

# ACHIEVING THE ENVIRONMENTAL GOALS OF THE WFD IN FINLAND AND THE ROLE OF AGRICULTURAL WATER PROTECTION MEASURES

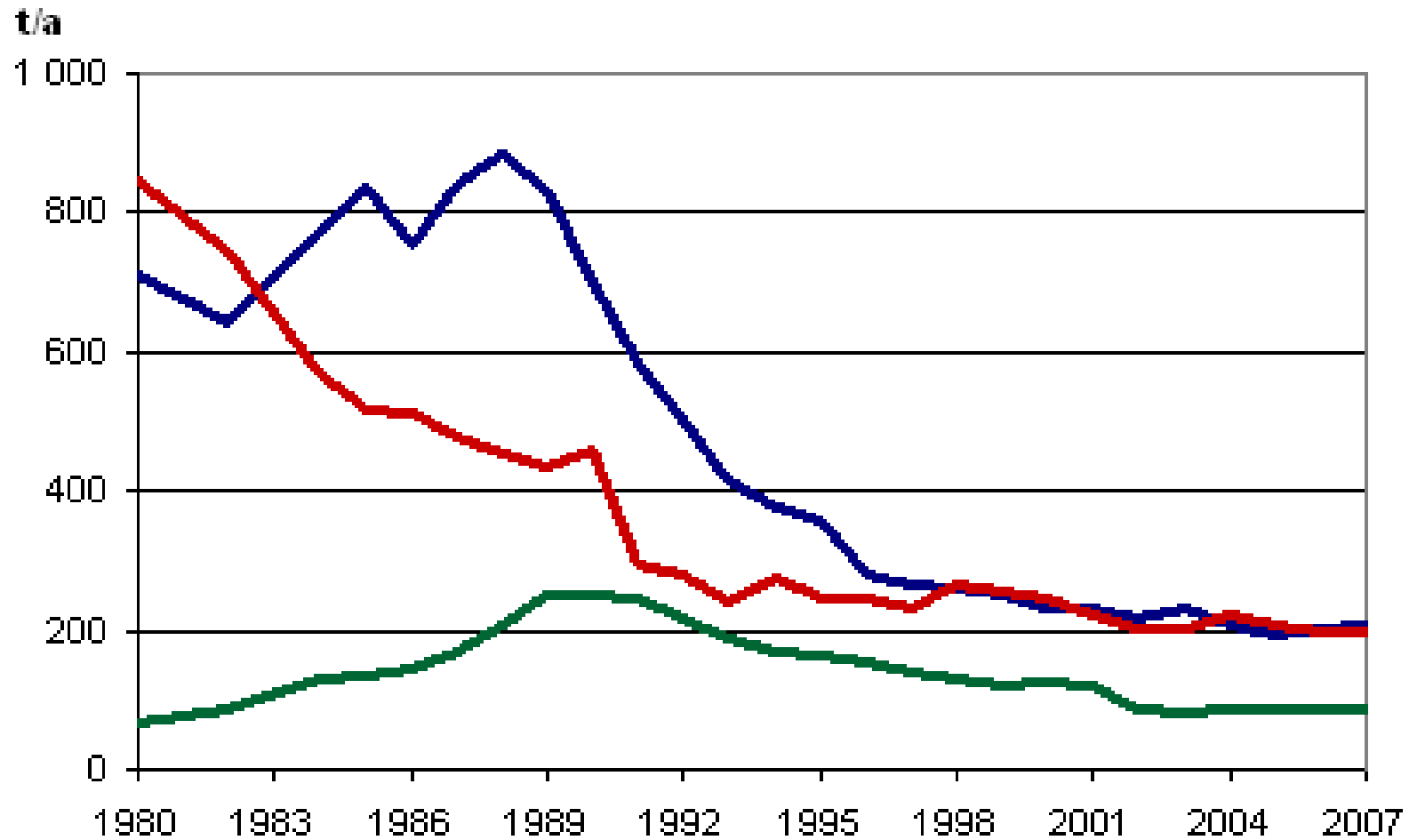
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# IN GENERAL

- The Finnish water protection has been successful. In our country, eutrophication of inland waters and the Baltic sea has been the most serious water problem.
- Phosphorus is in Finland the most important nutrient causing eutrophication. In the Baltic sea, also nitrogen has an important role.
- Phosphorus loading from industries and municipalities has decreased during the last few decades.
- The development of agricultural loading has not been as good.

# Total phosphorus loading in Finland since 1980

Blue = industries, green = fish farming, red = cities and municipalities



# Total estimation of the ecological status in Finnish surface waters

Blue = *excellent*

Green = *good*

Yellow = *moderate*

Orange = *poor*

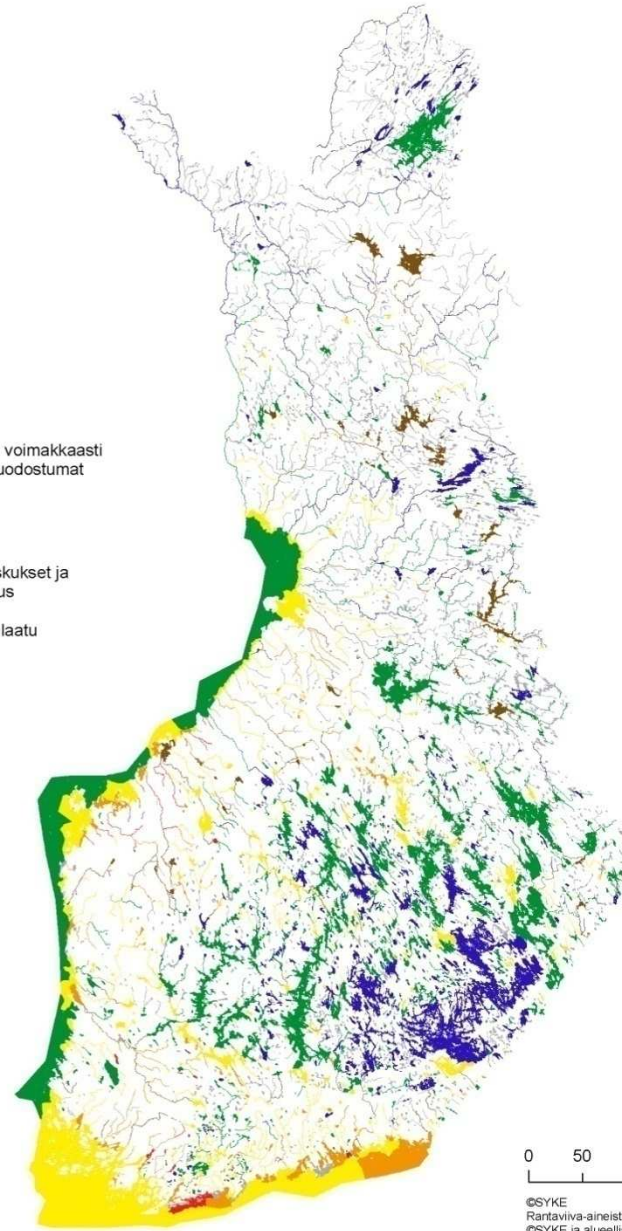
Red = *bad*

Brown = *artificial and heavily modified*



Luokittelutiedot:  
Alueelliset ympäristökeskukset ja  
Suomen ympäristökeskus

[www.ymparisto.fi/vesienlaatu](http://www.ymparisto.fi/vesienlaatu)



0 50 100 km

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# Achieving good ecological status in surface waters






Blue = *no risk*

Green = *by 2015*

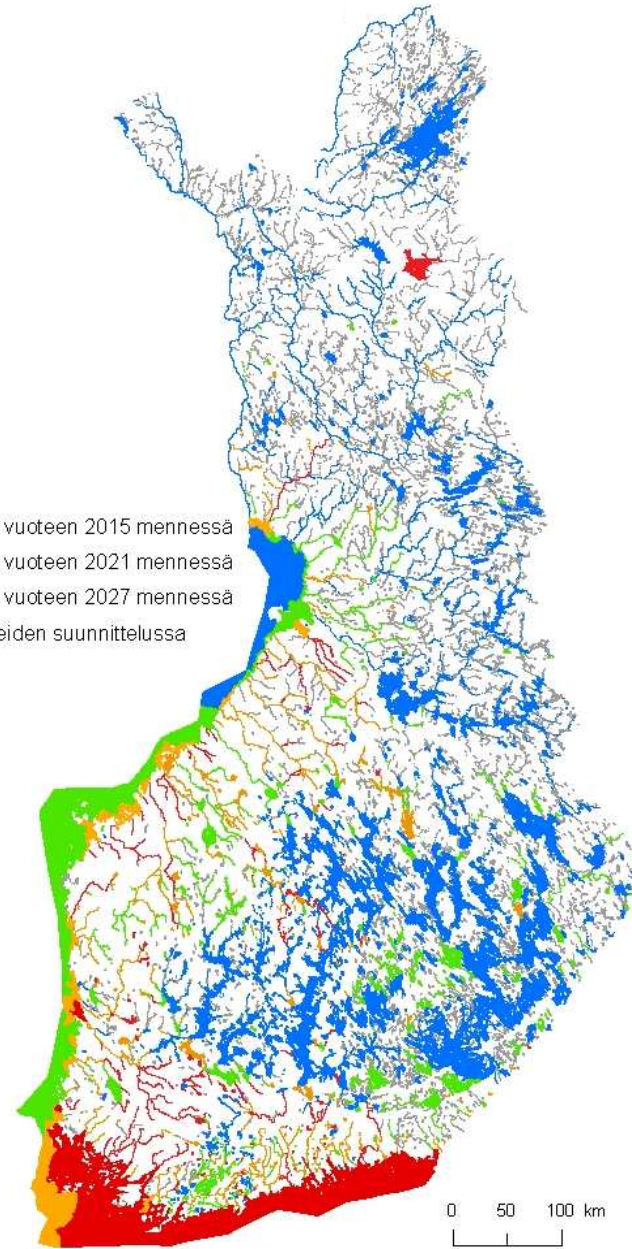
Yellow = *by 2021*

Red = *by 2027*

Grey = *not considered*

-  Ei riskiä
-  Tavoitetilä saavutetaan vuoteen 2015 mennessä
-  Tavoitetilä saavutetaan vuoteen 2021 mennessä
-  Tavoitetilä saavutetaan vuoteen 2027 mennessä
-  Ei tarkastella toimenpiteiden suunnittelussa

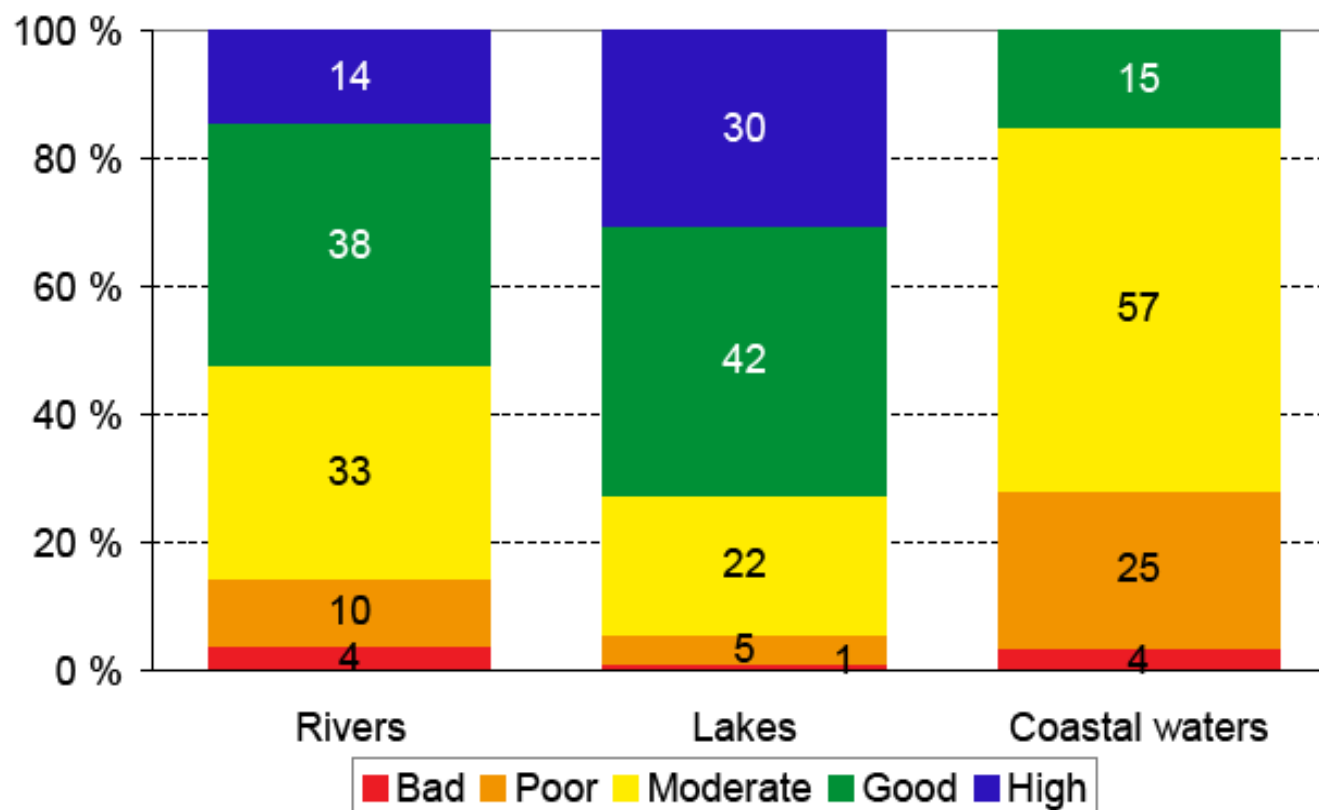
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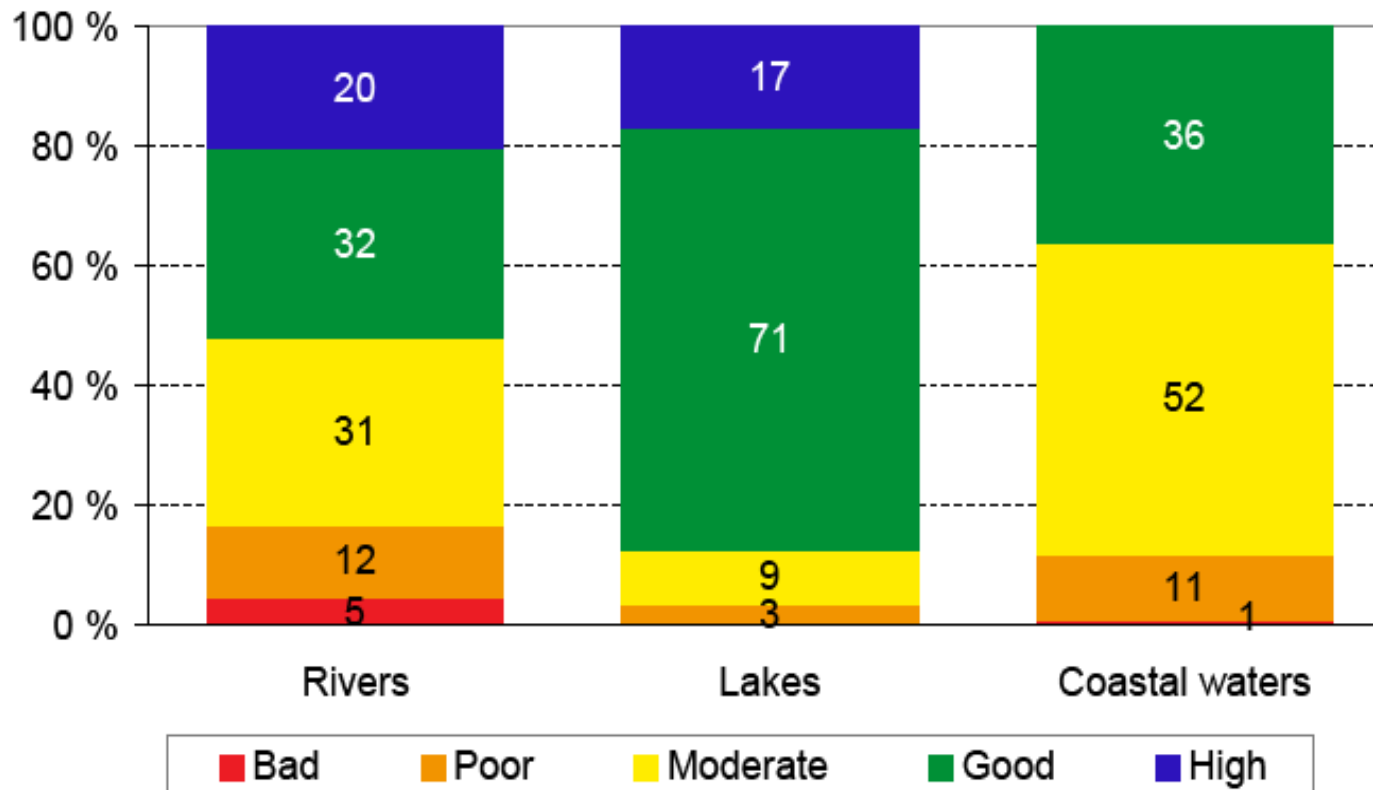
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### Ecological status of surface waters assessed by water bodies



Source: Regional Environment Centres and SYKE, [www.ymparisto.fi/vesienlaatu](http://www.ymparisto.fi/vesienlaatu) © SYKE

### Ecological status of surface waters assessed by river length and surface area of lakes and coastal waters



Source: Regional Environment Centres and SYKE, [www.ymparisto.fi/vesienlaatu](http://www.ymparisto.fi/vesienlaatu) © SYKE

# Achieving the goals (good ecological and chemical status of waters) in Finland

These are preliminary estimations which will be more accurate (e.g. on the basis of cooperation with different stakeholders).

- *In one third of the water bodies considered the goals will be achieved later than by 2015, particularly in the rivers of the coastal zone (by 2012 or 2027).*
- *In the Gulf of Finland and in the Archipelago, a good status is achieved only by 2027.*
- *In large lakes, a good status will be achieved mainly by 2015, or it already prevails.*
- *In small lakes eutrophied by agriculture, the goals will be achieved later.*



# Why will we be late in achieving the goals?

- No applicable technological means exist for reducing the harmful effects.
- The costs may be unreasonable.
- Institutional reasons
- Natural conditions
- Lag time in the improvement
- The old "sins" affect.

# Water Protection Policy Outlines to 2015

The Finnish Government decision-in-principle

- Six main issues:
  - 1.Reducing nutrient emissions that lead to eutrophication (all sources)
  - 2.Reducing risk associated with toxic substances
  - 3.Reducing the harmful impacts of hydrological engineering and water level regulation
  - 4.Protecting groundwater
  - 5.Conserving aquatic biodiversity
  - 6.Water body restoration

# Reduction of nutrient pollution, particularly from agricultural sources

According to the above mentioned decision-in principle:

- *A target has been set to reduce agricultural nutrient loads by at least a third of their average level over the years 2001-2005.*
- *Actions that will ultimately halve nutrient emissions from agricultural sources must be implemented as soon as possible.*
- *Details of the measures needed to reach these targets are to be defined on the basis of further reports drafted jointly by the administrative sectors involved.*

Unfortunately, these targets seem to be unrealistic in the present situation.

# Reducing agricultural nutrient loading

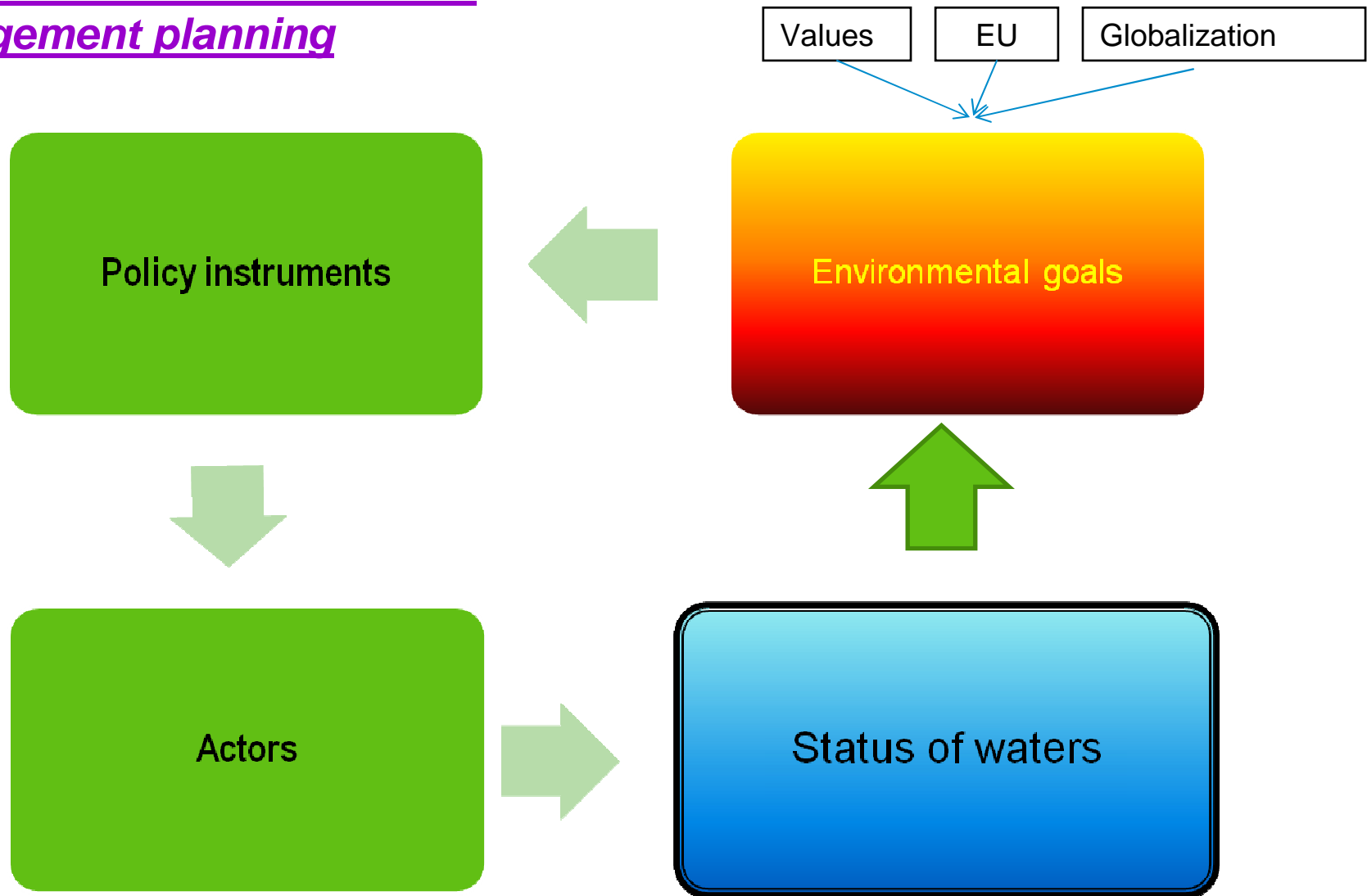
Improvement of the status of water bodies eutrophied by agricultural loading requires more effective and more accurately located measures than today. E.g.:

- Optimal use of fertilizers
- Winter-time vegetation cover
- Buffer zones
- Artificial wetlands
- The adoption of farming practices that reduce erosion

# Agricultural support

- *The Finnish agricultural support scheme should be further developed so that the requirements of the environmental directives will be better fulfilled.*
- *The measures proposed in the River Basin Management Plans (RBMP) call for development of different policy instruments.*
- *Development of the agricultural environmental support is in a central position.*

Policy instruments and water management planning



# Other instruments (than financing)

- **Land use planning**
- **Improvement of legislation**
- **General environmental planning**
- **Environmental counselling**
- **Research**
- **Improvement of environmental awareness**

**THANK YOU FOR YOUR ATTENTION!**

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