Chapter 3

From Production to Consumption: Environmental Policy in the European Union

Joseph Murphy

1. Introduction

In advanced industrial countries environmental policy has been an accepted part of public policy for well over one hundred years. Throughout this period a key area has been the regulation of production via emission-limit values and technology standards. However, particularly in Western Europe, a fundamental shift is underway. It is beginning to be accepted that no matter how strictly production is regulated important environmental problems will remain. This is particularly the case because many problems are closely related to consumption and lifestyles and do not result directly from dangerous or inefficient production processes. Consequently policymakers are starting to think about the regulation of consumption to achieve environmental goals. This chapter examines how the European Union (EU) is dealing with the issue.

The first two sections of this chapter describe the EU's approach to production and consumption-related environmental problems. The former involves, for example, dealing with aqueous emissions from production processes, whereas the latter includes such things as solid waste resulting from the disposal of end-of-life consumer goods. In each case I discuss policy documents and specific regulations and directives. These sections show that since the early 1990s production-focused environmental policy has been justified by the argument that public policy can be used to drive innovation and technological change and that if this is done effectively it will simultaneously produce improved environmental performance and more efficient production processes. However, evidence suggests that the EU has found it difficult to develop legislation that actually builds on this argument. With respect to consumption-related environmental problems I show that the EU is in the process of extending the approach it takes to production. Consumption-related environmental problems are being understood as technical problems, largely related to products, which can be solved in a way that will bring economic gains for all concerned.

To explain the EU's approach to production and consumption-related environmental problems the third and fourth sections of this chapter describe various ideas and concepts from environmental social science. In section three I introduce and develop ecological modernisation theory. The discussion shows that the European Commission began to promote the ecological modernisation of production in the early 1990s, but the current

Exploring Sustainable Consumption: Environmental Policy and the Social Sciences, Volume 1, pages 39–58.

ISBN: 0-08-043920-9

approach to consumption is not consistent with widely understood notions of ecological modernisation. In the fourth section I examine actual policy outputs using a structural-institutional approach to environmental policy analysis (Jänicke 1992; Jänicke 1997) and a discourse analysis approach (Hajer 1995; Hajer 1996). Taking the case of the European Union as one example, the conclusion considers how public-policymaking institutions more generally are likely to engage with consumption-related environmental problems in the short to medium-term.

2. The European Union, Environmental Policy and the Regulation of Production

Industrial-environmental policy has evolved through at least three phases, although dates vary in different countries and with respect to distinct environmental media (see Andersen 1994:17–24). In its first phase policymakers encouraged, or at least permitted, the dispersal of pollution. A common response by industry was the construction of tall chimneys or long out-fall pipes at sea. The second phase was associated with an emphasis on the control of pollution rather than its dispersal. On the whole the implementation of legislation in this phase resulted in the installation of so-called "end-of-pipe" or "control" technologies, such as waste water treatment plants and flue-gas scrubbers. In both phases influential industry groupings argued that protecting the environment was financially costly and could compromise economic competitiveness, particularly at the international level, if firms based in other countries were not subject to the same requirements. However, at least in the case of the European Union, it is clear that in the late 1980s and early 1990s industrial-environmental policy began to move into a third phase. Evidence of this can be found in various policy documents, directives and regulations.

The most important European environmental policy document of the 1990s was the Fifth Environmental Action Programme *Towards Sustainability* (Fifth EAP) (CEC 1993a). This report was prepared by the Environment Directorate of the European Commission and adopted by the Council of Ministers in February 1993.[1] The Fifth EAP attempted to provide guidance to all actors in the EU on issues of the environment and manufacturing industry was one of five economic sectors discussed in detail.[2] In this area the document attempted to outline a new relationship between production, public policy, environment and competitiveness. It argued that industry could be part of the solution to environmental problems and that economic development and environmental protection need not be mutually antagonistic. Instead, the Fifth EAP argued, effective environmental policy may benefit the private sector and could be viewed as an opportunity.

To realise this opportunity the Fifth EAP suggested that policymakers should work constructively with industry and that environmental policy should aim to improve the

[1]Three institutions dominate policymaking in the European Union. The Council of Ministers is composed of relevant ministers from the member states. The European Parliament is the directly-elected assembly comprised of Members of the European Parliament (MEPs). The European Commission is the EU's civil service.

[2]The other areas covered were energy, transport, agriculture and tourism.

management and control of production processes. The minimisation of waste should be the primary concern rather than simply the control of harmful emissions. The Fifth EAP also argued that demanding environmental standards could be used to stimulate innovation. This in turn would enhance competitiveness provided that waste minimisation (efficiency improvement) was the way in which environmental problems were addressed. The following passage from the Fifth EAP illustrates the point:

> ... there has been a tendency to view industrialization or economic development and environmental concern as being mutually hostile ... [However] on the question of international competitiveness, the perceived conflict between environmental protection and economic competitiveness stems from a narrow view of the sources of prosperity and a static view of competition. Rather than reduce competitive advantage, stringent environmental requirements can actually enhance it by triggering upgrading and innovation. Those countries which have the most rigorous requirements mostly lead in exports of the affected products and technologies. (Chapter 4 Section 4.1)

The Fifth EAP also argued that if environmental policy was going to enhance competitiveness it would have to be more sophisticated, focusing on processes rather than emissions and making use of a variety of instruments, not just standard command-and-control approaches.[3]

In the early 1990s similar ideas were also being discussed in mainstream economic policy documents such as the EU's White Paper on *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century* (The White Paper) (CEC 1993b) (Gouldson and Murphy 1996). The White Paper was developed by the European Commission to consider how the EU might stimulate economic growth and reduce unemployment. Chapter 10 of the White Paper, entitled "Thoughts on a New Development Model for the Community" offered an assessment of the links between environment and economy. The Chapter starts by identifying two problems, namely that the European Union was suffering from high unemployment (under-use of labour resources) and an overuse of environmental resources. The document uses this and related issues, such as the ongoing substitution of labour by capital, to call for a new development model:

> The new development model for the Community therefore has to address the inefficient use of available resources in a wide perspective, i.e., taking into consideration the overall quality of life of the citizen. (CEC 1993b:146–47)

According to the Commission:

[3]The term "command-and-control" is commonly used in environmental policy circles although in practice very little may actually be commanded. The reality of implementation is likely to involve negotiated compliance between the regulator and the regulated. As a result there is some risk that the term promotes a false view of the nature of regulation.

> A major element of the new development model will be to decouple future economic prosperity from environmental pollution and even to *make the economic-ecological relationship a positive instead of a negative one.* The key for doing this will ultimately lie in the creation of a new "clean technology" base. (Emphasis original) (CEC 1993b:147)

Concerning the economic implications of this novel approach the Commission was quite clear:

> This new clean technology is likely also to generate, apart from a substantially improved environment, considerable *secondary benefits* for the Community ... In competitiveness terms ... the Community would improve the overall strength of the economy through optimal use of its resources and the prevention of costly clean-up operations, while a first-mover advantage can be exploited; the latter element is not to be underestimated as the new technology is not only a necessity in the industrial world but also in the NICs and LDCs. (CEC 1993b:147)

This argument is very similar to that made in the Fifth EAP. And as was the case with the Fifth EAP, the White Paper saw a positive role for public policy:

> The decoupling of economic prosperity from environmental deterioration through the creation of a new clean technology base is unlikely to happen without ... active and imaginative policy support. (CEC 1993b:148)

A number of specific directives and regulations can be linked to this new policy agenda. Two examples of "active and imaginative policy support" are the Integrated Pollution Prevention and Control (IPPC) Directive and the Eco-Management and Audit Scheme (EMAS) Regulation.

The IPPC Directive was agreed in 1996 and is the best example of European command-and-control type legislation in a new style.[4] The objective of the directive is to prevent or minimise air, water and soil pollution by emissions from industrial installations. The emphasis in the Directive is on the management of industrial processes themselves rather than associated wastes or the receiving environment. The legislation is designed to avoid the movement of waste from one media to another, something that in the past has been associated with media-specific approaches to industrial-environmental legislation. It also encourages (but does not require) the creation of a single pollution inspectorate with sole responsibility for implementation of environmental regulations. The assumption is that various gains will be associated with such an institution in the form of less bureaucracy and cheaper costs associated with implementation (see Haigh & Irwin (1990) for influential arguments in this area).

[4]Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control.

For a variety of reasons, therefore, the IPPC Directive is quite innovative. However, in some key areas, it is not entirely consistent with the new approach to environmental policy that the Commission began promoting in the 1990s. During the negotiations that led to the IPPC Directive the most contentious issue was the extent to which the Directive would be used to implement European best available technology standards and to drive innovation and technological change. The European Parliament was keen to have a technology-forcing piece of legislation and Germany argued for this in the Council of Ministers. However, what emerged leaves specific technological requirements largely to the discretion of implementing institutions in member states. The IPPC directive focuses mainly on the procedures through which the regulating institutions should proceed. Competent bodies in member states are required to take into consideration best available technology guidance documents prepared at the European level, but it is left to their discretion whether or not they actually require these standards of the companies they are regulating. In this key area the IPPC Directive arguably fails to put into practice the approach to environmental policy outlined in broader strategy documents.

A second example of specific action that can be linked to the new approach to environmental policy is the European Eco-Management and Audit Scheme Regulation (1993).[5] With this piece of legislation the EU attempted to move away from traditional command-and-control approaches to industrial-environmental regulation. It establishes an EU-wide scheme that allows companies to register an independently-audited environmental-management system as long as it is producing continuous improvement in environmental performance and satisfies other requirements of the scheme. The EU justifies and encourages the adoption of EMAS in a variety of ways. It argues, for example, that improving management systems in companies alone will result in economic and environmental gains. It claims that some companies are increasingly interested in being proactive on environmental problems and a voluntary scheme such as EMAS allows them to demonstrate this strategic posture to a variety of stakeholders. Finally, voluntary self-regulation holds out the possibility of changing the relationship between the public and private sectors over the medium to long term. Arguably, therefore, EMAS is consistent with the broader approach to policy outlined in documents like the Fifth EAP. And, compared to the IPPC Directive, EMAS was a relatively uncontroversial piece of legislation.

3. The European Union, Environmental Policy and the Regulation of Consumption

The EU began to experiment with consumption-focused environmental legislation in the early 1990s as consumption-related environmental problems became more acute — particularly the growing mountain of domestic solid waste (see below).[6] However, by the

[5]Council Regulation (EEC) No 1836/93 of 29 June 1993 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme.

[6]Like most governments the EU has a long history of attempting to manipulate consumption for macroeconomic reasons. However, manipulation of consumption for environmental reasons is a new departure. Even energy efficiency, which is a slightly older concern and which has environmental aspects, emerged largely for economic reasons.

mid-1990s it was clear that it was developing pieces of legislation in an ad hoc way, without a clear underlying framework or rationale. At this point the European Commission began to fund research projects with the aim of crafting a more coherent approach (for an early example see Oosterhuis *et al.*, 1996). In the late 1990s, a special report on the topic was commissioned from the Science and Policy Research Unit (SPRU) of the University of Sussex (SPRU 1998). SPRU has been particularly influential in establishing the broad approach to consumption-related environmental problems and in promoting the idea of Integrated Product Policy (IPP).

The SPRU report on IPP analyses recent product-policy developments at national and international levels with the aim of establishing the elements of a European policy in this area. For the purposes of the report IPP is defined as follows:

> Integrated product policy addresses the whole life-cycle of a product, thus avoiding shifting environmental problems from one medium to another, as opposed to specific product policy, which addresses one particular environmental effect. (SPRU 1998:1).
>
> ... [IPP is] public policy which explicitly aims to modify and improve the environmental performance of product systems. (SPRU 1998:9).

The report justifies the idea of IPP environmentally by claiming that the relative importance of consumption-related environmental problems has been rising over the past two decades. Obvious examples are the growth of domestic waste and local air-quality problems related to private automobile use.

The main conclusion of the report is the proposal that IPP can be created around five IPP building blocks. Each block should be composed of a cluster of policies with a common objective and, it is argued, IPP will be achieved by the "structured accumulation of measures" in each area over time. The five IPP building blocks are:

- Measures to reduce/manage waste generated by the consumption of products;
- Measures targeted at the innovation of more environmentally sound products;
- Measures to create markets for more environmentally sound products;
- Measures for transmitting information up and down the product chain;
- Measures which allocate responsibility for managing the environmental burdens of product systems.

One of the practical recommendations of the SPRU report was that the European Commission should hold a conference to launch a debate on IPP. Such a workshop was held at the beginning of December 1998, though very little was actually agreed about the content of IPP beyond its coverage of all product systems and environmental effects. Nonetheless, participants accepted that life-cycle analysis would be important (as already developed in association with the Eco-Labelling Regulation).

More recently, the Commission discussed the idea of IPP in its *Global Assessment* (CEC 1999) of the Fifth EAP. The period of implementation of the Fifth EAP ended in 2000 and the *Global Assessment* was designed to be a review of its achievements. It was also

intended to launch a debate on the content of the Sixth Environmental Action Programme, which is likely to have a major impact on the direction of EU-environmental policy in the years ahead. The *Global Assessment* clearly links waste and consumption practices by focusing on products and states that IPP should be a key part of the Sixth Environmental Action Programme:

> The problems of waste in the EU are still growing faster, due to consumption patterns, than the implementation of measures to control and prevent them ... priority in the future will need to be given to promoting an active product policy in order to make products recyclable from their design phase as well as further preventing waste generation. (CEC 1999:11–12)

As mentioned above the EU had actually begun the ad hoc accumulation of measures in the area of consumption before the idea of Integrated Product Policy was fully developed. The eco-labelling scheme and the packaging-waste directive are two examples, although these are now being understood in the context of IPP.

The European Eco-labelling Scheme Regulation was agreed in 1992 and aims to promote the design, production, marketing and use of products that have a reduced environmental impact throughout their entire life cycle.[7] The main idea is that such an approach will be achieved by encouraging producers to redesign products and by providing consumers with better information about their environmental impacts. The scheme is voluntary, but producers can have their products assessed against specific criteria to establish whether or not they qualify for a European eco-label. The criteria are developed by national eco-labelling boards in close collaboration with industry. In theory the eco-label can be applied to most products and criteria currently exist for such things as washing machines, photocopy paper and mattresses.

The primary motivation for the eco-labelling scheme was the Commission's desire to harmonise the provision of environmental information on products throughout Europe. In each member state of the Union there currently exist a variety of environmental labels and theory suggests that this could compromise the operation of the single market. However, in practice the European eco-label has not been particularly successful. Companies in some sectors have shown little enthusiasm and whole sectors have effectively boycotted the scheme for a variety of reasons. At the same time, consumers show minimal awareness of the label itself and it is now accepted by the Commission that the European eco-label will not replace existing schemes at the national level (Nadäi 1999).

In 1994, the EU developed another piece of consumption-focused environmental legislation with the Packaging and Packaging Waste Directive (PPW Directive).[8] The origin of this Directive was the need to deal with the market-distorting implications of German domestic-packaging legislation. The objective of the PPW Directive is to harmonise national measures concerning the management of packaging and packaging

[7]Council Regulation (EEC) No 880/92 of 23 March 1992 on a Community eco-label award scheme (Official Journal L 99, 11.04.1992).

[8]Council Directive 94/63/EC of 15 December 1994 on packaging and packaging waste (Official Journal L 365, 31/12/1994).

waste. It covers all packaging placed on the market in the Community and all packaging waste, whether it is used or released at industrial, commercial, office, shop, service, household or any other level, regardless of the material used. It thus applies to intermediate, as well as end consumers. The PPW Directive requires member states to take measures to prevent the formation of packaging waste. For example, they must introduce systems for the return and/or collection of used packaging to attain specific targets. The Directive also lays down essential requirements as to composition, reuse, recovery and recycling of packaging. However, perhaps most important of all, the PPW Directive began to introduce the idea of extended producer responsibility into European environmental law establishing that key obligations in the Directive rest with the producers of packaging rather than consumers. Extended producer responsibility is central to more recent proposals for legislation on waste electrical and electronic equipment, and end-of-life vehicles.

4. The Ecological Modernisation of Production and Consumption in Europe

It is clear from the above that in the 1990s the EU began to endorse a new approach to environmental policy. This was developed first with respect to production-related environmental problems, but is now being explored as a way to deal with consumption-related issues. In this section I discuss ecological modernisation theory and use this perspective to analyse these recent developments. Ecological modernisation theory is useful because it critically analyses the relationship between environment and society in advanced industrial countries and, at the same time, allows prescriptions to be derived from it relatively easily. The theory has also been developed largely in the western European context and is therefore appropriate for this discussion.

The ecological modernisation debate began in the early 1980s (see Murphy 2000 for a history). Proponents of the theory have argued that environmental problems in advanced industrial societies are largely caused by wasteful and inefficient production processes, and, as a result, argue that new technologies will play a major role in dealing with them. Joseph Huber, for example, promoted superindustrialisation where "... the dirty and ugly industrial caterpillar will transform into a[n] ecological butterfly" (Huber 1985:20 as quoted in Mol 1995:37). More recently, Gouldson and Murphy have examined the nature of industrial innovation and technological change in more detail. They draw attention to the fact that changing management techniques may be as equally important to this evolutionary process as developing new technologies. They also argue that ecological modernisation in practice will involve the incremental improvement of existing approaches to production in combination with less frequent radical change. With respect to the *immediate* environmental impacts of industrial processes, they argue that innovations (technological and managerial) can result in environmental and economic gains simultaneously (Gouldson & Murphy 1998; Murphy & Gouldson 2000).

Arthur Mol (1995) has been responsible for establishing a broader vision of ecological modernisation. Based on research in the Dutch chemicals industry, Mol has demonstrated

that ecological modernisation involves the transformation of the institutions of modernity via the integration of environmental priorities. According to Mol (1995:394)

> Economic institutions such as the commodity and labour markets, regulating institutions such as the state and even science and technology are redirected in the sense that they take on characteristics that cause them to diverge from their productivity-oriented predecessors ... Ecological modernization can thus be interpreted as the reflexive (institutional) reorganization of industrial society in its attempt to overcome the ecological crisis.

Consumption has received relatively little attention in the context of ecological-modernisation theory, but it is possible to establish what the ecological modernisation of consumption might involve. One obvious starting point is technological change. This might involve redesigning products based on life-cycle analysis of environmental impacts or more fundamental changes such as the promotion of tele-working (if this does in practice result in reduced environmental impacts). However, such technological changes on their own do not involve or require the integration of environmental concerns into consumption practices themselves. As a result, technological change may be a necessary part of the ecological modernisation of consumption, but there must be more involved.

Gert Spaargaren has done the most to develop a broader perspective on the ecological modernisation of consumption (see Spaargaren 1997, Chapters 5 and 6). Although he acknowledges that technology has a significant role to play, and he endorses Huber's maxim that "all roads *out of* the environmental crisis lead us further *into* the industrial society", he argues for a different approach. It is necessary, he claims, for consumption to be understood in its own terms and not as determined by technology and therefore by producers. To achieve this understanding he draws on the literature from a variety of social science disciplines. This analysis confirms that beyond a basic level consumption is no longer entirely (or even largely) explained by issues of material well-being and utility and that consumers are not simply duped by producers into consuming. Researchers aligned with the fields of cultural studies, sociology and anthropology have established that identity formation, status- seeking, group communication, and a variety of other contextual influences are central to understanding consumption practices (see for an overview Lury 1996; Corrigan 1997). Therefore, Spaargaren argues, the ecological modernisation of consumption must involve "... focus[ing] on the social processes that are hidden behind the changes in consumer behaviour" (Spaargaren 1997:169). The integration of environmental concerns into these social processes is therefore central to the ecological modernisation of consumption.

From a public-policy perspective this outline of the ecological modernisation of production and consumption raises the question of the extent to which it is possible to actively encourage such changes. In other words, what is the role of government in promoting and facilitating more sustainable consumption patterns? Although it is clear that many transformational processes are operating beyond government control, most authors have argued that governments and public policymakers are still central to ecological modernisation. Most of the existing work has focused on the relationship between governments and producers (see Weale 1992; Boehmer-Christiansen & Weidner 1995; Gouldson &

Murphy 1998).[9] I argue here that intervention is required to make sure that companies overcome the short-term barriers to innovation that prevent them from realising medium- to longer-term economic and environmental gains (Gouldson & Murphy 1998). In terms of actual policies, empirical work suggests that the integration of the environment into production will require the establishment of demanding medium- to long-term environmental targets and standards to encourage the invention, innovation and diffusion of new technologies. At the same time, a variety of policy instruments will need to be used — such as voluntary agreements and market-based approaches — to complement more traditional approaches to regulation. Overall, this is a reregulation rather than a deregulation agenda.

In comparison, very little work has considered the role of the state and public policy in the ecological modernisation of consumption. However, the essential approach that a policy programme must take can be derived from the above. Policies to encourage and require product-oriented techno-fixes will be part of any programme, but a much broader approach is necessary. To actually restructure consumption practices via the integration of environmental concerns public policy will have to recognise at least three issues: the role that consumption plays in identity formation; the relational characteristics of consumption practices; and the structural-infrastructural constraints on consumption. This definitional framing of the consumption and environment nexus suggests that instruments such as the provision of environmental information on product labels or the manipulation of prices may be involved, but that a much wider range of approaches are required. Influencing the context of consumption may involve changes to education curricula and public debate on the relationship between consumption and quality of life. More radically, and more problematic in the context of liberal democracy, action to control advertising messages could be necessary. However, regardless of the nature of specific actions, it is clear that a genuine attempt to encourage the integration of environmental concerns into consumption practices will place significant demands on the policy process.

This brief discussion of ecological modernisation theory provides some tools that can be used to assess the EU's approach to environmental policy. In the area of production-related environmental problems it is clear that in the early 1990s the EU began to endorse a programme of action that has much in common with the ideas discussed above. The Fifth EAP in particular reveals these connections. The analysis underpinning the document essentially argues that many environmental problems are linked to wasteful production processes. It also argues that this inefficiency represents an environmental, as well as an economic, opportunity. However, contrary to free-market ideas, the Fifth EAP does not accept that rational economic actors will necessarily exploit these opportunities. Instead the report claims that public policy is required to ensure that environmental targets are met and economic opportunities realised. This contention is essentially the same as the argument that underpins ecological modernisation theory in this area.

[9]This discussion will not consider the transformation of the institutions of government themselves, although this is important. Instead it will focus on the external actions institutions take in an attempt to transform production and consumption. Clearly, however, these are not unrelated and more effective, or at least better informed, external actions are likely to be related to greater success at integrating environmental issues internally.

With respect to more specific proposals and actual policy outputs, the Fifth EAP is careful to avoid endorsing old-style central planning. Instead, in common with the ecological modernisation debate, it argues for an innovative approach to public policy and the use of a variety of policy instruments. The EMAS Regulation establishing a voluntary scheme that companies can join at their discretion is an example of the EU actually putting this into practice. And, consistent with the theory of ecological modernisation, evidence suggests the management techniques involved will result in environmental and economic gains for those companies that register under the scheme. However, the IPPC Directive is not as convincing as a piece of environmental legislation consistent with the broader policy position. IPPC provided the EU with an opportunity to introduce a technology-forcing piece of legislation consistent with the position adopted in broader policy documents. Instead, the IPPC Directive that has emerged will at best result in the wider adoption of existing production technologies rather than the rapid development of new ones.

EU environmental policy in the area of consumption-related environmental problems can also be analysed using ecological modernisation theory. It is clear from the description of Integrated Product Policy that the EU is basing policy on the assumption that consumption-related environmental problems exist largely as a result of poorly designed products. Thus, strictly speaking, environmental problems are product-related rather than consumption-related and they are traced back to producers. On the basis of this narrower problem definition the specific actions that flow from the IPP framework aim to encourage the redesign of products and the consumption of products with less of an impact on the environment. In practice this involves extended producer responsibility, eco-labelling, differential pricing of products and so on. And, as an extension of the previous argument, the EU argues that this may simultaneously result in reduced production costs, cheaper products and environmental gains.

With the discussion of the ecological modernisation of consumption in mind, the EU appears to have adopted a very limited consumption and environment agenda. By exclusively focusing on products the EU is failing to engage with consumption itself and why people are consuming in particular ways. This raises some doubts about key policy principles such as extended-producer responsibility (EPP). EPP appears logical if the main problem is product design because it can be used to encourage producers to reconceptualise and refashion products so they have less of an impact on the environment. However, alternatives, such as combined responsibility or consumer responsibility, may actually be a better starting point if the aim is to achieve the integration of environmental considerations into consumption practices rather than simply encouraging technological changes to products. Related to this is the problem that where the EU is actually targeting the act of consumption all of its actions are focused on the immediate encounter between the individual and the product. Little attention is being directed toward interventions that might influence the context within which consumption takes place. The eco-labelling scheme is a good example. There is no evidence to suggest that the EU has engaged with the relational aspects of consumption or the structural-infrastructural influences on consumption practices.

5. Environmental Capacities and Discourses in the European Union

Using ecological modernisation theory as a framework the previous section critically assessed the EU's approach to production and consumption-related environmental problems. Particularly in the area of consumption this chapter has raised some doubts about the approach currently being adopted. However, the discussion so far has not attempted to actually account for the EU's approach to environmental policy. This section takes up this task using structural-institutional and discourse approaches to environmental-policy analysis.

The structural-institutional approach to policy analysis is common in environmental policy studies. This perspective emphasises the institutional and other structural influences on the policy process. Martin Jänicke has made several valuable and influential contributions in this tradition (see particularly Jänicke 1992 and 1997). He argues that in advanced industrial countries actors develop environmental-policy strategies while being influenced primarily by:

- the economic performance of the country/region concerned;
- the structure of the problem being addressed;
- the framework conditions including institutional, economic and informational factors;
- the short-term situative context.

Although it is not possible to develop a very detailed analysis here the structural-institutional approach does help to explain a number of the characteristics of environmental policy in the EU.

Considering the impact of economic performance on environmental policy in Europe draws attention to the economic imperative that explains the existence of the European Union.[10] From the 1950s onward, as described by Williams (1994:4):

> The powerful logic of capital accumulation ... exposed the critical need for economic reorganization [in Europe]. Production was becoming increasingly globalized and required the assemblage of capital and labour at the international scale. The logic of market access and scale economies also pointed to the need for transnational strategies in both sales and production.

Therefore, the *raison d'être* of the European Union is economic growth and international competitiveness, particularly with respect to the United States. Projects such as the creation of the European single market and the launch of the single currency are practical examples and failure to achieve economic growth places the whole European project in doubt.

Compared to economic growth, and despite its inclusion in recent European treaties, environmental protection is still a marginal issue in Europe. Arguably this is one of the

[10]The economic explanation for the existence of the EU is the most convincing, but the desire to promote cohesion in post-war Europe is also important and a political goal.

biggest influences on environmental policymaking. As Boehmer-Christiansen (1995:174) has argued:

> The overriding goals of the EU are economic growth and political integration, both are to be advanced by environmental regulation. Only when both promise to be satisfied, can an active and effective Community policy be expected.

Viewed in such terms, the European Commission's adoption of a new approach to environmental policy toward the end of the 1980s and into the 1990s is understandable. At this time, despite its main priority being economic growth, much of the EU was suffering from slow growth and structural unemployment as described in the White Paper on *Growth, Competitiveness and Employment.* Environmental policymaking under these conditions was difficult particularly given the prevailing assumption that addressing environmental problems was financially costly. In this situation an underpinning argument suggesting that environmental and economic priorities are compatible was arguably a necessary condition of environmental action.

From the EU's perspective waste is often the structure of the problem being addressed. Clearly waste is related to economic performance, but there are a variety of structural influences on the policy process that tend to ensure that environmental problems are understood in this way. First, when the unit of analysis is Europe it is likely that waste, rather than an alternative such as resource use, will emerge as the key policy problem. In most cases, developed economies use up the resources of other countries, but production and consumption wastes often have to be disposed of locally. The impact of the unit-of-analysis problem is clearly seen in European state-of-the-environment reports — for example *The Dobris Assessment* — that emphasise waste-related problems of various kinds (solid, liquid, gaseous) (EEA 1995). Second, as a result of the diminishing number of landfill sites, and opposition to building new incinerators, solid waste is particularly problematic for some powerful member states of the European Union. It is easy to imagine how domestic priorities are communicated and prioritised at the European level where waste is seen as a key structural environmental issue. Third, presenting environmental problems as related to waste is appealing to policymakers who typically have technical/engineering or neo-classical economic backgrounds and emerges out of policy networks dominated by associated worldviews. Finally, engaging with environmental problems from a waste perspective reinforces a win-win type of argumentation because it is the wasteful nature of production in particular that creates the opportunity of realising environmental and economic gains simultaneously. Waste is therefore appealing to European environmental policymakers and not surprisingly dominates many policy documents and pieces of legislation.

The structural-institutional approach to policy analysis also establishes the need to understand specific outputs as influenced by framework conditions and situative context. The IPPC Directive, as described above, is a good example. I argued above that the IPPC Directive is not consistent with the broader position adopted in the Fifth EAP and other policy documents in the area of production-related environmental problems. This is particularly the case because of its failure to implement the idea of technology-forcing

legislation, for example, via pan-European technology standards. However, this outcome is easily explained because some EU-member states did not accept the underpinning argument that supports technological change driven by public policy. Also, some countries were sceptical about the motivations behind its endorsement by countries such as Germany, fearing that they were attempting to establish foreign markets for environmental technologies developed at home. The UK was one of the dissenters and due to prior experience with integrated environmental legislation, and well-placed staff in the European Commission, it ensured that the IPPC Directive reflected an alternative approach to industrial environmental policy. In contrast the EMAS regulation is consistent with the ecological modernisation position, but the successful adoption of this instrument needs to be explained with care. Even those actors sceptical about the ecological modernisation argument could endorse this proposal because it involved establishing a voluntary scheme. In fact, those in favour of a deregulation agenda could view this as a positive step because it opened up the possibility of self-regulation by industry at some point in the future.

EU consumption-related environmental policy can also be explained by bearing in mind framework conditions and situative context, particularly the Integrated Product Policy approach. Here, there are two issues (1) the reduction of the scope of the consumption-environment debate to the design and purchase of environment-friendly products and (2) the approach being adopted within IPP, particularly extended-producer responsibility. The first of these points is also partly explained by the EU's commitment to growth. This makes questioning consumption, and more specifically increasing levels of consumption, difficult. Doing so would immediately be antagonistic to the central project of the EU and focusing on products rather than consumption is much less problematic. At the same time, like all institutions of government, questioning consumption is difficult because of the link between consumption, consumer sovereignty and ideas of freedom and liberty. And, more practically, because of its areas of competence, the EU actually has limited ability to develop a very expansive policy programme in the area of consumption. For example, the discussion above outlined the linkage between consumption and infrastructure, but the EU has very little power to influence planning decisions for physical facilities in member states. EU environmental impact assessment legislation does exist, but it would be difficult to address the affects of development projects on consumption practices through this mechanism.

With the focus on the design and purchase of more environment-friendly products, the actual approach being adopted is in part explained by the existence of policy networks dominated by two communities. The first community is composed of scientists and engineers and the second community is controlled by traditional neo-classical economists. People with scientific/engineering backgrounds tend to view environmental problems as technical issues that can be addressed with technical solutions. From this perspective, with an environmental concern such as waste, the obvious technical solution is to make production and consumption more efficient via new process technologies and products. Extended-producer responsibility appears to provide the most logical route to this objective, regardless of who is actually accountable for consumption-related environmental problems, because producers have the capacity to use their research and development expertise to develop new products. With respect to encouraging people to buy less environmentally damaging products, arguably the most influential group is economists who

make certain assumptions about markets and consumers, which then influence the policy proposals they make. For example, it is assumed that consumers are autonomous rational economic agents motivated by personal welfare and that access to information is fundamental to the functioning of a market (refer to Chapter 5 of this volume).

The idea of IPP and its associated proposals can be explained largely in these terms. Like many parts of the European Commission the Environment Directorate is poorly staffed for the task it has to carry out. A small staff relies heavily on contracted work and seconded employees. When faced with an emerging issue, such as consumption-related environmental problems, the Environment Directorate will tend to turn to research organisations with which it is familiar for guidance. Sussex University's Science Policy Research Unit is a group that enjoys such a relationship and, as outlined above, has done much of the most influential work for the Commission in the IPP area. Without commenting on the quality of the effort, the long-standing relationship between the Commission and SPRU means that the Commission is sympathetic to the general approach that SPRU applies to problems. This approach typically involves a technical/engineering view of environmental problems that is underpinned by innovation and network theory. With respect to society, public-policy proposals from SPRU are commonly based on an analysis that is grounded in neo-classical economic assumptions. As a result SPRU's analysis of consumption-related environmental problems for the Commission was always likely to result in something similar to IPP. Extended-producer responsibility seeks to encourage innovation and technological change. Regarding consumers, SPRU recommends the provision of information and price signals to make sure the market functions correctly. The analysis in the area of consumers is particularly weak because it fails to take into account the identity formation and relational characteristics of consumption.

An alternative and less traditional approach to policy analysis involves focusing on the language of policy itself. The discourse-analysis approach for the study of environmental policy is particularly associated with the work of Maarten Hajer (1995, 1996) (but also see Hannigan (1995) and Dryzek (1997)). Hajer aims to explain environmental policy outcomes not by focusing on the reality of the problem or the structural influences like staffing and institutions, but by assessing the power of the arguments that underpin policy documents.

Hajer (1995:44) defines discourse as:

> ... a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities.

In association with this perspective Hajer has argued that environmental policy is determined by the particular policy discourse that is dominant at a point in time. A hegemonic discourse is composed of specific "story-lines" that are attractive to a majority of actors who then form a "discourse coalition" in support of a specific approach. When a discourse is translated into institutional arrangements and policies "discourse institutionalisation" has been achieved. This approach can help to refine the understanding of EU environmental policy developed above.

From the late 1980s onward environmental policy debates in advanced industrial countries began to be influenced by a variety of new concepts and theories. Many of these novel approaches made the same or similar points, but the most influential has probably been the concept of *eco-efficiency*, introduced by the World Business Council for Sustainable Development (WBCSD) as the private sector's contribution to the 1992 Earth Summit (see Schmidheiny 1992; De Simone and Popoff 1997). WBCSD state that eco-efficiency

> Involves the delivery of competitively-priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle, to a level at least in line with the Earth's estimated carrying capacity (WBCSD web-site 20 April 2000).

Proponents of the concept argue that a company wanting to become more eco-efficient should strive to reduce the material intensity of its goods and services, reduce the dispersion of any toxic materials, extend the durability of its products and so on. Case studies show that a firm that follows such a programme will get an economic payback. Other concepts making the same or similar claims are "Factor Four" and "Factor Ten" (von Weizsäcker *et al.*, 1997), "industrial ecology" (Socolow *et al.*, 1997) and "the Porter hypothesis" (Porter 1991; Porter and van der Linde 1995).

These ideas introduced new storylines into environmental debates from the late 1980s onward. Taken as a whole they helped to create a new discourse that involved rethinking the relationship between production, environmental problems and public policy. This in turn allowed new discourse coalitions to form. Since the early 1990s, for example, WBCSD has become a key coalition partner with the Organisation for Economic Cooperation and Development (OECD) in part because of the eco-efficiency concept. This is seen in the OECD's adoption of eco-efficiency in the mid- to late- 1990s, at which point the organisation arguably began a process of discourse institutionalisation (OECD 1998).

By the end of the 1990s to be considered a legitimate voice in environmental policy-making it was necessary to make use, at least to some extent, of the "win-win" type language associated with all the concepts outlined above. As Hajer (1995) points out, the new discourse involved more than just new arguments, it transformed the perception of environmental problems for policymakers. It is clear that the EU, and particularly the European Commission, has influenced and has been influenced by the creation of this new environmental discourse. It is also clear that the new discourse was used initially in the area of production-related environmental problems, but from the early 1990s onwards it began to be applied to consumption-related problems as well.

The ready availability of the win-win eco-efficiency discourse therefore made it less likely that a new approach to environmental policy would be developed around consumption itself. Instead, eco-efficiency has simply been extended. However, reflecting its origins in supply-side debates, the eco-efficiency discourse has very few concepts within it that can actually be used to underpin consumption-related environmental policy in any significant way. Although it may indicate ways of integrating environmental concerns into production practices it cannot suggest ways of integrating them into consumption practices. As a result the EU in this area is falling short of what would be consistent with an

ecological modernisation of consumption programme and policy appears to be somewhat simplistic.

6. Conclusion

This chapter has developed two arguments. In the first part of the discussion I introduced ecological modernisation theory and used this perspective to analyse the EU's approach to production and consumption-related environmental problems. In the area of production it was concluded that the EU appears to be endorsing a programme of ecological modernisation. Characteristic of this emphasis is the prominence of technological innovation, the view that environmental and economic gains may result from public policy interventions and the idea that businesses should integrate environmental concerns into their business practices. However, in the area of consumption the EU's approach is not consistent with ecological modernisation. EU policymakers have simply focused on products and extended the existing technology-focused strategy. The ecological modernisation of consumption as developed in this paper would involve much more than this, in particular public policy aimed at integrating environmental concerns into consumption practices.

The second part of this chapter sought to explain the EU's approach to environmental policy in these areas. At the broadest level, the EU has clearly been influenced by the emergence of a new environmental policy discourse at the international level. Ideas of eco-efficiency and "win-win" solutions to environmental problems have resulted in a new understanding of the role of environmental policy. However, the EU's current stance is not simply explained by discourse. A variety of structural and institutional influences on the policy process also help to explain recent policy outputs. Perhaps most important of all is the need to reconcile environmental protection with the EU's core project of economic growth. Other important influences are the tendency to view environmental problems from a waste perspective and for policy debates to be dominated by technologists and economists.

It is in the area of consumption that the EU's approach to environmental policy seems to be most compromised by these influences. Although consumption-related environmental problems are not solely the result of poorly designed products or poorly informed consumers, the EU seems unable to develop a more sophisticated approach. These ideas are production-oriented and provide little guidance in the area of consumption. A more promising policy agenda would involve thinking about the role that consumption plays in identity creation, the relational characteristics of consumption practices, and the structural/infrastructural constraints on consumption that people experience everyday. However, developing environmental policy from this perspective would involve overcoming a variety of very significant influences on the policy process.

It is also worth reflecting upon some of the wider implications of this chapter. Many environmental policymakers and institutions are currently starting to think about consumption-related environmental problems and "sustainable consumption". The OECD and the United Nations Environment Programme (UNEP) both have groups working on the issue and it has been an ongoing theme in the United Nations Commission on Sustainable Development. Although the EU has a number of unique characteristics it also shares a

number of common features with these secondary policymaking groups. The OECD, for example, has a tendency to prioritise economic growth over environmental protection. Environmental policymaking in all of these organisations is dominated by the engineering and economic worldviews. Not surprisingly, therefore, all of these institutions are endorsing product-focused strategies and technological solutions in the area of consumption. At the same time they are finding it difficult to engage with consumption on a broader and more thoughtful basis. Scholars interested in the politics of environmental policy can play a useful role in drawing attention to the inherently conservative nature of these policymaking processes. In this sense, the EU is simply a case study and other institutions are likely to show similar characteristics. For social scientists of consumption more generally, in disciplines that have in many cases distanced themselves from normative and prescriptive policy-relevant work, there is an opportunity to influence an emerging debate.

Acknowledgment

An earlier version of this paper was presented at a seminar organised by the Environmental Change Institute of Oxford University. I would like to thank everyone who offered thoughts and criticisms — particularly Tina Fawcett.

References

Andersen, M. (1994), *Governance by Green Taxes: Making Pollution Prevention Pay*. Manchester: Manchester University Press.

Business Council for Sustainable Development (BCSD). (1993), *First Workshop on Eco-Efficiency*. Antwerp, Business Council for Sustainable Development.

Boehmer-Christiansen, S., & Skea, J. (1991), *Acid Politics: Energy and Environmental Policies in Britain and Germany*. London: Belhaven.

Boehmer-Christiansen, S., & Weidner, H. (1995), *The Politics of Reducing Vehicle Emissions in Britain and Germany*. London: Pinter.

Commission of the European Communities (CEC). (1993a), *Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development (also The Fifth EC Environmental Action Programme), OJ 1993 C 138/01*. Office for Official Publications of the European Communities, Luxembourg.

Commission of the European Communities (CEC). (1993b), *Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century, Bulletin of the European Community, Supplement 6/93*. Office for Official Publications of the European Communities, Luxembourg.

Commission of the European Communities (CEC). (1999), Communication from the Commission: *Europe's Environment: What Directions for the future? The Global Assessment of the European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development, 'Towards Sustainability' (COM (99) 543/6)*.

Corrigan, P. (1997), *The Sociology of Consumption*. London: Sage.

De Simone, L., & Popoff, F. (1997), *Eco-Efficiency: The Business of Sustainable Development*. Cambridge, MA: MIT Press.

Dryzek, J. (1997), *The Politics of the Earth: Environmental Discourses*. Oxford: Oxford University Press.

European Environment Agency (EEA). (1995), *Europe's Environment: The Dobris Assessment.* Copenhagen: European Environment Agency.

Gouldson, A., & Murphy, J. (1996), "Ecological modernization and the European Union." *Geoforum 27* (1), 11–27.

Gouldson, A., & Murphy J. (1998), *Regulatory Realities: The Implementation and Impact of Industrial Environmental Regulation.* London: Earthscan.

Graedel, T. (1997), "Industrial ecology: Definition and implementation." In R. Socolow, C. Andrews, F. Berkhout & V. Thomas (eds) *Industrial Ecology and Global Change* (pp. 23–41). Cambridge: Cambridge University Press.

Haigh, N., & Irwin, F. (1990), *Integrated Pollution Control in Europe and North America.* Washington, DC: The Conservation Foundation and the Institute for European Environmental Policy Analysis.

Hajer, M. (1995), *The Politics of Environmental Discourse: Ecological Modernisation and the Policy Process.* Oxford: Oxford University Press.

Hajer, M. (1996), "Ecological modernisation as cultural politics." In S. Lash, B. Szerszynski & B. Wynne (eds) *Risk, Environment and Modernity: Towards a New Ecology* (pp. 246–268). London: Sage Publications.

Hannigan, J. (1995), *Environmental Sociology: A Social Constructionist Perspective.* London: Routledge.

Huber, J. (1985), *Die Regenbogengesellschaft: Ökologie und Sozialpolitik* (The Rainbow Society: Ecology and Social Politics). Frankfurt am Main: Fisher Verlag.

Jänicke, M. (1985), *Preventive Environmental Policy as Ecological Modernisation and Structural Policy.* Discussion Paper IIUG dp 85-2, Internationales Institut Für Umwelt und Gesellschaft, Wissenschaftszentrum Berlin Für Sozialforschung (WZB).

Jänicke, M., Mönch, H., Ranneberg, T., & Simnois, U. (1988), *Economic Structure and Environmental Impact: Empirical Evidence on Thirty-One Countries in East and West.* Working Paper FS II 88-402, Internationales Institut Für Umwelt und Gesellschaft, Wissenschaftszentrum Berlin Für Sozialforschung (WZB).

Jänicke, M., Monch, H., Ranneburg, T., & Simonis, U. (1989). "Economic structure and environmental impacts: East-West comparisons." *The Environmentalist 9* (3).

Jänicke, M. (1992), "Conditions for environmental policy success: An international comparison." In M. Jachtenfuchs & M. Strübel (eds), *Environmental Policy in Europe: Assessment, Challenges and Perspectives* (pp. 71–97). Baden-Baden: Nomos Verlagsgesellschaft.

Jänicke, M. (1997), "The political system's capacity for environmental policy." In M. Jänicke & H. Weidner (eds) *National Environmental Policies: A Comparative Study of Capacity-Building* (pp. 1–24). Berlin: Springer.

Liefferink, D. (1996), *Environment and the Nation State.* Manchester: Manchester University Press.

Liefferink, D. (1997), "The Netherlands: A net exporter of environmental policy concepts." In M. Andersen & D. Liefferink (eds) *European Environmental Policy: The Pioneers* (pp. 210–245). Manchester: Manchester University Press.

Lury, C. (1996), *Consumer Culture.* Cambridge: Polity Press

Mol, A. (1995), *The Refinement of Production: Ecological Modernization Theory and the Chemical Industry.* The Hague: CIP-Data Koninklijke Bibliotheek.

Murphy, J. (2000), "Ecological modernisation." *Geoforum 31* (1), 1–8.

Murphy, J., & Gouldson, A. (2000), "Environmental policy and industrial innovation: Integrating environment and economy through ecological modernisation." *Geoforum 31* (1), 33–44.

Nadäi, A. (1999), "Conditions for the development of a product eco-label." *European Environment 9* (5), 202–211.

National Society for Clean Air and Environmental Protection (NSCA). (1993), *1993 Pollution Handbook*. Brighton: National Society for Clean Air and Environmental Protection.

Organization for Economic Cooperation and Development. (1998), *Eco-Efficiency*. Paris: OECD.

Oosterhuis, F., Rubik, F., & Scholl, G. (1996), *Product Policy in Europe: New Environmental Perspectives*. London: Kluwer Academic Publishers.

Porter, M. (1991), "America's green strategy." *Scientific American*, April, 264.

Porter, M., & van der Linde, C. (1995), "Green and competitive: Ending the stalemate." *Harvard Business Review 73* (5), 120–133.

Schmidheiny, S. (1992), *Changing Course: A Global Business Perspective on Environment and Development*. Cambridge, MA: MIT Press.

Socolow, R., Andrews, C., Berkhout, F., & Thomas, V. (1997), *Industrial Ecology and Global Change*. Cambridge: Cambridge University Press.

Spaargaren, G. (1997), *The Ecological Modernisation of Production and Consumption: Essays in Environmental Sociology*. Thesis Landbouw, University of Wageningen.

Science Policy Research Unit (SPRU). (1998), *Integrated Product Policy*. Report for DGXI of the European Commission. SPRU/Ernst and Young, University of Sussex.

Weale, A. (1992), *The New Politics of Pollution*. Manchester: Manchester University Press.

Williams, A. (1994), *The European Community, 2nd Ed.* Oxford: Blackwell.

World Business Council for Sustainable Development (WBCSD). (1999), *Sustainability through the Market: A Business-Based Approach to Sustainable Consumption and Production*. Background Paper #11, Prepared by the World Business Council for Sustainable Development for the Seventh Session of the Commission on Sustainable Development, 19–30 April 1999, New York.

Von Weizsäcker, E., Lovins, A., & Lovins, H. (1997), *Factor Four: Doubling Wealth, Halving Resource Use*. London: Earthscan.