# The ripple effect: Institutionalising pro-environmental values to shift societal norms and behaviours

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Mark Everard[a,*], Mark S. Reed[b], Jasper O. Kenter[c]

[a] Department of Geography and Environmental Management, University of the West of England (UWE), Coldharbour Lane, Frenchay Campus, Bristol BS16 1QY, UK
[b] Centre for Rural Economy and Institute for Agri-Food Research & Innovation, School of Agriculture, Food and Rural Development, Agriculture Building, Newcastle University, Newcastle upon Tyne NE1 7RU, UK
[c] Laurence Mee Centre for Society and the Sea, Scottish Association for Marine Science (SAMS), Oban PA371QA, UK

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ABSTRACT

Contemporary markets and societal norms externalise many ecosystem services important for a sustainable future. A range of external legal, market, social protocol and other mechanisms, referred to as 'societal levers', constrain or otherwise influence the behaviour of resource managers, and the expectations and assumptions of the society within which they operate. These 'societal levers' have progressively institutionalised evolving societal values, influencing markets and other choices. We use the STEEP (social, technological, economic, environmental and political) framework to explore case studies of societal transitions, analysing how emergent concerns become shared and ultimately transformed into 'levers', shifting societal norms. Emerging concerns become influential only when they are shared across societal sectors, and when broader implications are realised across multiple dimensions of the STEEP framework. We propose and advocate use of a 'ripple effect' of values as a means to direct and accelerate the pace at which environmental concerns shape mainstream societal norms and structures, and become institutionalised in the form of 'societal levers'.

## 1. Introduction

In the industrialised world, and increasingly in cultures influenced by it through globalisation, capitalist markets have become the dominant means by which humanity appropriates and converts resources to serve its needs and wants (Gilpin, 2001). Capitalist exploitation of resources is a more globally pervasive ideology than any religious or political doctrine (Porritt, 2005). This paper does not set out to critique the rights and wrongs of the market, but observes that the market on its own is unable to generate an ethical framework that accords with long-term sustainability. Some commentators regard the market as an efficient means to maximise wellbeing by bringing together people's self-interest (Sullivan and Sheffrin, 2003), or suggest that human nature will imbue the market with an inherent instinct for "self-creating" stability (Fukuyama, 2012). Others however, consider that the market requires 'moral governance' to guide it (Buchanan and Tullock, 1962). The values that are incorporated into markets reflect a legacy of societal choices, albeit that the subset of values that it internalises have tended to reflect those related to short-term wealth generation rather than the long-term integrity, equity and resilience of supportive ecosystems. Wealth creation activities have consequently resulted in a broad range of externalities through overexploiting and consequently eroding elements of natural, human and social capital (Millennium Ecosystem Assessment, 2005). External mechanisms are therefore necessary to progressively internalise emergent societal values into the market and other drivers of mainstream societal norms. We refer to these mechanisms as 'societal levers' (or 'levers'), reflecting their action as external forces to shift institutions that are typically imbued with substantial inertia.

Society has instituted a range of such 'levers' to constrain market-dominated and other power-based freedoms as a means to embed wider societal values. Leopold (1949) identified acceptance of "… limitation on freedom of action in the struggle for existence…" as the basis of ethics, relating both to wider society and ultimately to the ecosystems that support it. For example, Leopold (1949) relates the tale of "god-like Odysseus" who, on return from the wars in Troy, "… hanged all on one rope a dozen slave-girls of his household whom he suspected of misbehaviour during his absence". Leopold noted that concepts of right and wrong were not lacking from Odysseus' Greece, but the ethical structure at the time "…covered wives, but had not yet been extended to human chattels". From this initial observation, Leopold explores how ethical frameworks have expanded to encompass

* Corresponding author.
E-mail addresses: mark.everard@uwe.ac.uk (M. Everard), mark.reed@newcastle.ac.uk (M.S. Reed), jasper.kenter@sams.ac.uk (J.O. Kenter).

wider dimensions of humanity, reflecting that "…the individual is a member of a community of interdependent parts", culminating in his call for a 'land ethic' (addressed below when considering environmental transitions).

Levers influencing the ethical evolution of society include 'hard' regulation, a range of statutory and 'near-statutory' protocols, an evolving body of common law (and related civil law in other jurisdictions), markets and interventions in them, various market-based instruments, and a variety of cultural values, norms and beliefs including taboos, rituals and consensus views (Everard, 2011; Everard et al., 2014; Kenter et al., 2011; Raymond and Kenter, 2016; Cooper et al., 2016 ). These levers can in turn influence each other. For example, changes in cultural attitudes and values may influence market behaviour through customer choice, with businesses voluntarily deselecting perceived problematic substances or practices from their supply chains and creating differentiated markets for sustainably- and ethically-sourced forest, marine fishery and other products (Everard, 2009). Also, various forms of wildlife- and water-sensitive farming can shift from individually selected voluntary actions to public incentives and/or statutory obligations (Everard et al., 2014). Emerging public concerns can also result in aspirations expressed in international protocols that then become transposed into national legislation and incentives.

Everard and Appleby (2009) review significant progress made throughout the twentieth century in internalising ecosystem services into society. They describe a transition in the UK and much of the then developed world at the start of the century, when, as the common saying put it, "An Englishman's home is his castle", reflecting that property rights implied relatively unconstrained rights to use land as the owner desired. By the close of the twentieth century, the freedom of action of landowners was substantially constrained by a linked set of 'levers' that included a body of environmental, employment and other legislation at scales from international obligations to local by-laws, growing common case law relating to the impacts of resource use on other people, incentives to manage the land in certain culturally-preferred ways, novel markets such as biofuel and feedstock crop production partly displacing dependence on fossil resources, catchment management strategies favouring water-sensitive land uses, measures to secure public access, and a range of other changes including value chain pressures feeding back to producers and other market and market-based instruments. Though not explicitly using this language, many of these changes relate to what we now term ecosystem services, such as flood and air quality regulation, aesthetic, amenity and recreational value, habitat for wildlife and nutrient cycling processes. All of these broader-scale outcomes, many of them externalised from governance, have consequences for a diversity of human stakeholders both now and into the future. Progress over the century has occurred beyond the span of an average human life, and so may have been less obvious to those living through it. However, the telescope of history reveals a broad and profound change in values that is in fact very rapid in historical terms (Everard, 2016), recognising and institutionalising the value of publicly-beneficial ecosystem services 'produced' by environmental resources regardless of their status as private 'property'.

Thus, ethical considerations have switched paradigms from the largely uncontested rights of resource owners towards the rights of those in receipt of a range of services provided by ecosystems, ranging from those that impinge directly upon biophysical health (such as air quality impacts) and other services that relate to deeper bequest, existence and other forms of value (such as conservation of nature, heritage and sacred sites; also see Cooper et al., 2016; Fish et al., 2016). This has, of course, hardly been a complete or irreversible evolution, as is exemplified by increasingly globalised supply chains regularly exposed by the media as complicit in promoting resource overexploitation, harmful pollution and child and 'sweatshop' labour. However, a net expansion of the 'ethical envelope' (as described by Leopold (1949)) is clearly discernable with the benefit of hindsight, expanding from self-

centred considerations to progressively include the local community, and eventually recognise regional, national, supranational and global kinship and responsibilities. This revolution has been formed by a process of awareness, collectivisation and progressive institutionalisation of concerns about the environment and facets of human interest upon which it impinges.

This paper uses the STEEP framework to systematically analyse a range of examples of Social, Technological, Environmental, Economic and Political transformations from around the world, and through history, to explore the means by which collective value systems evolve and how they become progressively institutionalised into shared value systems. Based on this analysis, a conceptual model is proposed for the accelerated institutionalisation of emergent environmental concerns in mainstream societal norms and structures.

## 2. Conceptual framework

Internalisation of new views into pan-cultural shared values and norms is by its nature a complex, multi-dimensional process. For this reason, the STEEP (Social, Technological, Economic, Environmental, Political) framework is used to organise and characterise different initiatives in the context of the macro socio-environmental environment. There are varieties of this framework with more or less factors, including PEST (without the Environment component as it is for exploring wider ramifications of environmental issues) (Aguilar, 1967), and also PESTEL/PESTLE and SLEPT (with Legal included) (Rothaermel, 2012) and STEER (including Regulatory). Our selection of STEEP is based on the importance of the Political dimension in addressing broader governance issues (involving both formal and informal institutions), rather than solely focussing on the legal and regulatory remit of government. The STEEP knowledge management framework was developed initially to assess global change issues supporting long-range business planning (Morrison and Wilson, 1996). However, it has also been applied to analyse the interconnectedness of different domains of human activity and their interplay with regard to meeting the goals of sustainability (Steward and Kuska, 2011). Everard et al. (2012) and Everard (2013 and 2015a) found STEEP-based analysis valuable for understanding the systemic relationships between constituent parameters in analyses of water, ecosystem service flows and dependent development issues in South Africa, Europe and India, particularly in relation to appropriate technology deployment and associated governance systems making water and its associated ecosystem services available for people and economic uses.

As an analytical tool, STEEP builds on a rich and growing body of theory, notably literature on transitions management and socio-technical systems (Rotmans et al., 2000; Kemp and Rotmans, 2005; Kemp et al., 2007; Geels, 2004), and literature on behaviour change and pro-environmental behaviour. The socio-technical systems literature conceptualises environmental values, and the rules, technologies and behaviours through which they are enacted, as innovations. The emergence and institutionalisation of environmental values then, is a process of co-production, practical application and diffusion of innovations by social actors. This co-production is coordinated through institutions in safe places where new ideas can be tested and refined ('niches'). When widely adopted (often in response to some sort of trigger or problem), innovations based on these environmental values have the capacity to disrupt stable societal structures and norms (the 'socio-technical regime'), so that society can transition to a new way of doing things (e.g. from fossil fuel to renewable energy systems).

In parallel with this literature, there is a rapidly growing body of theory linking individual and societal values to behaviours. In particular, a 'value-action' gap is widely reported between awareness and attitudes towards the environment and their limited behavioural responses to environmental challenges (Blake, 1999; Raymond and Kenter, 2016). A number of explanations have been proposed for this