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**“GOVERNMENT, HOLD US, ‘CAUSE WE’RE HEADING FOR TROUBLE!”**  
**Observations on Thirty Years of Change in Dutch Sea Fisheries**

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*Abstract* The Dutch cutter fishery has experienced a period of turbulent change over the last three decades. These changes were mainly related to the introduction of catch quotas and capacity restrictions. This paper summarises this history in an anecdotal way.

### **Introduction**

The last three decades of the twentieth century was a period of turbulent change for the cutter sector, the main branch of the Dutch sea fisheries. The free and fairly carefree skipper owners of the early seventies have become ‘entrepreneurs’ aiming at optimal exploitation of their fishing rights. This is the result of an ever-increasing set of rules and regulations, mainly related to the European Common Fisheries Policy, restricting the freedom of the fishermen.

The main areas of change concerned the management and conservation of fish stocks through restrictive catch quotas and the development of fishing capacity. In both fields, the Dutch Government and fishing sector developed their own special ways of dealing with them.

This paper highlights the more relevant episodes and developments in a more or less anecdotal way, focusing on:

- repeated demands from the sector for engine power limitations;
- the early NEAFC quotas, the ensuing introduction of individual quotas and their evolution into ITQs;
- ‘white’, ‘grey’ and ‘black’ fish landings;
- the implementation of the CFP, causing embarrassment to the Dutch Minister of Fisheries;
- MAGPs and the capacity problem;
- the PO group ‘co-management’ system: making the sector responsible for enforcement.

### **‘More Power, More Sole’**

One of the first trips on which I accompanied my first boss at the Agricultural Economics research Institute (LEI) was to Flushing to become acquainted with the fish-

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ing industry. Here a proud skipper owner showed us round his 750 hp cutter that he had commissioned less than two years before. He told us that he had ordered a second 900 hp boat that would come into service the next year. This man had only started fishing about fifteen years earlier with an old second hand 15 meter, 80 horse power boat. Nearly fifteen years later, he was the owner of three of the most powerful boats in the beam trawler fleet. From a poor shrimper to a multi-million fishing company within thirty years! This is an example of the development potential of flatfish fishery in that period, based on a succession of strong year classes of sole, good market opportunities and very effective gear: the beam trawl with tickler chains.

The fishermen themselves were not oblivious to the dangers involved in this kind of development. They feared that the increase in fishing power might harm fish stocks and thus their fishing opportunities. Moreover they were worried by the constant pressure to keep up with the almost constant renewal and expansion of their competitors. As a result, the industry called for a maximum engine power for fishing cutters. In the late sixties, this was initially set at 600 hp, but the desired maximum rose fairly rapidly with the increase of maximum engine power of cutters already commissioned to 800 and 1000 hp.

This maximisation of engine power was the main issue at the Annual General Meeting of the Netherlands Fishermen's Association early in 1972. At that time 1200 hp was thought to be a reasonable maximum, as some owners already had boats of that power under construction. Income had been fairly good for a number of years and many owners were eager to invest in new boats and had orders pending, awaiting the outcome of this meeting. Three 'authorities' had been invited to explain their views on the issue of a maximum engine power: the flatfish biologist at RIVO, my boss the fisheries economist and the Director of Fisheries. Their lectures must have been a grave disappointment to those in the audience who were genuinely in favour of maximizing the power of cutters, but a relief to those who wanted further expansion according to the adage: "more power, more sole!" The biologist said: "I don't mind how powerful the individual boats are, as long as their aggregate power is not more than 90,000 hp." The economist said: "I can see no economic reason for restricting engine power: more powerful boats can be as efficient as or even more efficient than less powerful ones." And finally the Director of Fisheries said: "There are no legal provisions for imposing a maximum to the production capacity of individual firms." It was perfectly clear: there would not be a maximum engine power for a long time! Those with orders pending for boats of more than 1200 hp made phone calls to confirm them even before the meeting had been officially closed. (Anon., 1972)

Thus, instead of curbing the imminent surge of investments, the meeting sparked a solid wave of boat building that came to a rather abrupt halt following the first oil crisis of 1973. Apart from trebling fuel prices and inflating the prices of other goods such as wire, ropes and netting, the crisis also affected consumer demand. Prices of the more expensive species like sole and turbot were particularly affected. These dual effects squeezed the beam trawler owners, many of whom had recently committed themselves to heavy financial liabilities. The better business results expected from investing in more powerful boats did not materialise and even worse, they brought many owners in dire straits financially.

## NEAFC Quotas

On top of this, the North-East Atlantic Fisheries Convention (NEAFC) agreed on the introduction of Total Allowable Catches (TACs) and quotas for the main commercial species. These were set for the first time for 1975. The allocation by country was based on 'historical performance', i.e. on reported catches in 1972–1974, a key that has largely persisted in the Common Fisheries Policy (CFP) as 'relative stability'.

The Dutch cutter fleet was particularly hard hit; the sole quota, in which the Netherlands had a share of more than 75 percent, required a 25 percent reduction in catches. Plaice catches were required to be reduced by a third due to the recent rise in fishing for this species following the new market opportunities for frozen fillets. Where landings of plaice in the other major producing countries, Denmark and the United Kingdom, were gradually declining, the Dutch plaice fishery was growing strongly. Quite understandably, most of the Dutch fishermen with heavy financial liabilities and poor results due to the oil crisis had no intention at all of complying with such draconian restrictions.

Flatfish is and was the mainstay of the cutter fishery, so nobody bothered much about the size of the quotas for cod, haddock, whiting and saithe. This turned out to be rather a misjudgement, for many of the serious problems with quota restrictions later on, even up to the present day, would concern cod.

Initially, the implementation and enforcement of the quotas was commissioned to the Fish Commodity Board, a semi-governmental institution with regulatory power in matters concerning fish production and marketing. In fact this power was being undermined by the growing influence of the Common (Fish) Market Policy, and conveying this special task to the Board may well have been a move by the government to strengthen its dwindling position. However, it had completely the reverse effect: the quota management was a total disaster. Besides the general unwillingness to comply with the catch restrictions, the Commodity Board had absolutely no authority to compel compliance. Even an easily controllable measure like alternate fishing by boats with odd and even registration numbers was simply ignored by large parts of the fleet. By the end of the year, the Commodity Board was therefore relieved from this impossible task.

## Individual Quotas

The Fisheries Directorate decided to allocate the quotas of sole and plaice to the boats in the fleet individually. The quotas of the other species remained collective and fisheries for those species would be closed on exhaustion of the national quota. The allocation of the flatfish quotas was based on historical performance in the same years which had been used as a basis for the country allocations. New boats were given quotas based on the average performance of boats of comparable power. The more powerful cutters, for which there was no historical data, were allocated quotas according to a standard table devised by the Fisheries Directorate. Incidentally, this table resulted in remarkably small increases of quotas with engine power, compared to the course of historical performance of the less powerful boats. If the

historical performance of a replaced boat was better than the allocation for a new boat, the owner could ask for application of the performance of his old boat.

At the end of every year, the boat owners received a letter from the Ministry stating the amount of plaice and sole that they would be allowed to catch next year. This happened regardless of whether NEAFC had reached an agreement on the TACs or not. (In many years, agreement was only reached in the course of the year and sometimes not at all.) Basically, the individual quotas were coupled to a boat and not transferable. As a reallocation within a fishing company was allowed, boat owners soon found a way to get round this restriction, for example by buying a boat plus quotas, transferring its quotas to their own boat and reselling the boat without quotas to the original owner. This created a lot of administration, so later under the CFP, this restriction was relaxed and the individual quotas became practically fully transferable ITQs.

#### *White, Grey and Black Landings*

Soon after the introduction of individual flatfish quotas, an unusual practice developed. Fishermen stopped selling their whole catch through the auctions and started to sell directly to buyers. This avoided registration of (the full extent of) their catches, as this was exclusively geared to data collection at the auctions. A couple of years earlier, this would have been an illegal activity, but in the framework of the Common Market Policy the Commodity Board had been obliged to lift compulsory auctioning at first sale. This had been done well before the introduction of quotas, unobserved by most people in and around the industry. Sole and plaice were not the only species bypassing the auctions. Cod was another species failing to come to auction as the less powerful and older segments of the fleet happily took advantage of improving fishing opportunities for that species, being well aware that overshooting the quota might result in early closure of the fishery.

This new practice made us distinguish three kinds of landings: white, grey and black. White landings were those sold openly through an auction and regularly registered, complete with boat number in the statistical data collection system. Grey landings were those sold directly to a buyer and registered in the financial administration of the fishing company (so not hidden from the bank and tax collector). Black landings were not registered anywhere and thus illegal. Many people outside the industry assumed that most landings escaping full registration belonged to the latter category. From the financial data collected from the books of many companies, we at LEI are convinced that actual black landings were only little more frequent and substantial than they used to be before the introduction of quotas.

The auctions were unhappy at losing substantial parts of their turnover. Loss of transparency in the market was also affecting prices. A solution for this problem was found in 1978 at the Urk auction: let the 'grey fish' be sold by auction under a code number through a middleman. This trick was readily imitated by the other auctions and soon almost all landings were being sold again through the auctions. (A rise in the auction prices of sole by more than one guilder (about half a euro) per kilo was a result.) Once more people outside the industry had the impression that these were illegal practices, probably inspired by the atmosphere of conspiracy that

the people involved surrounded them with. At the time, however, it was completely legal and a boon to the industry.

#### *Why the Fuss*

Ultimately, one wonders what all the fuss was about, because for a very long time the government made no serious attempt to enforce the individual quotas. One even might suspect a Machiavellian plot behind the introduction of individual quotas for the main species for the Dutch sea fisheries. In practice, this move brought the quotas of sole and plaice beyond control. It would take ten years after the start of the CFP before a way was found to control and enforce them effectively.

Moreover, following a parliamentary enquiry in 1986, it appeared that the NEAFC quotas had been no more than a 'gentlemen's agreement' and that the individual quotas allocated every year had merely been an 'advice'. This must have been infuriating for those who had taken the quotas seriously and had either abided by them or felt uneasy with what they considered as breaking the law. Anyway, a tradition of secrecy and non-compliance was established in the late seventies that would be hard to root out.

#### **Power Limitation?**

Now let us return to the capacity issue. The introduction of NEAFC quotas provided the Government with a motive for establishing a decommissioning programme for the cutter fleet, running from 1975 to 1976. Probably more important was the intention to alleviate the economic predicament of the sector. By means of a levy on landing value, the sector itself contributed around ten percent to the cost of the programme. The scheme was reasonably effective, as the size of the fleet was reduced by more than 100 boats, from just over 600 cutters down to about 500. However, the drop in engine power – that is fairly equivalent to fishing power or capacity for beam trawlers – by little more than ten percent (from 270 MW to 235 MW) was not as spectacular due to the lagging effects of the investment wave. Employment on the fleet was reduced by some 600 man years, from about 2700 to 2100.

After another lean year with the lowest revenues in real value since 1970, in 1977 revenues started to improve. This was accompanied by the urge to spend the earned money in new investments. This urge was strongly enhanced by the tax system that allowed extra depreciation during the first five years after investing, leaving rather little to depreciate after that. In addition, the profit on book value of a sold vessel was allowed to serve as a first depreciation. A strong second hand market and the high rates of inflation in those years ensured that boats could be sold at almost the price they had cost. The combination of these tax rules meant that you would be 'stealing from your own pocket' if you did not invest in a bigger boat; the taxman would otherwise collect a considerable share of your earnings. (A very clear example of undesirable economic incentives in fisheries.)

Surprisingly, the decommissioning programme was not followed by limitations on new investments in more capacity. Again, having contributed financially to the reduction of the fleet in a bad time, the industry called for action by the government. One way of expressing this was the alarm call that I chose as the

title for this paper. (It came from the first and present president of the Federation of Fishery Associations, Ben Daalder at a Scheveningen 'Vlaggetjesdag'.) A committee composed of representatives from the Ministry and the industry and a couple of researchers was installed to look into the possibilities for capacity limitation. They concluded that individual capacity limits were not feasible, mainly for legal reasons, but that it would be worth while exploring the possibilities of a total capacity limit (Min. L. en V., 1979). And then the Secretary of the Fisheries Board, who was a driving force behind the quest for capacity limitation, died. This brought the whole movement to a halt and it would take another five years before capacity limitation took effect with the engine power licensing system.

The industry was back to square one: another investment wave swept through the industry, another oil crisis drove fuel prices to unprecedented heights and the CFP loomed on the horizon. The fishermen took the expression of the Director of Fisheries to heart: "I don't mind whether you use a Deux Cheveaux or a Mercedes to catch your quotas" and largely went for the Mercedes. Very soon the virtual 2000 hp limit – until 1980 there had only been one cutter in the fleet of that power – was amply exceeded. The number of boats soared again, reaching the old level of about 600 in 1983 and employment rose to 2780 man years. At the same time, total engine power rose by 40 percent, from some 250 MW in 1979 to about 350 MW in '83, the first year of the CFP. The quotas of sole, plaice and cod were happily neglected to pay for all this, although that did not prevent the real value per unit effort gradually decreasing. In spite of high fuel prices and the rather poor economic results, spirits were fairly high in those days.

### Licences and 'Over-Capacity'

The fleet continued to grow both in numbers and in capacity until 1985. In March of that year, the industry was surprised by the introduction of a licensing system that was intended to limit the size of the fleet. Every boat fishing for species under quota was required to have a licence stating its main engine power. Other boats in the Fishery Register could also apply for a licence and many owners did so, probably (and rightly) presuming that this might acquire some value later on. The fleet was frozen at the situation as per 28 December 1984; boats on order at that time were also entitled to a licence. From the outset the licences were transferable under certain conditions.

Apparently some people in the industry had got wind of this measure, as an astonishing number of outstanding orders were reported up to 150,000 hp, nearly 30 percent of the existing fleet. Only a limited number of these orders could be described as genuine, i.e. boats that were actually being built as a replacement for an existing boat or sometimes to expand the company that ordered it. Most of the orders, however, were little more than paper orders that had been placed around Christmas 1984. The material evidence that was required for acceptance generally consisted of no more than a couple of steel plates, welded together and laid out on a row of stops, representing the 'keel' of the vessel on order. For some unknown reason again, it was allowed to take about three times the normal building time for these boats on order to come into service. In effect, the Ministry had burdened

itself with a potential expansion of a fleet already supposed to have an over-capacity that would prove very difficult to get rid of again. (De Wilde, 1986)

In that period, for the first time a Multi-Annual Guidance Plan (MAGP) was required to underpin applications by an EC Member State for support in the framework of the Common Structural Policy. At that time, the Structural Policy was still completely separate from the Conservation Policy and only dealt with modernisation and improving the competitiveness of the industry. Here the Ministry saw a chance to do something about the over-capacity by illustrating the necessity of an extensive fleet restructuring programme. With a rather simple calculation, it was shown that the cutter fleet was not economically sustainable at its present size and the available quotas. In calculating the size of the fleet, the boats on order were also taken into account. This meant that a substantial 'paper' fleet was included, whereas decommissioning subsidies from the European funds were only given for existing boats.

Here lies the root of the lengthy disputes on the capacity of the fishing fleet between the European Commission and the Netherlands. The Commission only wanted to take into account existing boats in the MAGPs; the Dutch government felt legally obliged to include the paper capacity that only existed in the form of licences for boats on order or reserved for other reasons. This dispute was only resolved a few years ago with a complete redress of MAGPs from the beginning, which brought the cutter fleet fairly much in line with the goals of the Structural Policy in later stages. In the meantime, the fleet has been constantly under pressure to reduce its capacity. As the financial results of the fishing firms were often fairly good following the fall in fuel prices by the end of '85, it was virtually impossible to push them out. Only when owners are under heavy economic pressure are they prepared to decommission their boats.

A last hiccup in the fleet size and capacity question occurred at the beginning of this year (2003), when the Dutch fleet was completely brought under the European licensing system. Where applicable, the still transferable Dutch capacity licences are now an appendix to the European licence. In the same operation the actual fleet size was frozen.

### **Political Upheaval**

The implementation of the Common Fisheries Policy early in 1983 produced a remarkable change in the attitude of the government. In the perception of the fishermen, nothing had changed: they had received their usual letter again about their individual quotas, although perhaps rather later than in previous years, so for them it was business as usual, complete with the practices of non-compliance. The government, however, now apparently had to take enforcement of the quotas seriously, as they were accountable to Brussels for them. From 'gentlemen's agreements', they had now become 'law', a change that initially went unnoticed by the fishermen.

A period of confusion developed during which the government tried to get a grip on the real landings by making the auctions accountable for proper registration, while fishermen continued to dodge control and failed to understand

quite why there was suddenly so much ado. As their leaders affirmed: “You cannot put right within one year what has gone wrong for ten.” The quotas of sole and plaice that had been allocated individually largely continued to escape control, as they could not be enforced at individual level. This became very clear when a couple of cutters that had been confined to port for overshooting their individual quotas were released again by the judge, as “they could still go fishing for species not under quota”. This may have been correct from a legal point of view, but from a fishing point of view it was just ridiculous.

However the cod quota that tended to be exceeded quite regularly was easier to control. This led to a serious confrontation for the first time in 1985 when the fishery was already closed in June. As the quota was raised by ‘Brussels’, fishing could be resumed and it was agreed that a substantial part of the quota would henceforth be reserved for the traditional cod fishermen. When the fishery had to be closed again before the end of the year, it appeared that the government could not keep its promise and guarantee this reservation.

After a couple of years, parliament had had enough of persisting rumours of illegal and excessive landings and the inability of the Ministry to control and enforce the quotas properly. In the autumn of 1986, a committee was installed to conduct an enquiry into how the Ministry had dealt with the matter until then. The enquiry was very thorough and in its report the committee drew some very hard conclusions that all but forced the Minister to resign. The staff at the Ministry was reorganised and by the end of 1987 the new Fisheries Director and his staff had drawn up a set of rules and regulations aimed at making evasion of control and enforcement virtually impossible. I will just mention a few major points.

There was to be very intensive landing control and boats had to announce their landing place and time. These were both restricted to certain areas and certain time slots. Fishing for cod and whiting was subject to severe restrictions in order “to make over-capacity in the fleet explicit” as it was repeatedly expressed by the Director of Fisheries. Three types of cod fishing permits were introduced:

- one for ‘traditional’ cod fishermen (who were already listed and could fish on the reserved part of the cod quota);
- one for those who could prove to have been dependent on cod and whiting for more than 65 percent in one of the preceding three years;
- one for seasonal round-fishers, who had to prove that at least 25 percent of their revenues in the preceding year came from cod and whiting.

As 1987 was a good year for shrimping, many small-scale fishermen (from a Dutch perspective) who had traditionally made a serious cod-fishing season fell short of this criterion, sometimes by a margin of tenths of a percent. Many firms were thus robbed of one of the main pillars of their business and either had to resort to the opportunities that were left or wind up their business. But even if you got your permit, the weekly allocations of cod and whiting that you were allowed to land were so small that you might still prefer to stop fishing. The by-catch allocations for other fisheries were so small that they even gave rise to riots in the southern ports, as fishermen refused to discard good cod that was dead anyway.

Some technical measures that had been under preparation for some time came into force: the 12 m maximum beam trawl width and the 2000 hp maximum



engine power for new boats (there it was at last). The already existing sea-days restrictions were tightened considerably: big beam trawlers could only go out to sea for 155 days, a 20 to 25 percent reduction of their normal sea time. Only those who could prove that they were unable to catch their plaice and sole quotas in that time were given more days.

The new policy was fairly effective: fishermen gradually realised that they could not continue to cheat and be considered as criminal offenders by the general public. Quite a few chose either to apply for the decommissioning scheme that accompanied the measures or to re-flag their boats to the United Kingdom, Germany, or Belgium, selling their hp-licences and ITQs on the market (Frost et al., 1995). By the end of the second MAGP period in December 1992, the size of the active cutter fleet was reduced again from more than 600 to about 475 and the aggregate power from 430 MW to 360 MW. A notable restructuring of the fleet took place, as the reduction of capacity was not evenly distributed over the size classes. Particularly the middle-sized boats between 300 hp and 1500 hp were leaving the fleet. This is the segment that used to be most dependent on cod and whiting, whose fishing opportunities were declining dramatically. The Eurocutter class – 300 hp boats enjoying privileges like fishing in the 12 mile zone and the plaice box – continued to grow through an influx from both sides. At the other end, the number of more than 1500 hp boats continued to increase slightly by the addition of new 2000 hp boats. These boats were the result of the optimism sparked by the very strong sole year class of 1987 that had provided excellent financial results in the early nineties.

*Exit Minister, Enter Ex-Minister*

It was that same strong year class of sole that eventually brought about the resignation of the Minister of Agriculture and Fisheries, Mr. Braks. This was to the regret of the fishing industry, which was quite happy with him and felt that he was not really to blame for what had happened. (In my opinion he should have resigned when the results of the inquiry were published in '87.)

During the eighties, the cutter fleet had become increasingly dependent on plaice, as the stock of their main target sole was weak. Fishery biologists had recognised the birth of a strong year class of sole in 1987 and on their advice the Southern North Sea was closed for fishing with beamers of more than 1500 hp during the first half of 1989. This should protect the young sole and allow them to grow to marketable size without being caught prematurely. When fishing in southern waters was resumed, the new year class soon started to be caught in considerable quantities. As sole catches that year had been poor until then, most fishermen could still accommodate this bonanza fairly well within their ITQs. The bonanza continued into the following year and even increased and fishermen realised that if they continued to catch sole at that rate, they would overshoot their quota by far, even where it had been raised by 80 percent. They therefore resumed their old practice of keeping fish apart and selling it directly to buyers. This time it was decidedly illegal, as the fish escaped the registration required by the regulations. When the foremen of the fishers openly expressed their concern

about this practice, parliament did not hesitate to withdraw its confidence in the Minister and he had to go.

Shortly after his appointment, the new Minister installed two committees: one to study the possibilities of mandatory decommissioning and the other to look into the possibilities of making the sector itself responsible for the enforcement of the quotas. Professor of Law Mok led the former, the latter was led by the late former Minister of Agriculture and Fisheries, Mr. Biesheuvel. These two committees brought about a breakthrough in the Dutch national fisheries management that was still struggling with over-capacity and crippling expensive enforcement of the quotas. The Mok committee proposed a gradual reduction in the size of the licences as a means of pushing out capacity: those who wanted to stay in the industry would have to buy capacity from those who wanted to bail out. The Biesheuvel committee designed a system of groups of producers that committed themselves by contract to abide by the rules and subject themselves to control by the group, implying that they were obliged to sell all catches through an auction. Group membership should be made attractive by giving certain privileges that were not available to non-members.

The Biesheuvel system was implemented in 1993 with virtually full membership of the fishers for species under quota. The 'stick of Mok' remained in the background in case the Biesheuvel system did not work. Very soon the fishermen gained confidence in the system, as it enabled them to plan their fishing activity evenly throughout the year without fear that the fishery would be closed before they had caught their rightful share. They were thus able to postpone catching their quotas until late in the year when prices are generally high. In an evaluation of the system, it was shown that it had brought extra profit to the industry (LEI, 1996). Thus the problem of enforcing the individual quotas was finally resolved. Over the last decade, LEI researchers like Wim Davidse, Ellen Hoefnagel and Wil Smit have published extensively on this issue of property rights and their (co)management.

In view of the success, the cod and whiting allocations connected with the roundfish quotas were also transformed into ITQs. Since the implementation of the Biesheuvel system, the overall economic results have been fairly stable and positive. They have only declined in recent years as a result of reduced quotas in combination with (again) high fuel prices. This induced the owners of some eight big beamers in 2002 to apply for the decommissioning programme. For the first time in all those years of fleet reduction, boats of that size still active in the flatfish fishery were actually decommissioned.

## Conclusion

The above history is far from complete, as several issues have been left untouched. Even so, it may be concluded that the last three decades have been a fascinating period for the interested observer of the fishing industry. This brief overview shows that Dutch fishermen were indeed caught in a Prisoner Dilemma type of situation which required external intervention to restrict their fishing activity. Contrary to what is often suggested however, Dutch fishermen did not oppose this external intervention as such. In fact they requested it themselves. In the 1970s, for example, they asked

for catch capacity limitation. The real problem, however, was that the Dutch government at that time did not have the right instruments to respond, or at least thought itself to be in a position without instruments. The establishment of a clear institutional framework to regulate fishing behaviour severely lagged behind the technical possibilities of the sector, a conclusion that may be applicable to other fisheries and other activities at sea as well (e.g. Van der Schans 2001). A complete transformation has taken place in Dutch fisheries through a succession of turbulent and intricate episodes that regretfully have not passed without victims. The sector now appears to have settled in calmer waters. Will this continue? I can hardly imagine it!

#### Technological development of GO 9 beam trawlers of Groenendijk BV in the Picture



Figure 1. Beam trawler with free standing deck house  
Building year: 1967 Size: 107 BRT Length: 26 m. Power: 680 HP



Figure 2. Beam trawler with open poop  
Building year: 1984 Size: 301 GT Length: 36 m. Power: 2180 HP



Figure 3. Beam trawler with closed poop  
Building year: 2002 Size: 471 GT Length: 41 m. Power: 2000 HP

Textbox 1. Explanation on the photo series.

The 2002 version is limited to 2000 HP, as required by regulation, but still the size of the vessel has expanded considerably (both GT and length). Actual traction power may also have increased, due to a more efficient propeller design. Closing the poop is mainly for safety reasons. We also see that this fishing company seems to invest in a new vessel every 18 years. In between these dates they may make technical adjustments to the vessel as well (expansion by 1.5 meters, new engine, both not shown on the pictures).

BRT (Bruto Registered Tonnage) and GT (Gross Tonnage) are both volume measures of vessel size, the latter being the internationally standardized measure adopted at the International Convention on Tonnage Measurement of Ships held in London in 1969. GT is mandatory since 1994 for vessels larger than 24 meters in length.

Pictures: Bram Pronk, The Hague.

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