Aquarius is structured into four phases.

Phase A. Baseline and barriers
This phase covers the initial contact with farmers and other participants and is extremely important to the success of the project. During this phase a baseline will be created for each project area in relation to water management, ecosystem description, actors, and socio-economic structures.

Phase B. Key Methods
This phase relates to development and operationalisa - tion of various key methods which the individual farmer will be able to use in the interaction with authorities and other interested parties.

Phase C. Implementation and demonstration
During this phase the key methods will be implemented in the project areas and the involved farmers will be engaged as "farmers as water managers". Each project area will test various key methods in cooperation with the involved project farmers.

Phase D. Synthesis & communication
During the fourth and final phase the results will be evaluated and synthesis and recommendations will be developed. Due to the ongoing cooperation with the relevant authorities during the project, we can ensure that the experiences from this project will be dissemi - nated and utilised in the future agricultural and water planning under changing climate conditions.

The pilot projects

Germany
The Eastern part of "Lüneburger Heide" in Lower Saxony. Part of the German Sub-Continental Lowlands with a high average summer water deficit. The area is an EU-Object-1-Area (Convergency-Objective-Area). The demonstration activities will effect about 250 km^2 of arable and irrigated land.

The Netherlands:
Delfland
About 25 km^2 agricultural grassland in the Midden-Delfland area within the Haaglanden-region.
Drenthe
About 10 km^2 in the eastern part of the province Drenthe. The area is situated in the region of the villages Stadskanaal, Musselkanaal, Valthermond, Buinerveen.

Norway
The 337 km^2 Vansjø catchment with a lake which is an important recreational area and a drinking water reservoir for 60 000 people threatened by eutrophication due to high phosphorous loads originat - ing mainly from erosion and subsurface drainage on farmland.

Scotland, UK
The 73 km^2 Tarland Burn catchment is a tributary of the River Dee. The area has a varied mix of arable, livestock and forestry land uses. Alleviating flooding and improving water quality are key challenges.

Sweden
The 277 km^2 catchment of the river Smedjeån with approx. 43 percent forest and agricultural land in the county of Halland on the Swedish west coast. Suffering from severe floodings on a regular basis and from deficit in precipitation.

Denmark
The catchment area of Mariager Fjord in the north-east of Jutland, which is a vulnerable marine estuary. The catchment is 572 km^2 of which 2/3 is farming and 1/3 is nature or cities.

Aquarius

The farmer as water manager working for a good water environment.

AQUARIUS
Farmers as water managers

Effective agricultural production adapted to new climatic conditions and environmental demands in the North Sea region.

European Union
European Regional Development Fund

The Interreg IVB
North Sea Region
Programme

Continued development under new conditions.

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

The higher temperatures lead to a longer growing sea - son, and this creates new possibilities for growing dif - ferent 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 at the same time the environment becomes more sensitive.

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

Aquarius consists of seven national pilot projects, which all have the objective that farmers and other landowners will function as managers of a good water environment while still conducting an effective and profitable production.

Long-term partnerships with the farmer in focus.

The experiences from the national projects are shared with the other partners in Aquarius. The objective is to develop new ways of production and new tools that can be used across the North Sea Region. The con - structive cooperation between farmers, advisers, and authorities is central for developing new techniques. It is our ambition that Aquarius will form the basis for long-term partnerships between the farmers, their organisations, and local and national authorities in charge of environment and water environ - ment.

Aquarius is partly financed by the EU InterReg North Sea programme.

The seven pilot projects are carried out in Norway, Sweden, Germany, The Netherlands (2), Scotland, and Denmark.

Transnational Website:
www.aquarius-nsr.eu

Scotland Website:
www.macaulay.ac.uk/aquarius