Management of water resources – views of a Swedish landowner

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Mr Chairman, distinguished listeners,

My task is to present views on management of waterresources from a Swedish landowner's perspective.

After three days of this conference I must confess that my perception of the world around me has rather dramatically changed. Having listened to a great number of presentations based on the conception that there should be hardly any rights to the water for private individuals I feel almost like coming from another planet - somewhat like S:t Exupery's Little Prince standing all alone on his own little planet watering his own little flower with his own little waterbucket. And I must say these days have made me appreciate my little planet!

Yes, I have learnt a lot here and I sincerely want to thank Max Falque and the other organizers of this conference for arranging it and arranging it in such an inspiring way. Many of you are scientists, and it has been intellectually very stimulating to listen to your advanced theoretical interventions. But I am not a scientist, I am a simple landowner and you will have to forgive me for now taking a less scientific approach.

Personal introduction

Let me first introduce myself and my relation to water. I have a property on the south-east coast of Sweden and I am there managing some water-resources, although rather miniscule in comparison with the operations of General des Eaux and the other big actors present here.

I have	some 400 hectares of inland water/wetlands with minimum about 10 million cubicmeters of water constantly at my property + some 300 hectares of the Baltic
The annual turnover is	minimum 20 million cubicmeters of water inland
Of this my family has created about	100 hectares of water/wetlands with an additional about 2 million cubicmeters of water constantly there
I operate	10 damlocks of some size 60 wells pumping a number of ponds
I have also arranged	in Portugal and US on family properties ponds, dams and roof-collectors (I mention this only to indicate that I have some

experience also from other countries)

I supply with water	75 households 2 industries a major cattle-operation 2 horse-stables
and we conduct	tourism related to water including commercial hunting commercial fishing.

I am convinced that if we in Sweden had had the regulatory systems that some of you have advocated here, we would not have had the 100 extra hectares of wetlands, the 2 million extra cubicmeters of water or the water-related rural activities that my family has contributed.

Presentation in three parts

I am going to make my presentation in three parts:

> **First some comments about landowners' role in water management.** As Mr de l'Escaille is going to speak more on this subject later, I was going to keep it rather short. But in view of the very differing opinions expressed here regarding our water resources, pollution and water management, I feel that I must expand this background presentation and rename it "**Facts and myths influencing landowners' role in water management"**
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> **Secondly I want to present the Swedish system for water administration**
>
> **Thirdly I want to give some practical advises to landowners**

I. Facts and myths influencing landowners' role in water management

1. **Common heritage.**
   Some have said that **water is a common heritage** which is **endangered** and must be preserved for future generations and that it is a very **special commodity** which needs **special management.**

   Listening to the debate here I would like to conclude that water is a heritage, the **supply** of which **(**unlike many other natural resources) **is not really endangered** for future generations as it is not depleted but **recycled.** In this sense it is indeed a special commodity, reasonably **easy to manage in a sustainable way.**

   This is where the landowners come into the picture. **The landowners have generations of experience in managing renewable resources and they have a fine track record in preserving the natural and cultural heritage which makes them a very suitable actor also in water management.**

2. **Shortage of water?**
   It has repeatedly been advocated that there is a **shortage of water.** Is there?

Let us for practical purposes stay on the European scene. I have asked some of the major actors in European water management present here to give me numbers for the total EU-consumption and supply of water but have as yet not had any answers. So I turned to the Chairman of this session and he has kindly provided me with a number of calculations. The Total EU consumption – defined as water used for drinking, cleaning, irrigation,industrial production etc, but excluding water used for hydro-electric production as this can be used again downstream – amounts according to his figures to around 100 billion cubicmeters pro year. **This consumption represents only about 8 percent of the yearly rainfall = supply in the EU territory.** Of the rest some is taken up by plants and recycled but most runs unused into the oceans. Admittedly I have also earlier seen some higher figures, but even if I use the high ones only about 15 percent of the yearly supply is used.

One question this raises is whether it is right for governments to concentrate on how to regulate the 8 (or 15) percent of the water supply presently being used. Or should they instead concentrate on making the a larger portion of the unused 92 (85) percent available?

Shortage? Certainly not, only a lack of adequate collection and distribution of water. And this, as our American friends have demonstrated here, is in turn **dependant on economics** and **the inadequate legal systems in place.**

No wonder so little of the yearly water supply is used when many legal systems reflect the opinion that water belongs to the State or at least must be controlled by the State – this takes away any incentive for the citizens to increase the amount of water readily available for consumption or improve its distribution**.**

And here**, in the collection and distribution of water a much greater role could be attributed to the landowners,** to the benefit of the whole water situation**.** I will come back to this later.

3. **Pollution.**
Some of you have said: OK there is not really a shortage of water, but **we are destroying the available resources through pollution**. And this is where governments must really act.

Is there a serious pollution? Yes, I believe there is, not particularly in my country**,** but in many others.

And why is that? And what can we do about it? Well again I believe, after listening to many of your interventions**,** that the main reason why we have not succeeded in curbing pollution is **lack of adequate economic and legal systems which give the citizens incentives instead of regulations,** to improve the situation.

Here again the possible role for landowners is not properly recognized. Instead of depicting us as mis-users and polluters governments should make use of the enormous **capacity inherent in the use of land to be the greatest purifier**. I will come back also to this in a few minutes..

4. **Good water.**
In this connection I would like to dwell a moment on the definition of **good water.**

I find it quite important that some speakers here have pointed out that it is not adequate to use one single definition for good water. **The quality of water needed for different purposes differs considerably**. Water good for drinking needs high standards, water for cleaning your car a different standard. Water for drinking should not contain nitrate, water for irrigation on the other hand is mostly better if it has nitrates in it. This throws light on **the huge possibilities of increasing the utilisation of already aviable water, of recycling and of reducing the costs for watercleaning**.

Also this must be considered when we define the role of the landowners in relation to water and when we set up our water policies.

5. **Economic and legal systems.**
This brings me back to **the economic and legal systems.**

This conference has taught me how very important it is to have **systems that gives incentives to increase the quantity and quality of available water.**

In many countries, we have learnt here, the original legal system was set up to **solve conflicts between neighbouring landowners** in the use of local water resources. Such systems, based on property rights seem to have worked rather well for ages.

Gradually however a new notion was introduced, namely that the legal system should mainly **solve conflicts between landowners' interests and collective goals** (environmental goals for instance). Subsequently property rights lost their importance and the collective goals took over. Also the notion that the legal system should **solve conflicts in advance, i e through a licencing system and regulation,** instead of when conflicts arose, won terrain.

It is against this background that we here at this conference spend much time in discussing **property rights versus regulation as the best vehicle for water management.**

Keeping in mind what I said before, that we in the EU only use 8 (or perhaps15) percent of the available water, and governments use their efforts in regulating these 8 percent instead of concentrating on how to make available more of the 92 percent of the water supply not yet used, it seems obvious **that the present legal system has failed to provide the right instruments for solving our, real or imaginative, water problems.**

To my mind an important conclusion of this conference is thus that **we must return to a more incentive-oriented legal system, based on property rights.** Regulation should be reduced, not increased, and be used only as a very last resort**. Such a system would also open up for much greater contributions by landowners** and set in motion a great number of wheels presently at a standstill.

6. **Ownership of water.**
A basis for an efficient water policy is thus, as just said, a system based on ownership to the water resources. The discussion here shows, however, both that there are great differences of opinion as to who owns or should own the water and also on how one

should define property rights to water. I will therefore have to dwell another moment on this.

Some here have advocated a system where the State should own or control all water. I must then ask you: **If I put out a bucket outside my house and the rain fills it with water, should that be my or the State's water?** Well, "yours", you say.

And if I build a roof-collector on my house and the rain fills it with water, is that my or the State's water? Again I hear you say "yours".

So if I dig a hole in my garden, a small pond, and the rain fills it with water, is that my or the State's water? Now I hear that the opinions start to differ, "yours" say some and "the State's" say some.

So I could go on and ask about ownership to wells, streams, rivers, lakes etc, about surface water and underground water, all until the oceans. And to my mind the conclusion will be that **there could be a sliding scale of ownership, from 100 % private ownership to the bucket of water, which the owner can do whatever he wants with, to a very low percentage of private ownership of the water in the oceans,** although also here some countries respect a private ownership for property owners, for instance the right to shoot water.fowl or fish near your own shores.

To put property rights to water in the right perspective is most important not only in order to define the landowners' role but to improve the whole water situation in the world.

7. **Landowners' positive contributions**
It is against this background of facts and myths, which I have tried to describe, that we can look at the **landowners' role in relation to our water-resources.**

Most of the presentations here have described the landowner as a **user** of water, for instance for irrigation, and as a **polluter** – we are almost regarded as criminals.

But as I have already indicated and as one of the last speakers demonstrated, there is another, more important side of the coin, the often neglected situation that the **landowners are among the major producers of water, perhaps the major.** Between the rainclouds and the tap, it is mainly the landowner who can collect, store, administrate and distribute the water. In order to make him fulfil this function well he should not be treated as a culprit but as a hero! Regrettably, **however, the legal system nowadays rather prevents him to fullfil this role**.

I made a calculation based on the numbers our Chairman gave me. The result is that **if everyone of the 30 million owners of rural land in EU made a pond or a dam or watertanks with the total size of our lecturing-hall here, we would double the amount of available water in the EU.** In other terms: this would be **equal to the total consumption of water in EU today.**

In addition the landowers could also **serve as major purifiers**, for instance by greating wetlands that could serve as enormous filters.

Quite a role, isn´t it? Imagine what the landowners could achieve just the economic and legal system was set right!

8. **Landowners or tenants?**
   In this context some words about the **tenants' role.** Various EU statutes regarding the agricultural policy, environment etc, which have been referred to here, reflect a **prevailing misconception**, a myth, that it is not the landowners but the agricultural tenants that are the major producers. This may have been the case right after the second world war, but since then the number of tenants has greatly been reduced, they are only a few million today, whereas the number of landowners has increased to 30 million.

   Not only are the landowners many, but they also perform or arrange on their land a great number of rural activities, also other than agriculture, such as forestry, energyproduction, rural business, tourism etc – agriculture is still important but accounts for only ten percent of the rural activity.

   To exemplify: A landowner may wish to create a wetland. **For this same area he could then have three different tenants simultaneosly**: an agricultural tenant with grazing cattle, a shooting club hunting ducks and fishermen fishing . As someone pointed out earlier: It may well be that the shooting club is the one contributing most to the rural economy! So who is the producer? **In my opinion it is very clear that today it is not the agricultural tenant but the landowner who is the real producer -** the tenants of various kinds are just sub-producers, and the agricultural tenant not necessarily the most important of these sub-producers.

   Consequently, when it comes to management of water and wetlands, all attention should be focused on the landowners, and any economic incentives presently directed to tenants be redirected to the landowners.

I excuse this rather lengthy general presentation, which I however deemed useful for our further discussion. And now I turn to

II. The Swedish system

Present system

Sweden is a country with rich water resources. We use them for multiple purposes including irrigation on a small scale to production of hydroelectric power on a large scale.

Sweden basically recognises property rights to water. To some extent a land/waterowner can also have rights to the water in the oceans, for example for some fishing and shooting near the shores.

Our legal system is since long time a "neighbourly" system – regulating conflicts to right of water between neighbours – less of a state-versus-land/waterowner system. A licensing system has for long applied to construction in water – this could be said to aim both at preventing future neighbourly conflicts and damage to collective interests.

The system is also basically investment-friendly – it rather encourages investments in dams, ponds etc.

To administer this system we mainly have specialized water-courts. Some regulatory measures can also be taken by local and regional environmental authorities.

An exception from the property rights concept was when the government in the aftermath of 1968 socialized rod-fishing at sea. This, together with restrictions on the right for the people in the archipelago to shoot migrating waterfowl as they used to + some more recent negative tax-measures has increased the exodus from the archipelago. So now the government has to resort to some much more costly subsidy-systems to try to persuade the islanders to stay. Not intruding on their property rights would have been far better!!

Recently more regulatory elements have been introduced into our system, mainly for environmental purposes.

Present environmental trends and perhaps also an influx of foreign ideas of nationalizing/taxing/regulating some water-resources has created growing uncertainties as to how our system works and will work in the future.

The government has in this situation given a special investigator the task to come up with proposals for the future water administration in Sweden.

The investigator's report

The investigator has defined her role mainly to be to create a legal-administrative system.

She recognizes that there are some basic property rights to our water and that there can be a conflict between land/waterowner interests and collective interests.

She also regognizes that there are some important positive effects of land/waterowner management.

She pays great attention to the water-basin as a suitable entity for administration.

Proposals:

- **Water-basin management**
- **Voluntary** system
- **Government to set targets and supervise – special water institutions**
- **"Balance sheet system"** – as long as water-basin fullfills targets for quantity and quality no further interference.
- If water-basin management is successfull, **members should also have possibility to get reduction in other government regulation, for instance cows per hectar.**
- **Taxation of all possible contamination sources** (incl private houses sewage)
- Possibly also **taxation of use of water,** if not contrary to constitution or EU-law
- **Taxation money to be used for new water institutions and as seed money for water basin projects** (French influence?)

What to me and my fellow landowners seems important in a **positive** way is

- **Investigator recognizes property rights**
- **Regulation by target not by detailed prescriptions**
- **”Balance sheet system”**

Negative is of course

- The proposals for taxation. As to the proposed taxation of private houses' sewage we are particularly opposed to the idea that it should be done as a standard measure regardless of if there is a real contamination or not. The proposal to tax use of water we believe sends the wrong message and will be counterproductive and more reduce supply of water than use of water. There should instead be incentives for making more of our water resources available and useful!

Let me for a moment dwell on the possible **effects of management by targets and the ”balance-sheet system”.** Our American friends have already shown some very interesting results of such systems in the Tar-Pamlico river case but I would like to give another example.

As I said initially, my family has created some 100 hectares of wetlands and considerable extra water volumes. We did not do this of idealistic reasons, we did it in a time when the water could be used both as a transporter of logs and as a resource for small scale power generation. But when timber was no longer floated and the energy too little for our industry those uses ceased. Others let their dams fall to pieces, but we maintained ours because of the beauty of the water surfaces and the fantastic biotops we had created. So a new use for tourism develloped, and of course for our own pleasure.

Simultaneously the wetlands served as an enormous filter cleaning water from pollution. Through extensive measuring by the authorities it has now been established that the water in the river basin is cleaner when it leaves our property and runs into the Baltic than when it enters our property. We have claimed this for a long time, but only now do we have offficial recognition.

Based on this positive effect we have asked for a small sum, 0,1 million SEK to restore a dam that seems fragile and leaks.

So what conclusion do the authorities draw? Well that they should build more dams and create wetlands in other parts of the river basin. Fine – but this is very costly, over 8 million to create half the size of our wetlands. And to restore our dam? No money, because maintenance is not interesting, particularly not if it is done by a private individual! What counts is a new project that the authorities do themselves – even if this is over 100 times more costly!

I have then proposed that I be exempt from changing, at great cost, the sewage systems for some of my houses in the countryside – the water leaving my property is anyway cleaner than when entering. So far no direct reaction on this ”balance-sheet” proposal. But the authorities have taken the initiative to form voluntary water-basin management groups.
So eventually we may hopefully end up with more of a management by target system.

To conclude, in total we believe that a future Swedish system, based on the ideas of the investigator but without the taxation element, can prove constructive.

III. Advice to landowners

What then are the advices I would like to give my fellow European landowners for the future?

- **Be involved!** Just don´t sit back and believe that your traditional water-rights will be there for ever if you don't fight for them!

- **Favour voluntary water-basin management.** We have already experienced a voluntary system for game-management as regards moose and this has worked extremely well. A voluntary water-basin management set up along similar lines should work.

- **Participate in positive devellopment of water-resources and wetlands – it can both bring you direct profits and indirect benefits for instance in averting detailed regulation.**

- **Hang on to whatever property rights to water you have – don't think that taxation is same as nationalized water rights** as some of our European colleagues seem to believe. Taxation can from time to time be changed, but once you give up your property rights they will be difficult to get back.

- **Don't sell water-rights – lease or rent out instead.** If we divest the water rights from the land we are losing a major argument – so far most water rights cannot be separately sold, for instance your fishing rights or the right to use a well.

- **Watch very carefully how management targets are formulated** (percentage, kilos, etc). **The authorities have a tendency to apply systems which favours the big polluters** such as municipalities, traffic etc **and to penalize the small polluters like individuals particularly the ones living in the countryside.**

  Let me give you an example. The water from our water-basin runs out in a threshold fjord of the Baltic. At the mouth and also inside the fjord there are two smaller cities with about 25.000 inhabitants. The sewage-treatment systems for these more or less meet the targets which means that they are about 90 % efficient. **The remaining 10 % is equivalent to the municipalities letting out into the fjord system sewage from 2.500 people untreated.** On the same time the small private houses way out in the countryside alongside our water-basin – perhaps some 900 people - only treat their sewage to about 60 % at source, but most of the sewage is then filtered through soil and hardly ever reaches the river. **Their contribution to the pollution is minimal in kilos of nitrate, phosphate etc as compared to the municipalities' , but as these inviduals do not fulfill the regulatory standards they are all the same treated like criminals. If the targets had been set in kilos per source (sewage treatment plant versus the private house treatment) the situation would have been the reverse!**

- **Sue the municipalities and regulators if necessary! Do not be afraid!** Of course you should mainly try to cooperate, but if they try to bully you – which bureaucrats have a tendency to do – try to find their weak spots and go after them. Most authorities are only to a limited extent following all regulations they should abide by. **And you have to have a "power-balance" in order to be useful partners**!

- **The principal of proportionality – a legal blessing brought to us by the EU.** This principal is very important for the individuals, particularly the ones living in the countryside - in discussions or legal battles with the authorities. It means that **the individual does not have to bow to regulation or government interference if in the actual case the benefit to the public cause is lesser than the negative effects for the individual.** In Sweden my fellow landowners have already won a number of cases against the authorities with reference to this principle.

Other developments to watch:

- **EU water-directive** –Mr de l'Escaille will talk about this later
- **EU directive on wetlands**
- **CAP re wetlands – it is positive that more incentives are contemplated for creation of wetlands on agricultural soils.** But we have to reach a situation where **creation of wetlands on all soils (not only agricultural) is recognized** and also **maintenance** of wetlands and where **the landowners not the tenants are recognized as the major player.**

<u>Conclusion for land/waterowners</u>

- **Be a good producer** and not only a user
- **Defend property rights**
- **Advocate management by targets – fight detailed regulation**
- **Favour voluntary water basin management – but without government participation**

Remember that in the final analysis of how we have managed our water resources you will most likely be a HERO!