

# How to implement „The Farmer as Watermanager“ - Solutions

## Considerations from the German pilot

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Problems { drought  
flooding  
waterquality }

➡ Most drops of water fall on farmland

➡ Farmers are key drivers  
for problems  
and  
for solutions



## Solutions sought at:

Macro-Level	EU-directives, National laws and regulations, EU-funding and programmes	⇒ Policy making-level tries to keep loud lobby groups calm; Farmers feel accused ⇒ <b>bad feeling</b> . Nature protection sometimes becomes a minor objective.
Meso-Level	Regional regulations, National activity programs, Regional planning, National/regional control -systems and payment-systems	⇒ Farmers organize their work the way that the controls work out o.k. ...
<b>Mikro-Level</b>	<b>Starts beyond law and regulations:</b> local initiatives, pilot projects, stakeholder-communication and „trading“, local policy making + involvement, personal contacts	⇒ „Story - telling“ and deals are possible ⇒ <b>good feeling</b> . Identification with the aims leads to motivation and (better) implementation.

The idea of AQUARIUS – **Farmers as Watermangers**

is to

include

the **Micro – Level**

in the toolbox

for solutions!



## Potential of micro – level means:

⇒ **mobilize the local stakeholders'**

- **Special Knowledge**  
about soil, local waterhousehold, landscape, local nature,  
„agro-social“ issues/behaviour, cost - benefit – calculations;
- **Willingness to Experiment**  
i.e.: spend time, money, land at pilot activities;
- **Willingness to invest / to pay / to do without money**  
if they „earn“ part of the „yield“;
- **Creativity / practical Sense**  
to find win-win-solutions in close contact with authorities



## Examples from the German AQUARIUS – Pilot

- A farmer tried **mulch-seeding in maize**  $\Rightarrow$  chamber of Agriculture intends to test it in exact field trials.
- A farmer had the idea to **change the discharge of drainage-water** from a field to the local creek ( $\Rightarrow$  North Sea) before to instead bypass the drainage discharge into a seepage – pond ( $\Rightarrow$  Groundwater Reserve).
- Another farmer **gave the land** for the seepage - pond; AQUARIUS and a regional foundation gave the money.





- An irrigation board had the idea to pump „their“ creeks **flooding water uphill for seepage** to the groundwater – reserve. **Make use of the boards sub-surface irrigation tubes** and with the help of small windmills. Aim was to have this amount of water as additional irrigation water and utilize the **groundwater - reservoir for storage**.  
Result: running cost too high => now plans changed to store the **flooding water in a basin** (2 Hectares) close to the creek for direct use for irrigation.
- One irrigation board in a very flat area (outside AQUARIUS) installed **weirs to keep the water longer in their ditches at spring** => later start of irrigation = save irrigation water.

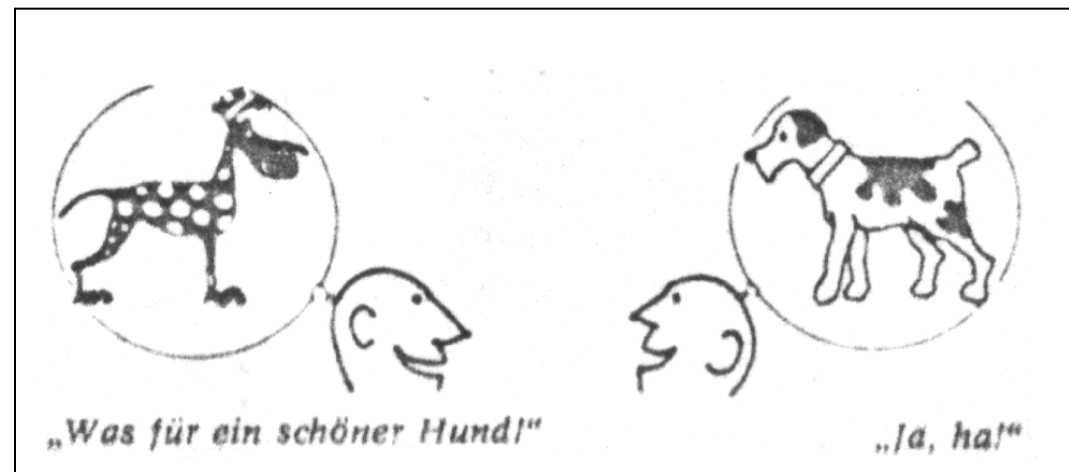
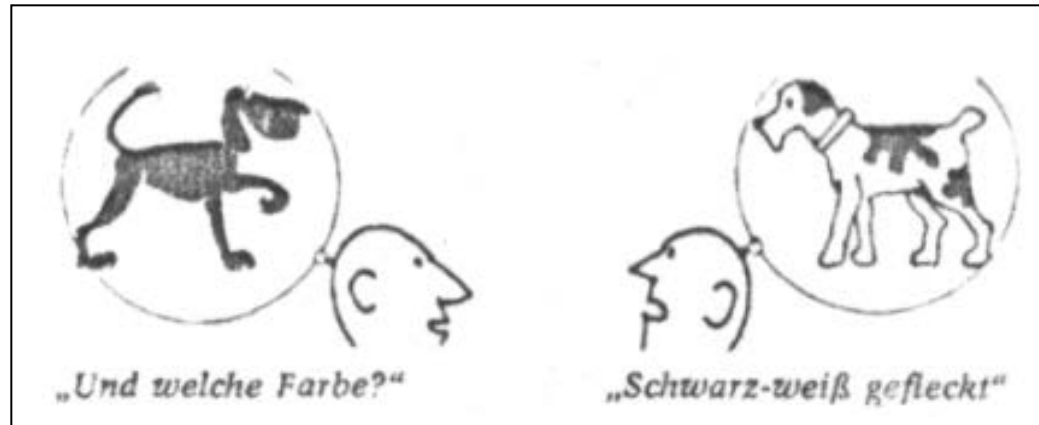
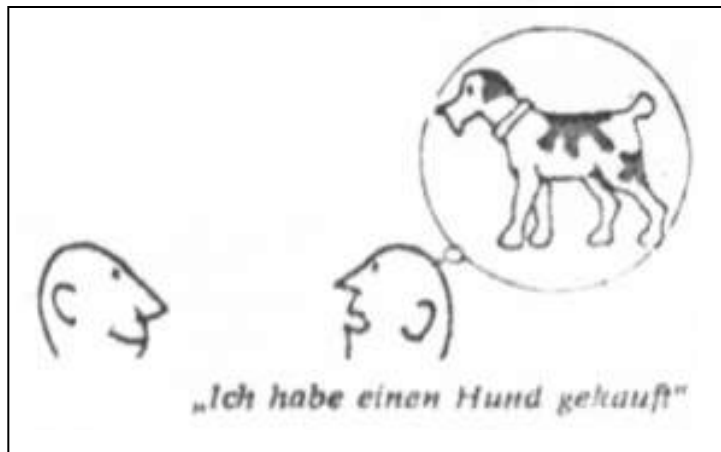


## Conclusions:

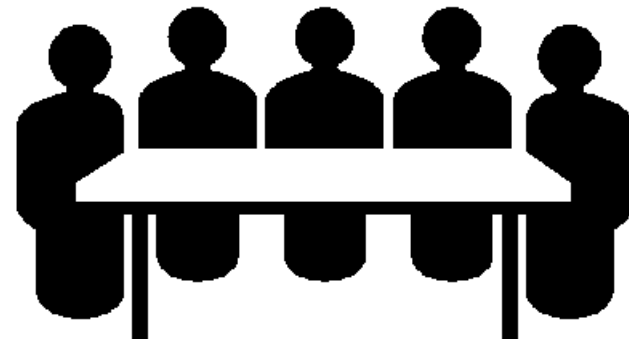
- The given examples aim to improve the **availability of water** for irrigation.
- „**Good State**“ of the **Quantity of groundwater** is objective of the Water Framework Directive.
- The Farmers are willing to **pay for it, if they „profit“** from a solution.
- Farmers would not accept to have to pay for keeping their current water - allowances! ⇒ „**Taking away hurts more than not giving**“ (compare Kahnemann & Tversky, winner of Nobel-Price on Economy).
- The **baseline** for FaWM-Solutions **must be today!**  
Comparisons with historical states opens a discussion on „guilt“ and „faults“ ⇒ Bad feelings exclude creative win-win solutions!



### 3 Öffentlichkeitsarbeit



- **Install Round Tables** or of stakeholders. Stakeholders = all involved institutions + groups (i.e. Water authority is a stakeholder!)
- Be open. Give your information. You always meet twice.
- Every stakeholder **has a good reason to act as he does**. Also the ones who cause water-problems.
- **Be respectful** always:  
The wish to make a good living as a farmer =  
**wanting to make a good profit is a good motivation**. (We all share this.)
- Become **clear upon the objectives in the beginning**.  
Communicate about contradictive **and about common objectives** and point them out. Understand each other.
- **Make deals  $\Rightarrow$  win – win.**





Thank you  
for your attention!

