

Evaluating and Enhancing the Capacity of the States to Govern Unconventional Oil and Gas Development Risks

Hannah J. Wiseman

The topic of risk governance often rises to the forefront of public dialogue when something changes, as has occurred in the field of unconventional oil and gas development. Recent modification and expansion of older hydraulic fracturing and horizontal drilling techniques has increased unconventional oil and gas production in the United States, thus calling attention to the governance of risks posed by this development. Governance requires two components: substantive rules, and institutions to write, implement, and enforce these rules, and this paper explores the central role of states in oil and gas governance.

States write and enforce many of their own oil and gas regulations, such as requirements for well casing and the handling and disposal of wastes. They also implement many federal regulations, shape the nature and extent of municipal control over oil and gas development, and participate in regional compact commissions that address water quality and quantity. After introducing these four state roles, this paper describes various regulations administered by states (and other governments) at each stage of the unconventional well development process. It then explores states' capacity to effectively govern—to modify and write new regulations where needed and to monitor, inspect for, and enforce violations of rules. It finds opportunities and gaps in each of these areas and suggests how states, the federal government, and public-private coalitions can address gaps.

We need more and better information about unconventional oil and gas risks—thus necessitating more uniform baseline and post-development testing and monitoring requirements; frequently updated summaries of scientific studies of development risks; and a comprehensive comparison of state regulations to identify areas in which new or expanded risks have not been fully addressed. States also must have adequate staffing numbers and clear enforcement policies that ensure consistent identification of violations and penalties for compliance failures. Although these are substantial challenges, they are not insurmountable and can be addressed through state collaboration, as well as cooperative efforts between the federal government, states, industry and nonprofit groups, and other entities that are central to the risk governance process.

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