

## **A short introduction to COST 869, WG2 and factsheets, and topics for this workshop**

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COST 869 (European COoperation in the field of Scientific and Technical Research) will focus on the steps that need to be taken within the EU Water Framework Directive in order to effectively reduce the nutrient losses from point and diffuse sources to surface waters and groundwater. The Action will be undertaken in the context of balancing measures to reduce phosphorus (P) losses with those necessary to reduce other nutrient losses such as nitrogen (N). Such measures are often conflictory, and need to be considered as part of an integrated program of measures.

The outcomes of the discussions within the COST Action will be reported to the new board of the WFD dealing with the interaction between agriculture and water quality.

In August 2008 the following 28 countries participated in the Action: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and United Kingdom. More information about the Action can be found on the website of the Action: [www.COST869.alterra.nl](http://www.COST869.alterra.nl).

Within COST 869, four working groups (WG) are active. Their goals are, respectively, to:

WG1: develop methodologies to localize critical source areas and transport routes in catchments,

WG2: study the influence of nutrients on ecological processes in surface waters,

WG3: evaluate different types of mitigation options, create factsheets about options,

WG4: evaluate projects in example areas.

During this workshop of WG2, the following questions can be discussed:

- a too high N or P concentration deteriorates overall water quality, where do we find N or P limitation?
- a too low N/P ratio in surface water stimulates growth of toxic blue-green algae,
  - \* should the N/P ratio be based on total N and P, or on e.g. nitrate and ortho-P?
  - \* do we find seasonal patterns in the N/P ratio; if so, can this be explained?
  - \* does the N/P ratio tend to change over a longer period?
  - \* will an increase of water temperature increase the risk of blue-green algae blooms?
- removing nitrate by denitrification reduces the N/P ratio, and may cause mobilization of P. Should we take care with this kind of remediation of N?
- which other interactions of N and P in surface water do we know of?