

BEHAVIOURAL CONTROL BY MEANS OF ENFORCEMENT IN CASE OF THE SURFACE WATER POLLUTION ACT

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SUMMARY

Suitable policy solutions are required to reduce the problem of diffuse pollution of surface water. This study addresses whether and how enforcement officers of the Dutch Surface Water Pollution Act can contribute to alleviate the problems of diffuse surface water pollution caused by inland shipping as an example of a target group. By performing (preventive) environmental inspections, enforcement officers are in the position to influence the behaviour of this target group. It does however demand a different approach to that used in checking for transgressions of rules and regulations alone. The instruments required to break through the 'social dilemma' (group pressure and educational communication) could be integrated into the enforcement officer's working procedure. This would increase the feeling of personal effectiveness amongst the target group, thereby transcending the social dilemma. A compliance-based style emerges as the most suitable process for effective enforcement, as it concentrates on cooperation, alignment of ideas and persuasion of the target group. Communication (also externally) about the results of the inspections by means of an environmental performance index will increase the return on inspection efforts. With this new preventive approach, enforcement appears to be a suitable instrument for tackling diffuse sources of pollution such as the inland shipping vessels. The Ministry of Transport, Public Works and Water Management is currently gaining practical experience in this field through environmental inspections on inland shipping vessels.

1 INTRODUCTION

The problem of diffuse sources of water pollution differs from the pollution issue caused by industrial discharge. In the case of diffuse sources, it concerns very large groups of individual polluters who cannot all be addressed individually through permits [9]. In the Netherlands, this includes for example some 100,000 farms, 10,000 inland shipping vessels, 200,000 recreational vessels, and so forth [1]. As a result of the large scope of the group of polluters, it is impossible for the enforcement

authority to always and everywhere exact proper environmental behaviour.

Exacting the preferred environmental behaviour through rules and regulations is in any case not the authority's primary objective since it is not a sustainable and practicable solution. Although important and necessary, rules and regulations are just one method of ensuring proper behaviour. In cases of 'imposed proper environmental behaviour', the dilemma arises that as soon as external pressure disappears, the proper environmental behaviour does as well [2].

The authority's objective is therefore to instil proper environmental behaviour into the target group's natural behaviour. Society must take its own responsibility with respect to the environment seriously, even without the presence of the enforcement authority. It also means that traditional enforcement of environmental rules and regulations is no longer sufficient for successfully combating the problem of diffuse pollution. The authority is therefore seeking other instruments with which it can influence individuals' environmental conduct [3]. The question is whether and how enforcement of Dutch legislation such as the Surface Water Pollution Act can contribute to this objective?

2 METHOD

2.1 Literature Study

In order to gain a clear picture of policy instruments that might be suitable for influencing the behaviour of large groups of individual environmental polluters, a literature study was performed. This study also investigated the scope of the term 'enforcement'. In other words, what jurisdiction do enforcement officers have when exercising their duties? Information from policy memos, governmental and socio-economic studies and from environmental psychology was cross-referenced to form a theoretical enforcement model [4].

2.2 Field Survey

A qualitative and empirical field survey was also carried out, targeting how enforcement officers of the Surface Water Pollution Act currently operate in practice with respect to enforcement for a large group of diffuse polluters. Inland shipping was used as the example as it represents a considerable diffuse source of pollution in the Netherlands. In addition, there is considerable activity in the inland shipping sector to solve the problem and enforcement

officers already have experience in performing preventive environmental inspections on inland shipping vessels.

The field survey was performed by a series of interviews in which the enforcement officers' working methods were recorded by means of a standard questionnaire. Information was also obtained from a written questionnaire submitted to both interviewed and non-interviewed officers. For verification, the questions were submitted to the target group itself (the inland shippers) [4].

3 RESULTS AND DISCUSSION

3.1 Social dilemma

The literature indicates that the cause of poor environmental behaviour by large groups of individual polluters is the result of the 'social dilemma'. This refers to the fact that short-term personal interests of individuals always take preference over a group's long-term collective burden. As a result of the large size of the target group, the consequences of individual conduct seem like a drop in the ocean. Successful intervention strategies will therefore have to address how to break through the social dilemma. In the literature, '*group pressure*' and '*(educational) communication*' are mentioned as potentially successful instruments. [5 & 2].

Educational communication refers to a process whereby the target group is shown the consequences of poor environmental behaviour, how harmful particular habits can be to the environment, that progress can feasibly be made to improve the situation and that others (colleagues, industry, etc.) are already making a contribution to solving the issue and that those efforts are genuinely bearing fruit.

Group pressure refers to a process in which individuals receive feedback within the target group as a whole on their environmental performance as compared to

other members of the target group. In other words, polluters are confronted with their own performance by means of an index. This stimulates the target group's feeling that its efforts are having a positive impact.

3.2 Enforcement Style

Coercion alone does not eradicate the social dilemma [2]. Yet the scope of operation of the controllers is generally associated with exercising coercion. The enforcement officer's job consists only in part of detection and sanctioning, or the exercise of coercion. A large proportion of the enforcement activities consist of prevention [6 & 7].

The literature defines the scope of the enforcement concept by means of the term *enforcement style* [8]. It describes two ideal forms or models of enforcement. The *compliance style* seeks cooperation, alignment of ideas and persuasion, while the *deterrence style* is based on deterrence and sanctions. Enforcement officers are in the position to execute their work in different ways, focussing on policy objectives, legislation, companies, their own organisation, or their profession. The culture of the parent organisation *and* the enforcement officers' personal character therefore determines which enforcement style is used. The enforcement style determines whether enforcement officers base their activities on coercion or on prevention.

3.3 Enforcement Model

Analysis of the theory on behavioural control and the concept of enforcement show that enforcement officers can contribute positively to instilling proper environmental behaviour into the natural conduct of large-scale diffuse target groups. In order to do so, the instruments that address breaking through the social dilemma (group pressure and educative communication) must be integrated in the officers' working methods. The compliance

style emerges as the most suitable method to achieve this, as it seeks cooperation, alignment of ideas and persuasion of the target group rather than plain coercion. The resulting theoretical enforcement model consists of the following steps [4]:

- The *target group's behavioural motives* must be determined to ensure a suitable enforcement strategy.
- *Feedback between practice and policy* in order to remove the problems and barriers outside the enforcement officers' sphere of influence is necessary.
- The inspections should focus more on influencing behaviour by providing good feedback based on observed environmental performance in practice (possibly by means of an *environmental performance index*).
- The return on inspection efforts should be increased by *communicating* the results of the inspections externally, possibly in the professional literature.

3.4 What is Observed in Practice?

The enforcement model and working method as described above are not yet common practice. They are however being tested in the Ministry of Transport, Public Works and Water Management's sphere of operation. During inspections of inland shipping vessels, the current inspection method has been adapted to include the concept of the environmental performance index. Enforcement officers are therefore already gaining experience with the new preventive environmental inspections.

However, practical studies indicate that the current environmental inspections have assumed a preventive character because of the absence of regulations or because of the fact that legislation has become too complicated to enforce. The enforcement officers interviewed considered the 'detection and sanctioning of offenders' activities to be the 'genuine'

enforcement work, while prevention was considered to be of secondary importance. This is noteworthy since if enforcement officers themselves consider preventive enforcement to be of low importance, this might impede the success of the new approach (which integrates 'educative communication' and 'group pressure' into the inspections) [4].

The lack of (environmental) background knowledge may also harm the success of the new approach. In practice, enforcement officers generally have a lack of knowledge of the backgrounds of environmental rules and regulations, while this is critical for gaining the support of the surveyed target group that is expected to take appropriate environmental measures [4].

4 CONCLUSIONS

Enforcement officers of the Surface Water Pollution Act can make an important contribution to tackling the issue of diffuse water pollution. The enforcement officers are the government's ambassadors and communicate directly with the target group in the field. This means that they are in the position to influence behaviour. It will demand a different approach to the traditional inspections of transgressions of the rules and regulations, since coercion alone does not break through the social dilemma.

The instruments aimed at breaking through the social dilemma (group pressure and (educative) communication) could be integrated into the enforcement officer's operating procedure. In doing so, the compliance style emerges as the most suitable method as it seeks cooperation, alignment of ideas and persuasion of the target group.

The new enforcement approach is being tested in the Ministry of Transport, Public Works and Water Management's sphere of operation. During inspections of inland shipping vessels, the current inspection method has been adapted to include

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