Lofwaerdighe dijckagies en miserabele polders : een financiële analyse van landaanwinningsprojecten in Hollands Noorderkwartier, 1597-1643
van Zwet, H.

Citation for published version (APA):
Summary

In the second half of the sixteenth and the first half of the seventeenth century land reclamation activities radically reshaped the landscape in the Northwestern part of Holland, known as the ‘Noorderkwartier’. Ample attention has been given to this spectacular development in the historiography, with organizational and institutional matters as main topics of interest. Financial and economical aspects, however, have been underexposed. This study aims to at least partially fill this gap and focuses on three areas. First of all an attempt is made to arrive at a better picture of the cost associated with land reclamation, with an understanding of the factors contributing to expenditure. Secondly the return on investment for the participants has been investigated. Finally the background of the investors is addressed. To this end eight of the biggest reclamation projects in North Holland have been analyzed: those in the Zijpe (1598, fourth and final attempt), the Wieringerwaard (1611), the Beemster (1612), the Purmer (1622), the Wijde Wormer (1626), the Heerhugowaard (1631), the Schermer (1635) and the Starnmeer (1643). Together these projects represent 80 percent of the land reclaimed in the period before 1650.

Except for the Wieringerwaard the reclamation costs for all of the selected projects could be retrieved. They ranged from approximately 0,5 million guilders in de Zijpe and Wijde Wormer to 2,5 million in de Schermer. In total these seven projects required close to 8 million guilders. On the basis of this figure the total amount of money involved in land reclamation in the Noorderkwartier up till 1650, including the smaller lakes, is estimated at between 9,5 and 13 million guilders, one and a half to two times the starting capital of the VOC in 1602.

For an analysis of the various cost elements contributing to the overall expenditure, access to the annual accounts dating from the reclamation period is essential. Not all polder archives are complete in this respect, however. Nevertheless we were in most cases able to reconstruct the main picture. Expenditure in the Zijpe was mainly related to dike construction. This was quite different in projects where lakes had to be drained. Here the most important cost element was associated with the acquisition of a narrow strip of ‘old land’ along the shore. This land served as foundation for the ring dike, allowed the ring canal to be dug and made it possible to erect the first few mills. The cost associated with these other activities was, of course, considerable as well.

The investment cost per hectare was lowest in the Zijpe. After three earlier attempts at embankment there was no need to start all over in 1597. In some places
the dikes were still in reasonably good condition. The repair works, including expenditure for new mills and infrastructure, required 200 guilders per hectare. This was relatively cheap. Reclamation costs in the Beemster amounted to 260 guilders and in the projects thereafter they rose even further. In the Schermer an hectare of new land cost twice as much as in the Beemster and in the Starnmeer nearly four times.

Various factors contributed to these differences. Large polders benefitted from a relatively short ringdike. This factor was clearly in favour of the Zijpe, the Beemster and the Schermer. Inflation also played an important role. Higher price levels for labour and land strongly boosted expenditure of the later projects. It is estimated that the increase in expenditure in the Schermer as compared to the Beemster, as a consequence of this factor alone, is close to 50 percent. Also in another respect the later projects were at a disadvantage. The Hoogheemraadschap Uitwaterende Sluizen, responsible for water management in a large section of the Noorderkwartier, was extremely concerned about the rapid succession of reclamation projects and the concomitant decrease in storage capacity of the Schermerboezem. For project approval support by this institution was indispensible and the board members of Uitwaterende Sluizen were therefore in a position to impose measures, directed at improved drainage from the Schermer reservoir. At first the financial consequences of their demands were not too far reaching, but this was no longer the case at the time the proposals for reclamation of the Schermer and the Starnmeer were put forward. In the Schermer expenditure went up by approximately 50 percent as a consequence of the demand for a ring canal of unprecedented dimensions and the obligation to dig two new drainage canals. We lack the data for a reliable estimate in the case of the Starnmeer, but in this polder the impact must have been even more severe. This time not only Uitwaterende Sluizen dictated strong terms, also Alkmaar came forward with all kinds of demands. The municipal administrators, on behalf of the polder the Schermer, managed to pass part of the obligations with respect to one of the new drainage canals on to the administrators of the much smaller project.

The investors in the Zijpe and the Beemster had to pay least for their new farmlands. They benefitted from polder size, low price levels and not having to comply with costly measures imposed by Uitwaterende Sluizen. In the Schermer they also benefitted from economy of scale, but inflation and the demands put forward by Uitwaterende Sluizen drove costs up sharply. In case of the Starnmeer, all of these factors were unfavourable. The high cost of land reclamation in this polder, therefore, is not surprising.

The capital required for the various projects was put up nearly entirely by the participants. Attempts to collect contributions from third parties, benefitting from reclamation, mainly failed and income from other sources was modest at most. Sometimes capital was borrowed, but loans were normally paid back as soon as possible, preferably within the same year. Only in the case of the Scher-
mer and the Starnmeer the investors, after completion of their project, saw themselves burdened with a substantial debt.

Questions concerning return on investment cannot be dealt with simply. Soil quality in the various polders and even within one polder varied considerably, giving rise to a wide range of results. The outcome of analysis furthermore very much depends on the year in which the return is calculated. Nevertheless, a clear distinction can be made between early projects like the Beemster and the Purmer, where the majority of investors eventually enjoyed an attractive return and later projects like the Wijde Wormer, the Heerhugowaard and the Schermer, where results in the main were highly disappointing. Worst off were the investors in the Starnmeer; they never recovered their investment costs.

In all polders it took several years to cultivate the new land and to bring water management under control. In the meantime farming yields were low, even in the eventually successful polders. Cultivation activities bore fruit, however, and land prices and farm rents started to rise, although not everywhere at the same speed and to the same level. But this development did not go on forever. In line with the general economic picture, around the middle of the century the upward trend came to an end. Prices were static for a decade or so and as from the late 1660s started to come down, slowly at first and sharply in the later decades. The turnaround in price levels hit all polders more or less simultaneously. Investors in later projects, therefore, had less time to see the value of their land appreciate, let alone reach the high levels obtained in the Beemster or the Purmer.

Land prices in the Beemster in the middle of the seventeenth century exceeded investment value by a factor of five. In 1630 they corresponded to an average annual rate of return of approximately 7 percent. With the price rise slackening in the following years, this figure soon came down. Attractive yields were also obtained by farming out. Around 1650 a net return on investment of 14 percent per year was easily obtained. These high yields were very welcome of course after the poor results obtained in the early years. Taking both operating income and capital increase into account, the average annual rate of return over the years up to 1650 is estimated at 10 percent. Admittedly this is only a rough approximation. Lack of data, especially of the operating income in the first few years, makes it impossible to be more precise. Nevertheless it is clear that investment in the Beemster reclamation project, after a slow start, was well rewarded. Rates of return were more or less double those obtained on the capital market.

Price patterns and return on capital in the Purmer, another polder blessed with fertile, clay soils, were similar to those in the Beemster. Investors in the Wijde Wormer, the Heerhugowaard and the Schermer were less fortunate. Poor soil quality and difficult to control water levels, especially in the Wijde Wormer, kept productivity low. Even when farm rents reached their peak around the middle of the century, they hardly covered the costs. The price of land also stayed well below that in the more successful polders. Investment costs, on the other hand, had been high, so that rates of return were disappointingly low. In fact, participation
in most cases led to capital loss. Even worse was the situation in the Starmmeer. Land prices in this polder did not deviate much from those in the Schermer, but due to the high reclamation costs, they stayed well below investment levels. Furthermore high maintenance costs of the polder, inherent to its small size, kept annual taxation high. As a result farming out never yielded a positive income.

Illustrative for the dismal results obtained with the later projects is the misfortune experienced by Alkmaar in the Heerhugowaard and the Schermer, polders in which the city participated on a large scale. Capital required for investment was borrowed. In line with the general picture it took many years before the farm rents covered operating costs and even then the net income was insufficient to cover the interest on the capital loan. More capital had to be borrowed and land had to be sold. The consequences were disastrous. Seven years after the original investment Alkmaar’s debt had accumulated to not less than 300,000 guilders; in the meantime the city had been forced to sell a considerable part of its newly acquainted farmlands.

Due to the high maintenance costs in the polders, which kept taxation high, land prices in the polders lagged well behind those realized elsewhere. Even in the Beemster, during the peak around 1650, prices did not even reach halfway. Net farm rents showed a similar disparity. Farming out in both cases yielded more or less the same return: a modest 2 percent on the value of the land. There was little difference in this respect between the more and less successful polders.

When land reclamation activities took off in the sixteenth century, the scale of most projects was relatively modest. As an investment opportunity they were, as yet, of little significance. There were exceptions, however, such as the various attempts at embankment of the Zijpe. The size of this project was without precedent and so was the amount of capital required. The originator of the first plan, Jan van Scorel, in 1552 had to call on the Antwerp capital market. In 1596, when the plans for the fourth attempt at embankment were put forward, this option was no longer available. To the extent that the old landowners or their heirs were not able or willing to commit themselves for the necessary funds, capital this time had to be put up by wealthy regents and merchants living in the province of Holland. Their enthusiasm for participation was not overwhelming, however. This attitude, however, rapidly changed. The syndicate which a decade later developed the plan to drain the Beemster, had little difficulty in raising sufficient interest. In the projects thereafter the wealthy elite in the province became even more keen to participate, so that the demand for parcels soon exceeded supply. As a consequence from then onwards it was up to the project administrators to determine whom they wanted to participate in their project. They happily exploited this situation by favoring influential officials, whose support they believed to be useful. Sometimes officials were even granted shares without the down payment normally required for admission. This policy greatly affected the composition of the lists of participants.

Overall the participants went for large shares. The capital raised for the eight
projects under study was funded by 707 investors, of whom 132 participated in more than one project. On average they put up 9,000 guilders per person, three times as much as the participants in the Amsterdam Chamber of the VOC at its foundation in 1602. The largest contribution came from the brothers Dirk and Hendrik van Os. These successful Amsterdam merchants, originally residents of Antwerp, invested more than 200,000 guilders and for that money acquired 1,034 morgen (880 ha) in the Beemster.

The brothers Van Os were not the only ones in Amsterdam with a keen interest in land reclamation. Citizens from Amsterdam provided more than half the capital required for drainage of the Beemster and the Purmer and in most of the other projects also played a prominent role. Amongst them were members of the established elite as well as newcomers, mainly immigrants from the southern Netherlands. In the Beemster the newcomers dominated the autochtonous participants, but just as in the new trading companies there was no sharp division between new and old. The high degree of participation by immigrants from the southern Netherlands is remarkable, however. They had no access, as yet, to high government circles and therefore were less likely to get preferential treatment when they applied for shares. This could explain the more modest role they played in later projects.

Residents from Alkmaar and Hoorn were also well represented, although mainly in the nearby polders. Especially members of the governing elite were heavily involved. Three quarters of the Alkmaar vroedschap in the years between 1596 and 1643 participated in at least one project. In the Schermer all members of the vroedschap and all mayors in office at the time of embankment acquired one or more parcels. But not only vroedschap members participated, an equal number of lower ranking officials, tradesmen and retailers put money in the new polders. These people apparently could afford the expenditure as well.

Participation by regents from other cities in the Noorderkwartier was limited. The magistrates in Purmerend, Edam and Monnickendam were heavily involved in organizational matters concerning the projects considered to be in their sphere of influence and claimed large shares on behalf of their city. Few invested themselves, however. Most likely their financial strength did not permit them to do so. Competition for shares was generally stiff, but the towns whose cooperation in the Statenvergadering was essential for project approval, adroitly exploited their position. But also for the municipal treasuries participation meant a high financial burden. Part of the shares obtained by the various towns was therefore sold already before drainage started. The towns had been exempt from having to pay admittance fees. By incorporating the corresponding amount of money in their sales price, they made a handsome profit.

Widespread was the involvement of government officials in the Hague. Especially members of the most important decision making bodies in the province of Holland were well represented. They were clearly attracted by the opportunities which the new projects offered and the polder board administrators were happy
to have them behind their project. In the Wijde Wormer the initiative for
drainage was even taken by officials from the Hague and in that polder they domi-
nated the list of participants.

The disappointing financial results obtained in most projects have raised ques-
tions in recent years about the motives of the investors to participate. Instead of
the pursuit of a quick and easy profit, formerly believed to be the overriding in-
centive, alternative suggestions have been put forward. Amongst them feature
the relative risk free nature of land reclamation projects, the possibility to spread
risk by a widening of the investment portfolio and the opportunity for longer
term investment. Various authors, however, also point in another direction. They
draw attention to the tendency amongst the merchant elite to embrace a more
aristocratic lifestyle, with land ownership and a prestigious estate as key elements.

All of these factors may, to a varying degree, have played a role. Taking into ac-
count the newly acquired data, it is difficult however to disregard the prospect of
an attractive return on investment as prime incentive. The greediness exhibited
in acquiring shares and the large amount of money with which the wealthy elite
was willing to participate, clearly point in this direction. Investment by municipal
treasuries, furthermore, is difficult to reconcile with life-style related motives. But
on top of this all, it is not surprising at all that investors, despite the poor results
obtained with previous projects, were still highly confident in the outcome of
new ones. At the time they had to put their money up, there was little reason to
expect the prolonged spell of rising land prices to come to an end. When the
proposals for drainage of the Schermer and Starnmeer were put forward, there
were no signs of weakening at all. And with price levels in the polders following
those in the old land, be it at a distance, it was only natural to believe that it would
be a mere matter of time before their investments would handsomely pay off. Val-
coogh’s observation that participants were mainly drawn in by the temptation of
an handsome profit, seems to have lost none of its validity, also not with respect
to the later projects.