



Contribution from WIJK AAN ZEE



The Netherlands is a country of **WATER**.

Water is our friend and our enemy. Our friend if it concerns recreation and water-supply, our enemy with storms and waterfloods.

The Netherlands is bounded to the North Sea, and once we also had the Zuyder Zee, but 50 years ago it was cut off and became the lake IJsselmeer.

We have many rivers, lakes, pools and canals. In short, a lot of water where people like to recreate.

But the water is also a threat. In 1953 we had an enormous waterflood in the south-west province of Zeeland, by which hundreds of people were killed.

After that catastrophe we built the famous Deltaworks, to control the North Sea-water and keep it on a safe distance.

The Dutch government has always been interested in good drinking-water, also our present crown-prince Willem Alexander is very active with the subject Water-Management. (Actually we invited him for this conference, but unfortunately he was not able to come.)

The supply of water used to be only groundwater from the dune-area's. The water was in this way filtered on a natural way and later pumped up for further processing.

But we needed more and more clean water and the level of the groundwater became to low and it gave problems for the trees and animals. The steelworks need a lot of cooling water in their factories. So the next step was also using water from the rivers. Inflating this water into the dunes and after some weeks it is pumped up, or it is directly brought into the process for clean water.

The water of the rivers has a relatively high pollution degree. Sophisticated filtration techniques are developed to guarantee the quality of the drinking water.

Eleven water-companies in the Netherlands provide all the households of good quality drinking-water. These companies are owned by the authorities. Sometimes a city, sometimes the province and sometimes a combination of both.

At the word authority you don't think immediately of efficiency and effectiveness. But we have to admit that the water-companies in Holland are very busy with working business-economical and on customer-service. Recently there have been re-organisations with important economic results. It even resulted in lower prices for the water!

People use 126 litre of water a day per person of which 7 litres for cooking. That means for a household of two persons about € 30 monthly.

One of these water-factories is just at the northern frontier of Wijk aan Zee. So we are surrounded by two big companies, the other one is the Steel-company Corus as you know. Together they own almost the whole territory around Wijk aan Zee.

The dunes around us contain *a very large bubble of water*, so you can say in Wijk aan Zee we live *on top* of the water.

The dune-area is a protected area.

It is also a recreation-area with camp-sides and a visitors-centre.

But the dominant position and the stringent rules also brings a lot of bureaucracy, so they are not the easiest neighbour if you need something.

Although we have a very good drinking-water system, it is always a *concern*, specially in the summertime and the tourist-season, when more water is needed.

An important question is how to realise enough supply that you can use at any moment. How is that arranged at Paxos for example. We know you are depending on rainwater near the houses, or do you have other supply-systems in the other area' s of the island?

The last question: Are there any alternatives?

- **Separation of water-systems ?**

There are experiments about separation drinking-water / not-drinking-water. The results are not yet very hopeful. The costs are not less, and the water-companies in Holland are worried about the risks of using the water the wrong way, so it could be dangerous for the public health. What are the experiences of the different villages?

A small ecological company in Holland has developed a biological toilet system. It works without the use of water. We have some information about that system for those who are interested. The production of this system is only on a small scale at this moment.

- **Drinking-water out of sea-water ?**

Technical it is possible, but the costs are very high and it cost lots of energy, It is done in small projects and also in the middle-east, but it is not yet a realistic option for common use on large scale.

Does Paxos have any experience with drinking-water out of sea-water? We would like to hear more about that.

Finally:

The reality is that healthy drinking-water is still a problem.

3 Billion people in our world have no reliable drinking-water, although it is a necessity of life!

The Dutch water-companies try to help with solutions. They have international contacts and projects where knowledge is exchanged.

Shortage of water or finances can lead to big problems or even war. So we better solve together the problems.