Chapter 1

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ECOLOGICAL MODERNISATION:
THREE DECADES OF
POLICY, PRACTICE AND
THEORETICAL REFLECTION

The rationale for an ecological modernisation reader

WITH THE REBIRTH OF environmental concern among social scientists in the 1960s and 1970s, scholars initially were preoccupied with explaining environmental devastation. Their central concern was how human behaviour, capitalist institutions, a culture of mass consumption, failing governments and states, and industrial and technological developments, among others, contributed to the ongoing deterioration of the physical environment. In the 1970s and 1980s, there were many reasons to look for explanations of ongoing, widening and deepening environmental crises. The result was an expansive literature – both theoretical and empirical in nature – on the ‘roots of the environmental crisis’ (Pepper 1984). Various disciplines and schools of thought emphasised different institutional and behavioural traits as the fundamental origins and causes of this environmental crisis.

Beginning in the 1980s and maturing in the 1990s, attention in environmental sociology and politics started to change towards what sociologist Fred Buttel (2003) labelled the sociology of environmental reform. Strongly driven by empirical and ideological developments in the European environmental movement, by the practices and institutional developments in some ‘environmental frontrunner states’, and by developments in private companies, some European social scientists began reorienting their focus from explaining ongoing environmental devastation towards understanding processes of environmental reforms. Later and sometimes less strongly, this new environmental social science agenda was followed by American and other non-European scholars and policy analysts. By the turn of the millennium, this focus on understanding and explaining environmental reform had become mainstream in many locations around the world, not so much instead of, but rather as a complement to, studies explaining environmental deterioration.
In what we might call – after the late Fred Buttel – the social sciences of environmental reform, ecological modernisation has stood out as one of the strongest, most well-known, used and widely cited, and constantly debated concepts. The notion of ecological modernisation can be seen as the social scientific interpretation of environmental reform processes at multiple scales in the contemporary world. As a relatively young but still growing body of scholarship, ecological modernisation studies reflect on how various institutions and social actors attempt to integrate environmental concerns into their everyday functioning, development and relationships with others, including their relation with the natural world. As a result, environmental interests have become incorporated into more and more aspects of social relations and institutions, as well as into contemporary human values, cultures, and everyday practices.

From the parallel launching of the term by Martin Jänicke and Joseph Huber, respectively, around 1980 and its explicit foundation into social theory by Arthur Mol and Gert Spaargaren around 1990, ecological modernisation has been applied around the world in empirical studies, has been at the forefront in theoretical debates, and has even been used by politicians to frame environmental reform programs in, among others, Germany, the Netherlands, the UK and China. There is now wide interest and research in ecological modernisation across the globe, including in Asia (especially China, Japan, Korea, Vietnam, Thailand, Malaysia and elsewhere), North America, Australia and New Zealand, Latin America (especially Brazil, Argentina, Peru, Chile), as well as on the wider European continent (including Russia).

While a number of volumes have been published on ecological modernisation (cf. Mol and Sonnenfeld 2000; Young 2001; Barrett 2005), this is the first, comprehensive, authoritative volume bringing together both the history and current state of Ecological Modernisation theories, research, debates and policy applications in various parts of the world. This volume brings together classic ecological modernisation texts – some newly translated and published in English for the first time – and illustrative applications in different empirical and geographical contexts, together with a series of newly commissioned, topical review essays surveying critical components of a steadily developing body of literature. It is our hope that this volume will enable and facilitate further scholarship, critical debates and theoretical development in the environmental social sciences – including in sociology, political science, history and geography – with regard to processes of institutional and cultural environmental transformation.

This introduction explains the emergence and development of ecological modernisation ideas against the background of an evolving environmental discourse on environmental deterioration, sustainable development and global environmental change. In doing so, it sets the scene for the four major parts that comprise this reader, introduced at the end of this essay.
From the Club of Rome to Al Gore: waves of environmental concerns and politics

Anthony Downs (1972), in his analysis of the first major upsurge of ‘modern environmentalism’ that occurred in many advanced nations from 1968 to 1972, wondered if the rising tide of popular ecological consciousness at that time represented a deeply rooted structural phenomenon or instead was just a passing fashion. In retrospect, since the publication of the Club of Rome report of 1972 (Meadows et al. 1972), attention to issues of air and water pollution, land protection and (more recently) biodiversity conservation and climate change has steadily grown into an entrenched global concern for sustainable development. Over the past four decades, societies worldwide have gradually built up their institutional capacity to address environmental risks in a systematic, organised way (Jänicke 1995). Of course, this cumulative process has never been linear. We have, as Downs put it, been going ‘up and down with ecology’ and issue-attention cycles have evinced varying timing and dynamics in different parts of the world. Major successes have been followed by periods of stagnation, and there have also been significant setbacks and reversals of environmental reform efforts. Since the start of contemporary environmentalism in the 1960s and 1970s (with the Report to the Club of Rome, the Blueprint for Survival (Goldsmith and Allen 1972) and the launching of many new environmental non-governmental organisations), we can delineate three decisive moments that have accelerated innovation in and reform of environmental policies, practices and awareness. These three moments of public environmental attentiveness are key to understanding the emergence and development of ecological modernisation ideas and reflections.

First, the publication in 1987 of Our Common Future (also known as the Brundtland Report) by the World Commission on Environment and Development provided a landmark statement in support of sustainable development (WCSD 1987). The debate that it catalysed prompted a cadre of innovative private firms to review their environmental performance with an eye toward bridging the customary economy–ecology divide. It also contributed to the reframing of the ideology and strategies of major Northern environmental NGOs, in their efforts to become closer to the centres of economic and political decision making. And the Brundtland Report sought to transcend North–South cleavages on questions pertaining to environmental protection and economic development. In all, Our Common Future put the relation between economic development and environmental protection strongly on public and political agendas around the world, be it framed in new terms. But these ‘new terms’, as codified by the Brundtland Report, reflected a number of tendencies that had already been ongoing for a number of years, since at least the early 1980s.

Second, the World Summit on Environment and Development, held in Rio de Janeiro in 1992, elevated environmental concerns into truly global phenomena. International media coverage (of the route towards and the results) of this two-week event translated biodiversity loss, climate change, desertification, and water scarcity into common and global topics of discussion. During the months and years following the Rio conclave, it became increasingly difficult for ‘anyone on the planet’, so Ulrich Beck (Beck and Wilms 2004: 141) argues, to maintain ignorance
of the environmental side effects of modernisation and industrialisation, and of the need to do something about them. Ten years later, the follow-up summit in Johannesburg 2002 confirmed the global environmental agenda, while adding an explicit orientation on sustainable consumption. The interceding decade was formative for the negotiations, conclusions, implementation and debates of multilateral environmental agreements, but also of the North American Free Trade Agreement (NAFTA) environmental side agreements and the acceleration of European Union (EU) environmental policy-making and legislation.

Third, the urgent need for action at all levels to reduce the threat of global climate change was the key pronouncement Al Gore (2006) put forth in the impressive international campaign that led to his receiving the Nobel Peace Prize in 2007. His message both contributed to and was reinforced by the most recent wave of environmental concern, exacerbated further by concerns about ‘peak oil’ and rapidly rising petroleum prices worldwide. In the first decade of the 21st century, a ‘new green wave’ has begun to swell that is different from its two predecessors in that it includes a strong emphasis not only on sustainable production, planning and transportation, but also encompasses a growing understanding of the need for sustainable consumption practices and greener lifestyles. Al Gore’s strongly media-driven campaign directly addresses citizen-consumers around the world, motivating them to build pressure throughout their respective communities and societies to green (and thus change) current behaviour and development paths.

The attempts, practices and policies of environmental reform have changed and developed over time (as is clear in the brief recap above); consequently, ecological modernisation scholarship has co-developed and matured as well during the last three decades. The following sections of this essay discuss in greater depth how ecological modernisation ideas relate to the legacy of the Brundtland Report, to the Rio process of globalising environmental concerns, and to the consumption and lifestyle focus of the most recent Gore-inspired wave of environmental concern. Together, they help explain the origin and continuing evolution of the various notions, ideas, developments and currents within the ecological modernisation literature.

**Ecological modernisation and the Brundtland Report**

Ecological Modernisation Theory (EMT) originated in Europe during the 1980s. In its original form, it can be regarded as the social scientific elaboration and formalisation of the underlying philosophy concerning environmental change articulated in the Brundtland Report. Or as Spaargaren and Mol put it in 1992:

> . . . the concept of sustainable development is based more on opinions than on scientifically based ideas. For this reason and because of the many possible interpretations that can be placed upon it, the concept of sustainable development is only suited to our purpose to a very limited extent. Therefore, we introduce a more analytical and sociological concept consonant with the primarily political concept of sustainable development: ecological modernisation.

(Spaargaren and Mol 1992: 333)
From its inception, proponents of EMT argued for the need to transcend the ecology-economy divide internalising ‘external costs’ into the functions of the market and the economy in general. ‘Ecologising the economy’, in Huber’s words, meant giving environmental issues and interests a permanent and central position in the decision-making processes of private firms and consumers with the help of life-cycle analyses (LCA), environmental reports and audits, as well as environmental management and audit and certification systems, and consumer-oriented structures such as eco-labelling, the development of consumer environmental standards, etc. (Huber 1982; Mol 1995). To make this ‘structural anchoring’ of environmental concerns in the market possible, it was necessary to leave behind prior tendencies within organised environmentalism that favoured vitriolic critiques of capitalism and industrialism and focused on making a fundamental break with modernity (Ullrich 1979; Schumacher 1973). To advance environmental reform efforts, this romantic yearning to revert to an agrarian past premised on ‘small-is-beautiful’ ideals had to be replaced by a more pragmatic posture that created space for dialogue and negotiation between professionalised environmental movements, expanding and diversifying environmental states, and increasingly engaged private sector actors. Environmental futures were not to be ‘imported from the outside’, but instead developed progressively from within the existing constellation of modernity in a way that reconstructed and redefined extant institutions so that environmental risks and side effects were addressed in a structural manner. During this process of deliberation, it was inevitable that ‘ecology loses its innocence’, because the incorporation of environmental concerns by mainstream economic actors is possible only when environmental criteria, instruments and concepts are reformulated to mesh with the logics of modern markets (Huber 1982, 1985, 1991; Spaargaren and Mol 1992; Mol and Spaargaren 1993; Hajer 1995; Mol and Sonnenfeld 2000).

An important contribution of EMT has been to reflect on the historical emergence and development of an ‘ecological rationality’ as a relatively independent epistemology alongside economic and political rationalities. To stress the need for an ecological sphere ‘to emancipate’ itself from the economic and political spheres (Giddens 1990), the language of systems theory within the social sciences (Luhmann 1995; Dryzek 1987) was used to describe and analyse processes through which ecological concerns became deeply embedded within modern societies from the 1970s onwards. Within EMT, what might be termed the ‘Brundtland view’ on reframing the relationship between environmental management and economic growth was analytically sharpened, since it was demonstrated in both normative and historical terms that sound ecological conditions and good economic performance should (and actually could) co-exist. Only when private firms, technologies, households and policies could simultaneously demonstrate sufficient economic performance and adequate or even superior ecological quality did they deserve to be labelled and treated as ‘sustainable’.
Ecological modernisation and the post-Rio globalisation of environmental concerns

Environmental concerns have been conceptualised in global terms for some time. The Club of Rome sponsored the construction of a computerised simulation model of ‘System Earth’ in the late 1960s, and the 1972 Stockholm Conference was manifestly international in both its participation and agenda. The articulation of a synthesised North–South environmental perspective, one that sought to encompass the circumstances of both developed and developing countries, was a major task and achievement of the World Commission on Sustainable Development (WCSD) during the mid-1980s. It can also be argued that within the environmental sub-disciplines of the social sciences, the international dimensions of societies came to be discussed and analysed earlier and more prominently than they were in the social sciences more broadly (Caldwell 1984; Catton 1980). Environmental problems are frequently characterised by their transboundary features, and issues such as fisheries management, wildlife control and air and water pollution have been at the centre of contemporary efforts to understand the dynamics of global modernity. In sociology, Anthony Giddens (1990) and Ulrich Beck (1986, 1997, 2005) stand out as social theorists who have made frequent reference to environmental risks not just as incidental illustrations, but also to help develop their theories of reflexive modernity and the risk society, respectively (Beck et al., 1994).

EMT formulations in environmental sociology – particularly the work of Arthur Mol, Maarten Hajer, Fred Buttel and Gert Spaargaren – have relied heavily upon more general sociological theories as formulated by Anthony Giddens, Ulrich Beck, Manuel Castells, John Urry and others. Only by applying these and others’ sociological analyses of globalisation has it been possible to move away from EMT’s initially Eurocentric formulation, and beyond the ‘methodological nationalism’ (Beck and Wilm 2004) expressed in the environmental policies of the northern European countries during the 1970s and 1980s. At least three factors have facilitated this global broadening of EMT. First, environmental policy making in Europe became to a considerable extent an EU affair in a relatively short period of time. In the ten years preceding the Rio Earth Summit, the EU’s environmental agenda became the second major focus of European-level regulation and policy making. This process of the regionalisation of environmental policy making in Europe, referred to as ‘Europeanisation’, has been examined in detail by environmental sociologists and political scientists, with authors writing from an EMT perspective contributing significantly to these efforts (e.g. Liefferink 1995; Anderson 1999; Mol, Lauber and Liefferink, 2000).

Second, EMT-oriented scholars from Europe became increasingly aware of the regional outlook of their theories during confrontations with North American environmental sociologists and political scientists. Debates with Allan Schnaiberg and others working from a ‘treadmill of production’ (ToP) perspective (see Schnaiberg 1980; Schnaiberg et al. 2002) were not just controversies between neo-Marxist and (post-)industrial society theorists. They were exercises also in re-examining the national and regional roots of many foundational concepts and assumptions (Mol 2006a). Through such debates, EMT scholars’ theoretical understanding of the role of nation-states vis-à-vis international market actors has
improved markedly, with contributions by Fred Buttel, James O’Connor (1996) and several World-systems Theorists including playing active and constructive roles.

Finally, the global broadening of EMT has been the direct result of its frequent and systematic application in non-European contexts, especially in East and Southeast Asia, and to a lesser extent also Latin America (cf. Mol and Sonnenfeld 2000; Sonnenfeld and Mol 2002, 2006; Mol 2006b; Oosterveer et al. 2007). Throughout much of especially East Asia, economic growth was, and still is, booming and the environmental pressures that accompany rapid modernisation continue to accumulate. EMT scholars have been at the forefront of social scientific and policy reform efforts to understand the gains that could be realised from environmental cooperation, capacity building and networking with Asian partners, as described in Part Four of this volume. The fact that senior Chinese scholars at the national level have embraced EMT concepts and perspectives to analyse environmental dimensions of their country’s process of modernisation is evidence of the reciprocal qualities of this interest (Chinese Academy of Science 2007; Zhang et al. 2007).

Since the mid-1990s, then, EMT has acquired a more international, indeed even global, outlook. The discussions surrounding a global ‘local agenda’ for the 21st century that were initiated at the Rio Earth Summit challenged all major theoretical constructs advanced at the time within the environmental social sciences. EMT responded actively to this challenge by adapting to the new political and institutional circumstances. In particular the dramatically changing roles of nation-states and environmental NGOs in policy making and the profound influence of globalisation as an ‘attractor’ in the field of environmental governance have received considerable theoretical and empirical attention from EMT scholars (Mol 2000, 2001; Spaargaren, Mol and Buttel 2000, 2006; Sonnenfeld 2002). The recent formulation of an environmental theory of networks and flows that is consistent with the core tenets of EMT (Spaargaren, Mol and Buttel 2006) is emblematic of the fact that EMT theorists continue to explore new and innovative ways to develop an approach to the study of processes of institutional and societal environmental reform that is globally relevant, without falling victim to the problems that undermined (structural functionalist) modernisation theories of the 1960s and 1970s.

Ecological modernisation and Al Gore: the consumerist turn

Al Gore’s feature-length, documentary film *An Inconvenient Truth* offered an intriguing message that diffused rapidly around the globe in just a few months. The film not only presents images of ‘System Earth’ that are beautiful and impressive, but also contains a good deal of technical material generated over the years by scientific bodies such as the International Panel on Climate Change (IPCC). Although the award-winning motion picture sparked a new round in the global climate change debate and provides compelling evidence of the ‘apocalyptic horizon of environmental reform’, it combines a strong doomsday storyline with an equally powerful invitation for individuals to demonstrate their moral concerns and translate these commitments into concrete actions of sustainable citizenship and consumption. People who care for the environment — so it is argued — take responsibility for it, not just as citizens, but also as consumers of more environmentally friendly or
green’ products and services. For instance, environmentally conscientious consumers search out certification labels when buying fish, coffee or wood-based products, and look for ways to reduce the climate impact of their domestic energy and water consumption. Contemporary environmental activism by both individual consumers and NGOs puts pressure on product and service providers to deliver carbon neutral (or neutralised) food, housing, transportation (automobiles, air travel), clothing and other goods and services. It is recognised that to confront climate change, the implementation of strict government policies and the diffusion of proactive environmental practices by private firms is insufficient; it needs to be redoubled through substantial changes in consumer behaviour, including catalysing citizen-consumers’ green purchasing power worldwide. Environmental reforms and improvement no longer are restricted to laws and economic tools, but engage (global) civil society and everyday life consumption practices as well.

EMT scholars began addressing consumption and lifestyle issues more closely and systematically starting in the mid-1990s (Spaargaren 1997; Cohen and Murphy 2001). However, because of the dominant focus on ‘smokestack’ and ‘effluent pipe’, production- and technology-related environmental problems and solutions in both environmental science and policy making, consumption-related topics received substantially less attention. More recently, sustainable consumption and lifestyle studies have begun to develop mature theoretical perspectives within EMT (Cohen 2001; Spaargaren 2003; Shove 2003; Carolan 2004; Mol and Spaargaren 2004; Spaargaren and Mol 2008). Also in (international) environmental policy making, the regulation of technology and production prevailed over product-policies and questions of lifestyles and consumption. Due to a growing awareness that the most persistent environmental problems – for example greenhouse gas emissions associated with transportation and home heating and cooling – have a strong and obvious consumption dimension, sustainable consumption and production (SCP) policies are gaining momentum at different levels of policy making.4 The consumerist turn in environmental practice and policy making now is unfolding rapidly, with companies competing for green consumers, governments developing new product policies and levelling the playing field for sustainable products and services, and third-party organisations formulating labelling and certification schemes; such trends give additional impetus to the further development and strengthening of sustainable consumption and lifestyle studies within EMT.

Outline and main arguments of the book

The bibliographies throughout this volume indicate the deepening and maturation of social scientific scholarship on environmental reform over the last three decades. At the same time, this richness presents a challenge for the selection of studies which together provide a representative introduction, foundation and overview of the EMT research tradition and ‘school of thought’. Selections are structured in four main themes, together encompassing the major themes in ecological modernisation research over the last thirty years. Each major part in this volume begins with a substantive review essay and introduction. These essays review the wider ecological modernisation studies in that area of scholarship, highlighting essential
developments and debates, and introducing the readings in that part of the volume. Each part includes ‘classic’ and contemporary texts that are illustrative of and essential to an understanding of the development of ecological modernisation studies in that realm.

Part One of this reader establishes the theoretical foundations of ecological modernisation, including its development as a notion, idea and theory since around 1980. How does ecological modernisation relate to wider sociological and political science theories? Some of the most cited ecological modernisation texts are included here, as well as two texts made available in English for the first time. Together, the materials in Part One provide an in-depth overview of the origins and basic tenets of ecological modernisation theory.

Part Two presents ecological modernisation studies of environmental politics, governance and policy making, at various geo-political scales. Conceptualisations of the state, NGOs and other non-governmental actors, global governance regimes and processes of political modernisation are included. Selected texts range from the initial ideas of the political modernisation of environmental reform framed in 1993, to the latest ideas of environmental governance in the era of hyperglobalisation.

Part Three deals with dynamics of ecological modernisation in production and consumption processes, illustrating both earlier work on the greening of production and private firms that was at the foundation of ecological modernisation in the 1980s, as well as more recent innovative work on the greening of life styles and consumption. Special attention is given also to the – much debated – role of technology and technological development in ecological modernisation processes.

Part Four of this volume focuses on the relevance of ecological modernisation outside the core region where it was born and matured (that is: outside Europe), especially in newly industrialising economies of the world. Ecological modernisation theory did emerge in north-western Europe, and used specific developments in this region as its dominant point of orientation. Hence, from Mol’s 1995 study onwards, the question of the relevance of ecological modernisation ideas for regions outside Europe has been on the research agenda. This part brings together studies of environmental reform efforts in Asia, Africa and elsewhere.

This reader’s concluding chapter takes up two tasks crucial for future research, scholarship and policy making in environmental reform. First, while core debates around Ecological Modernisation are discussed throughout the reader, this epilogue addresses some of the critical debates that have come along with the development and maturation of Ecological Modernisation Theory. Secondly, the final chapter assesses the current state of ecological modernisation research, and formulates an agenda for future ecological modernisation studies. It is the hope of the editors and contributors that this reader will prove to be a milestone in the advancement of social scientific scholarship on, and policy making for, environmental reform in the years to come.

Notes

1. This cleavage between developed countries of the global North and the developing countries of the global South had become quite apparent at the first Summit
on the Environment that was held in Stockholm in 1972. The North–South divide has pertained questions regarding the main causes of environmental degradation. In some circles, the debate coalesced around the views of Paul Ehrlich who attributed environmental degradation on the population growth rate of developing countries and the contentions of Barry Commoner who identified technological developments and consumption levels in affluent countries as the main causes of environmental degradation (see Feenberg 1979 for more details).

2. Ulrich Beck together with Anthony Giddens has criticised social sciences – sociology and political sciences in particular – for routinely taking the nation-state as its main object of theoretical analysis and point of departure for empirical research and policy making as well. They argue that with the emergence of the world network society, inter- and transnational social relations and inter-dependencies deserve much more attention from social scientists. The de-territorialisation and de-nationalisation of many environmental policies should follow-up on the period of the domination of nation-state politics (Beck and Wilms 2004; Spaargaren, Mol and Buttel 2006; Spaargaren and Mol 2008).

3. As is the case with some of the follow-up movies on climate change like The Eleventh Hour and Earth.

4. The international SCP-policies are discussed in Part Three of this book in more detail.

References


