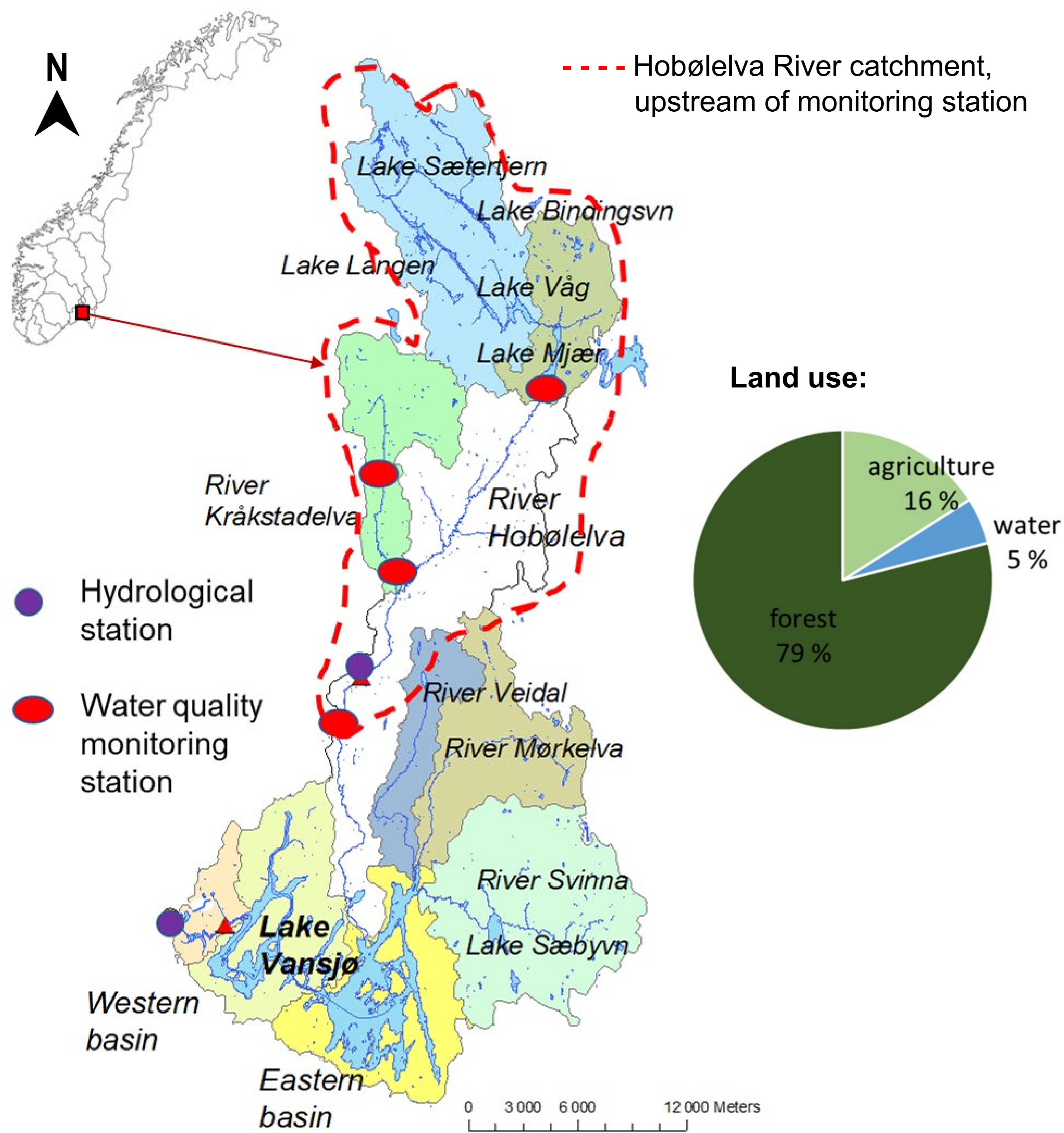


# NIBIO STUDY SITE: Hobølelva River

Eva Skarbøvik, Anne-Grete Buset Blankenberg, Dominika Krzeminska

## LOCATION & LANDUSE



## GENERAL INFORMATION & PROBLEMS

- Catchment area: 333 km<sup>2</sup> (298 km<sup>2</sup> upstream of monitoring station)
- Elevation range: 25 - 346 m a.s.l.
- In the North: mainly forested with Pre-Cambrian bedrock
- Downstream: soils rich in silt/clay minerals, since the area was submerged under the sea during the Quaternary period. Clay content can reach up to 80 %.
- Mean temp.: 5.3°C (annual), -4.8°C (Jan/Feb), 16.1°C (July).
- Annual precip. (1993-2004): 651-1305 mm.yr<sup>-1</sup> (avg. 864 mm.yr<sup>-1</sup>)
- Avg. water discharge: ca. 4.7 m<sup>3</sup>.s (max: 102 m<sup>3</sup>.s).

**Eutrophication** – severe algae blooms around 2004-2007. Agriculture being main source of phosphorus in fresh water



**Riverbank erosion** – additional P source; river flows through marine clay deposits, naturally rich in apatite – a phosphorus-rich mineral.

**Floods** of varying magnitude occur frequently, typically during snow melt and autumn rainstorms.



Presence of quick-clay pockets increase a risk for **clay landslides** - additional P load to the river and lake waters.

## EXISTING NATURAL/SMALL RETENTION MEASURES

Reduced till / tilling in spring instead of autumn (here Hobøl)



Grass-covered waterways/ waterways in stubb (here Leira)

Sedimentation pond in the forest area (here Svinndal)

Riparian buffers – natural vegetation, grass or trees (here Hobøl)



## STAKEHOLDERS

Local involvement has been extensive since around 1990 as catchment has been used as a study site in many projects, e.g., EU FP7 Refresh, EuroHarp, H2020 Recare). NIBIO has arranged many workshops with stakeholders of this catchment:

- ✓ Farmers and land owners;
- ✓ Water boards: local (for the catchment) and regional (for the river basin of Glomma);
- ✓ Municipalities;
- ✓ Boaters, canoers (mainly in the lake), local communities;
- ✓ Drinking water supply company (MOVAR);
- ✓ Environmentalists (f.ex., SABIMA);
- ✓ Hunting and fishing associations;
- ✓ Tourist association (Turistforeningen); etc.

Participation in OPTAIN activities, already confirmed via support letters:

- County Governor of Oslo and Viken  Fylkesmannen i Oslo og Viken
- Morsa River Basin Sub-District 
- Norwegian Agricultural Extension Service  Norsk Landbruksrådgiving