

Modes of Governance - Ideal Types

	Hierarchy	Market	Network	Reverse Hierarchy
Theorized Direction of Authority	Top-Down	Circular (Supply and Demand)	Horizontal	Bottom-Up
Initiating Actors	Federal Government - Provincial Government	Private Firms - Industry Associations - Private Citizens	Collective Networks - Boundary Organizations	Citizens - Community Groups - Local Government
Dominant Policy Instruments	Regulatory Instruments (Legislation, Regulations, Mandates)	Market Supply/Demand - Government Market Intervention (Taxes, Credits, Subsidies, Fines)	Persuasive Instruments (Self-Regulation, Internal Accreditation, Codes of Practice, Voluntary Agreements)	Locally Developed Policy (funded from 'above') - Public Participation and Awareness Campaigns
Implementing Actors	Regional Authorities - Local Government	Government via Reflexive Market Intervention and Regulation - Private Actors via Market Actions	Government, Private Sector and Non-Governmental - Coordination through Negotiation	Community Groups, Local Governments

Climate Impact Example	Hierarchy	Market	Network	Reverse Hierarchy
Urban Extreme Rainfall	Mandated Storm Sewer Capacity - Mandated Public Transit Contingencies - Directed Land Use Planning	Supply/Demand for Homes with Backwater Valves - Surface Permeability Taxation	Urban Flooding Best Practices - Voluntary Storm Ready Accreditation	Neighbourhood Awareness Campaigns - Municipal Land-Use Planning - Federal/Provincial Funding for Local Infrastructure

Sectoral Example	Hierarchy	Market	Network	Reverse Hierarchy
Agriculture	Federal and Provincial Mandating of Resilience Measures to be Taken by Industry (multi crop, water storage)	Free Market or Government Intervention to Create Financial Incentive for Suppliers and Consumers to Prioritize Climate Resilient Crops (taxes, Subsidies, etc....)	Public-Private Partnerships Develop Voluntary Programs and Options for Industry/Government (multi crop, water storage)	Local Producers and Local Government Develop Programs to Ensure Food Security, Federal/Provincial Governments Provide Resources

DANNY BEDNAR
PhD Candidate
Department of
Geography
Western University

APPLYING A TYPOLOGY OF GOVERNANCE TO CLIMATE CHANGE ADAPTATION

A Typology of Governance Modes for Climate Change Adaptation

Danny Bednar, PhD Candidate & Lecturer, Department of Geography, Western University, London Ontario, Canada.

dbednar@uwo.ca

Abstract: Over the past two decades, climate change adaptation has evolved into a problem of governance; conversely, it can be said that problems of governance emerged from climate change adaptation efforts (Adger, 2001; Adger et al., 2005; Urwin & Jordin, 2008; Amundsen et al., 2010; Henstra, 2015). This paper briefly identifies how factors such as the multi-level and multi-sector nature of climate impacts, as well as ill-defined metrics of success, and adaptation's novelty, created complex questions of governance that traditional, state-centric, policy making and analysis failed to decipher. Drawing on the rich history of public governance literature by authors such as Thompson et al., 1991; Meuleman, 2008; Bevir 2006, 2013; and Hall, 2011, a typology of governance modes is elucidated and provided as a means by which adaptation efforts can be mapped and understood within multilevel contexts such as Canada. The resulting typology identifies main actors, their roles, state instrument types, and directions of influence within either hierarchical, market, network, or community modes. The typology is presented as an applicable framework for empirical work by researchers and practitioners comparing adaptation between sectors, regions or environments. Because concerns of coordination and avoiding maladaptation continue to persist in the field, yet remain desirable, we maintain that means of governance conceptualization are key to any progress towards societal adaptation. While adaptation praxis will rarely exist within one neat governance mode, these groupings provide necessary descriptive, comparative, and normative merit, especially since adaptation differs so drastically in form between sectors and levels. Finally, the components which make up each mode of governance not only provide a legible product for analysis, but also make more apparent the socio-political values which surround different visions of the adaptation process (e.g. state role, market value, etc...). This normative component, and its clearer presentation, is considered vital for democratic legitimacy in the entire adaptation project.

References:

- Adger, W. N. (2001). Scales of Governance and Environmental Justice for Adaptation and Mitigation of Climate Change. *Journal of International Development*, Vol. 13. pp. 921-31.
- Adger, W. N., Arnell, N. W. & Thompkins, E. L. (2005). Successful Adaptation to Climate Change Across Scales. *Global Environmental Change*, Vol. 15. pp. 77-86.
- Amundsen, H., Berglund, F. & Westskog, H. (2010). Overcoming Barriers to Climate Change Adaptation: A Question of Multilevel Governance? *Environment and Planning C: Government and Policy*, Vol. 28. pp. 276-289.
- Bevir, M. (2006). Democratic Governance: Systems and Radical Perspectives. *Public Administration Review*, Vol. 66, No. 3. pp. 426-36.
- Bevir, M. (2013). *A Theory of Governance*. University of California Press. 263 pgs.
- Dickenson, T. & Burton, I. (2011). Adaptation to Climate Change in Canada: A Multi-Level Mosaic. In *Climate Change Adaptation in Developed Nations: From Theory to Practice*. *Advances in Global Research* Vol. 42. pp. 103-117.
- Hall, C. M. (2011). A Typology of Governance and its Implications for Tourism Policy Analysis. *Journal of Sustainable Tourism*, Vol. 19, Nos. 4-5. pp. 437-57.
- Henstra, D. (2015). The Tools of Climate Adaptation Policy: Analysing Instruments and Instrument Selection. *Climate Policy*, Vol. 16, no. 4. pp. 496-521.
- Meulemen, L. (2008). *Public Management and the Metagovernance of Hierarchies, Networks and Markets*. Physica-Verlag: A Springer Company, Springer Science and Business Media. 402 pgs.
- Moser, S. C. (2009). Whether our Levers are Long Enough and the Fulcrum Strong? Exploring the Soft Underbelly of Adaptation Decisions and Actions. In *Adapting to Climate Change: Thresholds, Values, Governance*. W.N. Adger, I. Lorenzoni & K. L. O'Brien Eds. Cambridge University Press. pp. 313-34.
- Thompson, G., Frances, J., Levacic, R. & Mitchell, J. (1993). *Markets, Hierarchies & Networks: The Coordination of Social Life*. SAGE Publications. 306 pgs.
- Urwin, K. & Jordan, A. (2008). Does Public Policy Support or Undermine Climate Change Adaptation? Exploring Policy Interplay Across Different Scales of Governance. *Global Environmental Change* Vol. 18. pp. 180-91.