

## **Managing the Climate Common through Voluntary Standards in a Local Context: A Multiple Stakeholder Case from the Swedish Food Sector**

Paper intended for the Corporate Responsibility Research Conference 2010, "Sustainability Management in a Diverse World", 15-17 September, Euromed Management School, Marseille, France

### **Work in progress**

Karl Johan Bonnedahl ([karl.bonnedahl@usbe.umu.se](mailto:karl.bonnedahl@usbe.umu.se)) &  
Jessica Eriksson ([jessica.eriksson@usbe.umu.se](mailto:jessica.eriksson@usbe.umu.se))  
Umeå School of Business, S-90187 Umeå

### **Introduction**

During the last few years, scientific consensus on climate change, including the magnitude of the problem and its anthropogenic causes, has been established and spread to other sectors of society (Costello et al, 2009; Rosenzweig et al, 2008). Within business, many actors are making commitments to reduce the climate impact of their activities (Kolk & Pinkse, 2004). However, the combined effect of such efforts lags far behind the actual need for new economic practices, and mainstream business' role in the increase of greenhouse gas (GHG) emissions remains strong.

Among many possible reasons for the lack of a substantial business sector response to the climate challenge are insufficient consumer demand and an unfavourable institutional setting. Regarding the latter, the political sphere has not reacted amply to the challenge by creating regulation, cost structures or incentives that would favour the vital transformation, and global competition makes radical steps risky for individual actors.

Moreover, an inherent dilemma is that climate change presents a collective problem resembling the tragedy of the commons (Hardin, 1968), while our social organisation, to meet goals and challenges, largely rely on individual initiatives and market coordination (Armour, 1997). Our capacity and preparedness to meet collective problems may even have been reduced, for the benefit of improving economic competitiveness and meeting aspirations to consume, due to economic liberalisation and globalisation during the last quarter of a century (cf. DesJardins, 2007).

According to conventional economic discourse, business actors are expected to seek growth, maximize profits and focus economic interests near in space and time (cf. Egri and Pinfield, 1996). Ecosystems are mainly viewed as resources and sinks, underpinning the linear cradle-to-grave system that became the engine in economic growth but also in environmental degradation (cf. Goodland, 1995; Hudson, 2005). Hence, the emerging knowledge of a climate system in crisis would create a fundamental conflict of understanding: "value creation", a process in which the conversion of natural elements is imperative, also means degradation.

The failed attempt to find a post-Kyoto solution in Copenhagen 2009, in spite of the general agreement on the reality of the problem, may illustrate this conflict and the subsequent impotence on global level. Negotiators reverted to established individual interests, conflicting although largely based on the same economic rationality: Minimize expected costs on national levels and the endangering of competitiveness, employment and economic growth. As equivalent forces and priorities are persuasive also on industry, firm and consumer levels, the reliance on individual

initiatives, market solutions and voluntary agreements to demonstrate the possibilities of low-carbon routes of action presents restrictions.

To begin with, climate change is, in the words of Stern, “the greatest example of market failure we have ever seen” (HM Treasury, 2006:1). Research results are also conflicting as to what extent environmental problems, largely caused by the use of individual reason and market exchange, can be solved by voluntary means (Alberini & Segerson, 2002). Learning from Hardin’s seminal article (1968), we would depend on coercion created by political measures to combat climate change, but later research has presented guardedly optimistic views on institutional diversity and the possibility to learn from earlier experiences of successful governance systems as stewards of environmental resources (e.g. Dietz et al, 2003; Ostrom et al, 1999).

Nevertheless, when hopes are held for voluntary initiatives, we must recognize the potential obstacles caused by assumptions and values regarding society, nature and business — upholding and reproducing today’s unsustainable patterns of production and consumption (Hay 2005; Hudson, 2005). This includes our general tendency, rooted in our interpretation of Adam Smith, “to assume that decisions reached individually will, in fact, be the best decisions for an entire society.” (Hardin, 1968:1244). Now, the climate challenge calls us to ask how actors, embedded in the market system and economic discourse, voluntarily, can promote and accomplish changes in economic behaviour that would be sufficiently rapid and radical.

Voluntary initiatives can take many forms, including attempts to create standards for industry and labels for consumers. Such initiatives can be seen as attempts for regulation of behaviour on a common, and when climate constitutes the common, we may all qualify as stakeholders. However, this paper discusses a delimited endeavour to manage the common; through the regulation of food sector behaviour on the Swedish market. Investigating the development of a climate standard and a related label, the purpose is to assess the potential and limitations of this form of initiative in terms of change of food sector practices and, hence, management of the climate common. We have a particular interest in challenges arising from the diverse and potentially divergent interests of the stakeholders, and underlying beliefs and assumptions about business and the environment.

### **The tragedy of the climate common**

The climate system is a clear example of a common, such as it was treated by Garret Hardin in 1968, i.e. “a pasture open to all” (p. 1244). Presuming we are all rational beings, seeking to maximize our gain, Hardin analyses our behaviour as being directed by a utility function with two components: “Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1.” However, as “the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.” As long as we “behave only as independent, rational, free-enterprisers” (Hardin, 1968:1245) the conclusion is clear: We are locked into a system that compels us to increase activities that drive climate change.

We do not even need to meet strict criteria as maximizers for the problem to arise; preferences in line with herdsmen in the example, together with inadequate institutions, suffice. The situation today is also radically less favourable than when Hardin presented the problem in dramatic terms. The general pressure on ecosystems is significantly higher (not least as we are now three billion more people; cf. Erlich, 2009), global warming has emerged as a mega-threat to civilization, and

our institutional arrangements has moved further towards supporting “independent, rational, free-enterprisers”.

In 1968, Hardin regarded the institution of private property as unjust, but still as an alternative to the common as “Injustice is preferable to total ruin”. However, the effectiveness of this institution was already questionable: “Indeed, our particular concept of private property, which deters us from exhausting the positive resources of the earth, favours pollution.” (Hardin, 1968:1245). In recent years, attempts have been made to expand property rights to deal with climate change, but judging from the increase in emissions, the central economic institutions (also including free market and trade) have proven very ineffective, both in terms of managing social injustices and handling environmental problems (Markandya, 2009). The latter was predicted by Hardin, who explained that the air and waters, which cannot be fenced, must be protected by other means.

As the general solution, Hardin argued for social arrangements that produce responsibility (or *management*, as emphasised in a later comment; Hardin 1998). These would be arrangements that create coercion of some sort, but coercion that would be “mutually agreed upon by the majority of the people affected” (Hardin, 1968:1247). Hence, although Hardin emphasised regulation and internalisation of environmental costs, he was not that far from recognizing functioning self-governing (local) institutions, which some of his critics has asserted (e.g. Dietz et al, 2003; Ostrom et al, 1999). Such institutions, often found in subsistence societies, have, however, come under pressure. This is not least due to the expansion of commerce, and the creation of institutions to enable and regulate trade, transportation and competition; institutions that “shape environmental impact, even if they are not designed with that intent.” (Dietz et al, 2003:1908).

Subsequently, humanity’s challenge to establish institutions to manage climate is difficult. The reasons include the problem’s scope and scale, which exacerbates the difficulty of organizing, agreeing on rules, and enforcing rules (Ostrom et al, 1999). Nevertheless, Dietz et al (2003) suggest that we can learn from successful examples of governance of local resources. They propose that three general principles are also relevant for problems at larger scale, such as climate change, transboundary pollution, and biodiversity loss (Dietz et al, 2003:1910):

- Well-structured dialogue involving scientists, resource users, the public, and information about environmental and human-environment systems
- Institutional arrangements that are complex, redundant, and nested in many layers
- Governance employing mixtures of institutional types and a variety of decision rules to change incentives, increase information, monitor use, and induce compliance

### **Voluntary initiatives and delimitation of the common**

Acknowledging the need for efforts of multiple types, voluntary systems for coercion have been given particular interest following the failures of private markets and incapacity of international regulation (Alberini & Segerson, 2002; Boström & Klintman, 2008). However, stakeholders to such initiatives, or, following Ostrom et al (1999), *users of the common*, must not only highly value the sustainability of the common-pool resource; they must also overcome the “dilemmas they face in bearing the cost of designing, testing, and modifying governance systems” (Ostrom et al, 1999:279). As “perceived costs are higher when the resource is large and complex, users lack a common understanding of resource dynamics, and users have substantially diverse interests” (Ostrom et al, 1999:280), it may be fruitful to reduce some of the complexity,

particularly when we deal with global commons and large-scale environmental problems. This could for example be achieved if the common is managed through governance systems within more limited areas or fields of activity.

Examples of local-level governance are when California or New Jersey presents relatively far-reaching GHG legislation (in spite of federal resistance; Bunzl, 2009). Other examples involve delimitation of the common itself, such as governance systems for sustainable management of water resources in a basin (Falkenmark et al, 2004). A similar model, involving a focus on specific practices, is given by the rules and certification schemes for sustainable forest management set up by various non-state actors. Such schemes typically track products from approved forestry practices through the supply chain to the stage of product labelling (Gulbrandsen, 2005). Most prominent among these is *the Forest Stewardship Council* (FSC), an international system established by the WWF, industry, indigenous peoples' groups, and forest workers' associations. Thus, it involves a variety of stakeholders on international and national levels, aiming to manage local resources and ecosystems with global consequences, not least regarding biodiversity and climate. The chosen means, however, are rules for specific economic practices (forestry).

Studying competition between FSC and other certification schemes, Gulbrandsen (2005:351) found "an inherent dilemma in balancing the standard-setting ideals of inclusiveness and attending to the needs of industry". Consultation with a broad range of stakeholders was vital for the credibility, but differences in opinions and interests hampered decision-making. Similarly, but from another type of sustainable forestry initiative, Driscoll (1996) concluded that dialogue, common evidence and shared experience among a broad range of stakeholders facilitated conflict management, but while compromises were attained on some issues (e.g. clear-cutting), value conflicts among stakeholders largely remained.

### **The role of stakeholders**

Most scholarly efforts have discussed stakeholders in relation to a given venture in the form of a firm, and not as users of a common. Frequently, departure is taken from Freeman's (1984:46) definition of stakeholder as anyone "who can affect or is affected by the achievement of the organization's objectives". Out of these two criteria, the literature tends to emphasise the former; e.g. according to Jensen (2002), the core premise is not only that organisations must address a set of stakeholder expectations, but also to understand what influence stakeholders have over particular issues and, consequently, which stakeholders that are the most important to manage. This is addressed by Mitchell et al (1997), who suggest that stakeholder saliency depends on managers' perception of a stakeholder's power to influence, the legitimacy of its relationship with the firm, and the urgency of its claims.

This common approach can, however, be criticized for its instrumentality, suggested to hamper the development of a responsible stakeholder interaction (e.g. Van Buren, 2001). Rather than focusing on bilateral relationships between stakeholders and the focal organization, an alternative is to consider the stakeholder network; according to Calton and Payne (2003:8), "an interactive field of discourse occupied by those who share messy (complex, interdependent, emergent) problems and who want/need to talk about them" (cf. Wicks & Freeman, 1998).

While food and climate certainly constitutes such a problem area, the network approach to stakeholders also seems to meet propositions by Dietz et al (2003) and findings by Driscoll (1996:168), who conclude that "complex social problems can be solved only with the resources

and willingness of many organizations”. However, different interests and identities among stakeholders can cause conflict and resistance (cf. Gulbrandsen, 2005). Hence, a focus on differences and conflict is found fruitful, also because it clearly contrasts with the typified, and unsatisfactory, models of the (tragedy of the) common as well as of the perfect market, in which actors’ identities and interests are assumed to be adequately described as rational and maximizing.

### **Methodology**

Our case, “Climate labelling for food” (CLF), provides an interesting opportunity to study a change process (cf. Pettigrew, 1997) in a sector with considerable emissions and links to people’s everyday habits as well as to international trade. As a particular feature of the context, in relation to an initiative to regulate behaviour, the food sector (in Sweden and elsewhere) has been very regulated, but recent decades have seen substantial efforts to develop market mechanisms, competition and trade.

CLF was initiated by the leading Swedish labelling organisation for organic food, KRAV. It was soon joined by The Swedish Seal of Quality, SSQ, an organisation labelling conventional Swedish produce. These organisations signalled a comprehensive effort to cover the sector’s GHG impact, involving a large number of stakeholders. Further, the issues related to the initiative are “complex, interdependent, emergent” (Calton & Payne, 2003), suggesting the formation of a stakeholder network focusing on the climate common where actors with differing viewpoints are likely to meet.

Secondary data was gathered throughout the study, covering ongoing and retrospective events. Reports, internet pages, newspaper articles, newsletters, and documentation concerning the initiative such as referrals and the standards, provided an overview of the initiative, its context, arguments and key stakeholders. It was also used to understand stakeholder positions taken on environment, the organisation of the sector, and the initiative itself. Access was good through personal contacts, on-line documentation, and a public debate leaving traces in newspapers and reports.

In order to gain an in-depth understanding of different actors’ positions relative the initiative, 24 semi-structured interviews were performed with project management, KRAV and SSQ employees, and actors partaking in the stakeholder network forming around the standard development process. The latter were selected in order to represent organisations affected by and affecting the initiative; mainly based on their role in the Swedish food industry (such as retailer, producer, consumer organisation, environmental NGO, etcetera) or their expressed views relative the initiative.

Interviews, mainly conducted in 2008 and 2010, were recorded and transcribed in verbatim. Complementary data has also been gathered via participation in a workshop and a conference where the basis of the rules was presented. The analysis was based on a search for main areas of stakeholder interests and conflicts, presumably decisive for the navigation and outcome of the CLF project.

### **The case: Start-up, key actors and rationale**

The idea for a climate standard and label had been around in the KRAV organisation for several years, but the timing was perceived to be right when the climate issue was lifted in the public debate during 2006. The project developed in a situation where global warming was becoming

*the* environmental problem, and several other initiatives directed to control or reduce the climate impact of business emerged in Sweden and elsewhere. Early examples include UK retailer Tesco and the Carbon Trust.

The launch of the initiative can also be related to the idea of steady improvement of the organic standard: It is important for KRAV as a labelling organisation to continue developing and to incorporate environmental dimensions that are salient to consumers. In order to identify relevant dimensions and to ensure a wide acceptance of the standard, it is also important to reach many stakeholders. When SSQ joined the initiative in 2007, the alliance was, however, met with some surprise due to competition and conflict between conventional farming (branded by SSQ) and organic production. Yet the two organisations were already connected via for example KRAV's board.

The two partners approached other actors to exchange views, build support and finance the development. During autumn 2007, a few other actors within the food industry joined the initiative as active partners. Some were closely related to KRAV and SSQ; particularly Lantmännen and the Federation of Swedish Farmers (LRF). Others were the Swedish Board of Agriculture (a governmental organisation) and two dairy companies, Milko and Skånemejerier. Among their motives to the commitment was the urgency of the climate problem and the interest to learn more about climate and standardisation/labelling.

During the first phases of standard development, many other actors were also involved in different ways, including the Government (which explicitly recommended existing labelling organisations to begin the process), CSO's (such as The Swedish Consumers Association), different industry actors (including the largest retailer, ICA), and research institutions (such as the Swedish Institute for Food and Biotechnology). Some of the stakeholder communication was structured through workshops and reference group meetings, held as part of the development of a standard during the first year.

As regards the advancement of the process, two potentially conflicting perspectives were inherent already in the formal goals (and appeared in the data; see below). Not only would climate impact be reduced, but the CLF would also enhance industry's competitiveness. To accomplish this dual ambition, the overarching means, both formally and dominating in discussions, was to offer and communicate 'climate-friendly' choices to consumers. Accordingly, most stakeholders demonstrated a clear belief in the role and responsibility of consumers. However, the project's choice to rely on information and voluntary change did not appear as a matter of discussion among stakeholders – but rather as taken for given. Subsequently, in the initial stages of the process, the development of the standard was instrumental in order to reach a label. In this standard development, where the direct role of industry is central, discussions clearly started out from the actual activities and interests of each stakeholder and not only the scientific facts concerning climate.

### **Challenges in arriving at a standard and label**

A wide variety of stakeholders were involved in the relatively open discussions which culminated in a referral round concerning draft rules in May/June 2008. In our data, the following appeared as key areas for stakeholder interests, conflict and navigation by the CLF management.

*Environmental versus commercial interests.* Many stakeholders, representing different camps (some businesses, research and civil society organisations with environmental or ethical profiles), emphasise the urgency of climate change and the need for swift action. While the majority

appeared to consider CLF as representing a relevant response to a shared problem, some argue that the direction was not strong enough; e.g. not on par with reductions pointed out by the IPCC (the Centre for Sustainable Agriculture in a referral response). Key ideas among stakeholders which emphasise climate goals concern societal as well as behavioural change and continuous learning. We also find a caution that a label may over time cement existing structures and prevent future large scale change. On the other hand, some conventional growers were concerned that the standard would be too hard. Regarding the promotion of competitiveness, commercial stakeholders appear concerned about how to develop a label that consumers can understand. Some stakeholders were also uneasy about negative effects on trade, due to the project's national scope and the transport-related emissions.

*Is there enough knowledge?* Claims about lack of knowledge, upon which to base the standard, was either related to postponement or to support of a quick launch. The former argumentation was represented by retailing organisations, suggesting that insufficient scientific knowledge threatens the trustworthiness of a label. In contrast, a Sigill respondent stated that we know quite a lot actually; the question is how much we can handle. The project management points out that LCA alone may not be the best approach even if all data was available; comprehensive updating depending on season, cultivation method etcetera would be required. It would also not take into account other environmental goals. As a conclusion, as there is no time to lose, production-system based labelling is the only option.

*Should all be able to comply?* Whether or not to open the label for products with very high carbon footprint was often addressed as the choice between 'beef or beans'. As livestock is a key contributor to GHG emissions, and as vegetable produce will always be a better choice than meat, the choice to brand any product category was criticised. Some stakeholders, including Animal Rights Sweden, suggest that by principle, food from animals should not be climate labelled. Others, most notably commercial actors, argued that it was important to guide the consumer to the best products in each category. The importance of meat producers in the process was openly recognized by the CLF management, and the label was decided to only approve and not grade products.

*Vertical, horizontal and geographical scope.* Although the official ambition of the CLF was comprehensive, an early decision was to exclude climate impact occurring after products had been delivered to warehouses in the retailing system. Thus, much of the effects of retailer's organisation, and consumer transportation, storing and cooking, were excluded. An ecological food wholesaler, Kung Markatta, criticised the CLF for having started with the "easy" areas and symbolic issues such as freight transport, but leaving important issues to a later stage. In response to such criticism, the CLF management pointed out that areas with strong climate impact, such as organogenic soils, were targeted, even though it may result in socioeconomic problems. Further, rules for many areas, such as packaging and storage, were developed. Turning to the initially Swedish scope of the label, this prompted many stakeholders to warn about protectionist outcomes. Some, such as retailers, appeared to do so because it would hamper their businesses, while others advocated free trade more generally. Sometimes, the issue was turned into an argument about third world solidarity or social justice, most notably among fair trade representatives and smaller import organisations dealing with ecological and fair trade products.

*Should a label be freestanding, add-on, or integrated with existing labels?* Many stakeholders argued that the initial direction of the process, a freestanding or add-on label, gave an exaggerated focus on one environmental criterion. Some of the strongest critique came from the

Swedish Society for Nature Conservation, arguing that organics, the best system available, should be updated on climate effects. Actors from different camps also argued that a freestanding or add-on label would devalue existing KRAV or SSQ labels and be difficult for consumers to comprehend. On the other hand, some organic growers were concerned that their KRAV subscription could be lost if new rules were incorporated into the existing framework.

Originally, a standard dealing with certain product areas was scheduled to be delivered to the project owners in June 2008. Following the draft referral, the launch of the label was, however, postponed. Although some stakeholders were sceptical to the CLF and others chose to pursue parallel or competing initiatives, the work continued. The process now became more closed as compared to its previous arrangement, meaning that there was less stakeholder interaction. During 2009, sets of standards and related background material were presented for a number of production and product areas. It was also decided within KRAV to, stepwise, integrate the climate standard with the organic rules. When this integration was made operational in 2010, KRAV suggested that it was unique within the organic farming world with its climate rules. Subscribers to the existing KRAV-standard would also be able to accommodate the new climate criteria. The SSQ however opened up for the possibility to have a climate label as add-on to the regular SSQ standard. In June 2010, the first labelled products were presented.

## **Discussion**

This paper has been an attempt to investigate the scope for market actors to, through voluntary standard setting, unlock the system that so far has compelled us to increase activities that drive climate change (cf. Hardin, 1968; Hudson, 2005). This “system” is not only constituted by institutional rules and structures concerning individual property, international trade, etcetera, which encourages individual maximization rather than management of the climate common. Corresponding assumptions and values, such as the firm belief in individuals, technology and market solutions, also uphold and reproduce the current unsustainable use of the common (Hay, 2005).

Nevertheless, voluntary initiatives for sustainable management are taken; fuelled by the environmental problems themselves, but also possible to relate to the alternatives given and pressures perceived on competitive market. Hence, ventures within sustainability can be analysed as solutions to environmental problems but also as competitive moves. Both of these perspectives are applicable to our case. The initiator KRAV, anchored in the organic movement, has sustainable development as its objective but is also deeply embedded in the market system, needing to attract commercial users to its standard and consumers to its label. During the standard development process this duality is seen in the navigation and compromises between different positions. Conversely, actors with mainly commercial interests may use the process to gain legitimacy as ‘green’ and progressive.

Although the outcome is ambiguous as an attempt for prudent management of the common, there are arguments for why an initiative such as the CLF, in which some of the complexity associated with governance of the climate common is reduced, could be successful (cf. Ostrom et al, 1999). Largely based on the shared understanding of the problem, grounded in scientific explanations, standards were ultimately produced. These standards would be market leading and call for change beyond legislative requirements, even though large mainstream actors dominated the process. The broad ambitions to include and communicate with stakeholders, in accord with

findings by Dietz et al (2003), Driscoll (1996) and others, was however changed after the wide critique received in the draft standard referral.

The change towards a more closed project, involving a few but important upstream organisations, could partly be explained by consolidation within the group of sponsors, but it also meant further reduction of complexity. From there on, the emerging standard was not only confined to a specific practice and geographic market, but its development was also kept within the group of assigned parties (project team, steering group, expert committee), without the open and largely public communication with stakeholders, which, in the initial stages, basically included any user of the common.

We may thus conclude that the partial success of the project became dependent on balancing conflict solution with conflict avoidance. We can also identify a move from a process characterized by influence from a stakeholder network towards a project network and a more conventional project organisation, with a limited number of members with sufficient commonalities. This development is in line with literature on projects and temporary organisations, suggesting that early steps can be open for various inputs, whereas a more closed approach is necessary later on, when action is required (Lundin & Söderholm, 1995). Subsequently, the acknowledged problems with achieving action in stakeholder networks (Warner, 2006), would be reduced.

As regards the potentially more fundamental conflicts relating to differences in assumptions and values, some were clearly avoided. In this category we find the integrity and assumed responsibility of consumers as well as the economic interests of producers; the latter particularly manifest in the issue of meat. Undeniably, the CLF has been dominated by mainstream actors, which poses constraints for the radicality of the outcome. Environmental criteria are now incorporated into market activities step-wise, in a pace that does not disturb or harm prevailing economic and social interests. Also here, one can refer to a central theme in Hardin's article, to criticise the "implicit and almost universal assumption of discussions" (Hardin, 1968:1243) that problems have technical solutions, in contrast to posing new demands on human values or ideas of morality.

## References

- Alberini, A. & Segerson, K. (2002) "Assessing Voluntary Programs to Improve Environmental Quality", *Environmental and Resource Economics*, 22(1-2), 157-184.
- Armour, L. (1997) "The logic of economic discourse: beyond Adam Smith and Karl Marx", *International Journal of Social Economics*, 24(10), 1056-1079.
- Boström, M. & Klintman, M. (2008) *Eco-standards, product labelling and green consumerism*. Basingstoke, Palgrave Macmillan.
- Bunzl, M. (2009) "Climate and the Commons – a reappraisal", *Climatic Change*, 97, 59-65.
- Calton, J.M. & Payne, S.L. (2003) "Coping With Paradox. Multistakeholder Learning Dialogue as a Pluralist Sensemaking Process for Addressing Messy Problems", *Business & Society*, 42 (1), 7-42.
- Costello, A., (26 names removed) and Patterson, C. (2009) "Managing the health effects of climate change.", Lancet and University College London Institute for Global Health Commission, *Lancet*, 373, 1693-733.

- DesJardins, J.R. (2007) *Business, Ethics, and the Environment. Imagining a Sustainable Future*. Prentice Hall, Upper Saddle River.
- Dietz, T., Ostrom, E. and Stern, P.C. (2003) "The Struggle to Govern the Commons", *Science*, 302, 1907-1912.
- Driscoll, C. (1996) "Fostering Constructive Conflict Management in a Multistakeholder Context: The Case of the Forest Round Table on Sustainable Development", *The International Journal of Conflict Management*, 7(2), 156-172.
- Egri, C.P. & Pinfield, L.T. (1996) "Organizations and the biosphere: Ecologies and environments", in S. Clegg, C. Hardy, & W.R. Nord (eds.) *Handbook of Organization Studies*, London: Sage.
- Ehrlich, P.R. (2009) "Cultural evolution and the human predicament", *Trends in Ecology and Evolution*, 24(8), 409-412.
- Falkenmark, M., Gottschalk, L., Lundqvist, J. and Wouters, P. (2004) "Towards Integrated Catchment Management: Increasing the Dialogue between Scientists, Policy-makers and Stakeholders", *Water Resources Development*, 20(3), 297-309.
- Goodland, R. (1995) "The Concept of Environmental Sustainability", *Annual Review of Ecology and Systematics*, 26, 1-24.
- Gulbrandsen, L.H. (2005) "Sustainable Forestry in Sweden: The Effect of Competition Among Private Certification Schemes", *The Journal of Environment & Development*, 14(3), 338-355.
- Hardin, G. (1968) "The tragedy of the commons", *Science*, 162, 1243-1248.
- Hardin, G. (1998) "Extensions of "The Tragedy of the Commons"", *Science*, 280, 682-683.
- HM Treasury (2006) *Stern Review: The Economics of Climate Change*. [http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/) (2010-06-07).
- Hay, R. (2005) "Becoming ecosynchronous, part 1. The root causes of our unsustainable way of life", *Sustainable Development*, 13, 311-325.
- Hudson, R (2005) "Towards sustainable economic practices, flows and spaces: or is the necessary impossible and the impossible necessary?", *Sustainable Development*, 13, 219-252.
- Jensen, M. (2002) "Value Maximization, Stakeholder Theory and the corporate objective function", in Andriof, Waddock, Husted and Rahman (Eds.) *Unfolding Stakeholder Thinking: Theory, Responsibility and Engagement*, Greenleaf Publishing. Sheffield, UK.
- Lundin, R.A., & Söderholm, A. (1995) "A theory of the temporary organization", *Scandinavian Journal of Management*. Special Issue on Project Management and Temporary organization, 437-455.
- Markandya, A. (2009) "Can Climate Change be Reversed under Capitalism?", *Development and Change*, 40(6), 1139-1152.
- Mitchell, R.K., Agle, B.R. & Wood, D.J. (1997) "Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts", *Academy of Management Review*, 22 (4), 853-886.

Ostrom, E., Burger, J., Field, C.B., Norgaard, R.B. and Policansky, D. (1999) "Revisiting the Commons: Local Lessons, Global Challenges" *Science*, 284, 278-282.

Pettigrew, A. M. (1997). "What is a processual analysis?" *Scandinavian Journal of Management*, 13(4), 337-348.

Rosenzweig, C., (12 names removed) and Imeson, A. (2008) "Attributing physical and biological impacts to anthropogenic climate change." *Nature*, 453, 15 May 2008, 353-358.

Van Buren, H. J., III. (2001) "If fairness is the problem, is consent the solution? Integrating ISCT and stakeholder theory", *Business Ethics Quarterly*, 11(3), 481-500.

Warner, J.F. (2006) "More Sustainable Participation? Multi-Stakeholder Platforms for Integrated Catchment Management", *Water Resources Development*, 22 (1), 15-35.