

Environmental Voluntary Approaches: The Irish Experience



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INTRODUCTION – ENVIRONMENTAL DRIVING FORCES

There is an immediate pressure on all firms, particularly MNCs to meet stringent legal and regulatory controls, with individual executives being held responsible under criminal laws for firms' environmental damage (Simmons and Cowell, 1993; Vari, 1993). Consequently, as Rondinelli and Vastag note:

... the threat of criminal prosecution is not the only force driving companies to develop environmental management systems. Increasingly, customers are reacting negatively to corporate environmental mismanagement, shareholders are abandoning companies caught in environmental crises, and financial institutions are including environmental risks in their assessments of loan requests. (1996: 107)

By correctly measuring and managing its environmental costs, a firm can increase product profitability (Fitzgibbon, 1998).

There are several green driving forces that firms face, including specific disasters, public opinion, credibility pressures, regulatory pressures, consumers, shareholders' internal pressure, legislation, competitive pressures, ethical investments, media interest, supplier pressures, the rising costs of mishaps, government regulators, NGOs, scientific evidence, market pressures and new opportunities (Clark et al., 1994; Fitzgibbon, 1998; Jose, 1996; Hitchens et al., 2000; Maxwell et al., 1997; Peattie and Ratnayaka, 1992; Preston, 2001; Rugman and Verbeke, 1998; Schot and Fischer, 1993).

The leading forces for environmental change come from green consumers, pressure groups, insurance groups and green investors (Azzone and Bertele, 1994). Green consumers have significantly influenced new product introductions, product design, product packaging and advertising approaches (Coddington, 1993; Meffert and Kirchgeorg, 1994; Ottman, 1992). This view is further supported by Preston (2001) who states: "it is becoming increasingly

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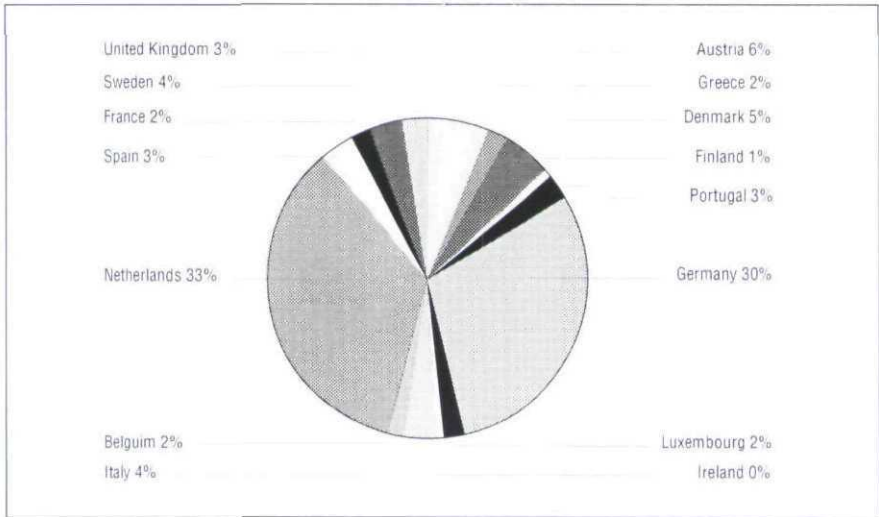
apparent that environmental factors are becoming a purchasing decision differentiator." In addition, growing pressure exerted by regulators and public opinion in shaping firms' responses to environmental issues. Fitzgibbon (1998) refers to these factors as the major "sticks" in getting firms to address environmental issues. The main interest groups in firms' environmental issues include government, employees, suppliers, customers, investors and local communities. In essence, these groups mediate in the process of environmental management and influence the nature of pressures and the response (Williams et al., 1993). The response from policy makers and practitioners to the nature of environmental pressure has been to broaden out the choice of policy instruments for the protection of the environment. This is reflected in the adoption of more innovative policy instruments by national governments. The broadening out of policy instruments from command and control includes market incentive mechanisms and flexible regulations. This is in response to the failure of the market in relation to the environmental protection (Clinch, 2000). One of these innovative policy responses has been voluntary approaches.

VOLUNTARY APPROACHES – THE PRACTITIONER'S RESPONSE

Environmental voluntary approaches as an instrument for environmental management are preferred by industry but greeted with some degree of scepticism by the environmentalists and other stakeholders (EEA, 1997: 50; Jenkins, 1995). Arguments are made that voluntary approaches are preferred by industry as it buys them time and delays the implementation of rigorous environmental regulations (Bizer, 1999; Bizer et al., 1999). Environmentalists are concerned that voluntary approaches lead to a lessening of environmental protection standards. From a game theoretic analysis perspective, Segerson et al. (1998) and Schmelzer (1999) show that the environmental standards achieved under a voluntary approach may be less than under command-and-control regulations in certain circumstances. Nevertheless, Baeke et al. (1999: working paper) note the increasing growth of voluntary approaches: "Voluntary approaches (VAs) in the field of environmental policy have become pervasive, but their use appears to be varying widely from one institutional context to another."

The few existing surveys of voluntary approaches in the early 1990s claimed they were promising instruments in environmental policy towards industry (BIAC, 1992; Glachant, 1994; OECD, 1994). Voluntary approaches spread quickly in many EU and OECD countries and have been developed by policy makers without theoretical analysis or academic recommendation (Glachant, 1994). A study carried out by Glachant (1994) noted 75 voluntary approaches in 12 OECD countries. Surveys of voluntary approaches have been carried out in Japan by Imura and Suigiyama (1998), in the US by Mazurek (1998) and in the EU by Börkey (1998), CEC (1996), DeClerq et al. (2001), EEA (1997, 2000), Lévêque (1998) and OECD (1999).

Figure 1.1: Number of Negotiated Agreements in the European Union



Source: Börkey, P. and F. Lévêque (2000) "Voluntary Approaches for Environmental Protection in the European Union: A Survey." *European Environment*, Vol. 10, No. 1, pp. 35-54

The numbers outlined in Figure 1.1 are probably even greater as the CEC (1996a) list is not exhaustive (Börkey, 1998). Such increases have been accounted for by Börkey and Lévêque (2000) by using data from CEC (1996a), EEA (1997), Glachant (1996), OECD (1997) and Oko-Institut (1998).

Table 1.1: Negotiated Agreements by Sector of Economic Activity

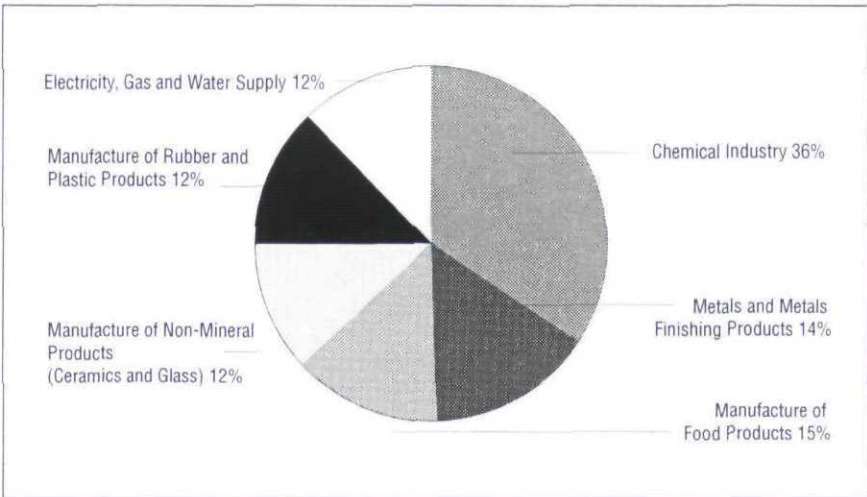
Member State	Agriculture	Energy	Industry	Transport	Tourism	Number of NAs
Austria	x		x			20
Belgium		x	x			6
Denmark	x	x	x			16
Finland			x			2
France		x	x			8
Germany		x	x			93
Greece		x	x		x	7
Ireland			x			1
Italy			x			11
Luxemburg			x			5
Netherlands	x	x	x			107
Portugal	x	x	x			10

Spain		x	x			6
Sweden	x		x			11
United Kingdom		x	x			9
Total						312

Source: Adapted from EEA (1997) *Environmental Agreements - Environmental Effectiveness*, Environmental Issues Series No. 3; Copenhagen, Vol. 1 and 2, p. 23, and Börkey, P. and F. Lévêque (2000) "Voluntary Approaches for Environmental Protection in The European Union: A Survey" *European Environment*, Vol. 10, No. 1, pp. 35-54.

Regarding the distribution of negotiated agreements in the EU, the industry and energy sectors are by far the most important, with all Member States implementing them to abate industrial pollution and eight Member States using them in the energy sector (see Table 1.1 and Figure 1.2). One reason for this, as indicated by the CEC, is that a large number of environmental agreements are found in economic sectors where the most pollution activities occur (see Table 1.1). However, the percentages may be slightly misleading due to double counting (CEC, 1996a:13).

Figure 1.2: Main Industry Sectors for the Use of Negotiated Agreements



Source: Adapted from EEA (1997) *Environmental Agreements - Environmental Effectiveness*, Environmental Issues Series No.3; Copenhagen, Vol. 1 and 2, p. 23, and Börkey, P. and F. Lévêque (2000) "Voluntary Approaches for Environmental Protection in The European Union: A Survey" *European Environment*, Vol. 10, No. 1, pp. 35-54.

The greatest proliferation of negotiated agreements in the EU is in the field of waste management, using the Fifth Environmental Action Programme Theme (5EAP) as a thematic classification template (see Table 1.1). This is due, in the main, to the proliferation of agreements for household waste management and battery recycling (Börkey and Lévêque, 2000; Oko Institut, 1998). DeClercq et al. (2001: 23) note: "It can be seen that every country of the European Union uses voluntary approaches in the field of waste management." The preference for negotiated agreements within the EU is explained by OCED:

They [negotiated agreements] appear to be the preferred instrument for waste management in most countries, given the technological uncertainty that prevailed when these problems were first addressed. In fact public authorities needed close industry co-operation in order to define realistic policy objectives. (1999: 34)

ENVIRONMENTAL VOLUNTARY APPROACHES – A RICH TERMINOLOGY

There is a rich and abundant terminology for voluntary approaches in an environmental context, such as self-regulation, voluntary accords, environmental agreements, voluntary initiatives, negotiated environmental agreements and private agreements (Carraro et al., 1999; EEA, 1996; Higley et al., 2001; Lévêque, 1998; Segerson et al., 1998; Storey, 1996; Storey et al., 1999). Consequently, there is no standard definition of voluntary agreements, as Storey states: "what constitutes a VA can vary greatly. VAs typically incorporate a wide mix of mechanisms ranging from economic incentives, to public recognition to encourage or support industry participation." (1999: 188) This variation in definitions has led to confusion and terms are sometimes used for the same of kind of instruments (Baeke et al., 1999). The EEA (1996: 20) argues that environmental agreements do not really capture the true nature of many agreements. Moreover they argue that terms such as negotiated agreements and covenants reflect more accurately the nature of the instrument. In environmental policy terms a voluntary agreement is an agreement between a public authority and a coalition of firms whereby industry commits itself to pollution reduction (Glachant, 1994). Higley et al. concur with the broad definition of voluntary approaches:

Voluntary approaches is a broad term that encompasses many different kinds of arrangements, such as self-regulations, voluntary initiatives, voluntary codes, environmental charters, voluntary accords, voluntary agreement, co-regulations, covenants, and negotiated agreements to name just a few. All these types include three main different instruments: unilateral commitments made by polluter, negotiated agreements between industry and public authorities, and public voluntary scheme developed by environmental agencies. (2001)

CATEGORISING AND EVALUATING VOLUNTARY APPROACHES

In essence voluntary approaches are commitments from industrial sectors and firms to improve their environmental performance and can cover a large variety of different arrangements. In some instances the commitments to improve environmental performance go beyond regulatory requirements (OECD, 1999: 6–10). Table 1.1 draws together the main and differing categorisation of voluntary approaches.

Evaluation of voluntary approaches in comparison with other policy instruments has been limited (Krarup, 1999). Criteria have been developed in general terms for evaluating policy instruments, but in the last number of years attempts have been made to develop a general criteria list for voluntary approaches. However, Mazurek (1998) notes: “Assessment data that has been developed suggest that the primary benefits of VAs may be intangible and in any event difficult to measure.”

Table 1.2: Categorisation of Voluntary Approaches

OECD (1999); Higley, Convery and Lévêque (2001); Lévêque (1998)	Lynes and Gibson (1999)	Storey, Boyd and Dowd (1999)
Unilateral Commitments	Voluntary pollution control measures by individual firms	Target-based VAs
Negotiated Agreements	Government to industry pollution reduction challenges	Performance-based VAs
Public Voluntary Schemes	Performance agreements between industry and governments	Co-operative R&D VAs
Private Agreements	Voluntary adherence to industry sector codes of practice Business to business challenges, incentives and agreements	Monitoring and reporting VAs
	Agreements between industry and non-government third parties	

Assessing the effectiveness and performance of voluntary approaches is problematic but this difficulty is not confined to voluntary approaches as the OECD (1997) notes: “The evaluation of any environmental policy instrument is usually constrained by little evidence availability, as it has been recently argued regarding economic instruments.” Furthermore, the OECD (1999) notes:

The evaluation of voluntary approaches is hindered by the novelty of the approaches and the fact that they have been created by practitioners. The latter affects the availability of theoretical results on their performance, whereas the former constrains empirical investigation.

The assessment of environmental effectiveness of a policy instrument should be assessed against an alternative policy instrument or using the "business as usual" scenario (EEA, 1997: 12). Therefore the assessment should be done without being able to attribute any environmental improvement to the voluntary approach. The EEA (1997) encountered specific problems in assessing the environmental effectiveness of six environmental agreement case studies. The main problem was the general absence of a quantitative baseline ("business-as-usual" scenario) against which to assess the effectiveness of the environmental agreements. Other problems centred on the lack of quantitative data on the reference situation prior to the agreement and the lack of quantitative data on the current situation (EEA, 1997: 12). Consequently, the information availability for evaluation purposes is particularly low for the voluntary approach. The evaluation of voluntary approaches should include environmental effects and abatement costs, as well as different kinds of administrative costs (Russell and Powell, 1999). Moreover, Higley et al. strike a cautionary note regarding the assessment of voluntary approaches:

Finally, because voluntary approaches are relatively new in the environmental policy arena, a general dearth of empirical information exists to determine accurately the effectiveness of some growing number of VAs. Until the results of these agreements have been analysed and quantified, any real assessment of the effectiveness of VAs is impossible. (2001: 12)

The real question regarding environmental effectiveness is in what way in particular do voluntary approaches impact on the environment. Börkey and Lévêque (2000) note that two levels of environmental effectiveness can be distinguished, namely the *ex ante* and *ex post* assessment.

Ex Ante Analysis

In dealing with the *ex ante* assessment the potential costs of a regulatory policy approach are assessed based on data regarding the relevant environmental problems and economic context. In essence, the development of environmental targets is the result of a policy-devising process, dependent on the bargaining power of the agents involved in setting the targets. The domination of industry interests over social interests (the notion of regulatory capture), resulting in relatively unambitious pollution targets, is particularly strong in the case of negotiated agreements. Part of this *ex ante* assessment uses simulation and forecasting studies but, as the OECD (1999: 69) notes, "Ex ante evidence is usually very closely linked with theoretical evidence since they are based on theoretical predictive models."

Ex Post Analysis

Ex post analysis measures the gap between the initial target and the effectively achieved environmental improvement (EEA, 1997; JEP, 1998; Krarup and Larsen, 1998; Kroemer and Hansen, 1998). This assessment typically assesses the

costs and benefits of the regulatory policy. Difficulties can arise in the assessment due to the disentanglement problem, but this assessment carries the advantage of direction observation rather than assumptions regarding behaviour of actors. The gap that may result from the assessment is called the "implementation gap" and the explanation for a possible gap may lie with problems associated with the level of implementing the policy (Börkey and Lévêque, 2000). Other explanations focus on the choice of instrument or the free riding problem.

EVALUATION CRITERIA

There has been much debate regarding the criteria to be used in assessing the environmental effectiveness of voluntary approaches (EEA, 1997; Carraro and Lévêque, 1999; Labatt and Maclaren, 1998; Lévêque, 1998; OECD, 1999; Ospchoor and Vos, 1989; Rietbergen et al., 1998; Storey, 1996; Storey et al., 1999). The OECD (1999: 67–9) uses the evaluation criteria of environmental effectiveness, economic efficiency, administration and compliance costs, competitiveness implications, soft effects, innovation and learning effects and viability and feasibility. The EEA (1997: 41) outlines a number of criteria that it used to assess the effectiveness of the environmental agreements, including environmental effectiveness, cost-effectiveness, dynamic effects on technical change, conformity with prevailing institutional frameworks (polluter pays), soft effects and wider economic effects. Nevertheless, Carraro and Lévêque (1999: 6–9) and Lévêque (1998) outlined a number of dimensions by which the performance of voluntary approaches can be assessed. These dimensions include environmental effectiveness, implementation effectiveness, cost-effectiveness, stimulation of innovation, feasibility and competition. Moffet and Bregha (1999: 24) suggest that the following criteria would be helpful in assessing voluntary initiative: environmental efficiency, administrative and compliance costs, industry cost-effectiveness, promotion of cultural change and avoidance of adverse competition and trade law effects. Bohm and Russell (1995), Russell and Powell, (1999) and Krarup (1999) outline the criteria for policy evaluation based on general policy criteria. These include static concerns, dynamic incentives, monitoring and enforcement, flexibility in case of economic changes, institutional demands, political consideration and risk (see Table 1.3 for summary of evaluation criteria to assess the effectiveness and performance of voluntary approaches).

THE CASE STUDY OF IRISH PACKAGING VOLUNTARY AGREEMENT

In 1992, the EU Commission proposed a Directive on packaging waste, to harmonise national measures concerning the management of packaging and packaging waste to ensure the efficient functioning of the single market and to provide a high level of environmental protection. The Directive on Packaging and Packaging Waste was finally signed into law in December 1994. This Directive

Table 1.3: Evaluation Criteria to Analyse the Effectiveness and Performance of Voluntary Approaches

	OECD (1999)	EEA (1997)	Carraro and Lévéque (1999)	Moffet and Bregha (1999)	Bohm and Russell (1995) Russell and Powell (1999) Krarup (1999)
Environmental Effectiveness	✓	✓	✓	✓	
Cost-effectiveness	✓		✓	✓	✓
Implementation Effectiveness		✓	✓		✓
Stimulation of Innovation	✓	✓	✓	✓	✓
Feasibility and Competition	✓	✓	✓	✓	
Soft Issues and Effects	✓	✓			
Economic Efficiency	✓				
Promotion of Cultural Change				✓	
Risk					✓

applies to all types of packaging. The Directive makes a clear distinction between recovery and recycling. The targets set out in the Directive are as follows:

- A minimum of 50 per cent and a maximum of 65 per cent of packaging waste to be recovered within five years of the Directive coming into force (1 July 2001).
- A minimum of 25 per cent of packaging waste to be recycled. Within this, a minimum of 15 per cent per material stream to be recycled. It was envisaged that these targets would be substantially increased in the years 2001–2006. Ireland received a derogation from these requirements and an overall recovery rate of 27 per cent is set for the first five years.

THE IBEC TASKFORCE – INDUSTRY TAKING UP THE CHALLENGE

During the summer of 1994, Irish Business and Employers Confederation (IBEC) was invited by the Minister for the Environment to draw up a strategy for the organisation and financing of a system of recovery/recycling of packaging waste to meet certain targets. The taskforce was charged with the task of proposing an industry led scheme rather than statutory obligations imposed by government. This industry taskforce was made up of industry representatives, converters, fillers, retailers and representatives of small business. The taskforce focus was to propose a cost-effective strategy that met environmental targets. By April 1995 an internal document was prepared by the taskforce, which was then submitted to Coopers and Lybrand to assess and

estimate the costs of implementing the proposals. The taskforce recommended that an industry compliance organisation called Repak should be set up to run and be funded by industry to co-ordinate recycling/recovery of packaging waste. Furthermore, they added a gradual “learn as you go” approach be used in relation to this packaging voluntary agreement.

THE MECHANISM – WASTE MANAGEMENT (PACKAGING REGULATIONS) ACT 1997

In consultation with the taskforce the Irish government drafted customised legislation to promote packaging recycling based on an industry-led response co-ordinated by Repak. By July 1996, the Waste Management (Packaging Regulations) Act 1996 became law. This piece of legislation is designed to assist and promote the recycling of packaging waste and to facilitate the achievement of the packaging waste recovery targets laid in the EU Directive 94/62/EC. On the 10 June 1997, the Minister for the Environment and Local Government Brendan Howlin, under Article 15 of the Waste Management (Packaging) 1997, granted Repak approved body status to operate a packaging waste recovery scheme. Repak is a private limited not for profit company under Irish law with a board of directors and a chief executive. The aim of Repak is to achieve agreed targets for recycling of packaging waste in the most cost-effective way for its own members. The national target set by the EU Directive on Packaging and Packaging Waste was a recovering rate of 25 per cent of packaging waste by 2001. Repak agreed a target of 27 per cent recovery rate by July 2001. The key stakeholders of the Irish packaging voluntary agreement are outlined in Table 1.4.

Table 1.4: Key Stakeholders in Irish Packaging Voluntary Agreement

Stakeholder	Power to influence strategy	Level of interest in activities
Government:		
Department of the Environment and Local Government		
Government	High	High
Environmental Protection Agency	Low	High
Department of Finance	High	Medium
Department for Public Enterprise	Medium	Medium
Local Authorities	High	High
Non-Governmental Organisations	Low	Medium
Waste Contractors and Reprocessors	Low	High
Repak Members	Medium	High
Industry	High	High
Customers	Low	Low
European Union	Medium	High

THE CARROT AND STICK

Companies have legal obligations under the regulations if they annually place more than 25 tonnes of packaging on the Irish market and have an annual turnover of more than 1.27 million. Companies can chose to comply by meeting the requirements as an individual operator by registering with the local authority or they can secure exemptions from rigorous elements of the regulations by joining an approved waste recovery scheme, such as Repak. There is a legal obligation on all producers to recover waste on their own premises and they are obliged to have waste taken back by a supplier or recovered or made available for recovery. It is an offence for a producer to dispose of packaging waste without first making it available for recovery. Repak members are exempted from taking back packaging waste under the regulations.

PENALTIES AND ENFORCEMENT

The penalty for not complying with the Act on a summary conviction is a fine of up to €1,904 and or imprisonment for a term of up to twelve months. On conviction on indictment (which involves action by the Director of Public Prosecutions) a fine of up to €12.6 million and or imprisonment for a term up to ten years can be imposed. Under this legislation each local authority is responsible for the enforcement. The local authority has the power of entry and inspection by authorised persons appointed by the local authority. In addition, the local authority can serve notice on a person to provide information and can take summary proceedings for an offence. Furthermore, a private individual can take summary proceedings against an individual or corporate body for non-compliance.

OBJECTIVES OF THE APPROVED BODY – REPAK

The objectives of Repak were outlined in the submission to the Minister for the Environment Brendan Howlin in 1997 (see Table 1.5).

Table 1.5: Objectives of Repak 1997

• Develop and agree strategies with industry for meeting recycling/recovery targets agreed with Department of the Environment
• Plan and implement such strategies
• Raise and disburse funds from members of the Scheme to contribute towards the implementation of such strategies
• Maintain recycling/recovery records in respect of packaging produced by its members
• Undertake promotional campaigns to encourage co-operation in recycling
• Report from time to time to the Department of the Environment and to members of the Scheme.

Source: Repak Waste Recovery Scheme Membership Rule (Submission to Minister for the Environment) 30 May 1997

Develop and Agree Strategies with Industry

In July 2001, Repak achieved the 27 per cent target originally agreed between industry and the government as a result of IBEC's Industry Taskforce (see Table 1.5). It is expected that by 2005, Ireland will have to recover 430,000 tonnes of packaging waste and have facilities in Ireland to recycle a minimum of 217,000 tonnes (Hetherington, 2000).

Table 1.6: Actual Achievements of Repak

National Target of 27 % achieved July 2001	
1998	Target 19% Actual 20.6% (93,160 tonnes)
1999	Target 21% Actual 21.0% (114,216 tonnes)
2000	Target 23.5% Actual 26.4% (146,000 tonnes)

Plan and Implement Such Strategies

In order to achieve the targets agreed, Repak set up a structure to recruit and ensure member companies complied with the rules of membership. Due to practical concerns Repak, in order to encourage recovery and recycling of industrial waste, developed a list of waste contractors and introduced the uplift scheme and RPS scheme for members. For household packaging waste, Repak fund Oxygen in Dublin and plan to support similar kerbside initiatives in Cork, Galway, Limerick, Tipperary and Waterford (Hetherington, 2001). Repak has also provided financial support to increase the number of bring-banks for bottles and cans from 350 in 1997 to 770 in 1999.

Raise and Disburse Funds from Members

Repak set up a fee structure for member companies initially based on turnover and later on packaging material waste arising. In the initial years the membership fees were the lowest in Europe for such a scheme. However, late paying by some members meant Repak was financially weak. Since the introduction of the new fee structure and green dot licensing fees, Repak is financially stronger.

Maintain Recycling/Recovery Records on Respect of Packaging Produced by its Members

Repak had set up a system to record packaging waste data for each member. Due to the complexity of the packaging waste data required, many members had difficulties in returning data (Stringer, 2001). However, there are questions regarding the reliability of these records (Farrell, 1999; Hetherington, 2000). The complexity issue is supported by Perchards (2000: 27) who state, "we feel that the data forms are unduly complex and can find no justification for some of the requirements mentioned to us by members who find them difficult to satisfy."

Undertake Promotional Campaigns to Encourage Co-Operation in Recycling

Repak has failed to deliver fully on this objective. Much of its communication activities focused on the recruitment of new members through newspaper advertising. Consequently, there remains much confusion over what Repak does, as Perchards (2000: 29) notes, "In the course of our research, we were told that there remained much confusion among Irish industry about the role of Repak. Many companies still thought Repak was a government agency."

Repak undertook joint promotional initiatives with Dublin Corporation on the Green Christmas Campaign 2000. However, it has not actively pursued joint promotional campaigns with other local authorities. Its communication with local authorities has mainly centred on the enforcement issue. Also there is Dublin bias perception among many stakeholders. On a positive note the Green Dot has been a useful mechanism to communicate Repak's mission to consumers. However, its promotion has been inconsistent due to inadequate financial support for an advertising campaign of the Green Dot. Repak, in its original submission in 1997, focused on teachers and stated that they intended: "To advise teachers of the Repak initiative so that a recycling culture can be cultivated in school children who the Repak Board see as an extremely important element in the success of the initiative." Repak has failed to undertake any promotional activity in this regard with teachers and schools. Other similar schemes throughout Europe have educational packs for use in schools.

Report from Time to Time to the Department of the Environment and to Members of the Scheme

Repak has failed to manage its relationship with the Department of the Environment and Local Government effectively. The information provided by Repak to the government has been in the form of its Annual Report. Repak failed to highlight effectively successful aspects of its operations or the difficulties it was experiencing. Perchards (2000: 31) notes: "We have formed the impression that much of the Government's impatience with Repak is in part the result of poor communication."

The communication problem between Repak and its members has focused mainly on collation of packaging waste data, the provision of new services and the changes in fee structures. The newsletters reflect this focus. Repak has failed to communicate success stories to member companies about its activities and examples of best practice among members. Information regarding the disbursement of resource and new policies on issues is limited. Perchards (2000) recommend Repak should publish and distribute an abridged version of its annual report to member companies, the government and other interested parties.

FREE RIDERS AND SELF COMPLIERS

By September 1998, in excess of 200 companies of the estimated potential total of 2,000 companies were Repak members. In 1999, a large group of 1,500 independent retailers joined Repak. However, more than 150 members failed to comply with the membership rules of Repak and 20 companies were expelled from the scheme. Repak is not in a position to compel companies to join thus reducing the number of companies free riding.

Some free riders continue to resist this legislation vigorously. In some instances, officials of local authorities were threatened and verbally abused during company site visits. Initially, only three companies opted for the self-compliance route via registration with local authorities. One possible reason for the low number of self-compliers is that some local authorities encouraged companies that approached them to register as self-compliers to register with Repak, thus reducing their administrative burden.

LESSONS FOR APPROVED BODIES IN A VOLUNTARY APPROACH CONTEXT

Based on the Irish case study a number of recommendations can be made regarding the management and operation of an approved body such as Repak, in a voluntary approach context. Firstly, the approved body should submit to government a proper business plan containing a vision, a mission statement and clear objectives that are fully costed and this should be publicly available. In addition, the business plan should contain an implementation plan regarding the roll-out of services, the time-frame involved and the resources required. Moreover, the job specifications for key management posts and areas of responsibilities should be clearly laid out and should be part of the business plan. Secondly, the proposed organisational structure and governance structure of the approved body should be made explicitly clear and this should be altered once a certain membership number is attained. Thirdly, within the framework of the voluntary agreement, a formal review mechanism involving all stakeholders would be triggered if certain objectives were not met over a prescribed period. Fourthly, the approved body should spend a significant proportion of its resources on marketing and branding the scheme among consumers and other stakeholders, thus ensuring deliverance of tangible and intangible benefits for its members. Fifthly, the CEO of an approved body should be appointed based on his significant senior management experience, but also the CEO must be respected among his peers and have a track record within the country. This adds creditability to the scheme. Sixthly, the approved body should actively manage its relationships with all stakeholders, particularly the government, by keeping them informed of ongoing successes as well as problems. Moreover, the approved body should make annual reports available to the general public free of charge and publish the names and addresses of companies who are members of a compliance scheme. Lastly, the approved body should ensure proper management of its internal affairs and development mechanisms that help promote best practice among its membership.

Some Conclusions from the Irish Packaging Voluntary Agreement

Some Companies Don't Care

The reality is that many companies do not care about environmental issues. Their focus is on competitive success in the short term and the future viability of the business. However, the real engagement of the consumer in the voluntary agreement could alter this attitude.

Inadequate Enforcement Mechanisms

To date under the Waste Management (Packaging) Regulations 1997 only a few companies have been prosecuted successfully. Clearly, if governments are going to enact new environmental regulations, they need to ensure that adequate financial provision is in place to support enforcement.

Sufficient Information

There still remains a lack of awareness among most companies of their responsibilities under this legislation described. Moreover, there is ongoing disagreement regarding baseline packaging statistics. Consequently, adequate and accurate information is critical to assessing the success of a voluntary approach.

Generating Awareness among Key Stakeholders

The IBEC taskforce recommended that companies, local authorities, consumers and teachers become involved in an extensive education/awareness campaign. To date no campaign has been launched to raise the awareness of consumers about this legislation. Consumers and teachers are potential catalysts for companies to behave in a responsible environmental manner. Consequently, significant efforts should be made to include them in the process of developing and implementing a voluntary approach.

Lack Recycling Capacity

Currently, Ireland does not have the capacity to recycle some waste streams being produced by Irish companies. The lesson for policy makers is to ensure that a country has the necessary recycling and recovery infrastructure in order to deliver the targets set by national government. If this is not the case, the government should provide public funding or enter a public private partnership in order to build national recycling capacity. If these measures are not available the government could use incentives regarding private investments in this area, for example capital allowances and so on.

EVALUATION OF THE IRISH PACKAGING VAS (VOLUNTARY APPROACHES)

A definitive assessment of the Irish packaging VA in relation to effectiveness and performance is hampered by the lack of quantitative baseline ("business-as-usual" scenario) against which to assess the effectiveness of the VA.

Environmental Effectiveness

Environmental effectiveness depends on two factors: the environmental target or objective of the agreement, and whether it is met. To ensure that the targets are better than business-as-usual, the target-setting process should be open and transparent. The Irish packaging agreement met its 27 per cent recycling target in 2001. It has been a success in terms of meeting the target set in 1997 despite all the difficulties that beset this voluntary agreement.

Cost and Economic Effectiveness

Voluntary approaches allow firms/industry to choose the means of compliance as the firms are likely to have better information than the regulator and thereby a better ability to implement the least cost option when faced with the appropriate incentive. This results in cost-effectiveness, which is the achievement of a given environmental improvement at least cost (Baumol and Oates, 1971; Carraro and Lévêque, 1999: 8). From an empirical study of the Irish packaging VA, the actual average cost of compliance for Repak respondents was €21,429 in 1997 and this rose to €46,109 in 2000 (Cunningham and Clinch, 2004). Some 44 per cent of Repak respondents reported an increase in overhead costs directly related to compliance with the packaging regulations. Overall, the costs of compliance reported have risen since 1997. An explanation for this as cited by Rondinelli and Vastag (1996) for the reported increase in overhead costs may be the underestimation of costs.

Moffet and Bregha (1999) argue that voluntary agreements are "certainly more cost-effective from the perspective of industry than command-and-control regulation because they provide the flexibility to respond to stated environmental objectives in the manner that makes most economic sense". Given the estimated cost of the alternative routes of compliance by Repak respondents and the increase in packaging, labour and overhead costs, they reported that an argument could be made that it may make more economic and strategic sense for companies to self-comply or even free ride (Cunningham and Clinch, 2004).

Viability and Feasibility

Viability and feasibility refers to the political and social acceptance and credibility of the measures (Börkey and Lévêque, 2000: 26). The OECD (1999: 88) notes: "The crucial relevance of tackling transparency concerns in order to guarantee social acceptability of NAs also applies for public voluntary programmes." One of the most significant threats to the viability and feasibility of voluntary agreements is that lack of credibility in the eyes of various stakeholders. Therefore, to ensure the feasibility and viability of voluntary approaches, the objectives and targets should be clearly laid out and the monitoring procedures should be independent and verifiable (Carraro and Lévêque, 1999: 8). In this Irish case the targets were laid out but the viability of the VA is constantly under threat due to the significant free riding problem and the lack of enforcement by local authorities, particularly in the early years

of the agreement. The credibility of the VA was further compounded by the difficulties Repak experienced implementing the VA. Over the last three years Repak have made strident efforts to ensure the viability and feasibility of the packaging voluntary agreement.

Competition

Voluntary approaches by their very nature mean firms can co-operate, which raises the fear of collusive behaviour and lessens the intensity of competition. As Carraro and Lévêque (1999: 9) note: "There is a fundamental fear that voluntary approaches will lessen competition and raise non tariff barriers." This situation has not arisen yet in the Irish packaging agreement, but it could occur as the agreement gains further momentum.

Stimulation of Innovation

In relation to innovation and voluntary approaches there are two main schools of thought, namely the no innovation scenario (Ashford, 1999) and innovation through collective learning (Aggeri and Hatchuel, 1996, 1998; Glachant, 1999). Based on an empirical investigation of an Irish packaging voluntary agreement its findings would indicate that the no innovation scenario is applicable to the Irish packaging voluntary agreement (Cunningham and Clinch, 2003).

Soft Effect

Soft effects can be significant but difficult to measure and have not been empirically investigated. The OECD (1999: 77) defines soft effects as: "those behavioural changes due to an increase of environmental awareness in business or to information dissemination." For the majority of negotiated agreements raising environmental awareness forms part of the objectives. The diffusion of information for negotiated agreements may be through the creation of forums, thus leading to collective learning through information exchange. An example of this is the French ELV scheme. An empirical study of the Irish packaging VA has concluded the soft effects as outlined by the OECD (1999: 88) have not materialised (Cunningham and Clinch, 2003).

The Irish packaging voluntary agreement highlights some of the potential drawbacks and limitations to voluntary approaches. Some of the limitations of voluntary approaches are due to their poor design and implementation, as they are not backed by effective legislation and thereby lose the trust of many stakeholders and generate negative publicity (Mazzoleni, 1999). In addition, Moffet and Bregha (1998) note that trust can be lost as certain stakeholders use voluntary approaches to stifle future regulatory policy development and enforcement. In overall terms, the Irish case highlights the limitations of using voluntary approaches. Firstly, in the absence of effective implementation of a VA and enforcement of the environmental legislation that supports it, companies do not participate, which leads to significant levels of free riding as in the Irish case. Secondly, VAs should be used in conjunction with other forms of environmental regulation, thereby ensuring that companies meet certain

environmental standards. The Irish case highlights this deficiency. Thirdly, one of the real limitations for governments in adopting voluntary approaches is the risk of regulatory capture (Baeke et al., 1999). This occurred in the Irish case as there was no effective enforcement of the regulations as local authorities did not have the resources.

CONCLUDING THOUGHTS: A POSSIBLE TROJAN HORSE

The Irish case study does highlight some interesting issues, given the fact that the Irish economy has grown rapidly since 1996. The fundamental question the Irish case study raises is why more companies have not joined the Irish packaging voluntary agreement. There are a number of possible explanations including the fact that Repak members did not achieve the benefits of membership that were initially promised on joining the scheme. The cost of compliance through membership of the approved body was greater than expected and involved more than contributing a membership fee. However, the most compelling explanation is the Irish packaging voluntary agreement failed to engage stakeholders from an initial base of strong stakeholder support. The most serious lack of engagement was with consumers. The case study of the Irish packaging voluntary agreement demonstrates that consumers need to be actively engaged in the implementation of a voluntary approach. This engagement requires a co-ordinated effort from policy makers, enforcers, the approved body and participating companies. This involves selling the voluntary agreement to consumers. Part of this selling of the voluntary agreement includes education with a particular focus on school-goers. Using the green dot symbol on products may assist in this engagement process. Locking consumers through active participation in a voluntary approach will lead to real tangible and intangible returns for stakeholders, thereby propelling its development and ultimately sustaining it over the long term. This did not happen in the Irish case and has resulted in low participation levels among Irish firms. More importantly it highlights how perceptive and strategic companies really are in the way they manage their environmental risks and liabilities. Consequently, policy makers and society in general may realise in the medium term that environmental voluntary approaches are a possible Trojan Horse. Only the next few years will tell if this is the case for Irish environmental policy.

FUTURE RESEARCH CHALLENGES

The literature on voluntary approaches is still emerging and the assessment of voluntary approaches has tended to be case-study-based rather than empirical. However, there is an empirical need to assess the performance and effectiveness of voluntary approaches using the criteria of environmental effectiveness, cost-effectiveness, stimulation of innovation, viability and feasibility, and competition using more longitudinal studies and a combination of research methodologies.

Other aspects of voluntary approaches need to be researched in order to

understand the dynamics involved. The most critical of these is to further explore and investigate the behaviour of the firms once they become members of a voluntary approach and this includes free riders. Much of the research to date has focused on evaluation criteria, benefits and costs, the types of VA and their contents. Exploring the behaviour of the firm during this period and insights gained from a combination of research methodologies will ultimately assist policy makers and may ensure that voluntary approaches remain a credible part of the environment policy instrument fabric used by regulators.

Another issue for future research is the cultural dimension of voluntary approaches. From the limited evidence to date some countries have adopted voluntary approaches as the main policy instruments to regulate environmental behaviour, other countries have been more reluctant adopters. An exploration of the commonalities in relation to the cultural dimension would add to the existing body of knowledge, particularly in relation to formulation and successful implementation of voluntary approaches. Such a research focus may yield culture bound or transferable issues that may ensure a more successful application and use of voluntary approaches.

Finally, the issue on how to integrate voluntary approaches with other policy instruments and the impact this integration has on competition and environmental performance needs to be researched further.

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