 26-28 June 2013*, 2.
[392] Ibid.
[393] Ibid.
[394] Maureen Papas, "Recent Reforms to Australian Water Law – 6 years on: Why has the federal Water Act been so difficult to implement?" (2014) (not yet published – a version of this article was prepared by the author for submission as part of her PhD candidacy at Macquarie University, Sydney, Australia)
[395] Ibid.

used in other areas of study such as the study of federal systems.[396] MLG describes a system whereby "…experts from several tiers of government share the task of making regulations and forming policy, usually in conjunction with relevant interest groups".[397] In other words, while the EU is not a federal state, it does have an enduring formal institutional architecture, in which many competences are shared across the EU Commission and the member states.[398] As such, the EU operates on federal principles and can be reasonably located at the edge of the comparative study of federalism.[399] In addition, most critics fail to acknowledge that MLG is conceptually related to the older concept of federalism.[400] Australia could therefore look to the European WFD and associated institutions for lessons and insights, into how co-decision making between levels of governments (national and states) is fostered to ensure sustainable water use.

The following section briefly outlines the role of the EU WFD and critically evaluates its performance in the context of river basins management, and existing institutional structures and practices. A greater understanding of the European experience will allow for a more detailed comparison with Australian approaches to management.

EUROPEAN WFD: brief overview and critical analysis

This section briefly sets out the key principles of the WFD with a focus on the introduction of River Basin Districts (RBDs) set out according to natural boundaries (river basins). However, there are a number of key challenges arise from implementing a common overarching approach and intended goals to multiple member states. These challenges relate in particular to issues about details of the provisions for international river basin management plans more specifically, adapting existing legal framework and water management administration to reflect the objectives set out in the Directive within a strict timetable for implementation, and the complex reporting process progress through the European gateway to water: the Water Information System for Europe (WISE). Nonetheless, one of the key benefits of the WFD is that although several Member States already take a river basin

[396] McCormick, above n 28, 15.
[397] Martin Harrop and Rod Hague, *Comparative Government and Politics* (2007), 282.
[398] Kay, above n 49, 2.
[399] Ibid.
[400] McCormick, above n 28, 15.

approach, all countries that share river basins are now required to cooperate to establish RBDs.

The role of European Commission and the Common Implementation Strategy (CIS) cannot be underestimated in this process. The CIS was introduced five months after the entry into force of the WFD to address in a co-operative and coordinated way, the challenges to the implementation of the WFD for the Member States.[401] The documents, which are prepared in the context of the CIS, are shared on a web-based service provided by the European Commission. The information exchange platform in question is called CIRCABC.[402]

The WFD was introduced in October 2000 by the European Parliament (representing the citizens of the EU) and the Council of Ministers (representing the member states governments), and came into force in December 2000. The Directive characterised a different phase of policy evolution, from an emphasis on public health protection, to a more preventative and integrated management approach.[403] According to Page and Kaika[404], to understand the innovative elements of the WFD it is necessary to look at earlier directives associate with water policy, which are the baseline against which the WFD can be compared. At the outset, the history of water policy in Europe has developed through political decisions taken in a series of five Environmental Action Programmes extending over the period 1973 – 2000.[405] These Programmes covered a broad range of issues, including reducing water pollution to improving water quality, the outcome of which produced a large number of directives all dealing with various problems.[406]

By the mid 1990's, it became clear that many directives had resulted in a fragmented and conflicting approach to water policy.[407] More significantly, directives dealt with individual problems without necessarily relating to the whole water environment.[408] Calls for a fundamental rethink of community water policy came to a head in mid

[401] European Commission, above n 41.
[402] CIRCABC stands for "Communication and Information Resource Centre for Administrations, Businesses and Citizens". See European Commission, Environment, *WFD CIRCABC – the Information Exchange Platform* <http://ec.europa.eu/environment/water/water-framework/iep/index_en.htm>.
[403] Giorgos Kallis and David Butler, "The EU water framework directive: measures and implications" (2001) 3 *Water Policy* 126.
[404] Ben Page and Maria Kaika, "The EU Water Framework Directive: Part 2 Policy Innovation and the Shifting Choreography of Governance" (2003) 13 *European Environment* 2.
[405] Kaika and Page, above n 36, 13.
[406] Chave, above n 3, 1.
[407] Ibid, 5.
[408] Ibid, 6.

1995, when the European Parliament's environment committee and the Council of Environment Ministers asked the European Commission to formulate a more holistic water policy.[409] However, the tortuous evolution of the reform, which emerged from the political struggles between the European Parliament, the European Commission and the Council of Ministers, has become famous amongst policy analysts.[410] The three main EU institutions involved in the production of the legal document fought "tooth and nail" [411] between 1998 and 2000 to secure a document that would best reflect their competing interests.[412]

Decision making in Europe involves various EU institutions and in particular the European Commission which develops proposals for new laws and policies, on which the Council of Ministers and the European Parliament take final decisions.[413] Once a decision is made, the European Commission is responsible for overseeing implementation by Member States.[414] Throughout the drafting process of the WFD, the Commission played the role of mediator between the Council of Ministers and the Parliament until such time that the two bodies could reach an agreement.[415] Indeed, the idea of implementing a common water policy in Europe was proving challenging given Member States' substantive differences with respect to water management, coupled with a long history of poor compliance, and conflicting views on environment and water protection more generally.[416] Page and Kaika explain

> As the arguments over the wording of the new directive ended, the arguments over the interpretation and implementation of the directive began.[417]

When on the 30th June 2000, the European Parliament and the European Council's conciliation committee finally reached an agreement on the WFD, the reaction of European Commission to the final draft of the Directive was "triumphant" and viewed the new legislation as a major advance.[418]

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[409] European Commission, Environment, *Introduction to the new EU Water Framework Directive* <http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm>.
[410] Andrew Jordan, "The Politics of a Multi-Level Environmental Governance System: EU Environmental Policy at 25" (1998), CSERGE Working Paper PA 98–01. University of East Anglia, UK.
[411] Page and Kaika, above n 60, 9.
[412] Ibid.
[413] McCormick, above n 28, 69.
[414] Ibid.
[415] Page and Kaika, above n 60, 9.
[416] Ibid, 13.
[417] Ibid, 11.
[418] Kallis and Butler, above n 60, 125.

The WFD sets common objectives for the management of water in twenty-seven countries. To achieve this outcome, the WFD provides a series of implementation deadlines, according to a strict timetable.[419] One of the first key steps in the implementation process is to identify river basins, assign them to river basins districts (RBDs) and appoint competent authorities to manage the districts (article 3).[420] In other words, water management and planning is organised at river basin level – the natural geographical and hydrological unit, as opposed to traditional administrative and political boundaries. If a river basin extends across international boundaries, the Directive specifically requires that the basin be assigned to an international RBD. In addition, the Directive further specifies that countries shall ensure cooperation for producing one single River Basin Management Plan (RBMP) for an international RBD falling within the territories of the EU (article 3(8)).[421]

However, if cooperation between member states is not achieved, the requirement is to produce a RBMP for the part of the basin falling within each country's respective territory (article 13(2)).[422] Arguably, this approach would reinforce administrative divisions rather than the desirability for an integrated approach as required by the WFD. By contrast, if the basin extends beyond the territories of the EU, the Directive specifies that member states shall endeavor to establish cooperation with the relevant non-member states and thus manage the water resource on a basin level (articles 3 and 13)[423]. The guidance document on best practice River Basin Management, produced as part of the Common Implementation Strategy (CIS), touches upon international RBDs but does not go any further than the Directive in specifying how to designate international RBDs.[424]

According to Moss,[425] the Directive does not specify the way in which the structures for river basin management should be set up other than the requirement to set

[419] The implementation process for the WFD spans across two decades with 2027 marking the final deadline for meeting the objectives of the reform. European Commission, *Water Framework Directive*, (November 2010) <http://ec.europa.eu/environment/pubs/pdf/factsheets/water-framework-directive.pdf>
[420] *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy* [2000] OJ L 327 (entered into force 22 December 2000).
[421] Ibid.
[422] Ibid.
[423] Ibid.
[424] Geoffrey Gooch and Per Stalnacke, "The way ahead for transboundary integrated water management" in Geoffrey Gooch and Per Stalnacke (eds), *Integrated transboundary Water Management in Theory and Practice* (2006), 155.
[425] Timothy Moss, "The Governance of land use in river basins: prospects for overcoming problems of institutional interplay with the EU Framework Directive" (2004) 21 *Land Use Policy* 89.

"appropriate administrative arrangements, including the identification of the appropriate competent authority" (article 3)[426]. In addition, no common definitions of international RBDs or detailed guidelines exist under the CIS for the organisation of transboundary collaboration for the implementation of the WFD.[427]Yet, states have duties and obligations and must appoint competent authorities to carry these out and report on them through Water Information System for Europe (WISE) (see below) and the European Commission.[428] As a result, transposition into national legislation, and ways of implementing WFD requirements is taking place in different ways in different countries.[429]

However, it could be argued that the lack of common definitions or detailed guidelines is not necessarily problematic. Some scholars explain that determining fixed guidelines may be of limited value if it results in a loss of flexibility and, perhaps on this basis, details were left intentionally unclear.[430] Conversely, without specific guidelines, member states are able to adapt WFD's requirements to their existing institutional arrangements.[431] In contrast, Nilsson et al[432] argue that given the large proportion of international RBDs in Europe, the "soft" law requirements of the WFD may undermine the intentions of the directive of management according to river basins. In 2007, Member States submitted in accordance with article 3 of the WFD a map representing all RBDs, which showed that areawise, international RBDs constitute over sixty five percent of the total area of RBDs.[433]

While the WFD has made the river basin management obligatory for all Member States, and river basins approach is perhaps a logical attempt to reconcile the boundaries of an environmental resource with those of its respective institutions, achieving a perfect fit has proved challenging.[434] In addition, in designing their institutional arrangements, member states have had to address both the roles of

[426] Directive 2000, above n 78.
[427] Gooch, above n 79, 154.
[428] Ibid.
[429] Ibid.
[430] Stuart Bell, Donald McGillivray and Ole Pedersen, *Environmental law* (Oxford University Press, 8th ed, 2013) 637.
[431] Ibid.
[432] S Nilsson, S Langaas and F Hannerz , "International River Basin Districts under the EU Water Framework Directive: Identification and Planned Cooperation" (2004) *European Water Management Online*, No. 2004/02 <http://www.ewaonline.de/journal/online.htm>.
[433] European Commission, Environment, *Facts, Figures and Maps*, <http://ec.europa.eu/environment/water/water-framework/facts_figures/index_en.htm>.
[434] Timothy Moss, "Spatial from panacea to practice: implementing the EU Water framework Directive" (2012) 17(3) *Ecology and Society* 2.

different institutional actors and the interplay among institutions.[435] Nonetheless, in Germany, the WFD has now been transposed into national law with great success,[436] whereas in Spain, which is one of the most arid countries in the EU, transposition to Spanish legislation has been complex and has required major efforts.[437] According to De Stephano, slow transition from "old to new" may well be derived from a lack of institutional structures in the country to facilitate co-responsibility and full cooperation between the central state and the regions.[438]

By contrast, other countries such as Portugal and Sweden have created new authorities to manage their RBDs.[439] France has retained its duality of political jurisdictions and river basins agencies, relying instead on the its tradition of multi-party collaboration in river basin management.[440] In the Danube River Basin, which is the second largest in Europe and extends across the territories of nineteen countries, the International Commission for the Protection of the Danube River (ICPDR) was nominated as the platform for the implementation of all transboundary aspects of the WFD, including RBDs.[441]

Hence, while the structure for river basin management has led to a variety of models chosen, the approach for ensuring implementation of the WFD is similar. For example, each Member State is required to monitor its progress and report its status to the European Commission.

In 2012, and in accordance with article 18 of the WFD, the European Commission published a report to the European Parliament and to the European Council on the

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[435] Helle Nielsen, Pia Frederiksen, Heli Saarikoski, Anne-Mari Rytkonen and Anders Pedersen, "How different institutional arrangements promote integrated river basin management. Evidence form the Baltic Sea region" (2013) 30 *Land Use Policy* 437.
[436] For more details see Juliane Albrecht, "The Europeanization of water law by the Water Framework Directive: A second chance for water planning in Germany" (2013) 30 *Land Use Policy* 381-391.
[437] Lucia De Stephano and N Hernandez-Mora N "Water planning and management after the EU Water Framework Directive" in Lucia De Stephano and M Ramon Llamas (eds), *Water, Agriculture and the Environment in Spain: can we square the circle?* (2013) 35.
[438] Ibid.
[439] Andreas Thiel and Catrin Egerton, "Re-scaling of resource governance as institutional change: the case of water governance in Portugal" (2011) 54(3) *Journal of Environmental Planning and Management* 383-402 ; Ingela Andersson,, Mona Petersson and Jerker Jarsjo, "Impact of the Water Framework Directive on local-level water management: case study Oxunda Catchment, Sweden" (2011) 29 *Land Use Policy*,73-82.
[440] Iike Borrowski,, Jean-Pierre LeBourhis,, Claudia Pahl-Wostl and Bernhard Barraque, "Spatial misfit in participatory river basin management: effects on social learning, a comparative analysis of German and French case studies" (2008) 13(1) *Ecology and Society* 7.
[441] International Commission for the Protection of the Danube River, *About us,* <http://www.ICPDR.org>.

implementation progress of the Directive.[442] The report is an assessment of the publication of the first RBMPs, which had to be finalised by the end of 2009 and submitted to the Commission by March 2010.[443] One of the main purposes of the report was to provide a survey of RBMPs received, as devised by each water authorities, and their submission status in accordance with article 15, including suggestions for the improvement of future plans.[444] According to the Report, twenty three member states have adopted and reported all their Plans, whereas four member states, namely Belgium, Greece, Spain and Portugal have either not yet adopted or only adopted and reported some plans.[445] Overall, the Commission received 124 RBMPs (out of expected 174) of these, seventy five percent relate to transboundary river basins.[446]

Although the European Commission's report reflects a genuine level of engagement to drive water resource management at RBD level, some member states have raised questions about the reporting system.[447] They argue that electronic reporting to the WISE for the WFD database was both extremely complex and a significant undertaking.[448] In addition, while most Member States have reported their RBMPs and delivered a vast amount of information on status, pressures and measures to the WISE WFD database, the majority of these plans are yet to be implemented.[449] In other words, the implementation of the WFD goes far beyond reporting RBMPs. Furthermore, the quality of the assessments relies on the quality of the member states' report as well as their methodology, and although there are examples of very good, high quality reporting, there are also cases where reporting contains gaps or

[442] European Commission, *River Basin Management Plans 2009 – 2015 – Information on availability by country* <http://ec.europa.eu/environment/water/participation/map_mc/map.htm>
[443] See EUR-LEX**,** Report from the Commission to the European Parliament and the Council on the Implementation of the Water Framework Directive (2000/60/EC) River Basin Management Plans COM/2012/0670 final <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52012DC0670>
[444] Ibid, [paragraph1].
[445] The European Court of Justice has ruled against Belgium, Greece and Portugal for not having adopted and reported their RBMPs. A judgment on Spain is pending. It is also important to point out that since the 2012 report, Croatia has become the 28th country to join the EU on 30 June 2013. It is yet unclear as to the Croatia's status in terms of RBMPs.
[446] European Commission, *Report from the Commission to the European parliament and the Council on the implementation of the Water framework Directive (2000/60/EC) River Basin Management Plans* (Brussels, 14.11.2012) COM (2012) 670 final <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0670&from=EN> 4.
[447] House of Lords, *European Union Committee – Thirty-Third Report* An Indispensable Resource: EU Freshwater Policy (25 April 2012) <http://www.publications.parliament.uk/pa/ld201012/ldselect/ldeucom/296/29605.htm> [paragraph 15].
[448] European Environment Agency, EEA Report No 8/2012, *European Waters – assessment of status and pressures,* <http://www.eea.europa.eu/publications/european-waters-assessment-2012> 7.
[449] House of Lords, above n 102, [paragraph 18].

contradictions.[450] Consequently, incomplete or inaccurate reporting can lead to incomplete assessments, as well as ongoing delays.

As we will recall, the WFD introduced a new approach for water management whereby the protection, or good status for all water bodies, is at the heart of an integrated water management approach at the river basin scale. To achieve that outcome, member states are required to develop RBMPs, which will be reviewed every six years, adapt their existing legal frameworks, as well as their water management administration. However, if reporting by member states has not occurred or all necessary RBMPs have not yet been published, the objectives of the Directive will be further delayed. Further delays will have a knock-on effect for the overall implementation of the Directive, and the means of achieving protection and sustainable use of all waters at an integrated level in 2015.[451]

Nonetheless, the Commission's report acknowledges that progress has been significant in some cases, although an integrated approach to water management has not yet taken place in all member states.[452] The report also points out that with the adoption of the WFD, international cooperation has been reinforced and improved.[453] For example, the role of RBDs as the main unit for managing river basins has been key and these districts have been delineated by member states. Some member states support this idea and recently declared that the Directive added value as demonstrated by the much-improved co-operation between member states on water resources, particularly where rivers cross international borders.[454] Furthermore, the knowledge about the status of EU waters and the activities that influence them is better known now, after much effort has been put into the preparation of the RBMPs.[455] Therefore, the report suggest that member states lagging behind in the approval and implementation of their RBMPs should learn from the ones that have successfully implemented all aspects of the WFD, with a view to remedy their delays.[456]

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[450] European Environment Agency, above n 103, 7.
[451] Europe.EU, Press releases database, Environment: Commission takes four Member States to court for failing to submit river basin plans, *European Commission – IP/11/438,* Brussels, 6 April 2011 <http://europa.eu/rapid/press-release_IP-11-438_en.htm?locale=en>.
[452] EUR-LEX, above n 98, [paragraph 5.3].
[453] Ibid.
[454] House of Lords, above n 102, [paragraph 25].
[455] EUR-LEX, above n 98, [paragraph 6].
[456] Ibid.

In November 2012, the findings of the report, including the assessment of the RBMPs were used to produce the European Commission's *Blueprint to Safeguard Europe's Water Resources*.[457] The aim of the Blueprint was to renew calls for strengthening enforcement of the twelve-year-old WFD and outline actions that concentrate on better implementation.[458] Janez Potocnik, the environment commissioner, said the document reflected "a good understanding of the problems we face and a solid platform to tackle them".[459] Others denounced the lack of ambition in the document, accusing the Commission and other EU institutions of caving into politicians and businesses that have opposed binding measures for water conservation.[460] Nonetheless, the analysis underpinning the Blueprint covers a long time span, up to 2050.[461] As such, it is expected to drive EU water policy and law in the area over the long term.[462]

In terms of WFD's approach to implementation, it has been argued that the WFD embodies some attributes of command-and-control albeit with a great emphasis on processes.[463] Bell[464] and others[465] have also emphasised the more innovative character of the WFD, when they suggest that the Directive is a command legislation (the WFD sets out clear mandates both in terms of water quality standards and the need to produce RBDPs) however, some elements of the reform exhibit a shift in approach to standard setting. Bell explains that the CIS best illustrate the point and maintains that the Strategy provides the platform necessary to promote ongoing dialogue between the European Commission, member states and stakeholders, to develop technical and scientific information to assist in the practical implementation

[457] European Commission, *A Water Blueprint – taking stock, moving forward*, <http://ec.europa.eu/environment/water/blueprint/index_en.htm>.
[458] Ibid.
[459] EurActiv, *Water blueprint seeks to better police member states*, (15 November 2012) <http://www.euractiv.com/sustainability/water-blueprint-seeks-better-pol-news-516070>.
[460] EurActiv, *Brussels rules out EU-wide water efficiency target*, (22 April 2012), <http://www.euractiv.com/specialreport-delivering-water-2/brussels-rules-eu-wide-water-eff-news-512857>.
[461] European Commission, above n 117.
[462] Ibid.
[463] For example, expressions of a 'command and control' approach include the detailed specifications on the content and procedure for river basin management plans and programmes and reporting obligations.
[464] Bell, above n 85, 637.
[465] David M. Trubek and Louise G.Trubek, "Hard and Soft law in the Construction of Social Europe: the role of the Open Method of Co-ordination" (2005) 11(3) *European Law journal*. 343-364.

of the Directive.[466] Still, some critics have raised concerns about the effectiveness of the CIS.[467]

Nonetheless, with this combination of command and control and co-operative approach, the European Commission and others involved hope to maximise the prospects for effective implementation of the WFD.[468] Arguably, a combination of both approaches, one to steer behavior and another to enable negotiation are possible, and probably even necessary.

Undoubtedly, the objectives of the WFD have raised unparalleled new goals for the management of Europe's water. Yet, some significant progress has been made since the Directive was adopted fourteen years ago. Namely, RBMPs have been established by most member states and the assessment of these Plans based on reporting by the member states provide impressive new knowledge in terms of river basins characteristics and mapping. In addition, given that the majority of river basins in the EU are international, international cooperation in shared river basins has been eminently enhanced to deliver measures to promote basin wide approaches. Establishing International RBDs has been a key mechanism to spearhead dialogue between countries and promote transparency.

Furthermore, implementation of the WFD has been supported since 2001 by an informal co-operative effort under the CIS led by Water Directors (representing the Member States) and the European Commission with the participation of relevant stakeholders. Lastly, the Commission has been very proactive in promoting communication by way of reports and providing practical recommendations, while keeping enforcing WFD obligations.

More broadly, the experiences with the WFD provide an insight and understanding of the workings necessary to aid co-ordination and cooperation between levels of governments, and hence provide some important lessons for Australia. At the outset, the role of the European Commission and the CIS has been paramount in helping coordinate member states' response to the requirements set out in the WFD, and act collectively to bring about change in the way water is managed in Europe. The WFD

[466] Bell, above n 85, 637.
[467] House of Lords, above n 102, [paragraph 52]. Some of the concerns raised relate to the fact that the CIS is dominated by representatives of national agencies, to the exclusion of other stakeholders who should be involved in the decision process.
[468] Moss, above n 80, 89.

clear deadlines for each of the requirements has added up to an ambitious overall timetable,[469] yet arguably it has been integral to the overall success. The number of RBMPs submitted to the Commission attest to this outcome. In addition, while only a minority of member states are yet to submit their Plans, there are mechanisms in place to further support, in terms of guidance and advice member states that have not yet complied. The Commission can take member states to the European Court over failure to report their RBMPs within the intended time frame. In the meantime, while most member states have reported their Plans, the majority of these plans are yet to be implemented, which suggests that further reform efforts are necessary to ensure future success. Even so, the level of implementation is still low, genuine progress has been made towards fulfilling the WFD requirements.

AUSTRALIA'S NATIONAL WATER INITIATIVE

This section provides a brief overview of Australia's water management under the National Water Initiative (NWI), in the context of Australia's most prominent river basin, the Murray-Darling. The next section also briefly discusses the role of the Commonwealth *Water Act 2007* and implications upon federal -state relationships. It is argued that the reform prompted a shift from water resources management as a cooperative decision process, to a more assertive approach orchestrated by the federal government. A top-down approach raised questions about commitments made under previous intergovernmental agreements more generally and the fate of federal and states balance decision making in tackling the scale of water challenges nationally, and developing policy, law and practice to maintaining sustainable levels of water resources.

Brief overview and critical analysis

The NWI was adopted at the June 2004 meeting of the Council of Australian Governments (COAG).[470] The NWI builds on the 1994 COAG Water Reform Framework,[471] and is a renewed commitment by federal and state governments to

[469] European Commission, Environment, *WFD: Timetable for implementation* <http://ec.europa.eu/environment/water/water-framework/info/timetable_en.htm>.
[470] Australian Government, Department of the Environment, *Intergovernmental Agreement on a National Water Initiative* <http://nwc.gov.au/__data/assets/pdf_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf>. The Council of Australian Governments (COAG) initiate, develop and monitor policy reforms that are of national significance and requite cooperative action by all Australian governments.
[471] *The Council of Australian Government's Water Reform Framework* <http://www.environment.gov.au/resource/council-australian-governments-water-reform-framework>.

strengthen their commitments to best practice water management nationally.[472] The NWI reform provides the framework to reduce the significance of state borders and promotes a more unified national approach to water management.[473] The NWI is a wide-ranging strategy, which has been defined as Australia's primary water policy.[474] The NWI aims to increase the productivity and efficiency of water use, including water access, planning, entitlements, intra and interstate water markets, and integrated management of water for environmental purposes. The NWI specifies that consumptive use of water requires a water access entitlement created through legislation as a perpetual share of the consumptive pool of water.[475]

To accompany the NWI, COAG also approved and released a separate Intergovernmental Agreement addressing overallocation in the Murray-Darling Basin (IGMDB),[476] The IGMDB is subordinate to the NWI, and applies specifically to the Murray-Darling Basin (MDB), which is located in south-east Australia where the bulk of extractions from Australian rivers is used primarily for irrigation.[477]

Both agreements have long and separate histories,[478] which add to the complexity of the Australian water policy and law landscape. Connell suggests that these agreements highlight contrasting views about best practice.[479] He explains

> … the NWI reflect the evolution of neoliberal thinking about the role of governments and markets with regard to the management of public goods. The IGMDB on the other hand has been shaped by a force far less theoretical, the growing public agitation about the declining environmental state of Australia's largest river system.[480]

He goes further with this idea and suggests that to achieve their respective mandates, the NWI puts in place "a new philosophical approach" to managing water, whereas the IGMDB focused instead on providing new funding of A$500 million to

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[472] Intergovernmental Agreement on a National Water Initiative (NWI), (25 June 2004) <http://www.nwc.gov.au/nwi/index.cfm>.
[473] Daniel Connell, "Water Reform and the Federal System in the Murray Darling Basin" (2011) 25 *Journal of Water Resources Management* 3997.
[474] Daniel Connell, *Water Politics in the Murray-Darling Basin* (2007), 4.
[475] NWI, above n 127, paragraph 28.
[476] NWI, above n 127, paragraph 14.
[477] Daniel Connell, Stephen Dovers and R. Quentin Grafton, "A critical analysis of the National Water Initiative" (2005) 10(1),*The Australasian Journal of Natural Resources Law and Policy*, 83.
[478] Ibid.
[479] Ibid.
[480] Ibid.

recover water for six significant ecological assets.[481] More specifically, the defining characteristic of the IGMDB was primarily driven by the need for environmental reallocation to increase river flows in the river basin system.[482] Yet, in terms of policy cohesion, it raises questions about coordination, duplication across agreements, as well as implementation. He explains

> … looking at the two documents in isolation, for those states with responsibilities in the Murray-Darling Basin the most obvious financial benefit to be gained from compliance is contained in the accompanying agreement, the IGMDB.[483]

However, the existence of parallel structures have been both shaped and directed by the Australian Constitution, given that in Australia responsibility for water resources management and the environment rests primarily with state governments.[484] Thus, the impact upon the federal-state relationship in water policy has led to the following structures: on the one hand, a well established governance framework around the development of basin plans for managing the MDB[485] and, on the other, policy formulation provided through COAG.[486] In addition, much of the work of adapting Australia's system of government to evolving contemporary challenges (the Australian Constitution came into effect in 1901) has been undertaken by the High Court. For example, the High Court's interpretation of the Constitution has been crucial to assessing the Commonwealth government's capacity to affect directly or indirectly water resources management through its head of powers.[487] In the meantime, water management under both MDB and the NWI adopted by COAG in 2004 has faced a number of challenges.

Under the NWI, federal and state governments have made commitments to implementing a number of objectives, including the preparation of comprehensive

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[481] Ibid.
[482] For more see Crase L and O'Keefe S, "Acknowledging Scarcity and Achieving Reform", in Lin Crase (ed) *Water Policy in Australia*,(2011) RRF Press, p 172-180.
[483] Connell, above n 131, 96.
[484] Paul Kildea and George Williams, "The Constitution and the Management of Water in Australia's Rivers" (2010) 32 *Sydney law Review* 595.
[485] The Governance framework of the MDB has historically been between the Commonwealth and the governments of New South Wales, Victoria, South Australia, Queensland and the Australian Capital Territory. For more see Murray-Darling Basin Authority, *History of the Basin Plan*, <http://www.mdba.gov.au/what-we-do/basin-plan/development/history>.
[486] The Council of Australian Governments includes the Commonwealth, and the governments of New South Wales, Victoria, Queensland, South Australia, the Australian Capital Territory and the Northern Territory.
[487] See Alex Gardner, Richard Bartlett and Janice Gray, *Water resources Law* (2009), chapter 5 for a fuller discussion of the constitutional framework for water resources management.

water plans, the return of all currently over-allocated or stressed water systems to environmentally sustainable levels of extraction, and the introduction of registers of water rights and standards for water accounting.[488] A water plan is defined by the level of diversion of water from a defined water resource that is environmentally sustainable.[489] In other words, a water plan is a key mechanism used to set out the arrangements for sharing the water available for consumptive use among competing users.[490] Whilst each state can develop a different approach, water planning remains essentially the vehicle for setting socio-economic and environmental objectives for the management of water resources.[491] However, water plans sit within a broader management system including regulatory and market structures that also guide water use.[492] As a result, progress made on water plans varies according to each state.[493] Nonetheless, effective water plans establish the rules to meet environmental requirements and for users to share water resources by providing certainty of access over an agreed timeframe.[494]

In terms of implementation, two new institutional arrangements were created to promote cooperation between levels of governments. Namely the Natural Resource Management Ministerial Council, which is the state-wide key body for natural resources management and environmental reforms more generally charged with overseeing the implementation of the NWI. In addition, the National Water Commission (NWC), which provided advice to COAG on national water issues (including the progress of the jurisdictions on implementing the NWI). The NWC was an independent statutory authority within the Environment, Water, Heritage and Arts portfolio created to drive the national water reform agenda.[495] Moreover, this body was funded by the Commonwealth government but comprised federal and states appointees.[496] In addition, the NWC assumed the role of the National Competition

[488] NWI, above n 127, para 23, 25, 52-54.
[489] Australian Government, Department of the Environment, *What is a water plan?* <http://www.environment.gov.au/topics/water/australian-government-water-leadership/national-water-initiative/status-incomplete>.
[490] Ibid.
[491] Ibid.
[492] Australian Government, National Water Commission, *National Water Planning Report Card, Introduction* <http://archive.nwc.gov.au/library/topic/planning/report-card/introduction>.
[493] Jennifer McKay, "Water governance regimes in Australia implementing the National Water Initiative" (2007) *Water* 150-157.
[494] Department of the Environment, *Status of incomplete water plans in Australia,* <http://www.environment.gov.au/topics/water/australian-government-water-leadership/national-water-initiative/status-incomplete>.
[495] Australian Government, *National Water Commission*, <http://archive.nwc.gov.au/home/water-governancearrangements-in-australia/national-arrangements/National-Water-Commission>.
[496] Ibid.

Council in undertaking the 2005 assessment of the compliance of the jurisdictions with their National Competition Policy (NCP) water-related reform commitments.[497]

To understand how competition reform payments were first introduced, it is important to briefly go back to 1994 when the COAG Water Resource Policy was first developed. As previously mentioned, a significant driver for the 1994 water policy was the emphasis on microeconomic reform, which resulted in the establishment of the NCP.[498] Under the *Intergovernmental Agreement to Implement the National Competition Policy and Related Reforms,*[499] the state governments agreed to implement a program of economic reform within a strict timeline. In return, the Commonwealth provided funding tied to compliance, which was divided in three tranches.[500]

The NCP is widely recognised as having made a significant contribution to driving Australian water policy development.[501] In the final assessment (2005) of all governments' progress in implementing the NCP and related reforms, the National Competition Council found that all governments had made substantial progress in meeting their commitments.[502] However, in 2006, a report issued by the then environmental minister, Malcolm Turnbull, rated the performance of the states as poor or, at best, adequate on a range of issues and identified failures by some jurisdictions to address overallocation.[503] A seeming lack of progress on water reform prompted calls for a Commonwealth takeover of water policy, which was justified on the basis of creating a uniform policy approach.[504] Quiggin argues that given the differences in climate and catchment hydrology between the states, a "one size fits all solution" would not necessarily yield the best outcome.[505] Nonetheless, policy

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[497] Mark Evans and Lain Dare, "Multi-level governance and institutional layering: The case of national water governance in Australia" (2014) *ANZSOG Institute for Governance at the University of Canberra* 11.
[498] Ibid.
[499] *Agreement to Implement the National Competition Policy and Related Reforms* (April 1995), <http://ncp.ncc.gov.au/docs/Agreement%20to%20Implement%20the%20NCP%20and%20Related%20Reforms.pdf>.
[500] Ibid, 2.
[501] National Competition Council, *National Competition Policy Overview,* <http://ncp.ncc.gov.au/pages/overview>.
[502] Ibid.
[503] Malcolm Turnbull, "Management of Australia's Water Resources" (2006) <http://www.malcolmtunbull.com.au/news/Article.asp?D=568>. Addressing overallocation is a commitment made by all states under the NWI.
[504] John Quiggin, "Issues in Australia Water Policy", Economic and Political Overview (February 2007) *Australian* <http://www.ceda.com.au/media/29714/quiggin_water_ace_200702.pdf> 43.
[505] Ibid.

change occurred amidst the states and territories making significant progress in implementing some of the objectives and the actions that each party agreed to under the NWI.[506] In sum, the fundamental benefits of the NWI were able to show their worth, although it seemed that a lack of co-ordination with implementation prompted the Prime Minister to act out of 'exasperation with the current issues" and called for the Commonwealth to take over responsibility for water policy and law in the most prominent river basin in Australia.[507]

WATER REFORM IN THE MDB

On 25 January 2007, John Howard, the Prime Minister at the time, announced the *National Plan for Water Security*,[508] resulting in the *Water Act 2007.* The ten-year Plan was backed by A$10 billion of federal money, and included a range of commitments including investing in irrigation infrastructure, addressing over-allocation in the MDB through entitlement purchases, centralising water information and reforming decision making processes in the Basin.[509] According to Howard, the proposed Plan was in response to the scale of the water crisis that was facing the MDB, and an acknowledgment that the MDB governance was "unwieldy and not capable of yielding the best possible basin-wide outcomes".[510] Howard proposed to reconstitute the Murray-Darling Basin Commission (MDBC) as a Commonwealth government agency reporting to a single minister, and develop a new strategic plan for the Basin that would impose a revised cap on water diversions. However, as a precondition to this occurring, the Basin states would need to refer their power of water management to the Commonwealth to enable it to manage the river system in the national interest.

It could be argued that significant changes to the management of water resources occurred in Australia, in 2007. According to Evans and Dare,[511] the reform prompted a shift from water resources management as a national priority pursued through a

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[506] Australian Government, National Water Commission, *National Water Planning Report Card 2011, Executive Summary* <http://archive.nwc.gov.au/library/topic/planning/report-card/executive-summary>.
[507] McKay, above n 35, 57.
[508] Prime Minister John Howard, *Address to the National Press Club* (25 January 2007) <http://www.theaustralian.com.au/news/howards-full-speech-to-the-national-press-club/story-e6frg6n6-1111112888088>.
[509] Ibid.
[510] Ibid.
[511] Evans, above n 150, 12.

multilevel governance process, to a top-down approach orchestrated by the federal government. More significantly, with the introduction of the Water Act 2007 water policy was reprioritised resulting in a proposed reallocation of powers and responsibilities between the Commonwealth and the states.[512] However, critics argued that a Commonwealth take over of water management in the Basin raised serious questions about federal-state co-operative arrangements.

For example, Kildea and Williams suggest that, despite recent intergovernmental agreements on water, namely the NWI and the IGMDB, there was a real possibility that relations between governments in this area would become further strained.[513] Gardner argues on the other hand that the Commonwealth's increased control was inevitable, and generally believes that a continuing gradual accretion of Commonwealth's functions could facilitate and guide the states' water resources management.[514] By contrast, this author begs to question as to why the federal government would want to expand its role in the MDB, given that so much intergovernmental co-operation had been established in the region previously.[515] Twomey[516] supports this notion when she says

> If there has been so much co-operation in the past, why is there a crisis now? People might well wonder whether this shows that co-operation has failed and that one government must take charge of the situation.

However, she does point out that there had been problems with over-allocation of water in the Basin, exacerbated by drought and climate change, which reduced those flows significantly.[517] She also suggests that the Commission was given inadequate powers and sanctions to enforce the MDB cap.[518] Despite these genuine concerns, it

[512] See Maureen Papas, "The Proposed Governance Framework for the Murray-Darling Basin" (2007) 4(2) *MqJICEL* 77.
[513] Paul Kildea and George Williams, "The Constitution and the Management of Water in Australia's Rivers" (2010) 32 *Sydney Law review* 595.
[514] Alex Gardner, "Water reform and the federal system", in Paul Kildea, Andre Lynch and George Williams (eds), *Tomorrow's Federation reforming Australian Government* (2012), 270.
[515] Papas, above n 164, 89. In 2006, the Commonwealth government also committed A$500 millions as part of the Living Murray Initiative to increase river flows and improving the health of the River Murray. See Australian Government, Department of the Environment, *The Living Murray Initiative*, <http://www.environment.gov.au/topics/water/water-our-environment/living-murray-initiative>.
[516] Anne Twomey, "Aspirational Nationalism or opportunistic federalism" *Quadrant* (October 2007),39.
[517] Ibid.
[518] Ibid. For a detailed explanation and critic of the role of the cap in the MDB see Papas, above n 164, 81,82.

is widely argued that a complete take over of the system was not necessarily the best option.[519]

The proposal for the Water Act did not go to Cabinet and no advice was sought from the Treasury.[520] The Australian Cabinet is the council of senior ministers responsible to the Parliament. The role of the Cabinet is to make decisions about national issues and formulate policy.[521] Hence, had standard governmental processes been followed, the relevant departments would have undertaken extensive analysis, followed by submission for consideration to the Cabinet and the Treasury would have also been informed.[522] In sum, there were no attempts made to undergo a consultation process within the Commonwealth government framework, let alone with any other stakeholders, which demonstrates a complete disregard to normal policy development processes.

In the meantime, the Water Act 2007 significantly changed the governance framework in the MDB. In particular, the Water Act moved decisions about sustainable levels of extraction in the Basin to a single decision maker – the Australian Water minister, supported by the Murray-Darling Basin Authority (MDBA) – instead of by way of a consensus among each governments with jurisdiction in the basin.[523] In addition, the Act established the MDBA with the functions and powers needed to ensure that basin water resources are managed in an integrated and sustainable way.[524] The Water Act also required the MDBA to prepare a new strategic plan to impose revised levels of water diversions in the basin.[525]

In November 2012, the final version of the MDB Plan was prepared by the MDBA and signed into law by the Commonwealth Minister for Water, five years after it was mandated in the *Commonwealth Water Act 2007*.[526] The Plan in question refers to

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[519] Ibid ; Connell, above n 131, 6.
[520] Brian Toohey "Why the Government went to Water" in *The Australian Financial Review* (Sydney), 9-10 June 2007, 29.
[521] Parliamentary Education Office, *Cabinet* <http://www.peo.gov.au/learning/fact-sheets/cabinet.html>.
[522] Ibid.
[523] National Water Commission, *A step change in the Murray-Darling Basin water management*, <http://www.nwc.gov.au/publications/topic/audit-reports/murraydarling-basin-plan-implementation-initial-report/chapter-1>.
[524] Ibid.
[525] Paul Kildea and George Williams "Journal Excerpt: The Water Act and the Murray-Darling Basin Plan" (2011) 22 *Public Law Review* 4.
[526] State Government Victoria, Department of Environment and Primary Industries, *Murray-Darling Basin Plan*, <http://www.depi.vic.gov.au/water/rural-water-and-irrigation/murray-darling-basin/murray-darling-basin-plan>.

the guide that the MDBA developed (including a Draft Plan, Proposed Basin Plan and then Final Plan) to provide a coordinated approach to water use across the Basin.[527] The Plan aims to achieve sustainability in the system, and although much has been said about the repeated failures that was the Plan's consultation process,[528] the MDBA can no longer give the NWC the power to audit progress, by delegation from the COAG reform Council. The NWC was constituted under *National Water Act Commission Act 2004* (Cth) s7(2)(i). However the closure of the NWC suggests this institution can no longer influence decision making.

Indeed, the Coalition government recently announcement the closure of the NWC at the end of 2014[529], and the removal of the Standing Council on Environment and Water from COAG[530] as a pledge to reduce "the red and green tape" and excess duplication between governments.[531] This decision raises some serious questions about the role of an independent body to drive the objectives of the NWI generally, and the effectiveness of the implementation of the Basin Plan in particular.

It could be argued that, if cooperative structures are being removed, it may reignite state parochial tendencies within the Basin. Indeed, it has been suggested that despite the desirability of operating as a whole of a basin approach, the Commonwealth and state parliaments are comprised of members from the relevant MDB states and when pressed both can be expected to lobby for their vested interests within the Basin.[532] In addition, recent concerns around duplication and excessive red and green tape at the Commonwealth level seem to ignore a long history of cooperative arrangements. [533]

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[527] Australian Government, Murray Darling Basin Authority, *Basin Plan* <http://www.mdba.gov.au/what-we-do/basin-plan>.
[528] Neil Byron, "What can the Murray-Darling Basin Plan Achieve? Will it be enough? In Daniel Connell and R Quentin Grafton (eds) *Basin Futures Water Reform in the Murray-Darling Basin* (2011) Chapter 24.
[529] Australian Government, National Water Commission, *Closure in 2014,* <http://www.nwc.gov.au/organisation/closure-in-2014>.
[530] See Council of Australian Governments, *COAG Meeting, 13 December 2013,* <http://www.coag.gov.au/node/516>.
[531] Liberal Party Policy Document, *The Coalition's Policy to boost productivity and reduce regulation* (July 2013), <http://lpaweb-static.s3.amazonaws.com/Policies/ProdPolicy10Jul13.pdf>.
[532] Erin Bohensky, Daniel Connell and Bruce Taylor, "22 Experiences with integrated river basin management, international and Murray-Darling Basin: *lessons from Northern Australia*", *Northern Australia Land and Water Science Review*, full report (October 2009) 11.
[533] See Rob Fowler, "Reflection on the Role of the Commonwealth Government", Mahta Pearlman AO Oration 2014, Federal Court of Australia, Sydney, (Thursday 6 March 2014), law School, University of South Australia.

There are two dominant features of these cooperative and co-ordination approaches: first, the forum in which such instruments are negotiated, namely COAG; and secondly, intergovernmental agreements, such as the NWI and the subordinate IGMDB, which are directed to defining the roles and responsibilities of both Commonwealth and states with respect to water management nationally, and at river basin level. Furthermore, given the scale of the water challenges in the country, and in the world, and given that these problems will not be reversed any time soon, it is difficult to understand the rationale for a substantial withdrawal from the field of water management by the Commonwealth. The decision seems to act contrary to the Commonwealth's previous efforts to take a more active role in this area.

The release of the Terms of Reference for the Commonwealth's White Paper on the Reform of the Federation on 28 June 2014[534] reignites the debate about the roles and responsibilities between all levels of government. The Hon Prime Minister, Tony Abbott said "we need to clarify roles and responsibilities for States and Territories so that they are, as far as possible, sovereign in their own sphere".[535] However, he also added that the Commonwealth would continue to take a leadership role on issues of genuine national and strategic importance, although the Commonwealth should no longer intervene in areas where states have primary responsibility.[536] Clarifying the delineation between the powers and responsibilities of the Commonwealth and the states could prove challenging for the future of cooperative federalism (the value of intergovernmental agreements as shared commitments and the standing of COAG as a forum for coordination). However, it remains too early to tell therefore whether the forthcoming White Paper will make a difference until such time that the policy document is made available for consultation.

The government has indicated that the White Paper will be released by the end of 2015.

LESSONS LEARNED

[534] Prime Minister of Australia, *Terms of Reference White Paper on the Reform of the Federation,* <http://www.pm.gov.au/media/2014-06-28/white-paper-reform-federation>.
[535] Ibid.
[536] Ibid.

Crase[537] supports the view that water reforms provide insights into the challenges of adjusting or introducing new policy and law, and can offer potential lessons that might be drawn from experiences elsewhere. Hence, despite some differences in social, geographical and constitutional arrangements, there are some general comparative lessons that can be derived from water management in both Europe and Australia. At the outset, Europe and Australia have been very proactive through the WFD introduced in 2000, and the NWI signed at the COAG meeting on 25 June 2004 in providing a framework to protect and promote sustainable water management in their respective areas.

The Directive represents a major improvement on earlier, piecemeal EU water legislation as it expands the scope of water protection to all waters and sets out clear objectives that must be achieved by a strict timeline. Similarly, the NWI is the national blueprint for water reform and represents a shared commitment by federal and state governments to increase the efficiency of Australia's water use, and improve future water security across various sectors, including the environment. The Directive and the NWI promote an integrated approach to water management despite the difficulties associated with implementing trans borders cooperation.

Central to this idea, the WFD has a strong emphasis on coordination, cooperation and information. To that effect, much effort has been made to maintain ongoing dialogue between levels of governments and stakeholders. For example, the European Commission and the CIS have a pivotal role to play to monitor progress and provide ongoing support. More recently, the European Commission's detailed assessments of the RBMPs were used to provide the Commission's communication on the Blueprint to Safeguard Europe's Water Resources. The Blueprint outlines actions necessary to strengthen implementation in the future. More significantly, given that the document draws on various researches, including the RBMPs assessment report, the policy paper benefits from detailed information that has never been available before.[538]

In addition, the CIS has delivered various documents to promote understanding about the requirements of the WFD for the benefit of Member States. In other words, the Strategy was put in place for a common purpose, in which the need for policy

[537] Lin Crase, "Lessons from Australian Water reform", in Lin Crase (ed) *Water policy in Australia: The Impact of Change and Uncertainty* (2011) 257.
[538] European Commission, *A Water Blueprint for Europe* (2013), <http://ec.europa.eu/environment/water/blueprint/pdf/brochure_en.pdf> 11.

coordination required a shared sense of the problem and solution. As such, the Strategy is a valuable platform for the exchange of experience and best practice. However, better management has called for improved transparency and accessibility, which might suggest that the CIS might fall short of its intended aim.

Similarly, in Australia the role of the NWC has been key to promoting the objectives and outcome of the NWI. For example, in the last ten years,[539] the Commission has published position statements on major water issues to improve the quality of debate about water in the country. More significantly, by identifying emerging challenges and recommended actions, these statements have been a valuable source of debate and policy consideration.[540] However, the recent decision by the current Coalition government to close the NWC by the end of 2014, as well as abolishing the Standing Council on Environment and Water from COAG's Councils raises serious questions about future policy implementation and the role of cooperative and coordination structures.[541] It remains unclear how the work carried out by the NWC and Standing Council will be handed in the future.[542]

However, the need for better cooperative and coordination mechanisms like the European Commission – the EU's executive body and the CIS – an information exchange to help states, evidenced in Europe have proved valuable to implementing change across Europe. Similarly, Australia has also experienced some level of success. Gardner points out, for example, that the NWC reported in 2009 on the "significant achievements in water reform across Australia" and made a number of recommendations to refocus reform actions.[543] What this suggests is that the role of the NWC is a valuable institution that plays a key role for the exchange of experience and best practices. Arguably, the role of the NWC and the forum around the CIS are not dissimilar given that they both support the progress of national water reforms, albeit through an organisation in the former and a work programme for the latter.

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[539] The National Water Commission was created under the *National Water Commission Act 2004* (Cth), in fulfillment of NWI clause 10.
[540] Australian Government, National Water Commission, *Position statements*, <http://www.nwc.gov.au/nwi/position-statements>.
[541] In December 2013, COAG replaced 22 Standing Council with a set of 8 and the decision saw the revocation of the Standing Council on Environment and Water. See Former Standing Council on Environment and Water, *Strategic Priorities*, <http://www.scew.gov.au/strategic-priorities>.
[542] Ibid.
[543] National Water Commission, *Australian Water Reform 2009: Second Biennial Assessment of Progress in Implementation of the National Water Initiative, Executive Summary* (17 May 2011) <Http://www.nwc.gov.au/www/html/147-introduction-2009-biennial-assessements.asp?intSitelID=1>.

As well as overseeing the implementation of the NWI, the Commission is also responsible for monitoring and auditing the progress of the states with the MDB Plan. The NWC published the first report on the Plan in March 2013 in which the Commission reported that the Basin Plan was slow to progress and that

> there is a real risk to realising all the benefits of efforts and investment to date […] The next two years will be critical in establishing momentum and direction for Basin Plan implementation.[544]

It comes as no surprise therefore, that critics are concerned that the Commission's rigorous reporting will be compromised when some of its assessment responsibilities are reallocated to other government agencies, when this institution ceases to operate.[545] In Europe, the EU Commission has renewed its commitment to seeing the WFD objectives through and achieving sustainable use of EU water resources by providing a roadmap in the Blueprint to Safeguard Europe's Water Resources.[546] The Blueprint is, in effect, the Commission's next stage to reinforcing water management in the region for the future, and has been recognized as a pivotal document for advancing future water implementation in the EU.[547]

Given the evident success of the EU Commission in driving water reform across Europe, the current Australian Coalition government would be well advised to maintain the NWC whose role as a national water leader remains central to national water protection and river basin health in Australia. That said, the EU's enforcement of its laws with its member states is a critical difference to the sharing of powers between Commonwealth and States in Australia.

In light of the above lessons, Australia should consider the following four points. First, it is essential to ensure that the key functions of the NWC continue to be supported and funded, in particular given that the Commission has achieved a great deal in providing national leadership and administering the NWI – Australia's blueprint for water reform. This approach would align Australia with the EU, where the European Commission has been very proactive in its policy response to address WFD

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[544] Australian Government, National Water Commission, *Murray-Darling Basin implementation: initial report Executive Summary* <http://www.nwc.gov.au/publications/topic/audit-reports/murraydarling-basin-plan-implementation-initial-report/executive-summary>.
[545] National Water Commission, above n 177.
[546] The Blueprint is regarded as an essential component of the Europe 2020 Strategy Goals in relation to resource efficiency and mitigation on climate change. See European Commission, *Europe 2020 targets* <http://ec.europa.eu/europe2020/targets/eu-targets/>.
[547] European Commission, above n 186.

implementation issues and developing measures to identify problems and gaps. Thus, abolishing the NWC will significantly reversed and weakens Australia's previous efforts to addressing water management challenges including increasing water demands and shared water resources. In addition, the argument that the Commonwealth wants to cut back excessive duplication across federal-state governments has serious implications in a nation where water scarcity needs to be well managed to overcome jurisdictional differences.

Secondly, the removal of the Standing Council on Environment and Water from COAG's council system should be reconsidered. Abolishing the Standing Council will undermine the role of COAG. Indeed, COAG is regarded as the peak intergovernmental forum in Australia and this political platform prides itself for tackling issues that are of national significance, which require cooperative actions by Australian governments.[548] Environment and water protection and conservation directly affect the well being of every single Australian. These issues, therefore, cannot be relegated at the fringes of the political agenda, instead they need to be central to everyone's concerns and in particular the current federal government. In Europe's case, the European Commission has remained engaged and has continued to seek and promote informal cooperation with member states and stakeholders in the context of the CIS since the WFD was introduced in 2000, which attests to Europe's commitment to the long-term success of the reform.

Thirdly, it is unlikely that a reform of Australian Constitution by way of a referendum would be envisaged in the current political climate. Indeed, attempts at better management of river basin have repeatedly unfolded against the division of legislative responsibilities between the Commonwealth and the states and century-old constitutional provisions.[549] For example, Australia's Constitution remains based upon the desire of the framers of the 1890s to reach a settlement to accommodate the non-existent riverboat trade from South Australia.[550] It is not surprising, therefore, that a document drafted in a different century, by framers with a different world vision has been described as "out of kilter" [551] with contemporary water challenges. The constitutional text is also "out of sync"[552] with a focus on solving national problems

[548] COAG, above n 178.
[549] George Williams, "Rewriting the Federation Through Referendum", in Paul Kildea, Andrew Lynch and George Williams (eds) *Tomorrow's Federation Reforming Australian Government,* (2012) 301.
[550] Ibid.
[551] Ibid.
[552] Ibid.

through cooperative federalism. Nonetheless, although COAG provides the forum necessary to circumvent the constitutional impediments, COAG does not have legal standing,[553] or the capacity to bring about deeper structural reform.[554]

In contrast, despite Europe's multiple cross-jurisdictional diversity, the area has developed new and creative forms of governance to meet the challenges of multi-level policy making without a constitutional state to provide vertical order.[555] To this end, institutions such as the European Commission and the CIS have been key to improving decision-making processes between different levels of government. Indeed, policy cooperation across political levels is regarded as yielding better results, rather than independent action, which can lead to unnecessary competition and duplication.[556]

Lastly, the Coalition government's current concerns with budget cuts and abolishing coordination and cooperation structures seem to suggest that water problems and solutions are really the domain of the states. The release of the Terms of Reference for the White Paper on the Reform of the Federation, on 28 June 2014, marked the next stage and most recent measure put forward by the Commonwealth to reshape the federation. The White Paper promises to address the best way to ensure that, as far as possible, each level of government is sovereign in its own sphere. This notion acts contrary to Europe's approach to water management whereby harmonisation, co-decision and coordination have driven the WFD reform and water resources protection is viewed as an issue of national importance, no longer as a jurisdiction specific problem.

The current Australian federal government seems determined to go from one end of the spectrum to the other, calling this time for less intervention on the part of the federal government and a renewed commitment from the states to act more independently. This approach seems to stray far from previous cooperative federalism efforts and questions the notion that different jurisdictions can achieve a shared problem solving approach towards a particular policy outcome, by acting independently of each other. What benefits can this approach possibly yield at river

[553] See Paul Kildea and Andrew Lynch, "Entrenching 'Cooperative Federalism': Is it time to Formalize COAG's Place in the Australian Federation?" (2011) 39 *Federal Law Review* 103-29.
[554] Williams (2012), above n 182, p 301.
[555] Kay, above n 49, 11.
[556] McCormick, above n 28, p 118.

basins level, albeit to highlight a lack of foresight on the part of policy and lawmakers?

CONCLUSION

Despite some differences of landscape, constitutional arrangements and population, there are some comparative lessons that can be derived from water management in Europe for Australia. The introduction of the WFD in 2000 marked the start of a new approach to water management in Europe that sought to introduce a more integrated and overarching legislative framework to provide greater protection for all water bodies. In addition, the WFD sets out a strict timetable for achieving environmental objectives, using river basins as the key administrative unit, rather than the more traditional administrative boundaries. To date, much progress has been made given that most member states have submitted their RBMPs by the required deadline. Nonetheless, given that the majority of river basins in the EU are internationally shared, much work remains to be done to ensure that member states demonstrate a genuine level of coordination to achieve implementation across borders. In this respect, the EU Commission and the independent CIS have remained committed to providing ongoing support, and a valuable platform for the exchange of information and best practice.

Australia has also made some genuine reform efforts to implement a national strategy to maintain healthy river systems and encourage sustainable practices. The adoption of the NWI, albeit alongside a separate intergovernmental agreement for the MDB has yielded encouraging results. In addition, collaborative policy-making through intergovernmental agreements under NWI and COAG have been central to Australian water reforms in the last twenty years, even though the states have had varying success at living up to this aim. However, the introduction of the Water Act and the more recent decisions to abolish the Standing Council of Environment and Water, and close the NWC suggest that monitoring and leadership on water management in Australia will be jeopardised in the future. Given the long history of cooperative arrangements (despite constitutional division of powers), the Commonwealth decisions seem to act contrary to previous intergovernmental initiatives. The Terms of Reference for the White Paper on the Reform of the Federation propose to reduce overlap and duplications between levels of

governments and clearly address the role and responsibility of each tier of government. While the reform may well yield some benefit for the federation, this suggests yet more change to Australian water governance. Australia should look to Europe to realise that fostering cooperation and maintaining relevant forums can yield better outcomes and remains central to effective, equitable and best practice implementation.

CHAPTER 6

The Way Forward: Are Further Changes to Australian Water Governance Inevitable?

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While the previous article is a comparative analysis of Europe and Australia's in relation to management of water resources, this article focuses on the implications for water in relation to the Coalition's recent announcement on the White Paper on Reform of the Federation in the context of parallel reforms.

Contribution to the Thesis

The article points out that while the aim of the White Paper is to seek clarification about the role and responsibilities of federal and states governments across a number of policy area – in other words, who is responsible for what – the White Paper does not have a specific focus on water. However, parallel reforms that are underway (namely, the *Environmental Protection and Conservation* Act (EPBC Act) and the National Water Commission) regardless of the White Paper are closely interconnected, since much of the debate concerning the role of the Commonwealth is occurring more explicitly in the context of its involvement in the EPBC Act and the National Water Commission. In effect, the Commonwealth is proposing to reduce its responsibility across the water sector. The paper concludes that the roles and responsibilities of both Commonwealth and states governments should be complementary and carefully managed to promote better water resources management. More significantly, their roles and responsibilities have become entwined, therefore the weakening of one level can undermine good governance.

The Way Forward: Are further changes to Australian water governance inevitable?

ABSTRACT: The management of water resources is a very complex process. This is especially true in Australia, where water availability is highly variable and rivers are shared across multiple states and territories. Under Australia's federal system, water challenges have been progressively dealt with through political institutions that require the cooperation of both federal and state governments. Recently, the Coalition government has indicated a strong preference for limiting the role of the federal government and boosting that of the states, as a central thrust in the Terms of Reference for the White Paper on the reform of the Federation. However, this paper argues that whilst water is a minor focus of the White Paper, the reforms to the Environmental Protection Biodiversity Conservation Act and the National Water Commission that are underway regardless of the White Paper are closely connected, since much of the debate concerning the role of the Commonwealth in water matters is occurring more explicitly in the context of their involvement. The article reviews these reforms and comments on how the weakening of one level of government can undermine effective governance.

INTRODUCTION

Water resources management in Australia has been about adapting to change and resisting change. From the period of European settlement, when British colonies were established along major river systems where water was easily accessible to the expansion of agriculture and the development of major water supply infrastructure projects to the contemporary needs of environmental protection, water use has required significant investment. The story of water reform in Australia has led to fundamental changes to water law and policy. Each phase[557] has been driven by the need to secure future growth and prosperity and increasing stakeholder demands. In the last few decades, changes have proved necessary to address the well-established dimension of environmental degradation and the extent of over allocation coupled with the problems of water supply security. Change has rarely happened quickly although when it does, it has usually been controversial.

[557] The main phases relate to broadly: European settlement to 1992. 1992 coincides with radical changes that occurred following the influence of global institutions and rule-in-use following the adoption of the Rio Declaration (the declaration introduced the concept of sustainability) to guide national policy development. The second phase spans from 1992 to 2007. This period relates to a more cooperative approach to water reform generally through COAG. The most current phase of water reform relates to Commonwealth policy (Water Act 2007) to current.

The recent and most significant change to water governance occurred when the Federal government introduced the *Water Act 2007* to regulate the Murray-Darling river system.[558] This legislation involved a federal takeover of the management of the shared water resources in the Murray-Darling Basin (MDB) spanning four states and one territory. The proposed takeover decision was made by the Commonwealth in an attempt to assume greater control of water allocation in the Basin and address the continuing decline of water resources and what appeared to be a perceived lack of co-operation between state governments to share responsibility for how the river system waters were managed.[559]

The adoption of the Water Act 2007 marked the start of an impressive period of reform. The federal government sought to address over allocation by establishing a buy-back program whereby water licenses were to be purchased from irrigators, along with the rights to allocation of water, which would be used to increase environmental flows. In addition, the Water Act provided for the development of the MDB Authority as the sole Commonwealth government agency reporting to a single minister for the first time,[560] rather than state by state as its predecessor organisation the MDB Commission. Through the development of a Basin Plan, the Water Act sought to impose limits on the amount of water that could be extracted across the river system. The Commonwealth also offered A$10 billion over ten years as part of an overall package of spending in northern Australia and the Great Artesian Basin, however, most of the efforts focused on the restoration of the MDB.[561] The Basin Plan was signed into law in November 2012 by the Commonwealth Parliament. It marked the last stage in an overall water plan that envisaged a more extensive Commonwealth role in the Murray-Darling system.

However, more broadly, water management on this driest of continents remains challenging. Australia as a whole has experienced a consistent drying trend over the

[558] See Kildea P and Williams G, "Journal Excerpt: The Water Act and the Murray-Darling Basin Plan" (2011) 22(9) *Public Law Review* 9.
[559] Papas M, "The Proposed Governance Framework for the Murray-Darling Basin" (2007) 4 (2) *MqJICEL* 78.
[560] The agency is part of the portfolio of Environment, Water, Heritage and the Arts reporting to the Minister for Climate Change, Energy Efficiency and Water (until 2010, the Minister for Climate Change and Water).
[561] The funding was to be used to set up major engineering projects at both the Barmah Choke and the Menindee Lakes, completion of restoration works of the Great Artesian Basin and expanding the role of the bureau of Meteorology to provide the water data necessary for good decision making for both governments and industry. See then Prime Minister John Howard, *Address to the National Press Club* (25 January 2007) http://www.theaustralian.com.au/news/howards-full-speech-to-the-national-press-club/story-e6frg6n6-1111112888088 (accessed 30/04/2014).

last fifty years, with a decline in rainfall in the more populated areas.[562] Droughts have become more intense, with the most recent in 2002 and the longest on record since European settlement.[563] A November 2006 report claimed that the severity of the drought had "caught much of Australia off-guard", and had required hastily implemented actions to restore a balance between demand and supply of water.[564] As a result, many water systems remain degraded and the need to identify best practice water law and governance remain critically important.

Within this context, and given that the Federal government now plays a more direct role in water resources management, the key issue is not so much whether the Commonwealth has the power to hold sway in decisions pertaining to water management – because this government does, but why it should do so? The question is particularly timely given the recent release of the Coalition's Terms of Reference for a White Paper on Reform of the Federation, which is due to be delivered by the end of 2015. The White Paper has a broad remit, which advances the notion of governments acting within their own sphere of authority.[565] However, there is no suggestion that the Abbott government takes this view on water specifically. In contrast, the abolition of the National Water Commission (NWC) and structural changes to the Environmental Protection and Biodiversity Conservation Act' water trigger (EPBC Act) suggests that a more devolutionary approach to water management is being adopted. A focus on the White Paper provides the context for the parallel reforms in the NWC and EPBC Act more explicitly.

To identify the likely impacts for water arising from the federal reforms the article proceeds in three sections. The first will provide a brief background to water resource management in Australia, including an overview of the key factors that have prompted change. These factors are germane to the evaluation of water law and policy and highlight an incremental role for federal government in water. The second part of the paper will critically briefly evaluate the more prominent role of the

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[562] Marsden Jacob Associates *Securing Australia's Urban Water Supplies: Opportunities and Impediments. A Discussion Paper Prepared For the Department of The Prime Minister and Cabinet* (November 2006) [paragraph 21] Australian Government – Department of the Environment http://www.environment.gov.au/resource/securing-australias-urban-water-supplies-opportunities-and-impediments (accessed 30/04/2014).

[563] See Bureau of Meteorology, *Driest year on record in parts of southern Australia* http://www.bom.gov.au/climate/drought/archive/20070104.shtml

[564] Marsden Jacob, n 2 at paragraph 6.

[565] The Prime Minister of Australia The Hon Tony Abbott MP, *White Paper on Reform of the Federation* (Saturday 28 June 2014), https://www.pm.gov.au/media/2014-06-28/white-paper-reform-federation (accessed 01/07/2014)

Commonwealth in the MDB. The final part will evaluate the White Paper reform in the context of parallel reforms to the NWC and the EPBC ACT and, more specifically, their potential impact on the management of water resources and the role of the Commonwealth.

The article will demonstrate that water history reveals an increasingly dominant role for the federal government culminated by the Water Act 2007 – a legislation that brought the MDB under Commonwealth management for the first time since federation. In contrast, the proposed White Paper on Reform of the Federation seeks to clarify which level of government is responsible for the delivery of particular services, including ensuring that the Commonwealth no longer intervene in policy areas where the states have primary responsibility. The White Paper does not have a specific focus on water. However, changes that are underway to the EPBC Act and the NWC regardless of the outcome of the White Paper suggests that parallel reforms are ultimately driven by the same idea – a limited responsibility for the Commonwealth in the water sector. Yet, in the last twenty years, water frameworks and initiatives have identified that better management of Australia's water resources is an issue of national significance that require a shared commitment by both the Commonwealth and state governments. Therefore, Australia's primary objective should be about the promotion of cooperative efforts to meet water today's challenges for the future benefit of all Australians.

WATER RESOURCES MANAGEMENT IN AUSTRALIA: a brief overview

Australia is effectively shaped by water, or the lack of it. The early settlers had great visions for this vast land and saw a country that could be transformed by irrigation and hydro engineering. [566] In contrast, Indigenous peoples at the time of British settlement had a very different approach to water management. Australian Aboriginals have a spiritual and cultural connection with various lands and waters – a connection nurtured for thousands of years.[567] Yet, early settlers forged the notion that in such an arid country, "water engineering …. is an essential act of human

[566] Cathcart M, *The Water Dreamers: The Remarkable history of our dry continent* (The text Publishing Company, Melbourne 2009) p,199.
[567] Craig D "Indigenous Property Rights to Water: Environmental Flows, Cultural Values and Tradeable Property Rights" in *Adapting Rules for Sustainable Resource Use* (Earthscan, 2007) pp 154-172 ; also see Craig D and Gachenga E "The recognition of Indigenous customary law in water resource management" (2009) 20(5/6) *Journal of Water Law* 279.

settlement and survival",[568] and hydro-engineering would bring life and prosperity to Australia.[569] Similarly, irrigation promised to increase agricultural production and promote population growth.[570] The first large-scale irrigation schemes were introduced during the 1880s, partially in response to drought.[571]

To secure water supply for agricultural use has required significant investment. [572] From the early construction of the Goulburn Weir in Victoria in the late 1880s, to irrigation development in New South Wales and Western Australia and the array of dams throughout Australia. The key objective was to drought proof the country and although there is little doubt that irrigation resulted in increased production of a range of agricultural crops, irrigated areas are dependent on a regular supply of water.[573] However, the extreme variability of Australia's rainfall has profound implications for the economics of water resource development.[574] For example, any level of development required considerably greater provision for storage than was the general experience of the settlers, who originated in the northern hemisphere.[575] Furthermore, to maintain supply security the disruption of natural river functions following the construction of storages and other infrastructures (dams and weirs) has been very significant.[576] Changes in water management have affected flow and the quantity of water resulting in dryland salinity, which is unique to the Australian landscape.[577]

The law governing water resources in Australia has evolved, although change was initially more incremental. Between European settlement in 1788 and the late 1880s, the English common law applied to access to water, with riparian rights linking to water rights and the rule of capture relating to groundwater[578] to the owners who

[568] Cathcart, n 8 at 199.
[569] Cathcart, n 8 at 178.
[570] See Blackburn G, *Pioneering irrigation in Australia to 1920,* (Australian Scholarship Publishing Ltd, 2004).
[571] Smith D, *Water in Australia Resources and Management* (Oxford University Press, Melbourne 1998) p 203.
[572] See Powell, J. M *Watering the garden state: Water land and community in Victori*a (Allen and Unwin, Sydney, 1989) ; Powell, J. M, *Plains of promise, rivers of destiny: Water management and the development of Queensland 1824-1990* (Boolarong publications, Brisbane, 1991).
[573] Smith, n 12 at 204.
[574] Musgrave W "Historical Development of Water Resources in Australia" in Lin Crase *Water Policy in Australia The Impact of Change and Uncertainty* (RFF Press, Washington DC . London 2011) p 30.
[575] Musgrave, n 18 at 30.
[576] Musgrave, n 18 at 30.
[577] Smith, n 15 at 50.
[578] Bennett M and Gardner A "Groundwater Regulation in a Drying South West", *National Centre for Groundwater Research and Training* (The University of Western Australia, 30 June 2014) p 21.

occupied land adjacent to rivers.[579] However, these principles were not well suited to Australia and the rights provided a fragile basis for the more intense competition experienced in such arid conditions.[580] In response to the need for a sound basis for the management of the precious water resources in the public interest, and the need for irrigation infrastructure, the colonies passed legislation vesting control of water to the Crown, giving the government the power to regulate access.[581] When Federation was declared in 1901, the new Australian Constitution ensured that water resources remained the responsibility of the states.[582] However, this decision was said to lay "the ground for future conflicts" between river states, particularly in the context of the River Murray located in south-eastern Australia.[583] The response to this legacy has been to legislate and develop mechanisms towards both to control and fairly distribute water in the river.[584]

A significant event at that time was the River Murray Waters Agreement negotiated in 1914 between the Commonwealth, New South Wales, South Australia and Victoria and enacted in 1915.[585] The Agreement provided for the detail of the apportioning of the Murray waters and their use between the three states and stipulated the costs sharing by the four governments associated with maintenance of water infrastructure (locks and weirs).[586] The River Murray Commission was established in 1917 to oversee the implementation of the Agreement. This agreement marked the beginning of a more collaborative approach to water governance in the region and a greater role for federal government in water resource planning.[587] Cooperation structures were needed to manage the Murray for the benefit of all stakeholders and to address the problem of state-vested interests that these arrangements were to tackle.

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[579] See Fisher D, *Water Law* (LBC Information Services, Sydney, 2000) p 3 ; Fisher D, "Water resources governance and the law" (2006) 11(1) *The Australasian Journal of Natural Resources Law and Policy* 3.
[580] Musgrave, n 18 at 30.
[581] One of the first example and generally accepted as the seminal piece of irrigation in Australia is the Irrigation Act of 1886 (Vic). Musgrave, n 24 at 31.
[582] Section 100 of the Australian Constitution provides that the new Commonwealth government may not interfere with "the reasonable use" of such waters by the states.
[583] Cathcart, n 8 at 209.
[584] The Hon Justice Peter McClellan, "Environmental Issues – How Should We resolve Disputes?" *National Environmental Law Association Canberra* (13-15 July 2006) [3] http://www.lawlink.nsw.gov.au/lawlink/lec/II_lec.nsf/vwFiles/Speech_13Jul05_McClellan.pdf/$file/Speech_13Jul05_McClellan.pdf (accessed 01/07/2014).
[585] Smith, n 15 at 163.
[586] Connell, n 7 at 95.
[587] During the 20th century various inter-jurisdictional agreements were negotiated, namely the Border Rivers Agreement (1946) and the Snowy Mountains Scheme (1958). See Kildea P and Williams G, "The Constitution and the management of water in Australia's rivers" (2010) 32 *Sydney Law Review* 595.

Over the following decades, the development of irrigation and its associated infrastructure consisted predominantly of irrigation schemes and dam constructions. Until the early 1980s, storage capacity was substantially increased, while the area of irrigable land grew.[588] However, the adverse effect on the environment of the irrigation tide coupled with the construction of large dams was not considered. Indeed, questions of biodiversity and the maintenance of environmental river flows were not yet understood.[589] Although, the adverse effects of irrigation on soil and increased water salinity were noted, these were regarded as a local problem.[590]

By the mid 1980s, water reform gathered national momentum, largely in response to concerns about over-allocation, environmental degradation, and increasing salinity across the MDB.[591] Simultaneously, the precursor to institutional change in the MDB[592] and the introduction of environmental sustainability through new water laws in each state[593] was an emerging international consensus that sustainable environment management was essential and that integrated catchment management was the best way to achieve it. While acknowledging that historically water legislation and water management institutions were predominantly state-based; policy development was also being pursued through cooperative federalism, namely CoAG, adding another layer of complexity to Australia's water resources management.

As part of a broader regulation and competition reform agenda, CoAG developed a national framework for water reform in 1994. It identified water management was as an issue of national significance that required a shared commitment by the Australian Commonwealth and states governments.[594] A significant driver of the new policy was the emphasis on microeconomic reform, which resulted in the establishment of the National Competition Policy (NCP).[595] Under the *Intergovernmental Agreement to Implement the National Competition Policy and Related Reforms*,[596] the federal and

[588] Musgrave W "Historical Development of Water Resources in Australia" in Lin Crase (ed) *Water Policy in Australia: The Impact of Change and Uncertainty* (RFF Press, 2011) p 36.
[589] Musgrave, n 32 at 38.
[590] Smith, n 15 at 164.
[591] Department of Environment and Heritage, *Integrated Resources Management in Australia* http://www.environment.gov.au/node/24407 (01/07/2014).
[592] Connell, n 7 at 113; also see Ewing S "Catchment Management Arrangements" in Stephen Dovers & Su Wild River (eds), *Managing Australia's Environment* (2003) p 395.
[593] E.g Water Act 1989 (Victoria) s 1(b); Water Act 2000 (Queensland) s 10(1); Water Management Act 2000 (New South Wales) s 3 and Natural Resources Management Act 2004 (South Australia) s 7.
[594] Evans M & Dare L "Multi-level governance and institutional layering: The case of national governance in Australia", *ANZSOG Institute for Governance.*
[595] Evans and Dare, n 38 at 11.
[596] COAG, *Agreement to Implement the National Competition Policy and Related Reforms* (11 April 1995),

state governments agreed to implement a program of economic reform within a strict timeline.

The main reform objectives were to establish an efficient and sustainable water industry and to address widespread natural resource degradation partly caused in part by unsustainable water use.[597] In return, the Commonwealth provided funding available in three tranches[598] triggered by compliance including with the strategic framework for efficient and sustainable reform of Australia's water industry.[599] CoAG agreed to endorse a number of guiding principles including a cap on water entitlements,[600] improved transparency, separation of the nexus between water rights and their land ownership. The goal was to implement a water market with tradable water entitlements, both to optimise productive output, and allocate water to the environment.[601]

Some scholars pointed out that the Commonwealth government's involvement changed significantly when water management was incorporated into the CoAG competition framework, as it formalised a further encroachment of the federal government into water affairs.[602] Indeed, Commonwealth funding contributed substantially to the initial implementation of the 1994 water reform agenda.[603] However, another author argued that although the Commonwealth government can support the adoption of new policy with financial incentives, this government still relies on the willingness of state governments to enter into and engage in a process of negotiation.[604] He elaborates

> The distinguishing feature of Australia as a federation is the constitutionally entrenched position of the States in policy areas where they enjoy concurrent formal powers with the Commonwealth.[605]

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http://ncp.ncc.gov.au/docs/Agreement%20to%20Implement%20the%20NCP%20and%20Related%20Reforms.pdf (01/07/2014).

[597] National Competition Policy, *Related reform – water* http://ncp.ncc.gov.au/pages/water

[598] COAG, n 40 at 2.

[599] COAG, n 40 at 3.

[600] The MDB cap became permanent in 1997. For more details see Connell, n 7 at 123.

[601] Council of Australian Governments' (COAG) Communiqué (25 February 1994) Attachment A http://www.coag.gov.au/coag_meeting_outcomes/1994-02-25/docs/attachment_a.cfm (01/07/2014).

[602] McKay J "The Legal Frameworks of Australian Water" in Lin Crase (ed) *Water Policy in Australia The Impact of Change and Uncertainly* (RFF Press, 2011) p 50.

[603] National Water Commission (2009) *Australian Water reform 2009: Second Biennial Assessment of Progress in Implementation of the National Water Initiative*

[604] Kay A, "Multi-level governance in Australian federalism: The open method of coordination in open economy policy-making", *Paper prepared for 1st International Conference on Public policy*, (Grenoble, 26-28 June 2013) 7.

[605] Kay, n 48 at 7.

Nonetheless, that federal and state governments formulated an intergovernmental agreement for the NCP, suggests that all parties had engaged in a process of joint decision making in order to reach a coordinated outcome – perhaps only because of the financial mechanisms from Commonwealth to the state governments.

While state governments made significant advances in progressively legislating the CoAG objectives, there was substantial work remained.[606] Complexity and a lack of coherence between jurisdictions persisted for example, in terms of compatible systems of water entitlement, appropriate environmental allocations and establishing effective water trading arrangements.[607]

It was in this context that in 2004, CoAG agreed to a renewed commitment with the National Water Initiative (NWI) to apply best practice management nationally.[608] As was previously the case under the 1994 Agreement, it made Commonwealth funding subject to states achieving water reform goals. [609] A number of significant aims of the NWI included commitments to facilitate water trading, setting aside legally protected water for the environment and returning over-allocated systems to an environmental sustainable level.[610] Taken together, these actions sought to maximise the economic, social and environmental value of water resources across Australia, and to sustain the health of rivers and ecosystems by improving environmental water.[611]

However, during that period southeastern Australia was in the grip of the longest drought since European settlement.[612] The drought had a devastating impact on the region in terms of reduced river flows and identified a lack of inter-jurisdictional planning to sustain the needs of both consumptive and environmental users of

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[606] Stoeckel K and Abrahams H "Water reform in Australia: The National Water Initiative and the role of the National Water Commission", in K Hussey and S Dovers (eds) *Managing Water for Australia The Social and Institutional Challenges* (CSRIO Publishing 2007) p 2.
[607] National Competition Policy, *Outcomes* http://ncp.ncc.gov.au/pages/outcomes.
[608] Council of Australian Governments, (COAG) Communiqué (25 June 2004) http://www.coag.gov.au/coag_meeting_outcomes/2004-06-25/index.cfm (01/07/2014).
[609] COAG "International Agreement on a National Water Initiative" (COAG 2004) http://nwc.gov.au/__data/assets/pdf_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf (01/07/2014).
[610] COAG, n 53, para 28, 35, 41 and 58.
[611] National Water Commission, *NWI Objectives* http://www.nwc.gov.au/nwi/objectives (01/07/2014).
[612] South eastern Australian Climate Initiative, *The Millennium Drought* http://www.seaci.org/publications/documents/SEACI2Reports/SEACI2_Factsheet2of4_WEB_110714.pdf (accessed 01/07/2014), 1.

water.[613] In addition the problems of water over-allocation in the MDB highlighted concerns of security of supply, even though the Commonwealth had committed A$500 million in 2006 as part of the Living Murray Initiative to improve the health of the River Murray.[614] The aim of the Living Murray Initiative was to return 500GL of water to six iconic ecological sites in the Basin,[615] under the precondition that the parties to the agreement would undertake a review of the current MDB governance structure.[616] Arguably, the money did not begin to address the need to effect institutional change in the MDB structure at the time. As such, little progress was made.

In response, then Prime Minister John Howard announced in January 2007 that the Commonwealth government would invest AU$10 billion to save the MDB.[617] The reform was unprecedented in scope given the precondition that the states would have to hand over their water management powers to the Commonwealth.[618] The reaction from each state government was mostly favorable, although the Victorian government was critical of the decision refusing to accept a full referral of powers.[619] Ongoing negotiations took place over the next few months before all parties eventually reached an agreement [620] to enable the Commonwealth to pass its own legislation.[621]

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[613] Department of Environment and Primary Industries *Northern Region Sustainable Water Strategy* http://www.depi.vic.gov.au/water/governing-water-resources/sustainable-water-strategies/northern-region-sustainable-water-strategy (01/07/2014).
[614] The implementation of the Living Murray First Step was provided through an intergovernmental agreement that was signed by the states and territory of New South Wales, Victoria, South Australia, the Australian Territory and the Commonwealth on 25 June 2004. Murray-Darling Basin Authority, *Ten years of the Living Murray program – restoring the health of the River Murray.*
[615] Ibid.
[616] Scanlon J, "A hundred years of negotiations with no end in sight: Where is the Murray Darling Basin Initiative leading us?" (2006) 23 *Environmental & Planning Law Journal* 386 and 388. For more details about the governance framework before the Water Act 2007 was introduced see Papas, n 3 at 77.
[617] The Murray –Darling Basin is the largest river catchment in the Australia spanning across four states and one territory. Theage.com "PM unveils $10 b plan for water" (25 January 2007) http://www.theage.com.au/news/national/pm-unveils-10b-plan-for-water/2007/01/25/1169594409364.html (accessed 01/07/2014).
[618] Theage.com, n 61.
[619] ABC News, "Murray-Darling plan still unacceptable, says Vic" *ABC News Online* (22 May 2007) http://www.abc.net.au/cgi-bin/common/printfriendly.pl?http://www.abc.net.au/news/newsitems/200705/s1930002.htm (accessed 01/07/2014).
[620] COAG Communiqué "Intergovernmental Agreement on Murray-Darling Basin Reform" (3 July 2008) http://www.coag.gov.au/coag_meeting_outcomes/2008-07-03/index.cfm#water.27 (accessed 01/07/2014)
[621] Water Act 2000 (Cth) see particularly ss 9, 9A.

In summary, Australia's legacy water resources management made incremental adjustments to water law and policy observed from 1915 to the 1980s, more rapid change began in the early 1990s, in response to international environmental deterioration concerns. The longest period of drought since European settlement further exacerbated the health of Australia's largest river system, despite a long history of water reform in the Basin and gave impetus to yet more change to water management in the region. This time the Commonwealth assumed more responsibilities and has adopted a seemingly renewed level of political commitment to ensuring that the riverine system is restored to good health and retains an optimum level of productivity.

It could be argued that the substance of the federal/state relationship in water has dramatically altered since federation was declared in 1901. In practice, the distribution of powers has become significantly more centralised over time, even though the Constitution itself remains largely unchanged.[622] The Commonwealth government is today increasingly engaged in water policy, which was once the sole responsibility of the states.[623] However, a more inclusive governance model needs to be maintained if cooperative federalism is to be develop, and best practice water management sustained for the future.

Given the above, the next section briefly evaluates the Commonwealth's efforts to deliver the latest reform in the MDB, and more specifically, the implications for federal/states relations.

A NEW PLANNING REGIME IN THE MDB: from entanglement to re-alignment?

The Water Act 2007 (Cth) brought the MDB under Commonwealth management in order to address a longstanding over-allocation of water that was causing ongoing and serious environmental impact over the area. [624] However, amendments to the

[622] s100 of the Australian Constitution provides that

> the Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters or rivers for conservation or irrigation

Australian Politics, *The Australian Constitution* (1901) [s100].

[623] Banks G, Fenna A and McDonald L, "Australia's federal context" *Productivity Commission* (Melbourne 19-20 December 2010) 187.

[624] Kildea and Williams, n 2, at 9.

Water Act legislation, as originally enacted in 2007, were necessary because the Commonwealth had no express legislative power to enact a law to regulate water usage.[625] Indeed, at Federation in 1901, power over water and rivers was left to the states and the Commonwealth government has not since been granted a clear constitutional mandate.[626] Consequently, the Commonwealth had to rely on a range of heads of power [627] and the referral of certain powers by the Parliaments of the Basin states Parliaments, to deliver a number of the reforms required by the *Water Amendment Act 2008*.[628]

The referral of the Basin states' powers was limited to enabling the Commonwealth to transfer the existing powers and functions of the Murray-Darling Basin Commission (MDBC) to a Commonwealth agency (renamed Murray-Darling Basin Authority (MDBA) to operate as the sole body responsible for overseeing water resources planning in the Basin.[629] More significantly, the MDBA replaced previous intergovernmental arrangements with the states, whereby decision-making processes required unanimous agreement by all basin state governments.[630] Presumably, to centralise decision-making responsibility at federal government level would both expedite the management of the MDB as a whole, and reduce the impact of vested interests of the basin states.

Hence, the Water Act marked a significant change in the institutional landscape of water governance in the MDB. In effect, the Water Act significantly rearranged planning responsibilities in the Basin by increasing the role of the Commonwealth government. However, even under these new arrangements, implementation of the Water Act still relies heavily on the states to implement state water resources plans (explained below). [631]

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[625] s 100, above n 64.
[626] Williams G, *"*When water pours into legal minefields*"* in *The Sydney Morning Herald*, (26 October 2010).
[627] Section 51 of the Australian Constitution lists the majority of those matters on which the Parliament may legislate, often referred to as the Commonwealth's heads of power. The most significant of these are the external affairs power (s51(xxix)) ; the corporations power (s51(xx)) ; the interstate trade and commerce power (s 51(i)) and the powers relating to meteorological observations (s 51(vii)). For a detailed analysis of how the constitutional basis for the Water Act 2007 and the foundation for how the Commonwealth sought to develop the Murray-Darling Basin see Donald Rothwell, "International law and the Murray-Darling Basin Plan" (2012) 29 *Environmental and Planning Law Journal* 268.
[628] *Water Amendment Act 2008* (Cth).
[629] Kildea and Williams, n 68 at 2.
[630] Papas, n 3 at 80.
[631] Amy Sennett, Emma Chastain, Sarah Farrell, Tom Gole, Jasdeep Randhawa and Chengyan Zhang, "Murray-Darling Basin Background Paper" *The Water Security Initiative* (Harvard University and the Ratcliffe Institute, 19-21 April 2012) 20.

Central to the Water Act was the requirement by the MDBA to prepare a comprehensive Murray-Darling Basin Plan.[632] The Basin Plan, which had been developed over several years, was adopted on 22 November 2012.[633] The recent passing of the Basin Plan into law provided a conclusion to a reform process, at best described as "complex, messy and, at times, irrational",[634] and yet hailed by some as "that rarest of political achievements in Australia", a permanent solution to a longstanding problem. [635] However, implementation of the Basin Plan will require changes to water management and planning both within jurisdictions and across jurisdictional borders.[636] Indeed, the Water Act and the Basin Plan do not replace state water laws nor water resources plans; they set an overarching framework based of core principles that the states must meet in the management of water resources in their state.[637]

Basin states have historically prepared their water resources management plans and many of the provisions in the Murray-Darling Basin Plan are meant to build on what was in place at the time.[638] For example, under the NWI approved by CoAG in June 2004, water resource plans are now comprehensive statutory documents,[639] except in Western Australia.[640]

More importantly, the states must now meet the requirements of the Water Act and the Basin Plan, while they continue to manage water according to their own legal

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[632] *Water Act* (2007) s 22.
[633] National Water Commission, *A step change in the Murray-Darling Basin water management* <http://www.nwc.gov.au/publications/topic/audit-reports/murraydarling-basin-plan-implementation-initial-report/chapter-1>
[634] Dominic Skinner and John Langford, "Legislating for sustainable basin management: the story of Australia's Water Act (2007)" (2013) 15 *Water Policy* 871 ; also see Maureen Papas, "Recent Reforms to Australian Water Law – 6 years on: Why has the federal Water Act been so difficult to implement?" (not yet published – a version of this article was prepared by the author for submission as part of her PhD candidacy at Macquarie University, Sydney, Australia).
[635] Quiggin J, Murray-Darling basin: this gratuitous decision to reject science is disastrous, *The Guardian* (15 December 2013) http://www.theguardian.com/commentisfree/2013/dec/16/murray-darling-basin-this-gratuitous-decision-to-reject-science-is-disastrous (01/07/2014).
[636] National Water Commission, n 77.
[637] Sennett, Chastain and Farrell, n 75 at 20.
[638] Murray-Darling Basin Authority, *Preparing Water resources Plans* <http://www.mdba.gov.au/what-we-do/water-planning/water-resource-plans/preparing-water-resource-plans>.
[639] *Intergovernmental Agreement on the National Water Initiative*, paragraphs 23 and 25 and Appendix E.
[640] National Water Commission, *Western Australia Legislative and policy context* http://www.nwc.gov.au/publications/topic/water-planning/indigenous-involvement-in-water-planning/western-australia

systems.[641] Central to the Plan are sustainable diversion limits (SDLs) set for the basin as a whole, with diversions limits also developed for groundwater.[642] These limits are to represent an environmental level of take which, if exceeded, would compromise key environmental assets, key ecosystems functions, key environmental outcomes and the production base of the water resource.[643] The level of "take" of water extractions can be readjusted on a yearly basis subject to factors such as groundwater levels and rates of recharge, storage levels and expected inflows.[644] State water resources plans have a fundamental role to ensure that SDL's are implemented when they come into effect in 2019, and beyond.[645]

To comply with the Basin Plan, each basin state is required to develop its own water resource plans for each catchment and groundwater system in the Basin.[646] Water resource plans will then be subject to accreditation for consistency with the Basin Plan by the relevant federal minister[647] over the period 2012-2019. This recognises the significant differences that exist between the states and the reality that the water management expertise required to implement basin planning resides primarily within state agencies.[648] Thus, the ability of the federal government to promote sustainability in the Basin depends on the effective and consistent application of the Basin Plan and its interactions with state and regional water plans.[649]

Yet, some authors argue that a system of strict federal government guidelines that are implemented by the basin states has the potential to be undermined by the states.[650] For example, state agencies have often been captured by powerful irrigation farming interests who have maximized the opportunities for water diversion, while states have failed to close many legal loopholes that enable greater water diversions, or enforce laws, such as the lack of regulation of "overland flows" of floodwaters out of river channels on the very wide, flat floodplains in the northern part

[641] Murray-Darling Basin Authority, *Preparing Water resources Plans* <http://www.mdba.gov.au/what-we-do/water-planning/water-resource-plans/preparing-water-resource-plans>.
[642] Murray-Darling Basin Authority, n 85.
[643] *Water Act 2007*, section 4.
[644] Connell D and Quentin Grafton R, "Water reform in the Murray-Darling Basin" (2011) 47 *Water Resources Research* 6.
[645] Murray-Darling Basin Authority, n 85.
[646] Murray-Darling Basin Authority, n 85.
[647] The MDBA has prepared a *Handbook for Practitioners – Water resource plan requirements to guide water planners during the development and assessment of their water resources plans.*
[648] Connell, n 88 at 6.
[649] Connell, n 88 at 6.
[650] Pittock J and Connell D, "Australia Demonstrates the Planet's Future: Water and Climate in the Murray-Darling Basin, (2010) 26(4) *Water Resources Development* 561.

of the Basin.[651] Pittock and Connell suggest that this is in part due to a lack of an independent enforcement mechanism, equivalent to the European Court of Justice's mandate to enforce the European Union's Water Framework Directive (EU WFD).[652]

More recently, the Australian Government has shown some level of engagement with and commitment to enforcing standards, with the introduction of the National Framework for Compliance and Enforcement Systems for Water Resource Management in 2012.[653] This creates a real prospect for much improvement in this area. The water framework for compliance aims to provide a nationally consistent approach by strengthening water compliance and enforcement within each state and territory, and improving compliance standards and enforcement strategies.[654]

In the meantime, other factors continue to undermine federal efforts to deliver effective reform in the Basin. These are worth briefly exploring given that allocation of responsibility for the management of the basin lies with federal, not state governments. Although powers have now been relegated to the MDBA, it has been suggested for example that the physical running of the rivers, including monitoring water use, managing dams and weirs, opening and closing various storages is carried out by local and state employees.[655] Moreover, even a federal agency such as the Commonwealth Environmental Water Holder (CEWH)[656] relies on local and community level knowledge to inform their decision-making.[657] Thus, it could be argued that the states are to a large extent already driving water policy in the Basin. As a result, a complete separation of the two levels of government responsibility for

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[651] Pittock and Connell, n 94 at 561.
[652] Pittock and Connell, n 94 at 561.
[653] Department of the Environment, *National Framework for Compliance and Enforcement Systems for Water Resource Management* <http://www.environment.gov.au/resource/national-framework-compliance-and-enforcement-systems-water-resource-management> ; see also Holley C and Sinclair D 'Compliance and Enforcement of Water Licenses in NSW': Limitations in Law, Policy and Institutions' (2012) 15(2) *Australasian Journal of Natural Resources Law and Policy* 149-189 ; Holley C and Sinclair D, 'Non-Urban Water Metering Policy: Water Users' Views on Metering And Metering Upgrades in NSW (2013) 16(2) *Australasian Journal of Natural Resources Law and Policy* 101-131.
[654] National Framework for Compliance and Enforcement Systems for Water Resource Management, Ibid.
[655] Sennett, Chastain and Farrell, n 75 at 21.
[656] The Australian government created the CEWH through the *Water Act* 2007 with the aim of protecting and restoring the environmental assets of the MDB. Commonwealth water holdings are the direct result of government purchases of direct buybacks of water entitlements from willing irrigators as well as saving from infrastructure upgrades. See Commonwealth Environmental Water office, *About Commonwealth Environmental Water*, http://www.environment.gov.au/topics/water/commonwealth-environmental-water-office/about-commonwealth-environmental-water (accessed 01/07/2014).
[657] Department of the Environment, *Commonwealth Environmental Water Holder Office* http://www.environment.gov.au/water/cewo/local-engagement

water would be undesirable. Instead, joint planning and strategic collaboration led by the states and supported by the Commonwealth would be preferable.

Another factor influencing the Commonwealth's capacity for Basin management is the level of community outreach and engagement. The MDBA has made renewed attempts to improve its community engagement following the release of the Guide to the Basin Plan and negative reaction over an initial lack of formal public consultation process.[658] The MDBA's process to set up SDL's was heavily criticised as a "top-down 'expert knows best' approach to resolving environmental damage" that failed to engage relevant stakeholders – irrigators, scientists and environmentalists.[659] Basin state officials expressed concern about the way the MDBA's failure to engage local experts in the hydrological modeling content of the Guide.[660] The MDBA was also accused of making "fundamental mistakes in communicating the Guide" and the strategy adopted by the MDBA failed to allow for careful and considered discussions within the Basin communities about how to achieve a healthy and prosperous Basin.[661] Instead, it provoked "despair, anger and anxiety as communities reacted to what they felt was an attack on their livelihoods".[662]

In addition, the extent to which federal government can take a completely centralised approach to the Basin is circumscribed by the reality of water politics of the area.[663] According to Connell, the interaction of state and federal governments in the Basin form focal points:

> around which contending interests arrange themselves, moving from one to the other as their members make strategic decisions about alliances and how to best promote their goals or block those of others.[664]

In practice, Connell argues

> decisions are […] the product of complex cycles of interaction in which the participants have varying degrees of influence but no single one is dominant.[665]

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[658] Skinner and Langford, n 78 at 880.
[659] *Maintaining Healthy Ecosystems: Rebalancing Water Shares*, 1 The Australian Water Project: Crisis and Opportunity Lessons of Australian Water Reform 79, (John Langford and John Briscoe eds 2011) http://www.ceda.com.au/media/154748/waterprojectdigital.pdf
[660] Of Drought and Flooding Rains: Inquiry into the Impact of the Guide to the Murray-Darling Basin Plan, *Parliament of the Commonwealth of Australia House of Representatives Standing Committee on Regional Australia* (May 2011), 59.
[661] Parliament of the Commonwealth, n 104 at 4.
[662] Parliament of the Commonwealth, n 104 at 4.
[663] Connell D, *Water Politics in the Murray-Darling Basin* (The Federation Press, Sydney, 2007) p 180.
[664] Connell, n 107 at 180.
[665] Connell, n 107 at 180.

Admittedly, Connells comments were made long before the MDBA and the Basin Plan were introduced. However, it could be argued that the decision making processes described above still persist today, which suggests that neither total centralisation nor a complete decentralisation of decision making can be achieved – Instead, a rigorous framework for collaboration is needed.

More recently, the Coalition voted with the Labor government to implement the Murray-Darling Basin Plan and has insisted that it is committed to the strategy.[666] However, a recent announcement by the Prime Minister Tony Abbott indicated a strong preference to limit the role of federal government and boost that of the states.[667] This decision suggests that more change is imminent and reignites the question about Commonwealth-state cooperation and coordination in water policy.

THE WHITE PAPER: are further changes inevitable?

The Coalition government released Terms of Reference for the Commonwealth's White Paper on the Reform of the Federation on 28 June 2014.[668] The Prime Minister, the Hon Tony Abbott MP, said that the government planned to reduce or, if appropriate, minimise federal intervention in areas where the states have primary responsibility.[669] The White Paper will be jointly coordinated by a steering committee led by top public servants from the Prime Minter's department, from state and territory first ministerial departments and the Australian Local Government Association.[670] The Paper's objective is to end the overlap and duplication of services and second-guessing between different levels of government, to achieve a more effective federation and improve national productivity.[671] In sum, the White Paper is

[666] ABC News, "Murray-Darling water allocations to be sold back to farmers after years of environmental buy-backs", (Monday 20 January 2014) http://www.abc.net.au/news/2014-01-20/murray-darling-water-licences-to-be-sold-back-to-farmers/5207632 (accessed 01/07/2014).
[667] Prime Minister of Australia, "White Paper on Reform of the Federation", (Media Release 28 June 2014) https://www.pm.gov.au/media/2014-06-28/white-paper-reform-federation (accessed 01/07/2014).
[668] Prime Minister of Australia, *Terms of Reference White paper on the Reform of the Federation,* https://www.pm.gov.au/media/2014-06-28/white-paper-reform-federation (accessed 01/07/2014).
[669] Prime Minister of Australia, n 112.
[670] The steering committee will coordinate the delivery of the documents in coordination with the government's concurrent White Paper on the Reform of Australia's Tax System (terms of reference are yet to be released)
[671] Prime Minister of Australia, n 111.

an opportunity to clarify the role of the Commonwealth and to develop reform options.

The government has indicated that the Paper will be delivered by the end of 2015, with interim issue papers and a Green Paper to be released in late 2014 and early 2015 respectively.

According to Tony Abbott's government, the White Paper will look in practical terms at the allocation of roles and responsibilities of different tiers of government, and make interaction simpler across various areas of policy. Abbott said "we need to clarify roles and responsibilities for states and territories so that they are, as far as possible, sovereign in their own sphere".[672] He also added that the federal government would continue to take a leadership role on issues of genuine national and strategic importance, although the Commonwealth should no longer intervene in areas where states have primary responsibility.[673] Rather than seeking greater national control, he argued a more functional federation should foster roles and responsibilities, with a simple question, "who is responsible for what".[674] This would clarify the distinct and mutually exclusive responsibilities of federal and state governments.

However, the Coalition government does not seem to take this view on water specifically. Indeed, water is a minimal focus of the White Paper but other parallel reforms are driving changes to the water sector regardless of the White paper. For example, proposed changes to the *Environmental Protection Biodiversity Conservation Act 1999* (EPBC Act) 'water trigger'[675] legislation and the so-called "one-stop-shop" policy have been put forward by the Prime Minister. His intention is to streamline environmental assessments in a bid to "achieve the most efficient system and greatest reduction in duplication".[676] The one-stop shop will be implemented through approval bilateral agreements under the EPBC Act with all state and territory governments, thereby delegating final approval of local projects.

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[672] Prime Minister of Australia, n 111.
[673] Prime Minister of Australia, n 111.
[674] Prime Minister of Australia, n 111.
[675] Australia's national environment law the EPBC Act 1999 was amended in June 2013 to provide that water resources are a matter of national environmental significance, in relation to coal steam gas and large coal mining development. See Department of the Environment, *Water resources – 2013 EPBC Act amendment – Water trigger* http://www.environment.gov.au/epbc/what-is-protected/water-resources
[676] Department of the Environment, *Fact sheet1: What is the One-Stop Shop?* http://www.environment.gov.au/resource/fact-sheet-1-what-one-stop-shop

As the EPBC Act now stands, the legislation allows for rigorous impacts assessments to be comprehensively assessed at the national level for proposed coal seam gas and large coal mining developments that are likely to significantly affect water resources.[677] More significantly, the water trigger has been welcomed by communities and environmentalists.[678] Greens Senator Larissa Waters praised the government's willingness to "act in the national interest to protect our precious groundwater and surface water resources from the possibility of massive damage".[679]

However, the one-stop-shop argument is proposing to remove Commonwealth involvement by accrediting state planning authorities to make decisions that would have previously required the Commonwealth to assess the impact on water resources.[680] In short, this initiative effectively ends the Commonwealth's engagement in the assessment and approval of proposals that might have a significant impact on water. Yet, arguably the decision seems to act contrary to Abbott's claim, when he previously stated that the federal government would continue to take a leadership role on issues that have a national dimension and hence being of political and policy interest to the Commonwealth.

According to one commentator, removing the water trigger in a bid to expedite approval would be 'a retrograde step'.[681] He supports his assertion pointing out that information on the interconnectivity of groundwater to surface water and how those issues relate to sustainable agricultural practices and the integrity of the MDB Plan is, at best, limited.[682] He suggests that the fully funded independent Scientific Expert Committee (IESC) was established at the federal level to promote transparent and provide a platform for scientific evaluation and risk assessment of the specific catchments potentially sensitive to groundwater impacts.[683] As a result, removing an

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[677] Windsor T "Proposed changes to environmental laws are a 'retrograde step" in *ABC Environment* (26 August 2014) http://www.abc.net.au/environment/articles/2014/08/26/4073959.htm at 2.
[678] Lock the Gate Alliance, 'Water Trigger a Step Forward on Long Road to Coal and Gas Reform' (Media Release 12 March 2013); Australian Network of Environment Defender's Offices (ANEDO), Submission No 46 to Senate Standing Committee on Environment and Communications, *Inquiry into the Environment Protection and Biodiversity Amendment Bill 2013*, 4 April 2013.
[679] Commonwealth, *Parliamentary Papers*, Senate, 14 May 2013, 2412 (Larissa Waters)
[680] Windsor, n 121 at 2.
[681] Windsor, n 121 at 1 ; for a more detailed critic of the water trigger see also Whitehead I, "Better Protection or Pure Politics? Evaluating the 'Water Trigger' Amendment to the EPBC Act", *National Environment Law Association* (August 2014) http://nela.org.au/NELA/NELR/Better_Protection_Pure_Politics_Isabelle_Whitehead.pdf
[682] Windsor, n 121 at 2.
[683] *Independent Expert Scientific Committee* (IESC), http://www.iesc.environment.gov.au/

independent assessment in a bid to expedite approval process may have long-term consequences that scientists are only just starting to fully comprehend.

Finally, he argues that given the recent reform on water governance at federal level in the MDB and that both Commonwealth and state governments have finally reached an agreement on a basin wide approach to resolving shared issues, it is "absurd" to revert to a state-based arrangement for extractive industries that are likely to impact on water resources and existing land use.[684] In light of these concerns, the Commonwealth seems to be reneging on its previous commitment and funding agreement which is likely to undermine a process that had been until now fully endorsed by the people.

Another reform that specifically affects water regardless of the White Paper relates to the decision about the future of the NWC. The NWC is an independent statutory authority[685] that provides advice to CoAG and the federal government on water issues of national importance.[686] For example, the NWC acquired an ongoing MDB audit function[687] that provides independent review on the effectiveness of the implementation of the Basin Plan.[688] As such, the goal of independent audits is to contribute to more effective management of water resources in the basin.[689]

In addition, the NWC provides independent progress reports on the outcome of the NWI, which as noted previously is an agreement signed by both federal and state governments. For example, in the last decade,[690] the Commission has published various position statements on major water issues to promote and contribute to the debate about water in the country. More significantly, by identifying emerging challenges and providing recommendations, these statements have informed public

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[684] See Maureen Papas, *Recent Reforms to Australian Water Law – 6 years on: Why has the federal Water Act been so difficult to implement* (not yet published – a version of this article was prepared by this author for submission as part of her PhD candidacy at Macquarie University, Sydney, Australia).
[685] The NWC was established through the intergovernmental agreement on the NWI in 2004 under CoAG. The Commission was given legal effect through the passage of the *National Water Commission Act 2004* by the Commonwealth Parliament.
[686] Australian Government, *National Water Commission, Role & Functions* http://www.nwc.gov.au/organisation/role
[687] s87 to 90 (Part 3) of the *Water Act 2007* describe the Commission's audit role.
[688] Australian Government, *National Water Commission: Murray-Darling Basin audit* http://www.nwc.gov.au/our-work/audit
[689] Australian Government, above n 132.
[690] Australian Government, *National Water Commission, Positions Statements* http://www.nwc.gov.au/nwi/position-statements

discussion and policy consideration.[691] This suggests that the role of the NWC is a valuable institution that plays a key role in water policy.

However, the decision by the current Coalition government to close the NWC by the end of 2014 has raised serious concerns across various organisations in the community.[692] The decision was prompted by the government, which announced in the 2014-15 budget that it would achieve savings of A$29.9 million over four years by abolishing the NWC in December 2014, and transferring its statutory functions to other government agencies.[693] On 24 November 2014, the Senate Environment and Communications Legislation Committee tabled its report on the NWC (Abolition) Bill 2014 recommending that the Bill be passed,[694] although critics of the abolition plan submitted to a Senate inquiry that proved overwhelmingly in support of retaining the commission.[695]

Adam Lovell,[696] executive director of Water Services Association of Australia (WSAA), opposed the bill on the grounds that

> it removes national water leadership and the fearless advice and independent custodianship of the National Water Initiative that the commission has been able to provide.

Whereas, South Australia's Liberal Senator Simon Birmingham maintains that the purpose of the commission had been fulfilled and its roles would be taken to the Productivity Commission, saving the budget A$29.9 million over four years.[697] In contrast, Stuart Kahn, an Associate Professor at the School of Civil Environmental Engineering at the University of NSW, points out that, Simon Birmingham's assertion that the 'purpose of the NWC has been fulfilled is akin to suggesting that 'water management in Australia is fixed and there's nothing more to do'.[698] Admittedly,

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[691] Australian Government, above n 134.
[692] Australian Government, *National Water Commission, Closure in 2014* http://www.nwc.gov.au/organisation/closure-in-2014
[693] Australian Government, *Budget Paper No 2: Expense Measures* http://www.budget.gov.au/2014-15/content/bp2/html/bp2_expense-11.htm, 109.
[694] NWC, above n 133.
[695] Peter Hannam, "Abbott government plans to scrap the National Water Commission as drought looms" (The Sydney Morning Herald, November 24, 2014).
[696] The Senate, *Environment and Communications Legislation Committee, National Water Commission (Abolition) Bill 2014* http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/NWC/~/media/Committees/ec_ctte/water_commission/report.pdf, 13.
[697] Hannam, above n 136.
[698] Parliament of Australia, *Submissions received by the Committee* http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/NWC/Submissions, see submission 2.

given the critical problems with water in the country, Birmingham's assertion seems unwarranted.

The Senate is expected to vote on the abolition of the independent commission in early December.[699]

Taken together the reforms to the NWC and the EPBC Act seem driven by the need to reduce red tape and promote savings across the water sector. However, their main goal is essentially to reduce Commonwealth's involvement and funding responsibilities, which raise an important question as to whether reform decisions whereby limiting the role of the federal government and boosting that of the states can undermine effective governance. In this respect the White Paper might be timely indeed, although the notion that the Australian federation is in need of reform has been a recurrent theme for some time.

Back in 2007, the then Labor Prime Minister Kevin Rudd came to power promising federal reform and that he would end blame shifting among government levels, with a commitment to the reform of Commonwealth-states relations.[700] He called this approach 'cooperative federalism' and launched it against the backdrop of the Howard's government centralist tendencies, claiming that it would bring 'lasting reform to the nation …[and] a progressive policy agenda that is likely to endure'.[701] CoAG was to be the 'workhorse of the nation',[702] driven by chief ministers and responsible for implementing Rudd's reforms and promoting cooperation in areas of shared responsibility.[703] While Rudd's government had some initial success, little was achieved under Julia Gillard's government. One author argues that Gilliard's approach to federalism provided 'something of a counterpoint to that of her predecessor both in terms rhetoric and action'.[704]

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[699] Hannam, above n 136.
[700] Galligan B "Processes for Reforming Australian federalism" (2008) 31(2) *UNSW Law Journal* 617.
[701] Kevin Rudd, 'The Case for Cooperative Federalism" (Speech delivered at the Don Dunstan Foundation – Queensland Chapter, 15 July 2005) http://www.dunstan.org.au/resources/lectures.html
[702] Kevin Rudd, 'Transcript of Joint Press Conference with Premiers and Chief Ministers')Joint Press Conference, 20 December 2007) http://pmrudd.archive.dpmc.gov.au/node/600
[703] These relate to a number of sectors, including housing, business regulation and competition and climate change and water.
[704] Mary-Ann McQuestin, "Federalism under the Rudd and Gilliard government" in Paul Kildea, Andrew Lynch and George Williams (eds) *Tomorrow's Federation: Reforming Australian Government* (The Federation Press, 2Sydney, 2012) p 20. Julia Gillard became Prime Minister after the Australian Labor party leadership spill on 24 June 2010. Kevin Rudd, the then Prime Minister of Australia, was challenged by Julia Gillard, the Deputy Prime Minister of Australia, for the leadership of the Australian Labor Party. Gillard won the election unopposed.

In the meantime, discussion about the federation has also featured in the recent National Commission of Audit report released on 1 May 2014.[705] In the report, the Commission stated that

> …the current operation of the federation poses a fundamental challenge to the delivery of good, responsible government in Australia.[706]

The central theme of the report highlighted that the Commonwealth has a narrow range of responsibilities (essentially those expressly defined in section 51[707] of the Constitution) and that the states have all residual powers, therefore they are responsible for most service delivery in various policy areas.[708] Nonetheless, funding capacity is a key driver and the states cannot fulfill their responsibilities without the revenue base required to properly discharge them.[709] To that effect, the Commission has urged that a transfer of responsibility to the states should be accompanied by a shift in taxing power, to enable the states to raise their own income tax revenue.[710]

The White Paper is the most recent measure put forward to address the reshaping of the federation. The National Commission for Audit argues that governments should be ambitious in their aspiration to reform and improve the Australian federation.[711] However, some scholars point out that the Coalition's concern about duplication and clarifying who is responsible for what seems to ignore cooperative arrangements that have been successful to ensuring a collaborative approach and tackling major policy issues.[712] For example, intergovernmental agreements for water resources management have defined the respective roles, and responsibilities of the

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[705] National Commission of Audit, *Towards Responsible Government,* http://www.ncoa.gov.au/report/appendix-vol-1/index.html (accessed 01/07/2014).
[706] National Commission of Audit, *Executive Summary* http://www.ncoa.gov.au/report/phase-one/executive-summary.html (accessed 01/07/2014).
[707] Legislative Powers of the Commonwealth Parliament for river management are limited by s100 of the Australian Constitution, unless requirements under either s51(xxix) or s51(xxxvii) are met.

> s51: The Parliament shall, subject to this Constitution, have power to male laws for the peace order, and good government of the Commonwealth with respect to
> (xxxix) External affairs
> (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of nay State or States, but so that the law shall extend only to States by Whose Parliaments the matter is referred, or which afterwards adopt the law.

[708] National Commission of Audit, *Recommendations,* http://www.ncoa.gov.au/report/phase-one/recommendations.html (accessed 01/07/2014).
[709] For more details see Fenna, A, "Commonwealth fiscal power and Australian federalism" (2008) 31(2) *University of New South Wales Law Journal* 509.
[710] National Commission of Audit, n 138.
[711] Fowler, R "Reflection on the Role of the Commonwealth*"* (2014) Mahla Pearlman AO Oration, Law School, University of South Australia 5.
[712] Fowler, n 140 at 5.

Commonwealth and the states for decades in this policy area. This approach has been evident in a range of essentially political, rather than legal arrangements[713] brokered by CoAG to negotiate water reforms that require cooperation between Australian governments.

In some respect, it could be argued that the roles and responsibilities of both federal (for funding) and state (for service delivery) governments coexist simultaneously to fulfill different functions. This suggests that collaboration is both necessary and preferable if the federal system is to function properly, which essentially points to cooperative federalism. Furthermore and as one author asserts 'the States as well as the Commonwealth make up the federal system, and have an equal stake in its proper functioning and an intimate knowledge of its day to day operations'.[714] As such, the White Paper is a unique opportunity to reflect on the major benefits of federalism for the benefits of all Australians.

Still, the proposed alteration of the EPBC Act' water trigger and pending decision on the abolition of the NWC are a concern. The concerns arise due to the impact these reforms are likely to have on future directions to sustainably manage water resources in Australia. As noted previously, the alterations to the EPBC Act will remove a rigorous impacts assessment process on proposed coal seam gas and large coal mining developments for water resources. Whereas the closure of the NWC will abolish the role of an independent and transparent monitoring and assessment process for the management of Australia's water resources, including one of our most prominent river system – the MDB. Yet, in a drought-prone continent like Australia a national approach to water management should be abundantly apparent and called for.

CONCLUSION

The Australian federation is undergoing a review process. The recently released Terms of Reference for the White Paper on the Reform of the Federation is proposing to explore ways to reduce overlap, end duplication and clarify the roles

[713] Fowler, n 140 at 7.
[714] Goldsworthy J, "A role for the States in Initiating Referendums" (Paper presented at the Eight Conference of the Samuel Griffith Society, Canberra, 7-9 March 1997), p 35 ; see also Twomey A and Withers G, "Australia's Federal Future: Delivering Growth and Prosperity" *A Report to the Council for the Australian Federation* (2007).

and responsibilities of each level of governments. While pressure to reform the way the federal system operates is not new, the Coalition government seems determined to tackle policies across a range of areas. It remains though that water is a minimal focus of the White Paper. Yet, reforms to the EPBC Act reform and the NWC are closely interconnected, since much of the debate concerning the role of the Commonwealth in water matters is occurring more explicitly in the context of its involvement in both the EBPC Act and the abolition of the NWC. The proposed changes to the Act and the Commission are effectively reducing the role of the Commonwealth responsibility in the assessment and approvals of major works and water reform progress.

However, the federal government cannot renege its funding responsibilities in a bid to reduce duplication and expedite decision making that are of national importance. The roles and responsibilities of both the Commonwealth and states in the water sector should be complementary and carefully managed to avoid unnecessary duplication and waste. This is particularly so in for the MDB framework – a Commonwealth reform for national uniformity – where long-term commitment needs to be upheld.

PART V CONCLUSION

1. Context of the Study

This study commenced its journey by exploring the way in which the federal government's went about taking a more proactive role in water issues, and the likely impacts of federal influence and control on the future direction of Australia's water resource management. The question was prompted by recent changes to the management of water resources in the Murray-Darling Basin (MDB) and major policy and law issues in which the Commonwealth is now more actively involved. To answer this question, this study first explored the growing problem of water scarcity more generally and the challenges to the effective management of shared water resources at national level. The study identified a range of factors that contribute to water scarcity, including the impact of population growth, urbanisation, over-allocation of rivers and environmental threats such as climate change. This thesis further acknowledged that to combat these factors, legal frameworks and policy mechanisms have been developed at both international and national levels to try to secure sustainable freshwater resources worldwide.

While the management of the world's water resources takes place primarily at national level, a large number of global water initiatives, spearheaded by the 1977 Mar Del Plata conference, followed by the 1992 Dublin Principles, Chapter 18 of Agenda 21 and the ongoing World Water Forums convened by the World Water Council have contributed to raising government and public awareness about water scarcity and the parameters of the problem at the global level. As a result, the study argued that water policy issues and key water drivers related to international developments have become important guiding principles to water resources management across nations (chapter 1). In addition, it was asserted that water governance could be best characterised as multi level governance (MLG) – a theoretical paradigm being considered in the different chapters (but see particularly chapter 4) – whereby decisions about how water should be governed involved a wide variety of water actors from global, through to supranational, national and local levels.

This study further acknowledged that transboundary river basin water management presented an even more complex set of challenges within which water governance needs to function at the national (chapter 3) and regional (chapter 5) levels. Problems of water scarcity and allocation of resources are further exacerbated when water is shared across internal political boundaries. The problems arise from the complexity of achieving cooperation needed between states and other political entities and accompanying institutional limitations.

2. Trends across chapters

This thesis systematically addresses the central research question – the merits of a more proactive federal role in water resources management – throughout the chapters, in the context of the interface between international and national governance and the interface between national and state levels.

For example, the role of the 1997 UN Watercourses Convention, as a global framework convention governing transboundary watercourses, provides important principles of cooperation and equitable management of international rivers. More significantly, these standards could be applied in state law and through Intergovernmental Agreements. As such, the study (chapter 1) suggested that although Australia shares no borders with other countries but does have multiple jurisdictional issues, Australia could potentially look to these standards in its decision-making over shared water resources within its federal structure.

The fact that the Convention has now entered into force attests to the willingness of governments to accept these standards and that there is a clear consensus that transboundary waters (international and arguably domestically shared (chapter 1)) should be managed on the basis of cooperation and equality between all riparians in the use of shared watercourses. To that effect, the role of the federal government in water management should be viewed in terms of continual support to guide the states' water resource management and encourage cooperation. The concept of a joint implementation mechanism was put forward to promote informed decision making and wide consultation across relevant stakeholders. This concept was particularly salient given the level of criticism around the introduction of the Commonwealth Water Act 2007 (discussed in chapter 4).

The study turned briefly to the role of the UN General Assembly Resolution on the Law of Transboundary Aquifers as an international instrument that provides a framework for bilateral and regional aquifer management. It was argued (chapter 2) that the important principles established in the UN resolution can always be applied in federal contexts that have multiple jurisdictions management issues. Groundwater constitutes the only reliable and vital resource of freshwater in an arid and a semi-arid landscape such as Australia. In addition, the domestic legal regime regulating the Great Artesian Basin (GAB) operates under a cooperative federalism model that involves both federal and GAB state governments. The federal government has a pivotal role to play in relation to funding.

The study then looked to the analysis of the Australian domestic legal and policy regime regulating water resources in the MDB and the challenges to the effective management of a shared river basin (chapter 3). The focus of the paper was to briefly examine the gradual involvement of the federal government in water affairs, despite the unchanged framework of the national written constitution. The role of the federal government was found to be incremental, yet pivotal to achieving early water development projects. In addition, since the early 1990s, drivers of water reform have been a matter of national significance. CoAG, comprising the executives of federal and state governments, has been central to initiating and developing policy reforms that require cooperative action between both levels of Australian government.

In addition, the challenge of managing Australia's water resources has given rise to a number of intergovernmental agreements and institutions, including the 1994 CoAG Water Reform Framework and the National Water Initiative in 2004 – the national blueprint for water reform. As a result, the role of the Commonwealth in water affairs has clearly been able to expand and the High Court has been instrumental in this pursuit (chapter 3). However, while the legislation enacted by the Commonwealth – the Water Act 2007 – attests to the level of engagement by the federal government, the implications of the recent water reform have been far reaching. It was found that unilateral intervention by the Commonwealth, unless managed correctly, does not yield favorable outcomes nor does it promote best practice water management. Instead, it enlivens power struggles and a lack of cooperative federalism across stakeholders.

It is in this context that the MLG concept was used to understand multilevel policy coordination and how it can help understand and create new insights into the

changing trends in intergovernmental relations and policy-making structures for water resource management in Australia. The concept proved a worthy contribution to the understanding of another concept, namely pragmatic federalism in Australia. Pragmatic federalism refers to the ability of the federation to be continually reshaped by political dynamics to meet the policy demands of the day. The development of CoAG into a permanent and standing body for systematic organisation of intergovernmental relations serves as a reminder of the need for multilevel collaborative potential in the Australian federation and more explicitly pragmatic federalism more implicitly.

Indeed, the Australian Constitution establishes no formal mechanism through which Commonwealth and state interaction might be facilitated. The Constitution instead establishes a federal system that is concurrent, rather than coordinated, with the Commonwealth and the states holding a large number of powers and responsibilities in the federation concurrently. As such, although the federal government now holds sway in decisions pertaining to water resources management in the MDB, in conjunction with the Basin states, cooperation between levels of governments and stakeholders remains crucial to yield change. It also reflects on the broader potential implications of MLG theory for insight to Australian federalism.

MLG theory provided the backdrop to explain cooperation in the context of another multilevel governance system, namely the European Union (chapter 5). More significantly, chapter 5 drew linkages between European institutions that have been established to develop relations with the governments of member states (European Commission as executor of EU laws and the Common Independent Strategy (CIS) as an information exchange to help member states) in order to ensure the effective implementation of EU law and policies under the Water Framework Directive (WFD). The study argued that the very dynamic and direct relationship that exists between the EU and member state governments could provide some insight into how state and federal governments in a federal context could interact, both in terms of informal as well as formal arrangements between levels of government. At the core of the inquiry, it was shown that MLG was used alongside command and control (the WFD sets out clear mandates enforced against member states by the European Commission) as a preferred process of coming to binding decisions within the framework of the WFD.

Much like the situation in the EU, the study showed that there is much overlap of responsibility between the Australian federal and states governments in the water sector. The federal government provides extensive financial support and implementation is left to the expertise and experience of states governments responsible for service delivery. As such, genuine cooperation – to bear a sense of national purpose – between levels of government, as achieved through cooperative structures like those evidenced in the EU and the recognition of the enforcement powers of the EU over states remains crucial to implementing reforms effectively and equitably.

This concluding section briefly outlines what were the main findings throughout the chapters in the context of the research question. The next section outlines overarching lessons that are drawn from international, national and comparative levels and recommendations and their aim. The section also identifies issues for future research and policy development as a way forward for the Australian federal government's role in water resources management.

3. Overarching lessons and recommendations

The overarching lessons will be identified by key themes and each theme followed by a number of recommendations.

The overarching lessons of the research can be grouped into four key themes that relate to the implications of federal influence and control on the future direction of Australia's water resource management. These themes are: the federal government should maintain a genuine level of involvement in water governance; the federal government should maintain structures of policy cooperation that are of national dimension; the federal government should rethink its preference for limiting the role of the Commonwealth and boosting that of the states; and the role of the federal government should be based on sound international standards.

The first theme relates to a key lesson running throughout the chapters that federal government needs to maintain a strong role in water governance. However, the focus needs to be <u>how</u> federal government can best contribute, rather than what the federal government thinks its role ought to be (which is to some extent a political assertion). When the focus is on the former, it becomes clear that the role of the

federal government should be viewed more in terms of a continuing accretion of federal functions that facilitate and guide the states in their management of water resources, rather than a role that undermines their legal and policy arrangements.

Admittedly, a top down reform approach orchestrated by the federal government following the introduction of the Water Act 2007 exacerbated the ability to affect meaningful change (chapter 4) when MLG and its advantages for multi-level policy coordination was undermined. A change of government under then Prime Minister Rudd called for a more balanced approach and re-established some level of cooperation between federal and state governments. Furthermore, Rudd's government found the means by which water reforms could be implemented. Rudd's government promoted some level of cooperation for effective arrangements in the MDB when a Memorandum of Understanding on Murray-Darling Basin Reform was introduced in 2008. In short, the then government recognised the need to work across state interests to reconcile good governance in the MDB system. Greater advances were made when an approach more closely aligned to MLG was followed.

The second theme relates to the need to maintain structures of policy coordination. The chapter relating to the EU and Australia comparison (chapter 5) provided some insight into how EU institutions and the role of the independent Common Implementation Strategy (CIS) are central to maintaining ongoing dialogue between levels of governments and stakeholders throughout Europe. The level of engagement of both the Commission and the CIS is noteworthy given that the Commission recently released the 'Blueprint to Safeguard Europe's Water Resources' and the CIS is committed to supporting member states through to its implementation. In contrast, recent reforms by Australia's Coalition government to abolish the Standing Council on Environment and Water, close the National Water Commission by the end of 2014 and make amendments to the Environmental Protection and Biodiversity Conservation Act's (EPBC Act) water trigger legislation (chapter 6) suggest that future monitoring and leadership on water management in Australia will be jeopardised.

The abolition of the Standing Council on Environment and Water, the forthcoming closure of the National Water Commission and proposed changes to the EPBC Act form part of a pledge to reduce the red and green tape burden imposed on the Australian economy and the so-called 'one-stop-shop' policy put forward by the current Prime Minister. In other words, the current Coalition government is proposing

to streamline its involvement. These changes effectively end some level of Commonwealth engagement in water and environmental management and protection. This suggests that the weakening of one level of government will undermine water governance as a whole and consequently the future directions of Australia's water resource management.

In light of these lessons, Australia should consider the following recommendations. These recommendations, both individually and collectively aim to maintain cooperative structures and to avert a fragmented national leadership approach to water governance.

First, the removal of the Standing Council on Environment and Water from CoAG's Council system should be reconsidered. Abolishing this Council undermines the value of CoAG as the peak political forum in Australia. As it now stands, CoAG's Council system represents eight distinct areas, including Law, Crime and Community Safety and Industry and Skills. However, the environment and water are no longer represented within the CoAG forum. Yet, given the scale of the environmental and water challenges needing to be tackled in this country, it is difficult to understand the rationale for the removal of CoAG's Council on Environment and Water. Both the environment and water protection and conservation directly affect the well being of every Australian. As such, this Council should remain a core priority for CoAG's priorities.

Secondly, the role of the NWC should continue to be supported and funded by the Commonwealth government, particularly given that the Commission has been unique in Australian water governance in its capacity to deliver a national interest perspective, to provide independent and expert advice on national water issues to CoAG and the Australian government. In addition, the Commission has a specific function which is to assess progress by all governments in achieving the objectives and outcomes of the National Water Initiative (NWI) – Australia's Blueprint for water reform. Furthermore, the Commission has an ongoing audit function to report on the implementation of the Murray-Darling Basin Plan. The Plan will be rolled out over seven years, which suggests that there is still much work to be done to ensure transparency and to promote effective water resource management across the basin.

It has been suggested that audit function will still be conducted, although auditing will be transferred to the Department of the Environment. Yet, on November 24, 2014 the

Senate referred to the National Water Commission (Abolition) Bill 2014 to the Senate Environment and Communications Legislation Committee for inquiry, to consider the impact of the Bill on the continuation of robust and independent monitoring and assessment of matters of national water reform and the management of Australia's water resources. Critics of the abolition plan submitted to a Senate inquiry proved overwhelmingly in support of retaining the National Water Commission. This suggests that the Commission is regarded as vital to maintaining national leadership of Australia's most valuable natural resource.

Thirdly, the EPBC Act water trigger legislation should not be removed. Removing the water trigger will have far reaching consequences and will undermine effective environmental and water protection. Indeed, the EPBC Act currently allows for impacts of proposed coal seam gas and large coal mining developments on water resources to be rigorously assessed at the national level. However, removing the water trigger suggests that environmental approvals will be accredited by state planning authorities, which will make decisions on state-based arrangements rather than by an independent institution able to deliver an objective process. An independent national approach is crucial to maintaining both a genuine level of scrutiny and a comprehensive impact assessment of the specific landscapes where water resources could be impacted.

The third theme relates to the notion of a strong preference to limit the role of the Commonwealth and boost that of the states. Indeed, the current Coalition seems committed to taking a significant step away from the long-standing engagement with cooperative federalism in favour of a renewed stance that supports the concept of state sovereignty. The motivation for this change of course is driven by the arguments about excessive duplication of functions on the part of the Commonwealth. However, the Australian federal system of government should aspire to developing a working relationship between federal partners to yield the best possible results for all Australians – co-operative federalism attests to these aspirations. As such, the federal government has a role to play – and must have a role in water decisions that are of national importance.

The fourth and last theme relates to the role of the federal government in terms of sound international standards. The recent development with the entry into force of the UN Watercourses Convention could provide the impetus necessary to influence decision-making in Australia. Australia's commitment to environmental protection

evidenced in Australia's participation in a broad range of multilateral environmental agreements[715], provides the opportunity to consolidate its approach to transboundary (domestically shared) water cooperation.

After all, both the Water Act 2007 and the MDB Plan relied to some extent upon Australia's international legal agreements mentioned above to provide not only a constitutional basis for the legislation but also a foundation for how the Commonwealth sought to develop the MDB Plan (chapters 3 and 4). Admittedly international treaties and principles were an important part of the decision mix to the needs of the Australian context.

Similarly, the UN Watercourse Convention as an overarching international framework instrument offers a range of rules and processes that are capable of domestic application in state law and through Intergovernmental Agreements. As such, Australia could incorporate some of the provisions and principles included in the water treaty in its existing and future approach to transboundary water management. The concept relating to the general duty to cooperate (Article 8) would assist in building effective governance, whereas ratifying and implementing the UN Watercourses Convention in Australia would trigger much needed negotiations between state governments and federal and state governments. As such, the water treaty may have an impact on domestic Australian law prior to implementation.

Finally, transparency in government decision-making process must be upheld. The benefits of transparency can positively affect public perceptions of political decisions and decision makers. As such, neither complete control nor complete disengagement should be achieved between levels of government should occur. A balance between both federal and state governments should be maintained in order to deliver policies that are of national interest.

4. Future directions

The conclusions of this study point to future research that will need to be addressed in light of pending changes. For example, the pending release of the White Paper at the end of 2015 and the reforms to the National Water Commission and EPBC Act

[715] Ibid, above n 17.

water trigger legislation suggest that more change could be imminent. Changes relate to the underlying debate about reducing the size and responsibilities of the federal government, and the prospect of undermining stable and predictable structures of policy coordination and cooperation needed to achieve good water governance.

Future research will need to take the following areas into consideration:

- The scope and the degree of power-sharing in the water sector between federal and state governments, namely 'who is responsible for what' will need to be clarified to ensure that national and state institutions are mutually supported
- Assumptions underpinning MLG as a theoretical paradigm will need to be re-evaluated pending the Coalition's prospective White Paper on reforming the Australian federation and parallel reforms
- Progress with ongoing implementation of the WFD RBMPs in the EU will need to be re-evaluated. The role of the European Commission in particular and the CIS subsequently are key to promoting the objectives of the WFD and enhancing policy responses to achieve effective action on water. Practical implementation of the WFD might provide further insights into improving decision-making processes in Australia.

5. Conclusion

This thesis examined a number of interrelated issues the influence of international water initiatives at the national level, the role of MLG in understanding the interactions between levels of governments and the capacity for, and limitations to, policy dynamism in the Australian federation. The challenge of cross-jurisdictional basin management was also explored in a comparative context between the EU and Australia. In addition, the recent decision by the Coalition government for a strong preference to limit the role of the federal government and boost that of the states was also explored in light of implications for the relationship between federal and state governments.

Relating to the above, it is clear that the diversity of actors and stakeholders that make decisions in the water sector in societies today requires careful balancing of

competing interests. In Australia, the formal dividing line between federal and state responsibility for functions relating to water resource management has been altered. Indeed, the Commonwealth government is today more engaged in water policy, an area that was once the sole responsibility of the states.

In recent decades, water challenges have prompted a national approach. This suggests that federal and state governments have entered into agreements (intergovernmental agreements) that, while allowing the states to manage water resources within their jurisdiction, at the same time limit their freedom to act alone. Similarly, the federal government is a party to these agreements and upholds responsibilities. In short, the role of federal and state governments has become so interdependent that weakening one level becomes impossible, short of undermining overall governance. As such, a governance model whereby both levels of government are genuinely involved needs to be maintained to promote good water governance.

MLG provides the framework necessary to understand the need for a balanced approach to shared problem solving. More significantly, MLG has the advantage of shaping the quality of interactions between levels of government to exploit the potential for innovation, or pragmatic federalism. MLG does not discount the need for binding legislation or command and control but recognises the need for a soft option such as a non-binding mechanism for policy coordination appropriate to a contemporary governance challenge such as water management.

The problem of multiple jurisdictions basin management is a complex issue and an enduring problem. This study has provided an avenue to resolve these issues through its recommendations above. In that respect, the problems and challenges identified from the Australia case study may be of concern and relevance to other federations facing similar challenges.

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