

Book Review

Garrick, Dustin Evan. 2015. *Water Allocation in Rivers under Pressure: Water Trading, Transaction Costs and Transboundary Governance in the Western US and Australia*. Cheltenham, UK: Edward Elgar.

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Firmly grounded in common-pool resource theory and related developments in transaction cost economics, Dustin Garrick's new book *Water Allocation in Rivers under Pressure* raises to a new level the conceptual sophistication and empirical rigour that this research tradition has become well known for. His goal in the book "is to make transaction costs visible, and examine the relationship between transaction costs and institutional change in water allocation reform". This goal is pursued through comparative institutional analysis of market-based policy reforms in three regions – two in the USA (Colorado and Columbia River Basins) and one in Australia (Murray-Darling Basin) – intended to redress environmental problems arising from over-allocation of water to extractive uses.

The book develops, and applies empirically to the three case-study regions, a framework for institutional-economic analysis that is well-fitted to the uncertainties inherent in reallocating waters from consumptive to in-stream uses. Integrating key insights from Elinor Ostrom, Douglass North and Oliver Williamson, this framework remedies the failure of the conventional economic approach to account for how path dependence affects institutional adaptability and thereby the transaction costs of reforming water allocation arrangements. It also dispenses with the naïve assumption that institutional change occurs only when there are net societal benefits from doing so. Garrick's framework recognises the normally strong roles of politics, vested interests and rent-seeking in institutional change and assumes more realistically that institutions change when a winning coalition of interests perceives that it will gain from this. Consistent with the complex systems methodology underpinning his framework, Garrick employs adaptive efficiency as his criterion for evaluating institutional change.

This metric “refers to trajectories of economic performance in the face of pervasive uncertainties, systematic risks and shocks, feedbacks, and trade-offs across multiple scales” (p. 224).

The author’s careful comparative analysis of the three case studies yields fascinating insights for policy makers and commons scholars alike, regarding the way in which the historical context of a common-pool resource system continues to constrain possibilities for scaling-up market-based approaches for its conservation, and how policy entrepreneurs can nevertheless sometimes slip these constraints when windows of opportunity briefly open. The analysis also highlights the potential for policy entrepreneurs to explore the potential for path dependencies to constrain future institutional adaptability when considering different policy alternatives. In the Murray-Darling case, for instance, the author writes about Alfred Deakin, who later became Australia’s second Prime Minister. In the 1880s Deakin observed how privatisation and fragmentation of water rights in the western US had led to powerful vested interests with the capacity for making water reallocation initiatives very costly. As a result, in his state of Victoria he pushed (successfully) for a statutory system of water rights, which came to be imitated nation-wide due to the anticipated advantages of this system in standing up to vested interests when the public interest requires reallocating water from existing uses. Although vested interests ultimately made reallocation of water to the environment in the Murray-Darling a costly exercise, Deakin’s foresight limited the strength of these interests to a level where considerably greater reallocation has been affordable than in the two western-US river basins studied.

The case study analyses also highlight the folly of viewing transaction costs universally as a drag on economic performance and as something always to be minimised. Garrick demonstrates that while reducing the transaction costs of water market trades is often desirable, large ongoing investments in the transaction costs of multi-level governance capacity are typically required to achieve and sustain these cost reductions given unpredictable shifts in market conditions. He observes incisively how “embracing complexity means embracing transaction costs. It means distinguishing between different types of transaction costs and separating the necessary ones from the costs of the rent-seeking behaviour of vested interests ...” (p. 229).

The book is instructive in identifying ways to enable more complete realisation of the potential for water markets to restore degraded riverine environments, and it offers general lessons for policy makers to learn from immediately, such as the need to invest in the institutional capacity required for market adaptations to changing conditions. The book is careful to point out, however, that path dependence means policy makers need to avoid a one-size-fits-all mentality when developing this institutional capacity. Different cases can offer important lessons, but what worked in one case might not work in another, and what failed in one case might succeed elsewhere. As Garrick demonstrates persuasively, useful lessons from different cases can be gleaned only through careful comparative institutional analysis. His book serves as an exemplar for such analysis, providing a

ground-breaking conceptual framework for other researchers to follow, and role-modelling its empirical application through the three case studies presented. More generally, I commend this book highly to researchers, scholars and higher degree students concerned with the real-world dynamics of institutional change in all kinds of common-pool resource settings.