Dachverband Feldberegnung Uelzen

Landwirtschaftskammer Niedersachsen

TOP SOIL Interreg North Sea Region European Regional Development Fund

EUROPEAN UNION

The Stake: Enough water for agricultural irrigation!

Which is the problem resulting from climate change?

1. Linear correlation between plants‘ consumption of water and its growth !
   => No water => no plant growth => no agriculture

2. Agriculture in NSR is shaped by glacial periods => characteristical sandy soils
   - low capacity to store water („field capacity“)

   - Irrigation is common in all NSR countries.
   - Limits result from a) profitableness /costs and b) water supply / groundwater

   Water supplies are limitted by prior ranking use and (ground)water dependent ecosystems.

3. Climate Change causes more intensive + longer evaporation (soils) resp. transpiration (plants).

   => Earlier exhaustion of the (sandy) soils‘ water reserves ! => Stop of plant growth
   (also: inferior qualities; eventually death).

Which possibilities to adapt to watershortage?

1. (Popular recommendation) „Save water…“ 

   => Farmers always did, **if** economic!
   Hardly possibilities left.

2. => Main issue in next decade: Increase the water supply.

   - Surface water retention resp. Buffering
   - Artificial groundwater recharge resp. groundwater buffering
   - Water reuse

   (for all see poster „Topsoil GE 4 AquaModul“)

Frame: In NSR you cannot foresee when it is dry and how much water is needed!
Lack of congruence: periods and sites of surplus mostly differ from sites of need!
=> pumping / piplines / reservoirs (money)

The biggest need for innovation in NSR seen from agriculture is in the heads

Politicians and waterauthorities must include agricultural watersupply in their responsibilities.
Farmers must include groundwater recharge in their actions.

I. policies:

1. Include effects of Climate change in WRRL and Nature 2000 (=> Groundwater dependant ecosystems).
2. Loosen the obligation of targachievement in the future.

(Farmers give up…)

II. measures:

Groundwater buffering and improvement of landscape water household is quantitative!

=> needs **multiple activities**.

Therefore:
1. Open administrative / legal frame for **motivation**! (Who generates water, he receives it.)
2. Offer „uncomplicated“ financial aid for **stimulation of local ideas** of recharge, buffering, retainment,…