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### Institutional fit and policy design in water governance: Nebraska's Natural Resources Districts

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## Institutional fit and policy design in water governance: Nebraska's Natural Resources Districts (Tomás Olivier and Sechindra Vallury)

### Brief Author: Davor Mondom

This paper investigates the relationship between policy design and institutional fit; that is, the extent to which the rules that make up a governance system reflect the local context. The authors look specifically at Nebraska's 24 Natural Resources Districts (NRDs), which manage regional groundwater resources in the state. Each NRD has an Integrated Management Plan (IMP), which sets out goals and strategies related to groundwater management, as well as a set of groundwater management rules and regulations (GMRRs). The authors analyze the content of the IMPs and GMRRs and compare them to features of the NRDs to see whether and to what degree the local conditions of each NRD shaped the design of its rules.

### KEY FINDINGS

- The physical environment of Nebraska's Natural Resources Districts (NRDs) helps to define the kinds of policies each NRD adopts.
- Institutions (e.g., state mandates) are also critical in informing the design of NRD policies.

### The Relationship Between Local Context and NRD Design

The authors identified a variety of topics that appeared in both the IMPs and GMRRs (e.g., "Water quantity and quality," "Enforcement and penalties," etc.) and determined the frequency with which words associated with those topics appeared in the policy texts. This allowed them to identify the priorities of each NRD and the rules under which they operated. They then measured a set of environmental and demographic attributes from each NRD (including size, population, rainfall, etc.) and calculated how those attributes mapped onto the frequency of topics in the NRD policy texts. They observed that NRDs with similar attributes tended to have similar kinds of rules and policies. These findings underscore the important role that context plays in shaping policy design.

### The Role of Institutions in Shaping Policy Design

Environmental and demographic factors were not the only factors influencing policy content, however. Several NRDs had state-mandated IMPs (in contrast to those that created their own IMPs). The authors found that this was also reflected in the design of NRD rules — somewhat counter-intuitively, NRDs with state-mandated IMPs exhibited greater topical diversity in their policy texts than NRDs that created their own IMPs. Accordingly, while the attributes of an NRD undoubtedly matter, the *institutional* context within which the NRDs operate also influences the kinds of policies they formulate and adopt. For policymakers, this points to the need to be attentive to how larger governing structures can have downstream effects on policymaking.

For more information, please see Olivier, T., and Vallury, S. (2024). Institutional fit and policy design in water governance: Nebraska's Natural Resources Districts. *Policy Studies Journal*. <https://doi.org/10.1111/psj.12550>



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