

## EVALUATING THE IMPACT OF POLICY FORMATION ON IMPLEMENTATION: THE CASE OF THE DRINKING WATER DIRECTIVE 80/778/EEC

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### Abstract

Acknowledging that policies are rarely made in a rational manner does not prevent the researcher from wanting to understand why particular policy responses were constructed the way they were, and how this can impact upon implementation (Winter, 2003). This paper explores the suitability of four hypotheses developed by Winter (2003) to explain the impact of the policy formation stage on the implementation of public policy. The Drinking Water Directive (80/778/EEC) and its implementation in England/Wales and the Republic of Ireland provide the background for analysis. It is concluded that the policy formation stage of the Directive did contribute to the failures and delays of implementation. In particular, failures of implementation are attributed to conflict, invalid causal theories, political symbolism, and poor attention by policy makers.

### Key Words

Policy formation; implementation; drinking water; Directive 80/778/EEC; England/Wales; and Republic of Ireland

### Introduction

In an attempt to explore why policies fail to be implemented successfully, this paper focuses attention on the policy formation stage of public policy as a way of generating insights into why public policies experience failures of implementation (May, 2003; Winter, 2003).

While implementation research shows that resultant failures and problems can be attributable to the conflicting interests of policy implementation actors, this focus is too narrow according to Winter (2003). By drawing upon research that demonstrates policy design as impacting upon implementation (see Mazmanian & Sabatier, 1983; Elmore, 1985; Linder and Peters, 1987; May, 2003), Winter (2003: 208) argues that such research is also limited, with researchers *'failing to conceptualise the connections between policy formulation, policy design and implementation'*. As a consequence of this assertion, Winter (2003), by drawing upon earlier work (see Winter, 1986), suggests four hypotheses to account for the link between policy formation and implementation:

- (i) successful implementation is likely to be negatively related to the degree of conflict in the policy-formation phase;
- (ii) successful implementation is more likely if the policy proponents in the policy-formation process have based their decisions on a valid causal theory about the problematic behaviour to be regulated by the policy and the relationship between the policy instruments and that behaviour
- (iii) implementation success is unlikely if the policy was adopted for symbolic reasons;
- (iv) successful implementation is likely to be positively related to the level of attention by the policy proponents in the policy-formation process.

Despite acceptance of the claim that policy formation affects the implementation process, little or no research has been conducted into how the policy formation stage has impacted upon the implementation of European Union (EU) water policy. To explore the impact of the policy formation stage on the implementation of EU water policy, the Drinking Water Directive 80/778/EEC was selected to explore the impact the policy formation stage on implementation, within the context of England and Wales and the Republic of Ireland.

### **The European Union Drinking Water Directive**

The Drinking Water Directive (80/778/EEC), adopted on the 15th July 1980, established for the first time parametric standards for water intended for human consumption. Over time the Directive came to be regarded as a cornerstone of EU water policy (CEC, 1980; NSCA, 2000; Collins, 1988). The Directive had a huge impact upon the providers of water services and was the driving force behind improvements in drinking water quality in EU Member States up until its replacement by current Drinking Water Directive (98/83/EC) in 1998 (Breach, 1989; Semple, 1993; Kramer, 2000).

Directive 80/778/EEC was developed and subsequently adopted by Member States in an attempt to standardise drinking water quality parameters across the EU. It was born out of a need to deal with the increased anxiety associated with the recycling of wastewater for drinking water and the escalating concentrations and types of organic and trace substances entering the water supply as a result of recycling. Thus, there was a need to verify that the associated treatment process could protect public health effectively. Much of this initial concern stemmed from countries like the Netherlands, where the discharges of the potash industry located in the upper Rhine greatly affected the quality of the surface waters utilised for drinking (Haigh, 1998).

Member States were meant to have implemented the Directive by 1982 (CEC, 1980). However, a report produced by Ken Collins, former Chair of the European Parliament Environment Committee, commented that:

*'Not a single Member State had communicated to the Commission the legislative, regulatory or administrative measures taken to comply with the directive by the end of the two-year period allowed for the directive's transposition in national law'* (Collins, 1988: 29).

Collins highlights that by 1987, the Commission had initiated legal proceedings against Belgium, France, Germany and Ireland for failure to implement the Directive. As Table 1 demonstrates, by 1998 it appears that all Member States affected by the Directive had put in place measures to ensure correct legal implementation. However, 1985 was to mark the year Member States were meant to be compliant with the Directive, yet as Table 1 indicates no Member State was compliant with the parameters detailed in the Directive.

**Table 1.** *Implementation Responses to Drinking Water Directive (80/778/EEC) for the Period 1993-1995*

Country / Transposition <sup>1</sup>	Legislation in force <sup>2</sup>	Values for Parameters <sup>3</sup>	Water quality checking and authorities responsible <sup>4</sup>	Compliance with all determinations of Directive
Belgium	Yes	Yes	Yes	No
Denmark	Yes	Yes	Yes	No information provided by Member State
Germany	Yes	Yes	Yes	No
Greece	Yes	Yes	Yes	No
Spain	Yes	Yes	Yes	No
France	Yes	Yes	Yes	No
Ireland	Yes	Yes	Yes	No
Italy	Yes	Yes	Yes	No
Luxemburg	No information provided by Member State	No information provided by Member State	No information provided by Member State	No information provided by Member State
Netherlands	Yes	Yes	Yes	No
Portugal	No information provided by Member State	No information provided by Member State	No information provided by Member State	No information provided by Member State
United Kingdom	Yes	Yes	Yes	No

<sup>1</sup>Refers to the criteria used by the Commission to assess the implementation of the Directive.

<sup>2</sup>Refers to the transposition of the Directive into national law by Member States

<sup>3</sup>Refers to the setting of values in national law for the parameters contained in Directive 80/778/EEC

<sup>4</sup>Refers to allocation of responsibilities concerning the enforcement of the Directives standards.

(Source: Environment Commission, 1998)

## Evaluating the Impact of Policy Formation

To investigate how the policy formation stage of the Drinking Water Directive (80/778/EEC) has affected implementation from the perspective of England/Wales and the Republic of Ireland, primary data was collected from a series of semi-structured interviews with senior civil servants and water industry professionals in England/Wales, the Republic of Ireland, and Brussels. Supporting information was derived from reports and papers from parliamentary committees and proceedings, government departments, EU organisations and institutions, privately commissioned research, interviewee articles and conference presentations. The following discussion is structured around the four hypotheses Winter (2003) proposes to account for the impact of policy formation on implementation.

### *Policy formation conflict and implementation*

Member States unanimously adopted Directive 80/778/EEC on 15th July 1980 following five years of negotiations (CEC, 1980; CEC, 1975), and over 50 meetings. The hypothesis put forward by Winter (2003) proposes that successful implementation is negatively related to the degree of conflict in the policy formation process. Winter suggests that where conflict exists, actors will engage in a 'bargaining process'. Therefore, as indicated by the number of meetings, the Directive can be seen to have been subject to an extended process of bargaining and negotiation, and thus conflict.

The reason why England/Wales and the Republic of Ireland may have felt the need to enter into a protracted bargaining process is illustrated by the comments of a former senior scientist of the Water

Research Centre (WRc) in England/Wales. In particular, he drew attention to the desire of civil servants to achieve flexibility on how the lead standard of the Directive would be applied and why such concern was forthcoming in the first place:

*'When the Drinking Water Directive was being drafted, the Department of the Environment facilitated the undertaking of a survey on lead in drinking water...the results were thought to be quite shocking by those involved in the negotiations...the UK subsequently lobbied hard in this area for a more sympathetic sampling regime'* (Senior Scientist WRc [England/Wales]).

It was subsequently argued by the same interviewee that this resulted in Directive 80/778/EEC being worded loosely to allow Member States flexibility in interpreting the Directive:

*'The Drinking Water Directive was in the end worded loosely, it would have been stupid to clobber ourselves with legislation that was too strict...well, that was very much the attitude of those involved in the negotiations'* (Senior Scientist WRc [England/Wales]).

According to Winter (2003), a key consequence of policy negotiations is that they discourage clear definition of policy goals and the use of vague terminology. Why vague terminology may result as a consequence of policy negotiations has been commented upon in detail by a House of Lords Committee on the European Community (HOLSEC) report assessing the implementation of EU environmental legislation in the UK. In particular, the report suggests that vagueness occurs in the context of EU policy because of the differing political and economic impacts legislation has on Member States, and the subsequent discretion it allows in a nation state response:

*'if there are major differences in the political or economic impacts of a specific piece of legislation on Member States, vagueness may well be essential for reaching harmonisation...vagueness allows for a degree of desirable national discretion and hence for factors such as differences in capacity and perception'* (HOLSEC, 1992: 11)

Referral to the text of Directive 80/778/EEC clearly illustrates that it is littered with vague terminology. For example, in relation to monitoring, the Directive is vague about how often and with which methods drinking water should be tested for compliance with the standards of the Directive, and which factors may have a negative impact on the quality of drinking water. The following excerpts from the Directive clearly illustrate these examples of vagueness:

*'Member States shall take all necessary steps to ensure regular monitoring of the quality of water intended for human consumption'* (CEC, 1980b: 13).

*'The competent national authorities of the Member States will determine the parameters according to circumstances, taking account of all factors which might have an adverse affect on the quality of drinking water supplied to consumers'* (CEC, 1980: 24).

The vagueness of phrases and terms such as 'all necessary steps' and 'determine the parameters according to circumstances' allowed England/Wales and Republic of Ireland considerable flexibility in interpretation. More specifically, the departments of the environment in England/Wales and the Republic

of Ireland chose to interpret the *Maximum Admissible Concentrations*' (MACs)<sup>1</sup> specified by Directive as annual averages. For example, in 1982 the DoE in England/Wales stated the following about MACs:

*'The maxima to which average concentrations may rise without an expectation of ill effect in the population in general'* (Circular 20/82 DoE [England/Wales]: 3).

The Irish Department of the Environment similarly stated that:

*'An **average** value from routine samples, taken from a water supply system as a whole, over a period of time, does not breach the prescribed value'* (Circular L.6/83 DOELG [Ireland]: 6, emphasis in original document).

Although the Directive did not give any guidance on the interpretation of MAC values (see CEC, 1980), subsequent action by the Environment Commission forced Member States to change their stance. This clarification of how MAC values should be interpreted is indicated clearly by the Irish Department of the Environment in a circular accompanying the European Communities (Quality of Water Intended for Human Consumption) Regulations 1988:

*'The Commission has indicated that there is no basis in the Directive for the advice about averaging values given to sanitary authorities in 1983 and that the Directive prohibits any value above a maximum admissible concentration...The Department has raised the practical operational aspects of this requirement with the Commission, however, pending further developments, the advice given in 1983 on this matter is now withdrawn, and to comply with the Regulations it will be necessary to show that the result from each sample do not breach the prescribed standards'* (Circular L6/88 DOELG [Republic of Ireland]: 2).

As a result of this 'misinterpretation', England/Wales and the Republic of Ireland were not compliant with the standards of the Directive, indeed their stance towards MACs value had led them to believe they would be fine, as summed up by the comments of a former water company chairman in England/Wales:

*'The industry felt that it would be fine and would be able to comply with few problems, especially as the standards were thought to be applicable in annual means, which led one to believe that such substances as Nitrate would not be a problem'* (Former Chairman of Water Company [England/Wales]).

The argument that there was a need for Member States to compromise during policy negotiations, and that this resulted in the use of vague terminology and subsequent failures of implementation, is further supported by Haigh (1998), who has commented that the need for unanimity in adopting the Directive resulted in the text of the Directive being littered with examples of vague terminology. Therefore, the vagueness of the Directive's text helps to explain why England/Wales and the Republic of Ireland exhibited failures of implementation because it allowed incorrect national responses to implementation to take place.

#### *Valid causal theory and implementation*

The second hypothesis proposed by Winter (2003) suggests that successful implementation is dependent upon the existence of valid causal theories about the problem at hand. In relation to the Drinking Water

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<sup>1</sup> MACs indicate the concentration beyond which a certain substance, specified in Directive 80/778/EEC, is not allowed to occur in any given sample.

Directive (80/778/EEC) 'technical deficiencies' have caused differences in interpretation by Member States. For example, the then Water Authorities Association (WAA) for England/Wales remarked that: 'the Directive has had a beneficial effect in focusing attention on the quality of drinking water. Water quality experts across Europe agree with the aims of the Directive but it is a complex document and many feel that it has a number of technical deficiencies. These have led to differences in interpretation and implementation between different Member States and hence the well publicised action by the Environment Commission' (WAA, 1987: 2).

With regard to particular deficiencies, a former Director of Quality and Environmental Services at Severn Trent Water can be noted as commenting that:

*'One of the major deficiencies of the Directive is that it gives no scientific justification for any one of the standards. This is in contrast to WHO guidelines where the evidence on which the guideline values are set is fully documented. By present-day knowledge, the MACs for a number of parameters are highly dubious. For example there seems little justification for the EC nitrate standard which is not even included in WHO guidelines. Similarly it is clear that a single pesticide standard of 0.1 µg/l is toxicologically indefensible for the wide range of individual compounds which it covers'* (Breach, 1989: 326).

This approach to the regulation of pesticides in drinking water was cited as being irrational and unscientific by interviewees. In particular, interviewees argued that the total limit standard of 0.5 µg/l, and the blanket 0.1 µg/l for individual pesticides was scientifically flawed because it took no account of the fact that certain pesticides can occur at higher levels without impacting upon human health:

*'Some of the parameters in the Directive are not scientific, for example pesticides. The values adopted are too severe...the standard could be higher and still be able to protect public health'* (Senior DWI II [England/Wales]).

*'The main problems of the Directive are that some of the standards are unscientific' The core celebrity in this case is the pesticide standard which owes more to limits of detection than public health impacts'* (Senior Ofwat Representative [England/Wales]).

It was suggested by many interviewees that the standards set for pesticides owed more to the limits of detection and a desire to push such sampling limits than any scientific rationale. Interviewee comments typical of this view included the following:

*'Many of the standards included in the Directive were technology driven, if you could measure them then there was an attitude of "lets include them"...this was certainly not scientific'* (Senior Civil Servant II DoE [England/Wales]).

*'Some of the sampling limits in the Directive were based on the sampling limits of the time, they were in effect surrogate zeros that did not have any epidemiological founding, pesticides is a notable example'* (Senior Engineer Fingal County Council [Republic of Ireland]).

Concern surrounding the scientific integrity of the Directives' standards is not a concern that has emerged since or during the Directive's implementation but was in existence during the development of the Directive. For example, the 1976 Economic and Social Committee report on the draft version of the Directive clearly expressed concerns about the scientific validity of the Directive's standards:

*'The Section notes with satisfaction that the standards laid down in the annexes relate to those of the World Health Organization (WHO). However in many instances the standards are much stricter and the Section wonders what justification there is for this. However, there is no indication of how they relate to the existing standards in the Member State'* (ESC, 1976: 6).

Why a more scientific argument for standards did not prevail is due to the negative impact of politics, as the following interviewee remarks illustrate:

*'It was wrong for the Directive to have been drafted with political people being involved. The wrong approach was adopted and trade offs were made which weren't to the benefit of the Directive. There should have been more technical input...Brussels did not have a clue on how to go about preparing a drinking water directive'* (Senior Scientist WRC [England/Wales]).

In relation to the accusation that there should have been more technical input, support is forthcoming from the recorded comments of Lord Bethell, the then European Parliament's rapporteur for the Directive. At the time of the Directive's development he drew attention to the environment committee's poor understanding of the science involved in establishing the standards of the Directive:

*'I would mention in passing that the Commission's document is a little difficult for parliamentarians to get a total grip of: as in so many of these documents, we find ourselves in committee blinded by science; and not entirely equipped for getting to grips with what are quite complicated chemical matters. We can of course take advice from experts, but this is not always easy to do and we have not been able to go into the real details of the chemical problems of this proposal'* (CEC, 1976: 171).

The accusation that some of the standards contained in the Directive were less than scientific, and were based upon incomplete knowledge and the actions of politicians, is supported by a series of articles that appeared in the Times Newspaper in England/Wales during the early 1990s. In particular, the scientific basis of the standards set by the Directive began to be questioned due to emerging and increasing concerns relating to how much the consumer would be willing, or able to pay, for the treatment processes necessary to remove pesticides to the standards set by Directive:

*'The EC standards, particularly on eliminating pesticide and nitrate traces, demand purity approaching perfection. The pesticide and nitrate standards reflect scientific caution rather than knowledge'* (The Times, 14/08/1992).

*'The director-general of water services said standards expected by Brussels were "not all scientifically based, and you could say they were politically based". A substantial burden was placed on customers without full costing at an early stage'* (The Times, 30/03/1993).

Research undertaken in the Republic of Ireland did not reveal such a vocal debate about the scientific integrity of the Directive's standards. Why domestic consumers in Republic of Ireland were not so concerned about the costs of drinking water treatment is partially explained by the comments of a senior Irish civil servant:

*'Domestic water users [in Republic of Ireland] don't directly pay for water...if they did, there would be a higher level of concern over water quality and the resultant investment. This is probably why there has been a bigger debate in the UK over water quality costs'* (Senior Civil Servant II DOELG [Republic of Ireland]).

The above comment is supported by the research of Maloney and Richardson (1995) who suggest that when water services were paid out of general or local taxes in England/Wales, public concern about water services is low, which is the current situation in the Republic of Ireland.

A further area where valid causal theories can not be seen to have emerged during the development of the Directive is apparent in the timeline adopted for full compliance of the Directive. By July 1985 all signatories were meant to have been fully compliant, but as a manager from Thames Water remarked:

*'The five year compliance timeframe was unrealistic...not enough knowledge or understanding of the water supply set-up may have led to this. For example, it took from 1989 until 1998 to deliver a programme for pesticide treatment'* (Manager Thames Water).

Support for the above claim is forthcoming from a 1976 House of Lords report. This report argued, some nine years before full compliance with the Directive was due, that the Directive's deadline for full compliance were 'wholly unrealistic', with many individuals still being supplied with water that failed to meet the standards of the Directive after this deadline (HOLSEC, 1976: 12).

Why the Directive adopted an apparently unrealistic compliance deadline has been attributed to those involved in the negotiations possessing incomplete information. For example, in the context of the pesticides standard, it has been argued that negotiators were not aware of the scale of drinking water contamination because sufficient sampling was not taking place:

*'The UK did think that some of the parameters wouldn't affect them, for example pesticides...The UK didn't try and negotiate against the pesticide standards because they were not perceived to be a problem at the time. This situation probably arose due to the fact that the UK weren't testing for such a parameter'* (Senior Inspector DWI [England/Wales] ).

*'There was a gradual realisation that the Directive's standards were being breached and this began to emerge via increased sampling...the response was not immediate as a response had to be developed over time via the testing of new technology...the approach to the Directive was very much "learn by doing"'* (Senior Engineer Dublin City Council).

While these comments do not support the conclusions of the 1976 HOLSEC report, one is left wondering how much civil servants did know about nitrate and pesticide contamination in England/Wales in particular, and why they signed up to a Directive that was known to have unrealistic compliance deadlines. With respect to this issue, it is apparent that Directive 80/778/EEC was viewed in an 'aspirational' light by senior government officials in England/Wales and the Republic of Ireland, with the legality of the directive being poorly appreciated by government officials in both contexts:

*'The standards embodied in the Directive were seen as being aspirational and not as hard and fast objectives to be met'* (Senior Civil Servant I DOELG [Republic of Ireland]).

This 'aspirational' view of the Directive, supported by the work of Jordan (2002), was not confined solely to England/Wales the Republic of Ireland. Such a view was prevalent amongst other Member States during the first few years of the Directive's implementation:

*'To begin with, Member States in general did not take the Drinking Water Directive seriously...They considered the Directive to just be establishing standards that Member States may like to work towards'* (Senior Environment Commission Official I).

Quite how invalid causal theories exhibit themselves in failures of implementation Winter does not discuss. However, a 1992 HOLSEC report can be noted as concluding that:

*'badly drafted legislation will be difficult to implement: policies which are not solidly based on scientific knowledge or experimental data will be likely to be called into question when they are given practical effect; while legislation which creates insuperable practical problems of administration or which involves disproportionate expense will run the risk of being honoured more in the breach than the observance'* (HOLSEC, 1992: 9)

#### *Policy symbolism and implementation*

The third hypothesis put forward by Winter (2003) proposes that implementation success is unlikely if the policy was adopted for symbolic reasons. At the time of the negotiations surrounding Directive 80/778/EEC, England/Wales and the Republic of Ireland had recently joined the EU. In both cases, politicians wanted to demonstrate progress and a positive attitude towards the EU by signing up to new legislation. In particular, it is notable that Neil Summerton (a former Head of the Water Directorate in the Department of the Environment) has argued that the Directive owed more to the wider political project of the EU rather than concerns about trade in water:

*'Drinking Water...is rarely, if ever traded across national boundaries and standards at the tap do not have transboundary implications. The argument that Europeans should enjoy the same standards at the tap wherever they go in Europe owe more to the European political project than to transboundary and single market arguments'* (Summerton, 1998: 111).

The following interviewee comments clearly indicate the politicians' desire for the EU to succeed and for progress to be demonstrated. Perhaps most notable are the motives of the Republic of Ireland, which viewed EU membership as being particularly beneficial in monetary terms, as the following interview comment typifies:

*'The willingness to sign up to the Directive was high. One must remember that the general attitude in Ireland was that it was benefiting from the EU and didn't want to be seen to be rocking the boat and thus upsetting the paymasters by questioning too much'* (Senior Civil Servant I DOELG [Republic of Ireland]).

The reasons that the negotiations surrounding the Directive would have been influenced by political symbolism in the case of England/Wales and the Republic of Ireland, are illuminated further by the remarks of Douglas Hurd, a former British Foreign Secretary:

*'Britain and Ireland joined the Community together because of a sense of our place in history. For the British it was about finding a new place in the world after two centuries of imperial experience. It was returning to roots in European politics. For most of us, it was a difficult transition and today there are still some who wish it did not have to be made. But it was the right transition. For the Irish, membership in 1973 was about Ireland's place in history, confirming Ireland's position in Europe as a modern state...and its decisive shift away from the embrace of Britain'* (Hurd, 1994. Quoted in Laffan, 1999: 90).

In hypothesising that the policy formation process can impact upon implementation outcomes, Winter (2003) does not attempt to link the hypotheses together by suggesting how they may impact on each other. However, in the context of Directive 80/778/EEC, it is clearly evident that these hypotheses, and the various aspects of policy formation they encompass, can not be treated in complete isolation. For example, when commenting upon the political symbolism associated with the Directive, interviewees highlighted that this led to compromises being made. In the context of conflict and the resultant bargaining process, this can be seen to have had an impact upon the policy formation stage of the Directive:

*'There is always pressure to agree at the Council of Ministers level, which can make it difficult for ministers to reach a truly balanced decision. A Council of Ministers meeting is often held to achieve progress and there is consequently a strong desire to demonstrate this by adopting new legislation. As a result of this pressure compromises are made'* (Senior Civil Servant III DoE [England/Wales]).

Again, in rather general terms, Winter (2003) suggests that if political symbolism is evident in policy formation then failures of implementation will result, but the types of failure are left unspecified.

#### *Policy proponents' attention and implementation*

The final hypothesis, suggested by Winter (2003), proposes that implementation success is positively related to the level of attention shown by policy makers to the policy under development. In the context of Directive 80/778/EEC, a number of differing issues have emerged as affecting the level of attention policy makers were able to give to the development of the Directive. In the Republic of Ireland, an interviewee suggested that because of the small size of the civil service, the attention sometimes afforded legislation was affected because of the resultant time pressures:

*'One must remember that the pressures on the civil servant are particularly acute in Ireland. The civil service is small in comparison to other countries and therefore it was often the case that civil servants and ministers would have had a wide range of issues to contend with that were perceived as being more pressing than drinking water...consequently an Irish minister would sign up quite happily without thinking about the long term consequences...Often there was an element of struggling to keep up with the raft of new legislation coming from Europe, there was a tendency to be on the back foot'* (Senior Civil Servant I DOELG [Republic of Ireland]).

From the perspective of England/Wales, it was suggested that, at the time of the negotiations surrounding the Directive, civil servants did not appreciate the bargaining process inherent in EU policy making. This subsequently resulted in legislation that was not wholly in agreement with the UK's interests:

*'There was a profound ignorance of how the EU worked both on a day to day basis, the Department (of the Environment) didn't understand the bargaining and trading that took place when agreements were being decided upon...with regard to the Directive, they didn't fully understand what they were getting into. To begin with the UK was very bad at negotiations, the UK approach tended to be issue based...they couldn't be seen to tie it in with other issues and bargain...other Member States, particularly France and Germany were playing a much broader game'* (Senior Civil Servant III DoE [England/Wales]).

Therefore, one can argue that attention of civil servants in England/Wales to the negotiations surrounding the Directive was not as high as it could have been because civil servants were unaware of, and only partly prepared for the EU policy making process. As mentioned previously, this has been found to be

associated with problems of implementation relating to a misinterpretation of MAC values and the legal standing of the Directive. Also, as demonstrated by numerous annual reports on drinking water quality (see DWI, 1991-2003; EPA, 1991-2003), England/Wales and the Republic of Ireland have been in continual breach of the standards set by the Directive for drinking water quality.

## Conclusions

The analysis of the policy formation stage of Directive 80/778/EEC, using the four hypotheses proposed by Winter (2003), has helped to illustrate how the policy formation stage of the Directive has affected implementation. From the geopolitical perspectives of England/Wales and the Republic of Ireland, the policy formation stage of the Directive has been identified as suffering from conflict, invalid causal theories, political symbolism, and poor attention by policy makers.

It was observed that the political symbolism and level of attention accorded the policy negotiations of the Directives by England/Wales and the Republic of Ireland may have had quite differing rationales or factors behind them, but were still associated with failures of implementation. The impact of such differing rationales/factors on implementation is not accounted for by Winter's hypotheses. Further research is required in order to identify the different implementation behaviours that can result from particular rationales/factors. Winter's hypotheses were also found to be vague in relation to the type of implementation failure or success different implementation behaviours may lead to.

From a wider perspective, this paper serves to remind both policy maker and politician of the impact they can have on the implementation public policy. With regard to current and future EU water policy developments, this paper serves to draw attention to the importance of governments needing to work towards ensuring policy responses are underpinned by valid causal theories, are given appropriate attention during development, and are free of political conflict and political symbolism. This is a tall task, admittedly requiring a stretch of any rational person's imagination, but it is still an important and valid goal, particularly if European wide policies are to be made to work in a EU made up of competing political and economic needs.

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