

Tables

1.1	Key characteristics of case studies	<i>page</i> 16
2.1	Challenges to addressing cumulative environmental problems and implications for regulatory responses	50
4.1	Varying matters of concern and implications for the challenges of conceptualization: illustrative examples	83
4.2	Mechanisms for clearly specifying a matter of concern, including in a precautionary way	89
4.3	Mechanisms for specifying boundaries of a matter of concern	93
4.4	Mechanisms for formulating cumulative threshold conditions for a matter of concern, and the role of time	97
5.1	Mechanisms to fulfill information needs for addressing cumulative environmental problems	114
5.2	Mechanisms to promote high-quality data and information for addressing cumulative environmental problems	117
5.3	Mechanisms to share and reduce costs related to information	120
5.4	Mechanisms to promote sharing and access to FAIR data	125
6.1	Options for increasing diversity of regulatory interventions: four strategies and four approaches to address cumulative environmental problems, with characteristics and examples	149
6.2	Mechanisms for connected decision-making about cumulative environmental impacts	158
6.3	Mechanisms for comprehensive regulatory intervention: avoiding gaps by omission	161
6.4	Burden-reducing alternatives to exemptions to increase regulatory comprehensiveness, in order of most to least similar to the “regular” intervention applied to nonexempt activities	164

6.5	Mechanisms for considering cumulative environmental impacts in enforcement	167
6.6	Mechanisms for reducing administrative costs by applying a single decision to multiple sources of impact	169
6.7	Mechanisms that facilitate adapting a decision in response to cumulative impacts	173
6.8	Mechanisms that facilitate adapting a set of rules in response to cumulative impacts	175
7.1	Mechanisms for coordination to conceptualize cumulative environmental problems	194
7.2	Mechanisms for coordinated information initiatives to address cumulative environmental problems	196
7.3	Mechanisms to recognize regulatory inconsistency and promote synergies in coordinating interventions to address cumulative environmental problems	199
7.4	Mechanisms to address drift, implementation gaps and disputes in coordinated interventions for cumulative environmental problems	202
8.1	Conceptualizing groundwater (GW) levels and disadvantaged communities as a matter of concern under California's Sustainable Groundwater Management Act (SGMA)	226
9.1	Major Australian federal (A) and Queensland (Q) regulatory interventions to address Reef-impacting greenhouse gas emissions (GHG) and water-borne sediment pollution (H ₂ O) from coal mines and cattle grazing, showing influences of the Reef SEA	258
10.1	Regulatory interventions at international (INT), European (EU), Italian national (IT), and Autonomous Province of Bolzano-South Tyrol (ST) levels related to Alpine grasslands, and their regulatory approaches and strategies	286
11.1	Definitions and risks of rules omitting a CIRCle Framework function	314
11.2	Key elements of case studies selected for diversity of legal mechanisms and environmental contexts	326