

## Marianne Greve Rasmussen

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**Fra:** Trine Balskilde Stoltenborg  
**Sendt:** 3. april 2012 13:40  
**Til:** Marianne Greve Rasmussen  
**Emne:** WaterCAP material for The Blue Print  
**Vedhæftede filer:** Report from the Swedish workshop - Conclusions and Recommendations (WP 4.3.1).docx; WaterCap invitation.docx; policybriefAQUARIUS-Denmark.pdf; policy brief aqurarius netherlands.pdf; Aquarius policy brief Scotland.pdf

Kære Marianne

Kan du sikre at denne mail indgår i dokumentationen for vores arbejde i WaterCAP?  
 [Samtale med konsulent, der arbejder for EU-kommissionen på udarbejdelsen af Blue Print]

bh Trine

Trine Balskilde Stoltenborg  
 Natur- og miljøjuridisk konsulent, PhD

Videncentret for Landbrug  
 Agro Food Park 15  
 8200 Århus N

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**Fra:** Trine Balskilde Stoltenborg  
**Sendt:** 3. april 2012 13:37  
**Til:** [maria.berglund@fresh-thoughts.eu](mailto:maria.berglund@fresh-thoughts.eu)  
**Cc:** Irene Asta Wiborg  
**Emne:**

Dear Maria,

Thanks for taking the time to talk to us.

As promised we send "back up examples" - we will send more material after the workshop in Scotland (in case you don't make it there on your own. See the invitation attached.)

Page 3-4 in the attached report underlines what we have been talking on about the mindset and how to deal with the water management on a local scale. The 3 policy briefs gives concrete examples.

Please let us know if there something you want to have elaborated. You are also welcome to ask for further material. Also with regard to the issue of the impact assessment. Otherwise we find it natural to discuss this in connection with the impact analysis workshop in Denmark 15th - 16th. of May

Happy easter holiday  
 Irene & Trine

Trine Balskilde Stoltenborg  
 PhD in environmental law

Videncentret for Landbrug  
 Agro Food Park 15  
 8200 Århus N

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## Background

WaterCAP clusters knowledge about water management in a changing climate, adaptation to new conditions and promotion of new strategies. It communicates these as a substantive block of evidence to inform policy makers.

Here we inform on knowledge from the Aquarius project on water management in dialogue and thus creating sustainable solutions for the benefit of the environment and the local stakeholders. This brief includes a Danish example.

## Key Point – for securing win-win solutions in water management

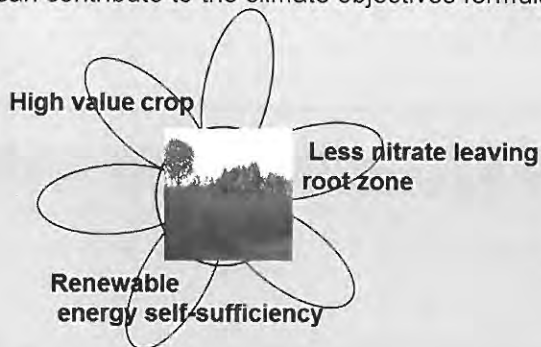
The key factors of securing win-win solutions:

- Use catchment groups consisting of stakeholders who have a role in the use and the management of the area
- Make sure that the solutions to the problems are technical, financial and participatory sound
- Think holistic – think quality and quantity water issues together, and include nature and other trans-sectorial approaches into the problem solution

Willow plantations in the Mariager Fjord catchment?

The catchment group has concluded that they all can benefit from growing willow;

- ensures significantly less nitrogen leaching which benefits the water quality
- can be a new way to get an income for farmers through their becoming energy producers
- can contribute to the climate objectives formulated by the local municipality



Solutions that benefit all or most stakeholders in the catchment group are easier to turn into reality

## Relevant in the implementation strategy of the Water Framework Directive

With changed climate the need for finding solutions where agricultural production and good water quality and quantity are secured will rise. With this Water Manager Concept it's stressed that new innovative win-win solutions to challenges for the water environment can be. The knowledge gained from the experiences in Aquarius about how to find win-win solutions could with advantage be included in the interpretation of article 14 in the WFD through a new edition of the Guideline 8.

In connection to such a new edition, the Guideline 8 could be promoted and thereby become a tool for



the national implementation in the second water plan period.

### Background information about Aquarius -

The climate is changing and in the future we will experience higher temperatures, more rainfall and more instances of extreme weather; storms, droughts, and floods.

The higher temperatures lead to a longer growing season, and this creates new possibilities for growing different crops. Simultaneously the risk of plant diseases and pests will grow. The changing climate increases the risk of nutrient and pesticide loss from the fields while the environment becomes more sensitive.

In the Aquarius project science, public authorities, farmer's organizations, and advisory services from six countries around the North Sea work together on finding sustainable and long-term win-win solutions to these challenges. The ambition is that food production will continue to develop.

The common aim is to find and implement sustainable, integrated land-water management through engaging with land managers. "Farmers as water managers" is the slogan for Aquarius.

In order to find win-win solutions technical, financial and participatory issues should be in place; - only if all the issues are handled a real win-win will arise.



### More information

The constellation of 6 countries with representatives from the scientific world, from the national, regional, and local authorities, from the agricultural advisors and from the farmers is a cocktail of interesting points of view.

Research on the participatory approach, on how to find methods finding win-win solutions has been an ongoing issue. In Aquarius sociologists have been investigating how to make a setup and it has been tested in real life how it works.

More information on [www.aquarius-nsr.eu](http://www.aquarius-nsr.eu) or contact project manager Irene Wiborg [iaw@vfl.dk](mailto:iaw@vfl.dk) or Flemming Gertz [flg@vfl.dk](mailto:flg@vfl.dk)





## Policy brief on water management, How to find win-win solutions

L. Jackson-Blake, W. Kenyon, K. Macleod, K. Matthews, M. Stutter  
The James Hutton Institute, Dec 2011

### Introduction

Throughout the North Sea region, flooding is an important issue and is predicted to become worse in the future under climate change. Land managers have an important role to play in providing potential flood alleviation measures. Many measures, such as the creation of temporary flood storage areas, offer other benefits such as habitat provision and improvements in water quality. However, successful implementation of such measures requires sound technical knowledge, early input from well-informed land managers and a clear and transparent policy and funding framework.

### Aquarius – Scottish pilot project: Summary of outcomes

In a Scottish pilot, project partners worked with land managers to examine and establish flood management measures while protecting business viability, and through a 'catchment restoration approach' providing other benefits of improved water quality, habitat and ecosystem resilience.

#### Financial/Policy outcomes

Current agri-environmental payments are insufficient for the **installation** or **on-going maintenance** of flood management measures

This is crucial for long-term viability, and should be prioritised in future funding schemes

Potential solutions may be hindered by **conflicting regulations by different agencies**

Land managers perceive a conflict between flood alleviation and measures required by the WFD in terms of riparian management and alterations to drainage and stream morphology. Clearer guidance is required

#### Stakeholder engagement outcomes

**Local knowledge** from land managers is essential in identifying potential flood storage sites that are *viable* and *fit with current businesses*

Agricultural advisors need **information and examples of natural flood management** options in order to help engage land managers in flood alleviation

**Farmers remain difficult to engage**, as they see their main role as being *food producers*, *not to manage flooding*, unless they have *financial incentives* to do so

#### Technical outcomes

The **trade-off** between **flood protection** and impacts on **land management** requires *combined socio-economic and biophysical modeling*, with iterations to determine optimum solutions

More examples of schemes assessing the **cumulative effect of run-off alleviation measures** are required, to demonstrate to land managers that these could be adopted to **maximize cost-effectiveness**.

Time and resources should be allowed for **land managers** to work with **engineers** to **co-design** measures, so that grazing or cropping of fields is possible so the flood storage has minimal impact on farm operations.



## Background – WaterCAP and Aquarius

WaterCAP is a cluster project on water management in the North Sea region. The cluster connects six INTERREG IVB funded projects focussed on recommendations relevant to policy-makers on water quantity/quality issues, climate change impact assessment and adaptation strategies.

The Aquarius project lies within the WaterCAP cluster, and aims to enable farmers to successfully act as water managers, practicing sustainable farming under climatic changes with due respect to environmental protection. The project is made up of seven pilot projects in six countries. This brief communicates the main outcomes from the Scottish pilot area, where key challenges are flooding and water quality.

## Research Undertaken

The James Hutton Institute (formerly Macaulay Land Use Research) is working together with Aberdeenshire Council to investigate the implementation of sustainable flood management measures in the Tarland catchment, north east Scotland. The aim is to create a demonstration site to encourage farmer participation.

During the Aquarius project:

- Catchment baseline information was collated relating to economics, land use, biodiversity, water quality, current climate and flood risk and climate scenarios
- Potential temporary flood water storage sites were identified by field and aerial surveys and hydrological modelling
- Three workshops were held with authorities/advisors, farmers and estate owners/managers. These assisted with baseline information gathering, introduced stakeholders to flood and climate information and allowed discussion of issues regarding financing and legal arrangements
- To learn about the costs of natural flood management, particularly payments to farmers, project partners visited five Scottish demonstration catchments. However, farm land forms a small part of these schemes, and there is little information on cost and incentivising farmers
- Work is still underway to establish a demonstration site within the catchment. The biggest problem is establishing the correct level of incentives, both for uptake and for on-going maintenance. These need to be cost-effective and ensure the long-term viability of the measure.

## Policy relevance

Under the Flood Risk Management (Scotland) Act (2009) authorities are expected “to make provision about the assessment and sustainable management of flood risks”. The Act explicitly requires promotion of landscape-based techniques to reduce flood risk (‘soft engineering’ techniques). Incentivising land-managers to adopt measures to reduce flooding will be crucial for successful implementation of this Act. This is particularly true given the growing challenges posed by climate change and other future changes. The results presented here include important recommendations for engaging farmers and highlight some of the key barriers that need addressing.

The partnerships developed in Aquarius will contribute to a balanced implementation of other European environmental related policies, e.g. the WFD, Habitats Directives, Nitrates Directives, Flood Management Directives, European Climate Change Program, the DG Agriculture Climate Action, the Common Agricultural Policy reforms and other actions on water quantity and quality.

## More information

Scottish pilot project: <http://www.macaulay.ac.uk/aquarius/>, or contact Marc Stutter: [marc.stutter@hutton.ac.uk](mailto:marc.stutter@hutton.ac.uk)

General information on Aquarius: [www.aquarius-nsr.eu](http://www.aquarius-nsr.eu), or contact the project manager Irene Wiborg: [iaw@vfl.dk](mailto:iaw@vfl.dk)

WaterCAP: <http://www.northsearegion.eu>





## Policy brief on water management How to find win-win solutions

Rinke Veen, Province Drenthe, December 2011

### Background

WaterCAP clusters knowledge about water management in a changing climate, adaptation to new conditions and promotion of new strategies. It communicates these as a substantive block of evidence to inform policy makers.

Here we inform on knowledge from the Aquarius project on water management in dialogue and thus creating sustainable solutions for the benefit of the environment and the local stakeholders. This brief includes an example from the Netherlands.

### Key Point –for securing win-win solutions in water management

The key factors of securing win-win solutions:

- Use catchment groups consisting of stakeholders who have a role in the use and the management of the area
- Make sure that the solutions to the problems are technical, financial and participatory sound
- Think holistic – think quality and quantity water issues together, and include nature and other trans-sectorial approaches into the problem solution
- Combine water management goals with agricultural goals.

Using sensors in the veenkolonien in Drenthe

The catchment area stakeholders are convinced that technical innovation (like the use of sensors) will help us to use the available water more efficiently and to be able to integrate water quality and water quantity in water management decisions.

- using water efficiently for optimal crop growth;
- using water and fertilizers at the right moment in relation to nitrogen leaching to save water quality in downstream lake
- finding the right combination between groundwater use and surface water use.
- give farmers more possibilities to use water efficiently on a farm level;
- can contribute to climate objectives as water shortage;

### Relevant in the implementation strategy of the Water Framework Directive

With a changed climate the need for finding solutions where agricultural production and good water quality and quantity are secured will rise. With this water manager concept it's stressed that new innovative win-win solutions to challenges for the water environment can be. The knowledge gained could by advantage be included in the interpretation of article 14 in the WFD through a new edition of the Guideline 8.

In connection to such a new edition, the Guideline 8 could be promoted and thereby become a tool for the national implementation in the second water plan period.



### Background information about Aquarius -

The climate is changing and in the future we will experience higher temperatures, more rainfall and more instances of extreme weather; storms, droughts, and floods.

The higher temperatures will lead to a longer growing season, and this creates new possibilities for growing different crops. Simultaneously the risk of plant diseases and pests will grow. The changing climate increases the risk of nutrient and pesticide loss from the fields and at the same time the environment becomes more sensitive.

In the Aquarius project science, public authorities, farmer's organizations, and advisory services from six countries around the North Sea work together on finding sustainable and long-term win-win solutions to these challenges. The ambition is that food production will continue to develop.

The common aim is to find and implement sustainable, integrated land-water management through engaging with land managers. "Farmers as water managers" is the slogan for Aquarius.

In order to find win-win solutions technical, financial and participatory issues should be in place; - only if all the issues are handled a real win-win will arise.



### More information

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Research on the participatory approach, on how to find methods finding win-win solutions has been an ongoing issue.

Sociologists have been investigating how to make a setup.

More information on [www.aquarius-nsr.eu](http://www.aquarius-nsr.eu) or contact Rinke Veen, [R.Veen@drenthe.nl](mailto:R.Veen@drenthe.nl) on the example from the Netherlands

