

FINANCING MAINTENANCE OF WATER CONTROL SYSTEMS IN THE NETHERLANDS

1. INTRODUCTION

Some other papers in this publication already deal with the role of the Dutch Waterboards in maintenance of water control systems, their origin, the legislation, tasks, institutions and execution practices. They explain that the Dutch Waterboards can have a variety of tasks, but in all cases maintenance of the regional water control systems is a specific task of the Waterboard. This concerns the regular maintenance of about quarter of a million kilometres of canals and ditches and appurtenant structures.

Partly the maintenance of the larger systems is executed by the Waterboard itself or by contractors, for the lower order canals and ditches it is usually to be done by the farmers themselves (Table 1), but always under the responsibility of the Waterboard. The total amount of money annually spent on maintenance alone comes down to about 100 million Dfl (which does not include the lowest order field ditches, which are the responsibility of the farmers).

Table 1. Lengths of maintained canals

Waterboards	55.000 km
Contractors	62.000 km
Farmers	127.000 km
Total	244.000 km

This paper deals with the financial aspects of the Waterboards. It explains how the money needed for maintenance (and for other expenses of the Waterboard) is being collected, and on which basis and criteria.

After a short review of the historic backgrounds (Section 2), Sections 3 and 4 depict some of the basic principles and further details of the cost recovery policy of the Waterboards. Subsequently the general level of the levy and its components is discussed.

Section 6 deals with the collection of the levies and the possibilities of objection. The paper concludes with a practical example for one representative

Waterboard and some general conclusions on the relevance of the Dutch system for the Indian situation.

2. THE ORIGIN OF THE WATERBOARD TAX

Many centuries ago, in the early years of the Dutch flood control and water management, there was an obligation for farmers to execute the necessary maintenance themselves. Due to reclamation of new lands the water control function gradually covered larger and larger areas. As a result, an adequate management and maintenance of water control works as dikes, canals, structures and roads became increasingly important, and partly beyond the competence of individual farmers.

Consequently, the Waterboards gradually took over the execution of (part of) the maintenance from the farmers. This primarily concerned the main infrastructure of large canals, dikes, pumping stations, etc. Maintenance of smaller canals and ditches continued to be done by the farmers, which still is the case in many instances (Table 1).

With increasing work load for the Waterboards, also their expenses increased. Consequently the contributions by the farmers in kind (labour) were converted into financial contributions. With these contributions the Waterboard could finance their management and maintenance costs. In this context, gradually, a system for collection of fees and concordant legislation was developed, which is described in the subsequent Sections.

3. WATERBOARD COSTS AND FEES; SOME PRINCIPLES

There are a number of general principles governing the Netherlands cost recovery policy, which can be found back in details throughout the cost recovery practices, and which have proved to be very effective in financing the Waterboard costs.

* Principle of interest

Basic financial principle for the Waterboards still is that all costs should be covered by contributions from those who are benefited by the Board's activities. This is based on a system of degree of benefit (called "interest"). Those who benefit the most, pay the most.

* **Coverage of all costs**

Furthermore, these contributions cover entire Waterboard costs ("closed budget"), including construction and operation, the capital and management costs. There are no separate maintenance fees. The part of the maintenance costs of the total costs depend on the specific situation, but generally is about 50%.

* **General and specific interests**

In the new Waterboard Law of 1992, a distinction is made between two types of interest:

- General interests

These are the interests of everybody living in the Waterboard area. These interests refer to the general possibility to live and work in the area due to the works of the Board.

- Specific interests

These regard the more direct interests of the owner of buildings and of the owner or user of land in an adequate water management by the Waterboard.

Which part of the total costs is attributed to general and which to specific interests varies over the country, depending on the inconvenience one would experience when the Waterboard would not exercise its functions. Four possibilities are being distinguished, see Table 2.

Table 2. General interest part of total costs

Inconvenience	Share in costs
None	0 %
Little	15 - 20 %
Considerable	20 - 25 %
High	25 - 30 %

If there is any benefit at all, the part of the general interest can vary from 15-30%. If a Waterboard falls in the third category, 20% of all costs will be attributed to all inhabitants as general interest levy. The precise percentage is fixed on the basis of the population density and the necessity of drainage.

* **"Built-up" areas and land**

A further element of the financing policy is that the levy not only concerns agricultural land, but -as indicated already above- buildings as well. Not only agricultural land has an interest in water control, but houses, offices, factories,

etc. also benefit from proper flood protection and ground water control. An important reason for this is that built-up areas (buildings, pavements and other appurtenant works) cause a rapid discharge of rain water. The cost for drainage systems has much increased during the past century since extensive sewerage systems were built, which caused the excess rain to be discharged in a short time and high quantities onto the open drainage systems. The latter (care for the open water on which sewerage systems discharge), also is a task of the Waterboard.

The above is summarized in Figure 1, indicating who has to pay for the various interests.

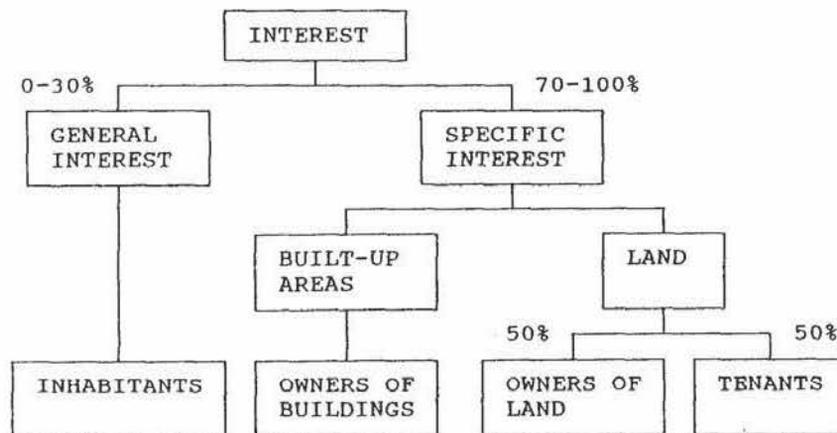


Figure 1. Various interests parts and contributors

With this background it is logical that the specific interest part of the Waterboard levy consists of two parts: one part "built-up" levy for buildings etc. and the other part for agricultural land: the "non built-up" areas. Whereas the general interest part is paid by all inhabitants, the specific interest part is paid only by the owner of buildings and by the owners or users of land. When the land is in lease-hold, the tenant can pay up to 50% of the specific interest. More details are given in the next Section.

It is also to be mentioned that for investments in some water control works, made by the Waterboard, a Government subsidy can be obtained, usually 50%

*** The principle of interest, payment and say**

The Waterboard is a functional public body. This means that, in contrast to