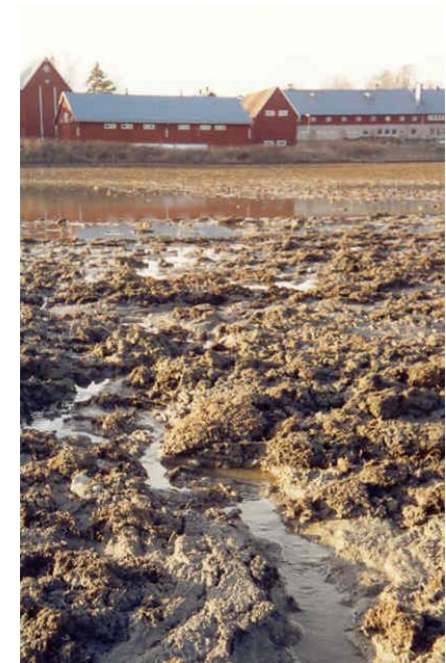


LAWA - Lepsämänjoki

- The core research site of **LAWA** is a 213 km² agricultural watershed of river Lepsämänjoki. It is situated 30 km North-West to Helsinki, and drains to the Baltic Sea in Gulf of Finland.
- The research consortium maintains biophysical environmental monitoring data from the site already over decades, including:
 - quality of river water
 - nutrient and sediment loading from farmland
 - agricultural land use
 - nutrient balances in farming
 - soil types and topography
 - landscape diversity
 - species diversity of vascular plants, butterflies and farmland birds



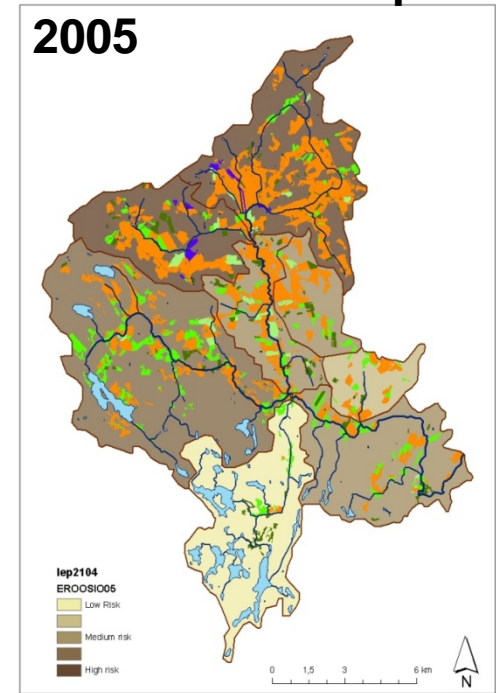
MYTVAS

FOLLOW-UP STUDY ON THE IMPACTS OF AGRI-ENVIRONMENTAL MEASURES IN FINLAND

- **Biodiversity monitoring**
 - Birds, butterflies and moths monitored annually since 2000
 - Plants monitored in 2001, 2005 and annually since 2008
 - Landscape composition in 1990, 2000, 2005 and 2010
- **Interview study of farming practices**
 - Annual interviews 1994-2005
 - Covered 82 farms and 1645 fields in 2003-2005
 - Used to calculate e.g. indicators of environmental loading

Erosion risk map

2005



VACCIA

Vulnerability assessment of ecosystem services for climate change impacts and adaptation

- Climate change increases risk for nutrient leaching
- Mathematical modelling study showed that at Lepsämänjoki by 2070-2099
 - discharge will increase moderately with shift to higher discharge in winter
 - Suspended sediment loads will increase more than dissolved nitrogen loads
- One large-area measure (stubble) is not enough to compensate suspended sediment increase but more specific measures are needed (e.g. gypsum)
- Nitrogen increase can be compensated and load decreased by a set of measures

