



# Regulating for sustainability

**Andrea Mennicken** and **Martin Lodge** put forward an agenda for the study of the governance and regulation of sustainability

Climate change, natural and man-made disasters, uncertainties about future energy supplies, and the food security problems raise pressing issues for questions concerning the sustainability of prosperity and its regulation and governance (see also de Raymond's article on the UK Global Food Security Programme in this issue). Yet the fields of sustainability research and risk and regulation studies have developed on separate tracks. **carr** seeks to bring these respective fields together to develop an approach towards the governance and regulation of sustainable prosperity that is cross-sectoral in focus, moves beyond the boundaries of single organizations, engages multiple stakeholders and builds on lessons learnt from multi-level governance.

Given the need to move beyond single sectors, it has become fashionable to highlight the significance of understanding the 'nexus' between different sectors. Such a nexus-based thinking adds further complexity to the governance and regulation of sustainability. For example, energy, environment, and food security are central to the future of societies and individual wellbeing. Failure to combine growth and prosperity goals with objectives of social and environmental sustainability will have disastrous consequences. Similarly, failure in governance and regulation will have far-reaching consequences, as illustrated by the financial crisis. The assurance of sustainable prosperity across different sectors (energy, environment, food, finance) poses severe challenges for governance and regulation. Firstly, there is uncertainty and dispute about how to govern and regulate each of these domains. This uncertainty is corroborated when considering interdependencies between the domains. Biofuels, for example, contribute to the development of sustainable energies but pose risks to sustainable agriculture and the assurance of

worldwide food supply. Secondly, challenges are posed by multi-level governance issues, as regulatory solutions are required that cut across local, regional, national and international levels; move beyond the boundaries of single organizations; and engage multiple stakeholders with diverging interests.

Innovative research into the possibilities of risk governance and regulation, including accounting systems, is critical to promote technological innovation and harness threats to sustainability across different domains. Yet, governance and regulatory institutions have been criticized for standing in the way of sustainable prosperity. They have been accused of hindering, if not deterring goals of sustainable prosperity. Existing regulatory systems are often said to be overly prescriptive, siloed and inflexible. They are accused of being a source of non-sustainability as they fail to detect risks to society and environment, hinder less resource-intensive innovations and thereby protect, if not promote existing, resource-intensive products and services. There is uncertainty not only about the ends and means of achieving sustainable prosperity. Uncertainty exists also about the effectiveness and legitimacy of existing governance approaches in light of the multi-level and dispersed nature of contemporary governance and the challenges posed by internationalized, increasingly complex production chains.

All this raises a number of critical questions: How can siloed, often nationally focused governance regimes be transformed to deal with cross-sectoral, transboundary challenges posed by the interdependencies that exist between different domains and across different levels of regulation (local, regional, national, transnational)? How do governance instruments need to be modified to address challenges posed by conflicting sustainability agendas, power asymmetries, and multi-stakeholder

integration? How can technological innovation and production chains be steered towards sustainable prosperity objectives?

Over the coming years, **carr** will seek to address these questions by developing a succinct and fresh voice in dialogue with practitioners and policy makers about the technological, social and political challenges of the governance and regulation of sustainability in the 21st century. We will bring together established and emerging scholars from different disciplines to generate new thinking around three research themes that build on **carr**'s existing research and expertise in risk and regulation studies:

- › Accounting for sustainable prosperity, to scrutinise new ways of accounting for and overcoming interdependencies inherent in the food-energy-environment nexus;
- › Governance innovation for sustainable prosperity, to investigate systems of governance and regulation that seek to deal with new technologies and complex production that threaten sustainability;
- › Governance and regulation of critical infrastructures, to examine the resilience of critical infrastructures on which sustainable prosperity depends.

## Accounting for sustainable prosperity

Accounting instruments play a key role in fostering sustainable prosperity. Yet, currently, we lack credible sustainable development accounts in practice (see for example Bebbington and Larrinaga 2014). There is also no unified understanding as to what sustainable prosperity might mean, and how it is best to be achieved. Different, often conflicting views about sustainability shape conditions and possibilities for accounting practice, and they pose considerable challenges. Under this theme, **carr**

scholars in cooperation with the Centre for Social and Environmental Accounting Research (CSEAR) at the University of St Andrews investigate different attempts that have been undertaken to open up accounting for sustainability concerns at local, national and transnational level. The theme cuts across social and environmental sustainability concerns, and pays attention to the challenges posed by multi-level government arrangements and multi-stakeholder approaches. It further pays attention to the couplings and de-couplings between accounting and sustainability discourses, and how these further or hinder the production of robust (un)sustainability accounts. Research conducted under this theme includes investigations of issues connected to carbon accounting standard-setting with a specific focus on challenges arising at the level of corporate organizations, including corporate financial reporting issues. Further research projects include investigations into practices aimed at 'accounting for social value'. Work here investigates the rise, diffusion and impact of social value accounting measures and social finance instruments in the governance and regulation for sustainability.

## Governance innovation for sustainable prosperity

Technological innovation can play a central role in achieving sustainable prosperity, as illustrated by Linda Hancock's article in this issue. Yet technology has also been the source of major harm to the environment, to the health and wellbeing of individuals, and to societies at large. Calls for enhancing innovation to support sustainable development have featured in every major review of sustainability science, however, there has been far less attention to how this can actually be achieved. This theme takes up this challenge, investigating, for example, the roles and functions of transnational actors in the glob-

al innovation system for sustainable development. When it comes to problems of sustainable development, both the actors developing solutions, and the problems that they are addressing, or may inadvertently cause, occur across national boundaries. However, there is only nascent thinking about innovation systems at transnational scales. What is required is a multi-sectoral, case-based approach to better understand the roles that transnational actors can play in the global innovation system and to advance our knowledge about effective drivers of innovation transnationally in the areas of agriculture, energy, health, water and manufacturing.

## Governance and regulation of critical infrastructures

Challenges posed by sustainability agendas and the food-energy-environment nexus parallel those of complex critical infrastructures that are closely coupled and non-linear in their interactions. Sustainable prosperity requires the ability of governance and regulatory systems to facilitate bouncing back in the face of crisis and disaster. Yet, the governance and regulation of critical infrastructures to enhance resilience is a challenge as power is dispersed across different government agencies at different levels of government, key operational competencies reside in private organizations, and transnational regimes impact on the way in which traditional oversight functions have been pursued. Critical infrastructures are central for economic development and social welfare. Increasingly, however, the cross-national or transboundary effect of these critical infrastructures, such as food and energy, has become prominent, giving rise to transnational initiatives, such as the European Union's 'critical infrastructure protection' initiative, or the EU-wide food safety 'alert' system. Research under this theme scrutinizes the risk regulation regimes that seek to

deal with transboundary crisis and critical infrastructures in select European countries and among the devolved jurisdictions of the UK (see also **carr**'s TransCrisis project) and explores the biases and complexities in decision making that apply to critical infrastructure planning (see for example the contributions by Will Jennings and de Raymond in this issue).

The notion of sustainability is one that has witnessed increasing appeal across different social science research traditions beyond those traditionally concerned with environmental issues. Sustainability is also a term that appeals to many audiences for often very different reasons. It therefore runs the risk of becoming one of the labels that allows for the repacking of existing ideas and approaches and where different schools and approaches talk past each other. A focus on regulation and governance concentrates attention on one key aspect in the broad sustainability discussion. Such a focused agenda speaks to, but is not overwhelmed by wider debates about economic and social growth, the nature of capitalism, and the future of democracy. For **carr**, this agenda builds on existing research themes and traditions, while also stretching our attention beyond the traditional research comfort zone. It offers great potential to advance theories and methods, and explore empirical phenomena, and it highlights the significance that regulation and governance play in one of the key challenges in the 21st century.

## Reference

Bebbington, J., & Larrinaga, C. (2014). Accountable and Sustainable Development: An Exploration. *Accounting, Organizations and Society*, 39(6), 395-413.

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