

Overexploitation of fish resources and small-scale fishery in North-Eastern Baltic Sea: the social aspects of Ecosystem –Based Fisheries Management in Western-Estonian Archipelago



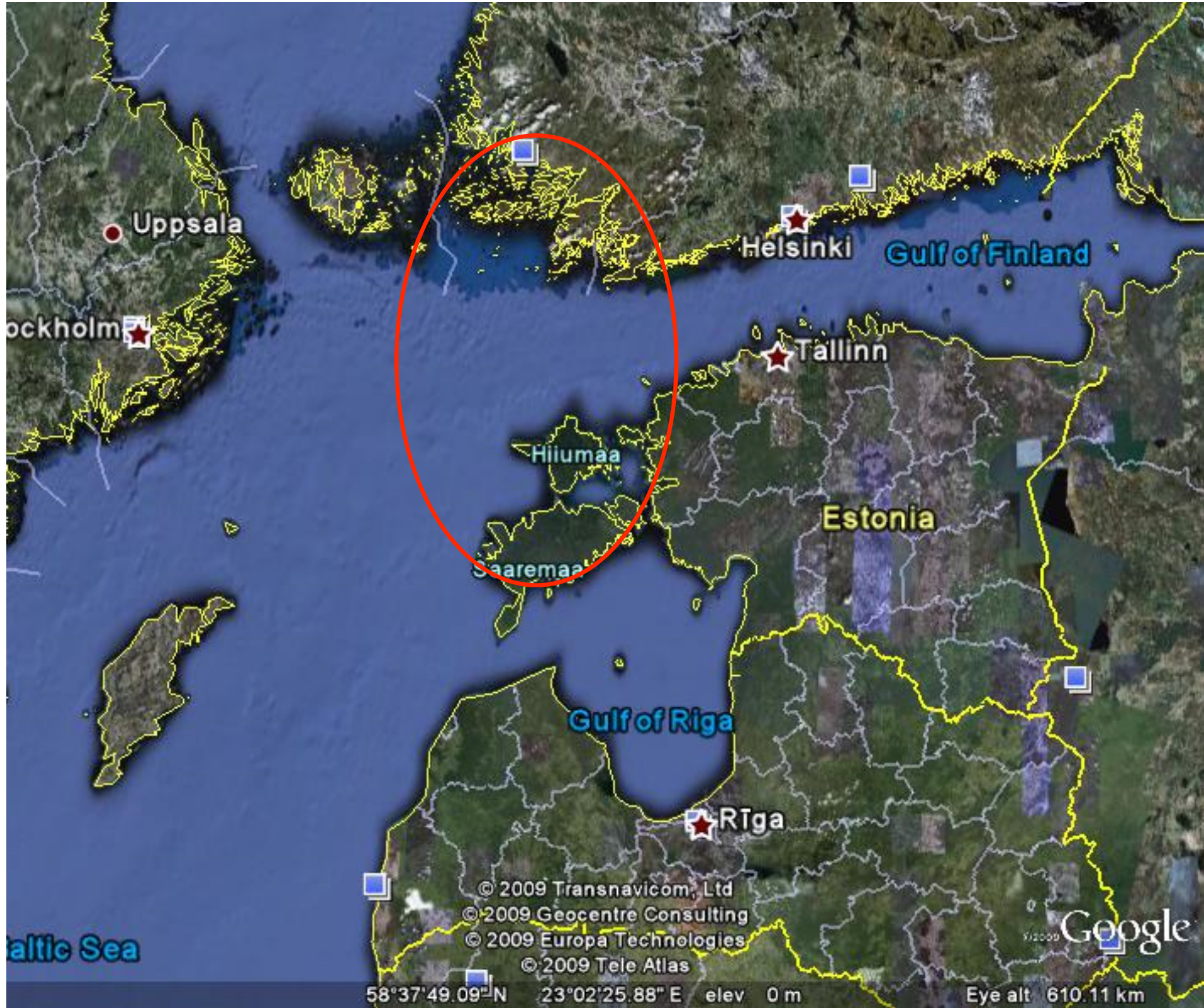
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² Rural Economy Research Centre

**EU INTERREG IIIA “Plans for Sustainable
Development of Fishery in the Southern
Finland and in the Western-Estonian
Archipelago Sea Area ” 2006-2008**





Uppsala

Stockholm

Helsinki

Gulf of Finland

Tallinn

Hiiu

Estonia

Saaremaa

Gulf of Riga

Riga

Baltic Sea

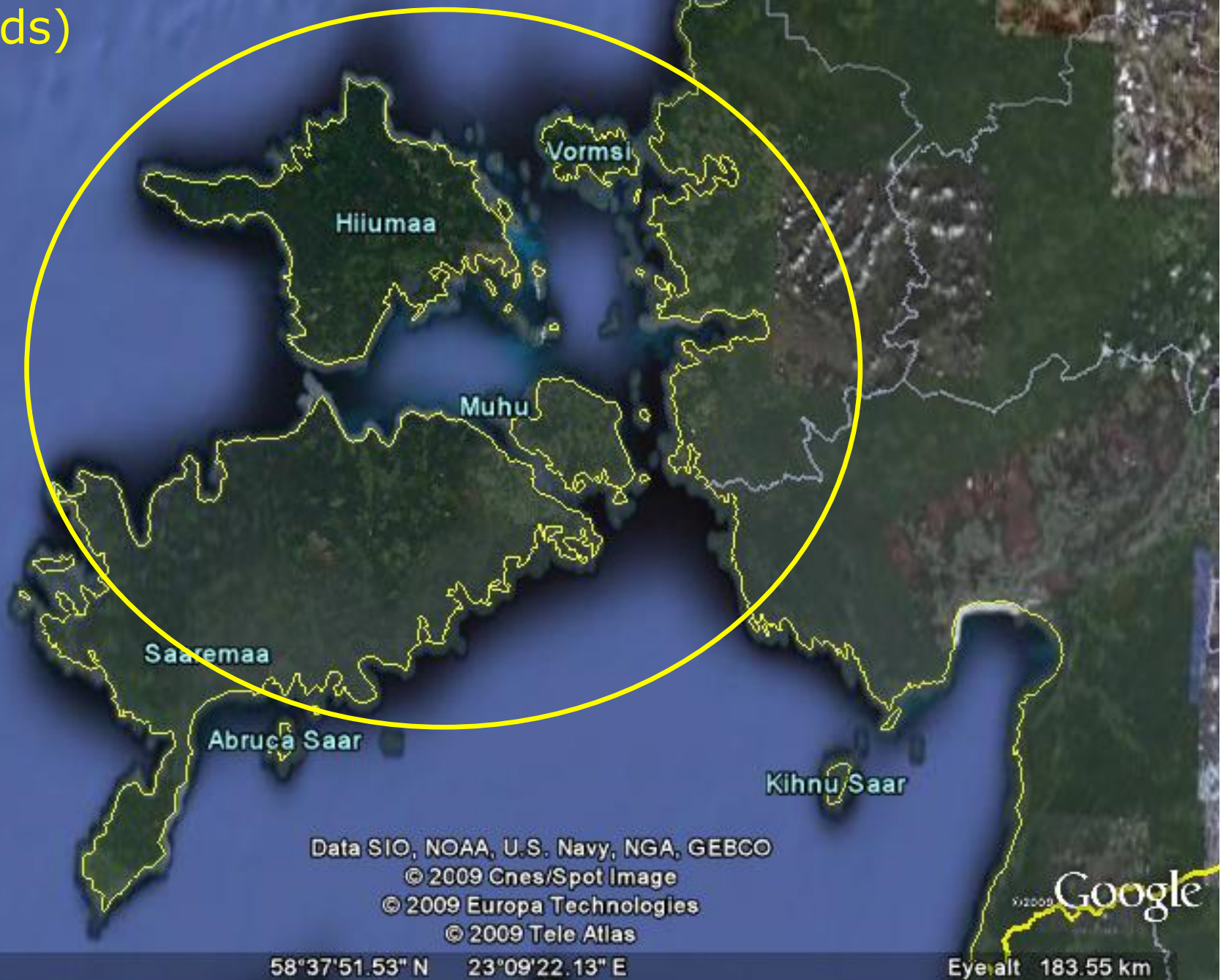
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Google

58°37'49.09" N 23°02'25.88" E elev 0 m Eye alt 610.11 km

Western-Estonian Arcipelago (Väinameri):

> 2300 km²; shallow and brackish sea; spawning grounds for many (herring, garpike, pikeperch, perch, cyprinids)







Tiit Leito

Mostly small-scale fishery,
both professional ..
.

Herring pound net fishery



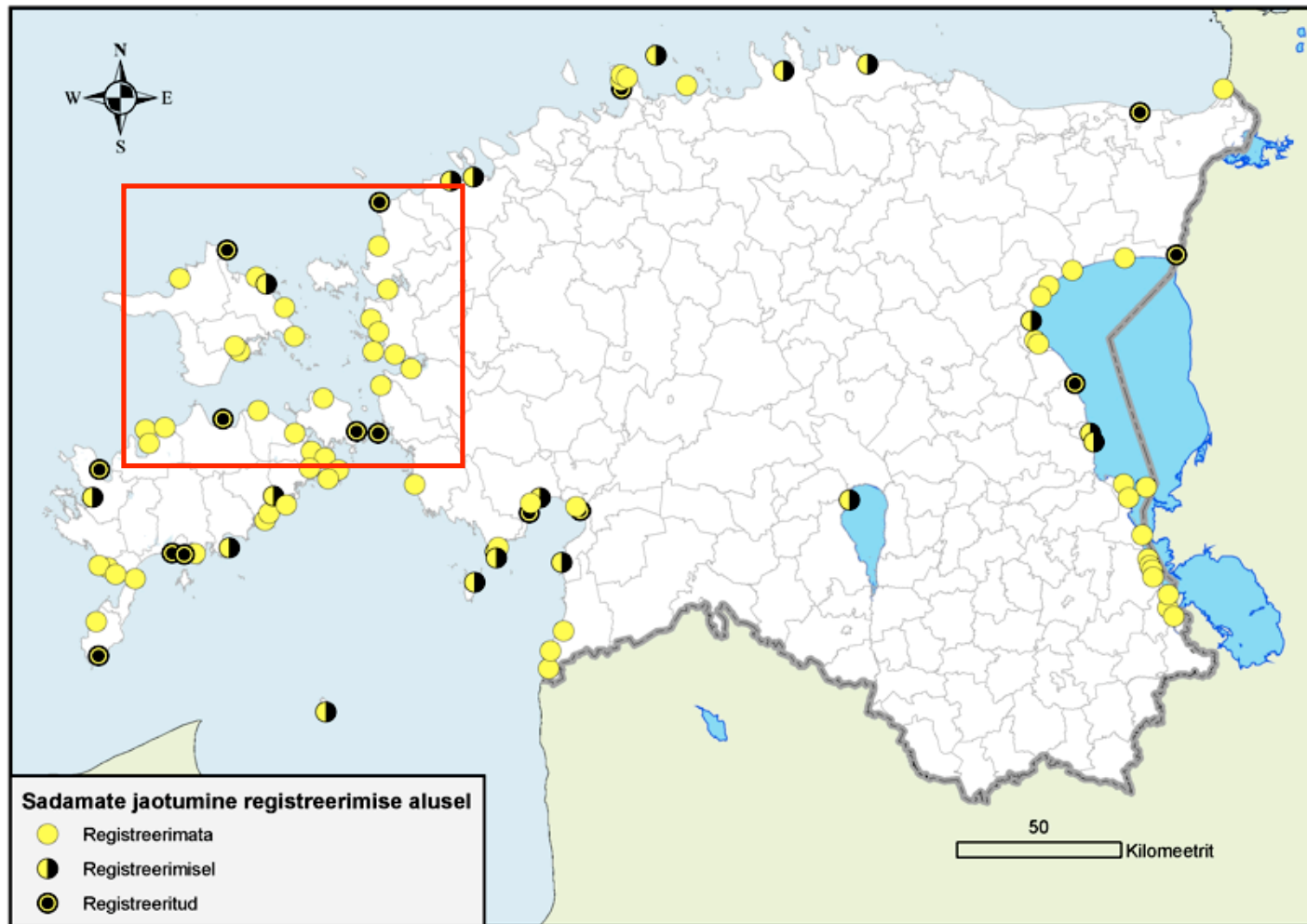


... and
recreational



Fishing harbours in Estonia (Eesti

Maaülikool, 2006) Most of harbours are not registered.



Small harbours



Small harbours



Small harbours



Coastal meadows



Fishers' villages





<http://www.estonica.org/>



Forest meadows

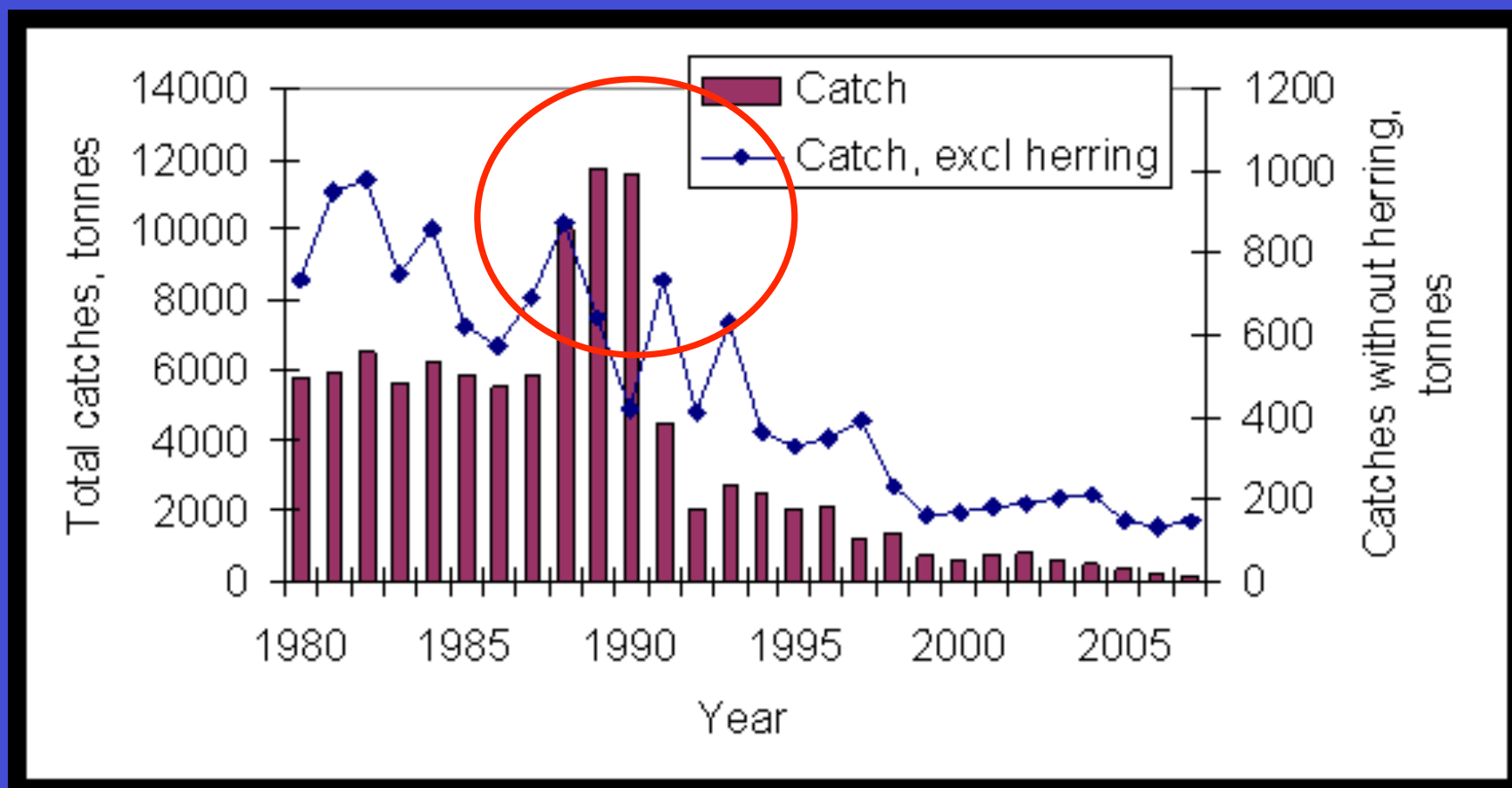
<http://www.estonica.org/>

Reedbed areas

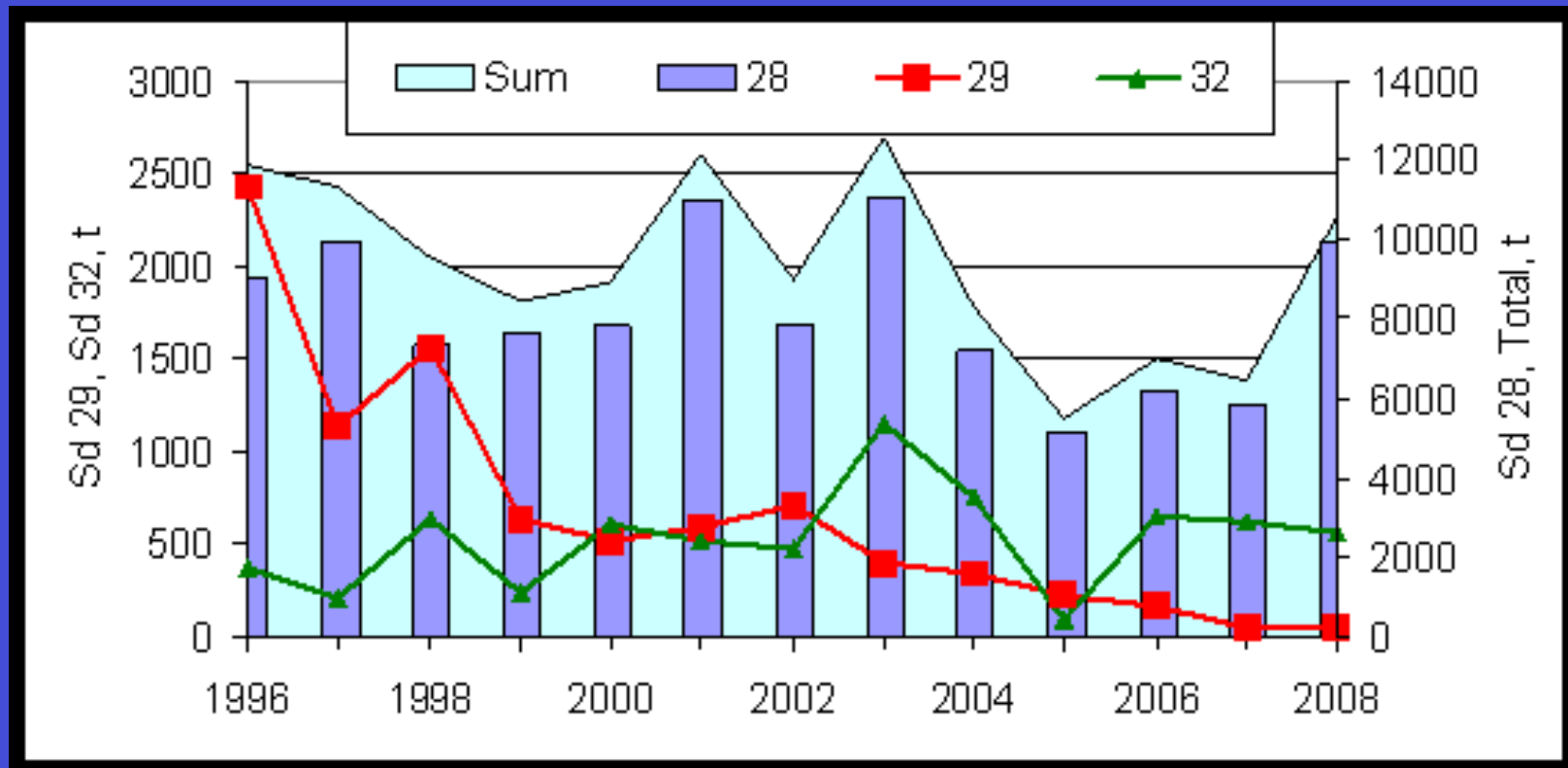


Catches in Western-Estonian Archipelago sea 1980-2007

(data: Saat,2008)



Herring catches in Estonian coastal sea in 1996-2008 (by ICES Subdivisions)

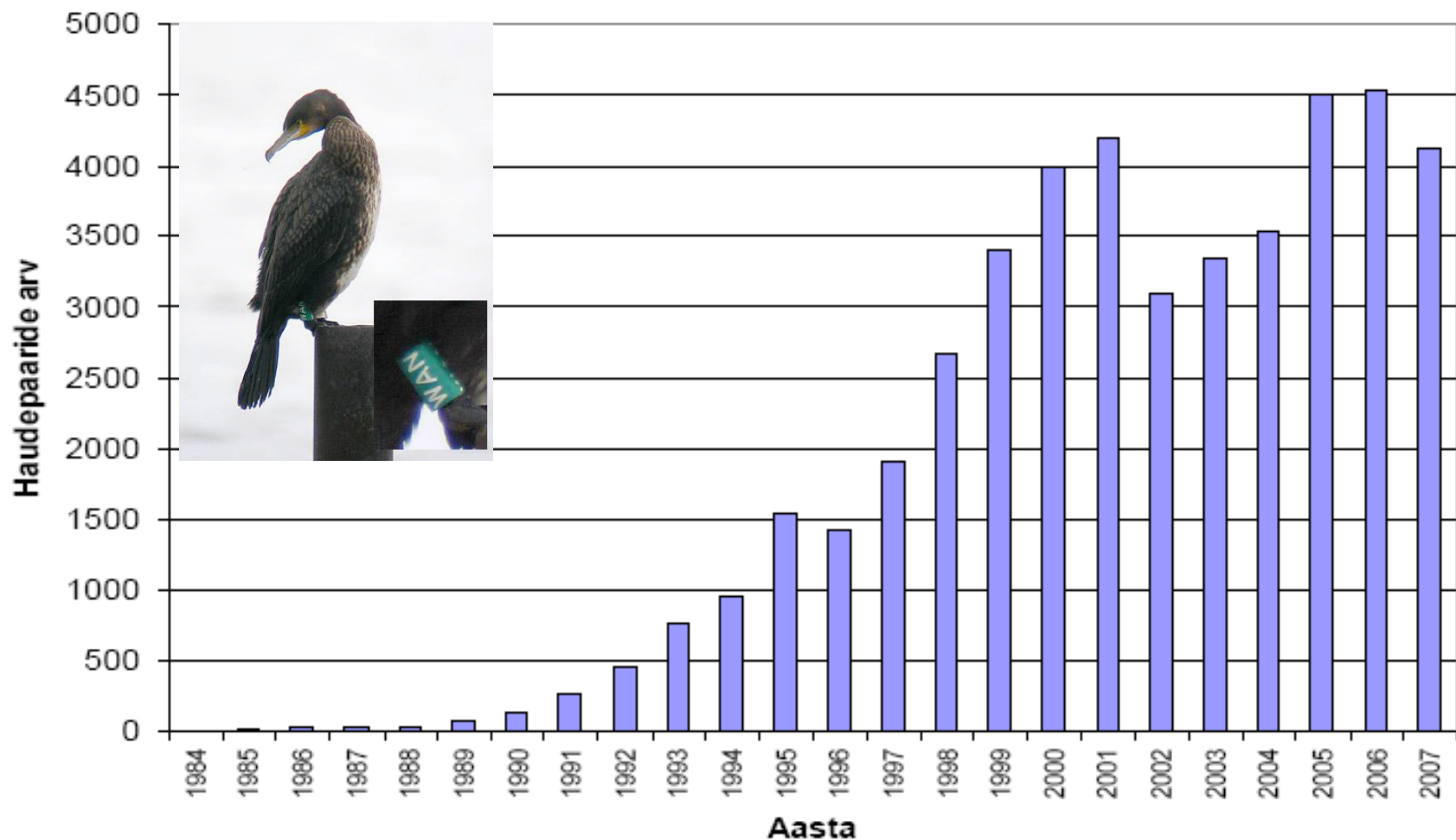


Sharp decrease in SD 29 (W-Estonian Archipelago Sea)

Abundance of cormorants (nesting pairs) in Western Estonian Archipelago Sea in 1984-2007

(Lilleleht, 2008)

Increase in cormorant abundance coincided with fishing effort increase and stocks' decline in early 1990s



Grey seal-another player in the area

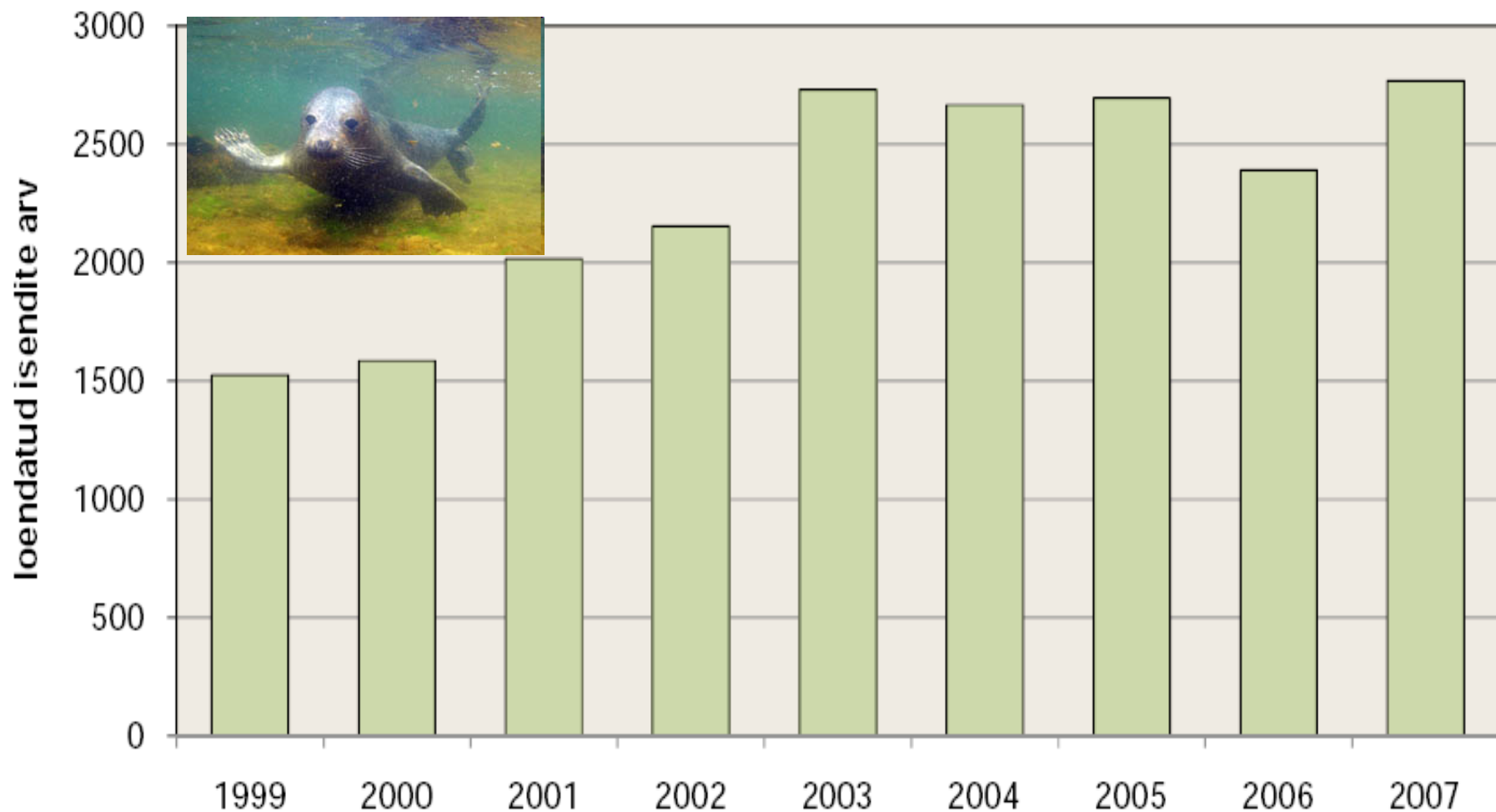
Photos

M. Wikman and E.Aro



Abundance of Grey seals in Estonian coastal sea in 1999-2007

(www.keskkonnainfo.ee)



Grey seal abundance estimates in 2009 . (E.Aro, pers.comm)

TOTAL: 22 395



EU INTERREG IIIA “Plans for Sustainable Development of Fishery in the Southern Finland and in the Western-Estonian Archipelago Sea Area ” 2006-2008

- Search for the conceptual strategy for the development of coastal fishery in West-Estonian Archipelago Sea region within the context of decreasing economically valuable local fish stocks

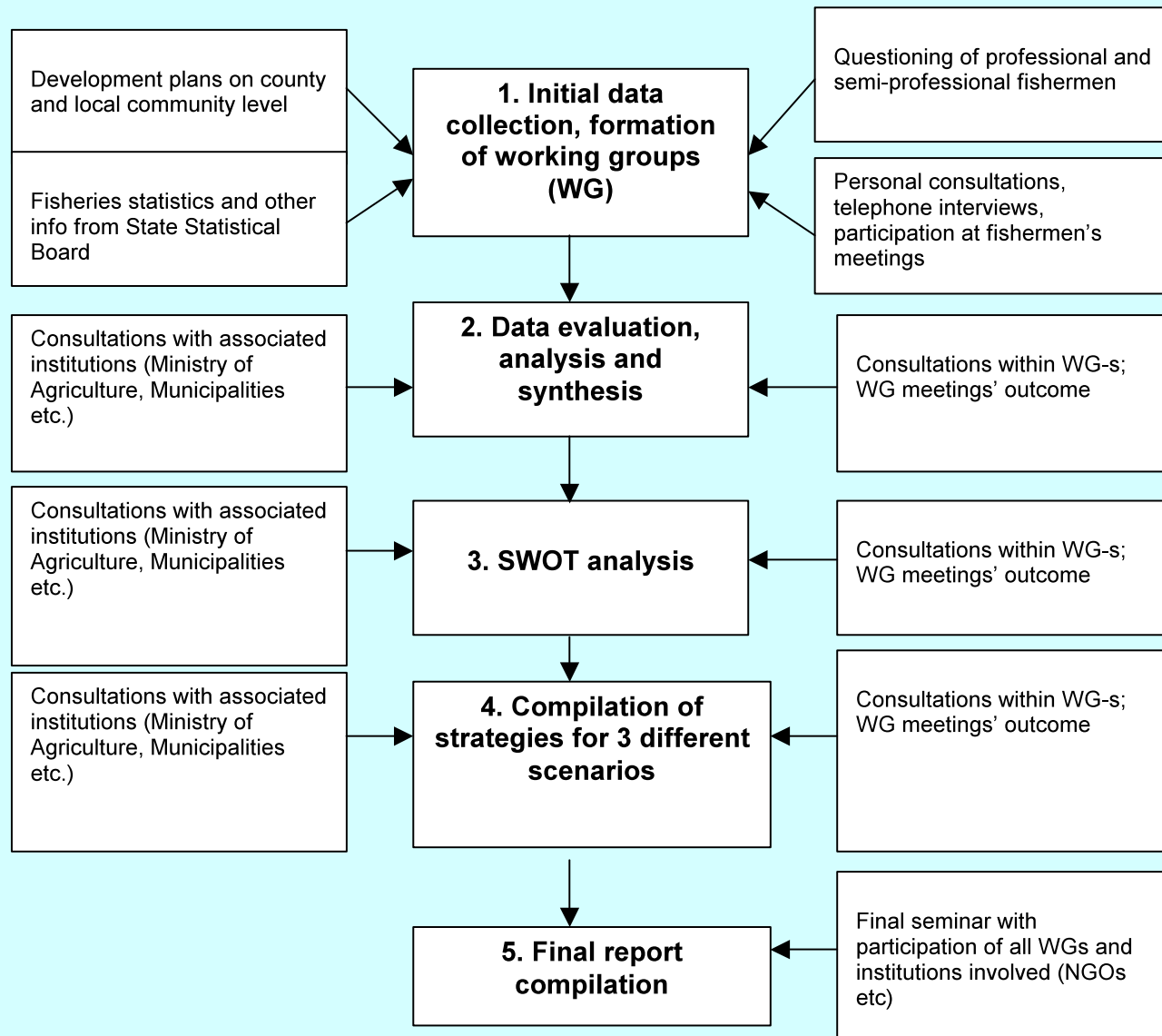
EU INTERREG IIIA “Plans for Sustainable Development of Fishery in the Southern Finland and in the Western-Estonian Archipelago Sea Area “

- Propose the plan for development of professional fishery
- Evaluate the perspectives of fish processing and trading
- Elucidate the needs for the professional education
- Assess the current state and perspectives of fishing tourism
- Evaluate the possibilities for sustainable management of local fish stocks
- Propose the ways of integrated development of coastal zone

Target groups:

- Professional fishermen
- Fish processing enterprises
- Aquaculture enterprises
- Municipalities and county authorities
- Tourism enterprises
- Nature conservation institutions,
including the *Natura* 2000 managers

Project framework



Data sources

- Governmental institutions (Estonian Statistical Board & Ministries)
- Interviews with fishers (180 questionnaires)

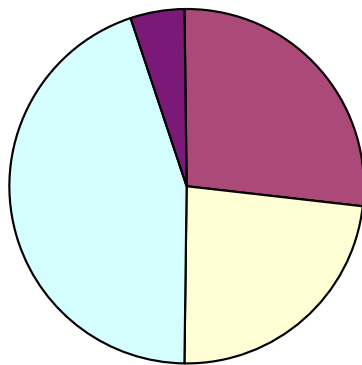
Questionnaire of 20 questions on:

- Who is the coastal fisher ?
- Are the fishers satisfied with current situation?
- How does the fisher survive (sources of income)?
- How is the work organised?
- What are the problems?
- What are the future plans?
- What should be done to save coastal fisheries communities?

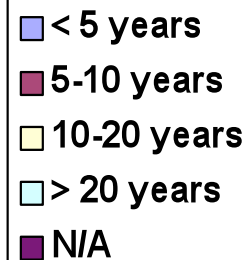
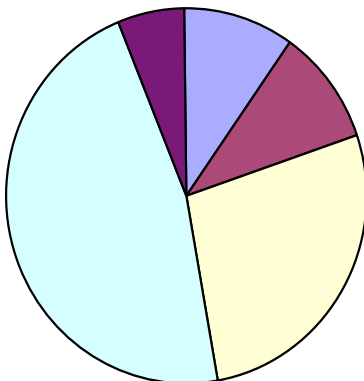
Profile of interviewees: Length of the career as fisher

- 40-50% over 20 years
- 23-38% started in early 1990s

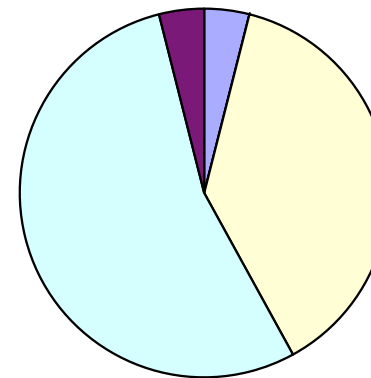
Hiiumaa



Saaremaa



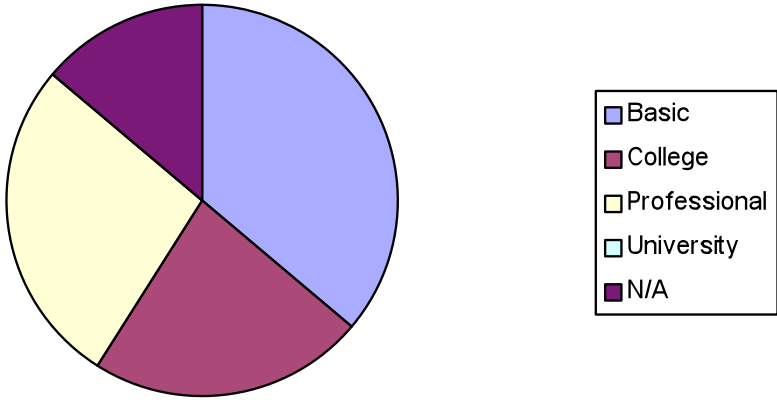
Läänemaa



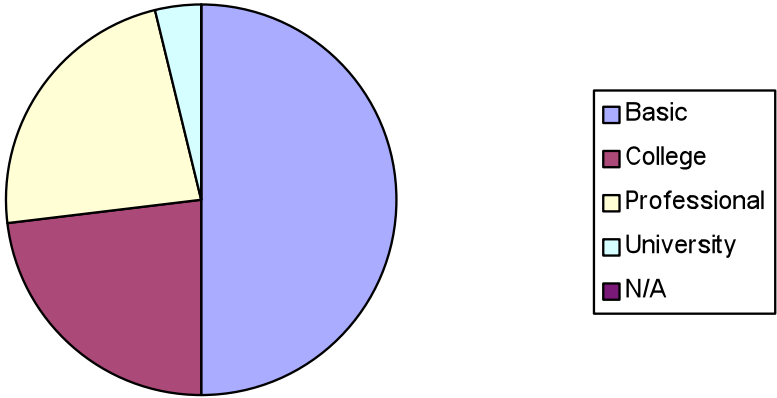
Profile of interviewees: education

•Elementary and professional education 50-75 %

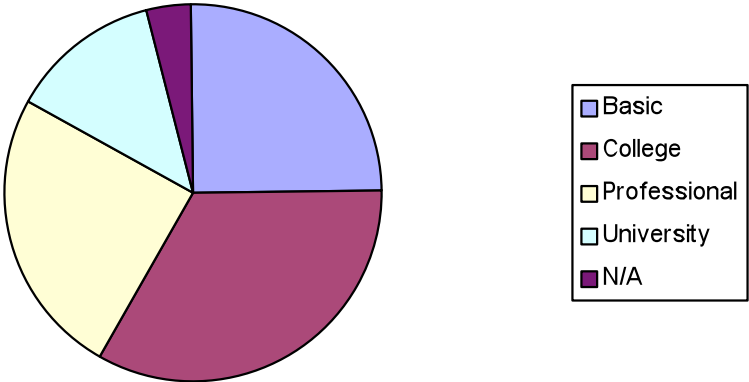
Hiiumaa



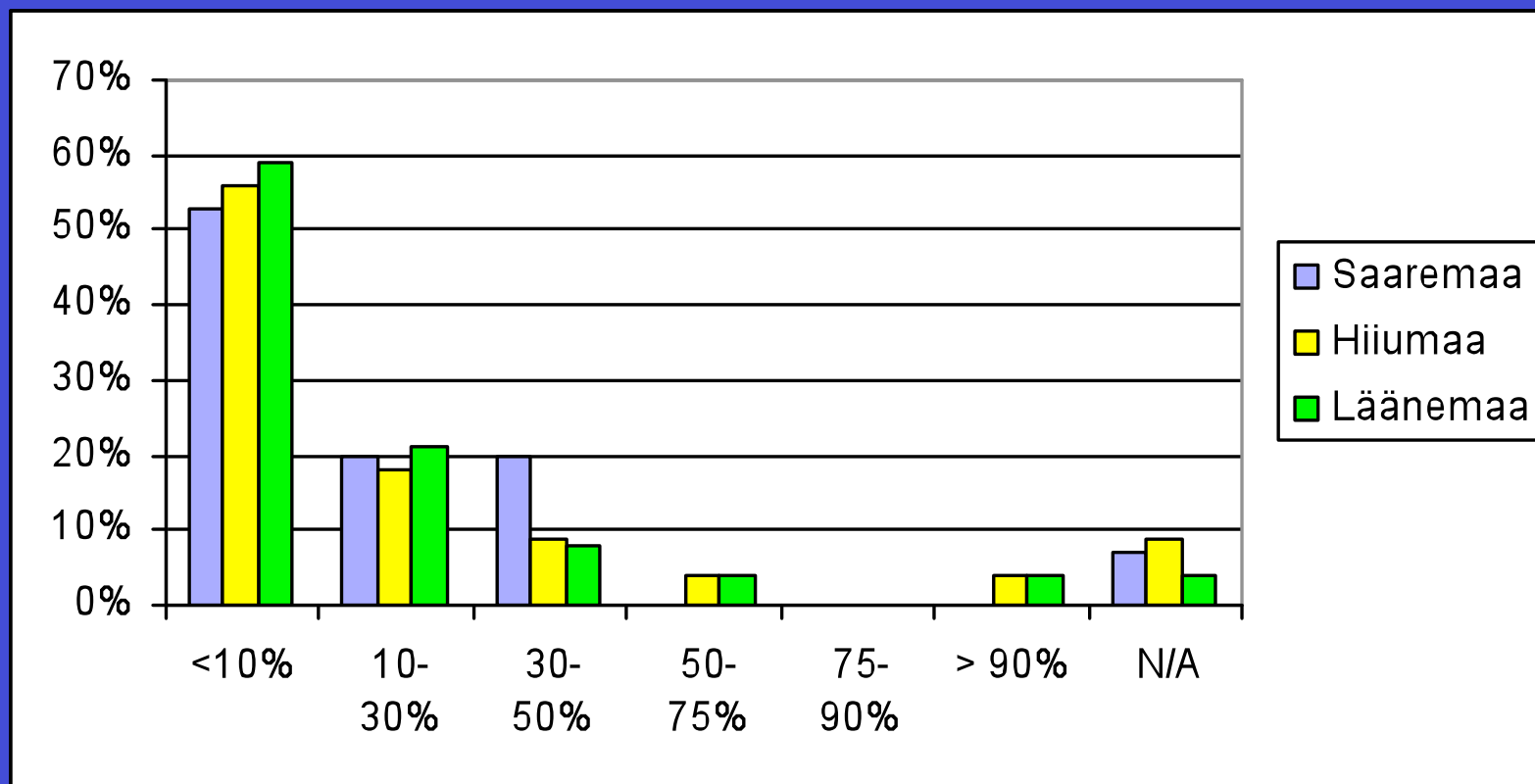
Saaremaa



Läänemaa

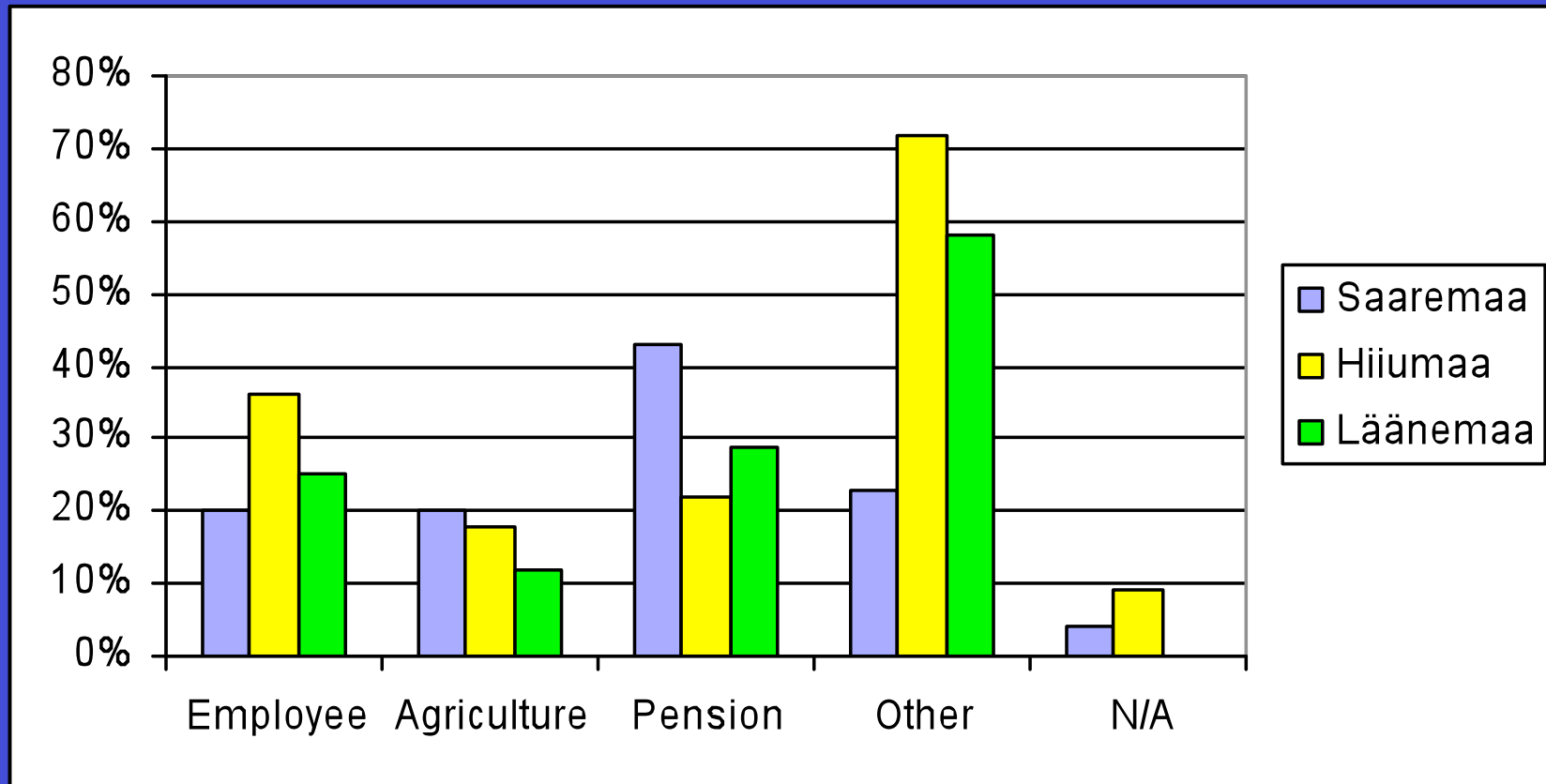


Share of fishery in total income



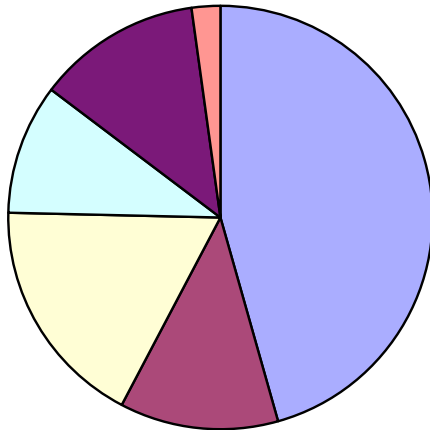
50-60% of fishermen get 90% of income from other sources

Sources of income other than fishery

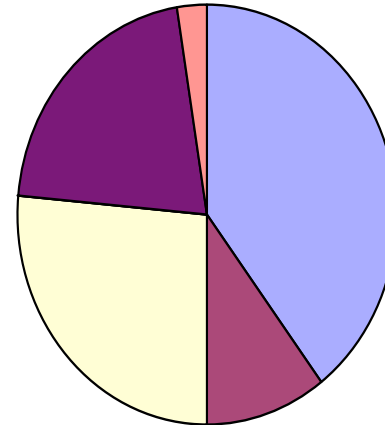


Whom to blame ?

Hiiumaa

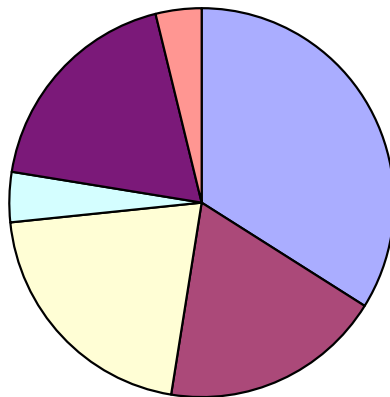


Läänemaa



- Low fish stocks due to bad environment
- Low fish stocks due to overexploitation
- Administrative mistakes in Estonia
- Accession to EU
- Low price
- There is no problems and stocks will recover

Saaremaa



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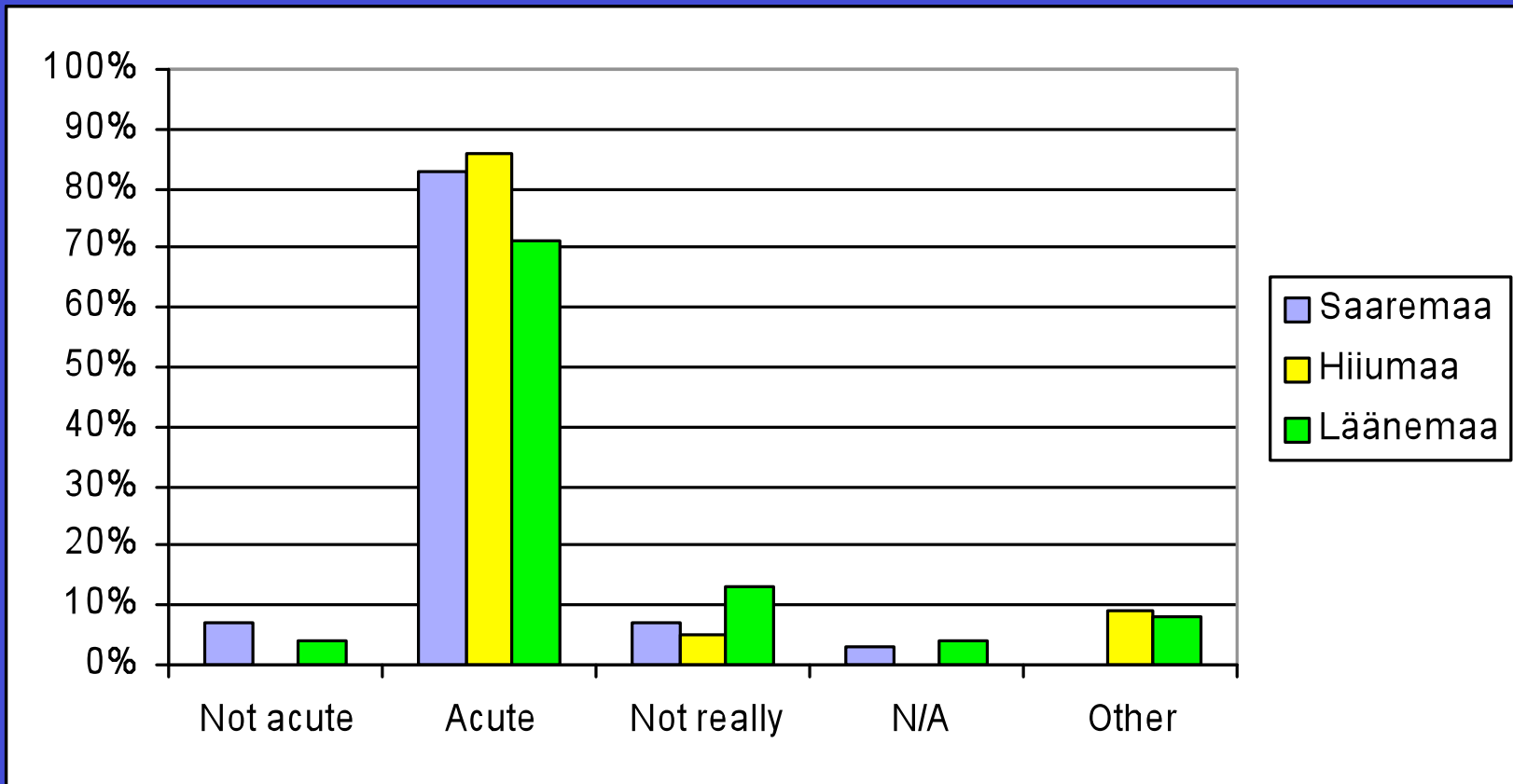
• 60-80%- bad environment

• 30-40 % bad administration

• 20-30% low price

• 18-30% excess fishing

Is the problem of competition with cormorats and seals acute?

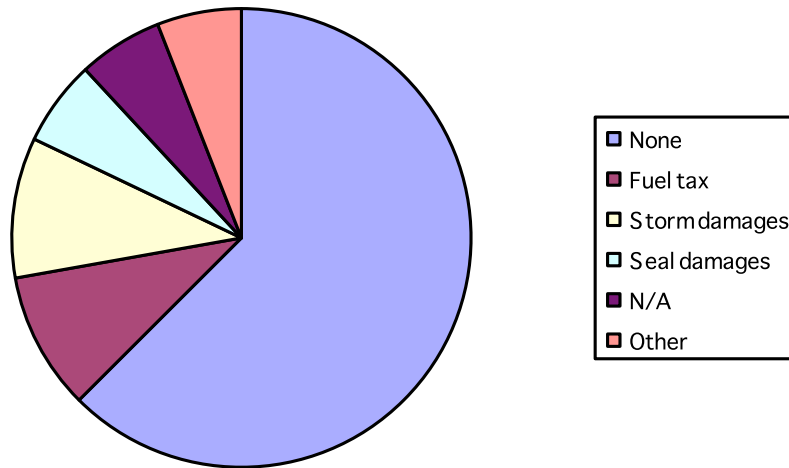


70-90% of fishers feel that seals and cormorants are serious competitors for fish 35

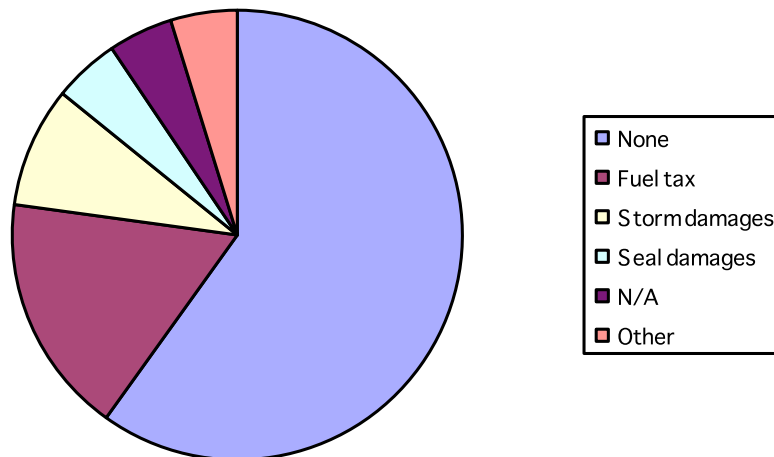
Have you applied for financial support?

- Fishers have been quite passive in applying financial support
- No resources for applying from structural funds ?

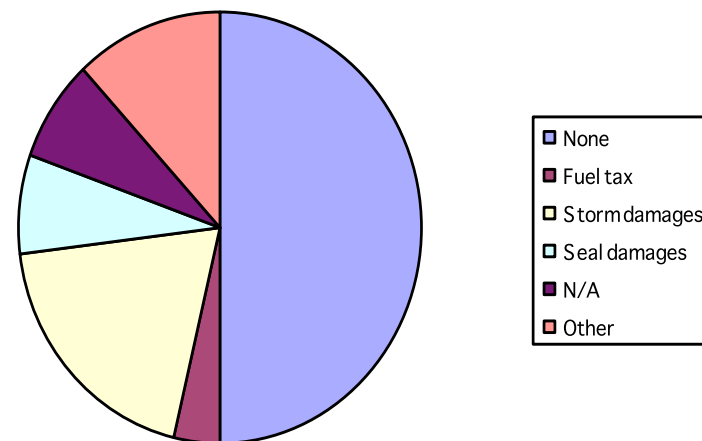
Saaremaa



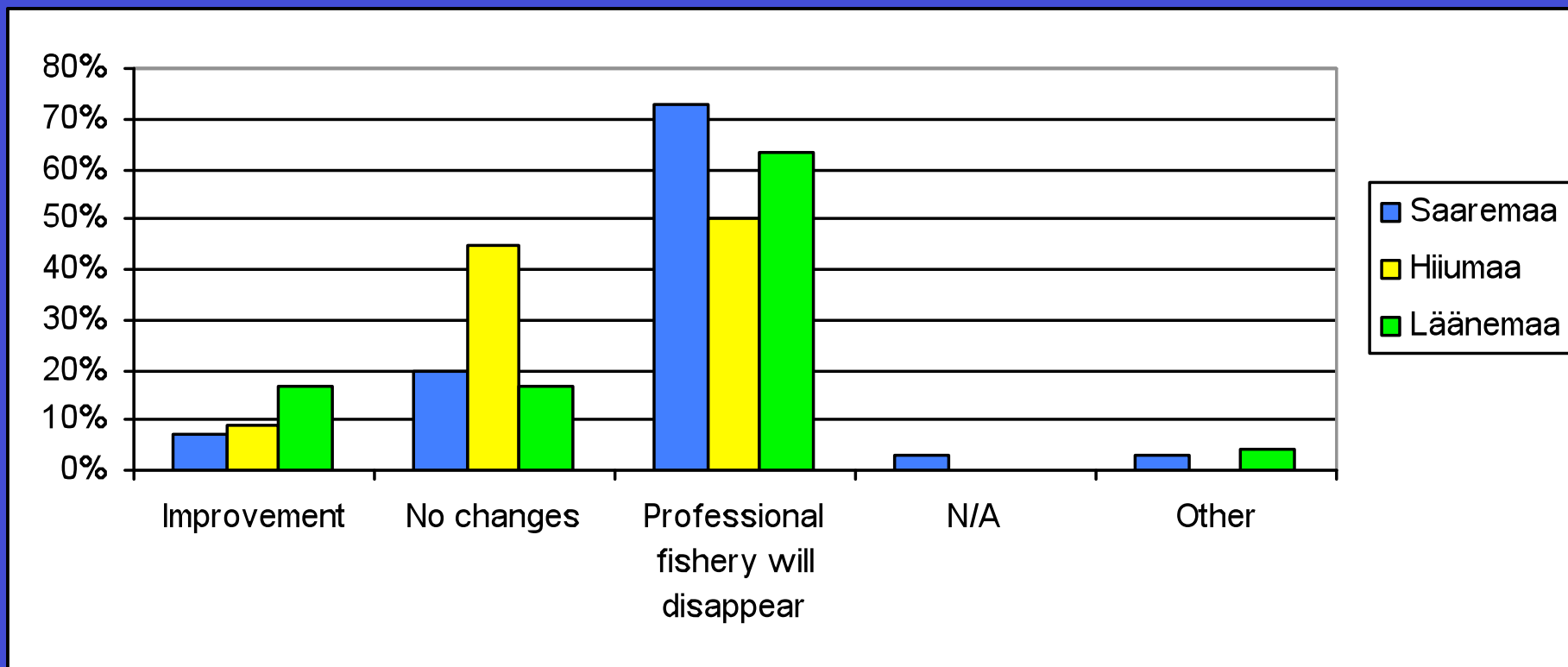
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Läänemaa

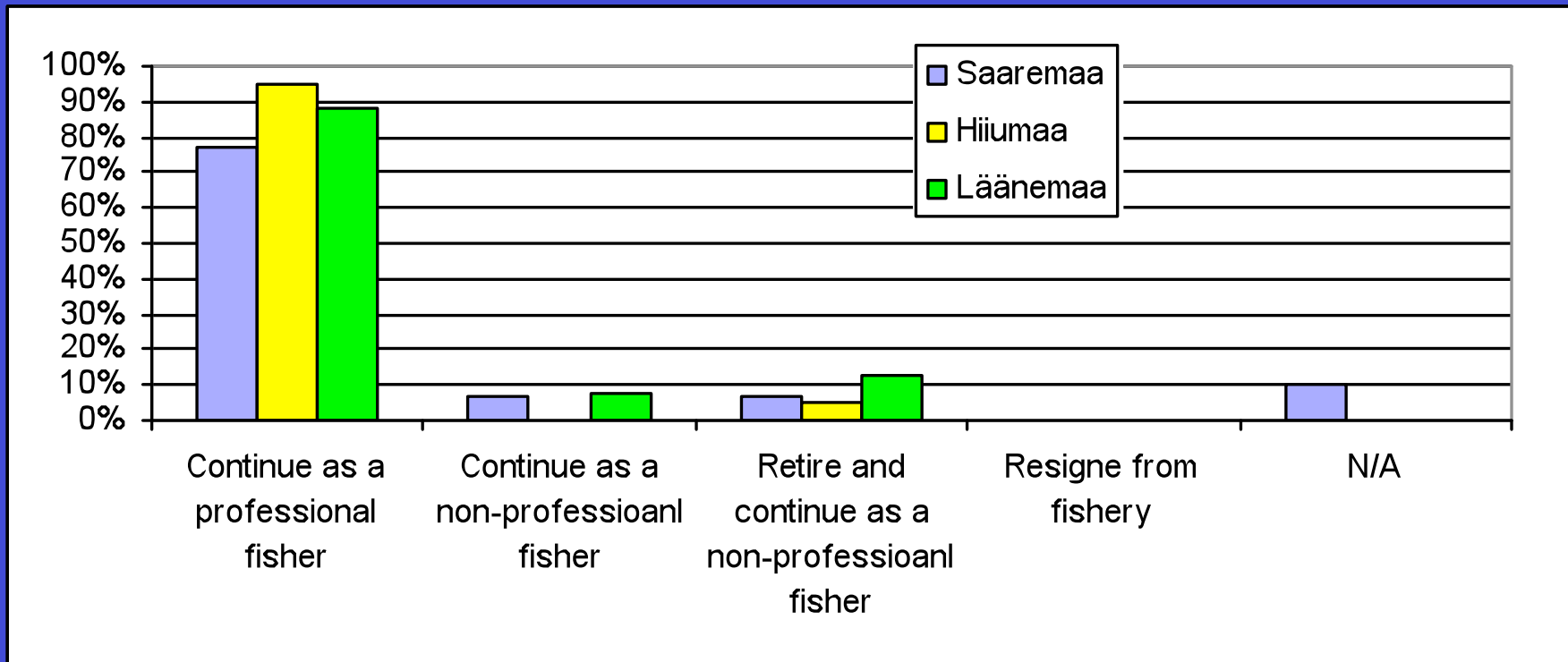


Expected situation in coastal fishery in next 3-5 years



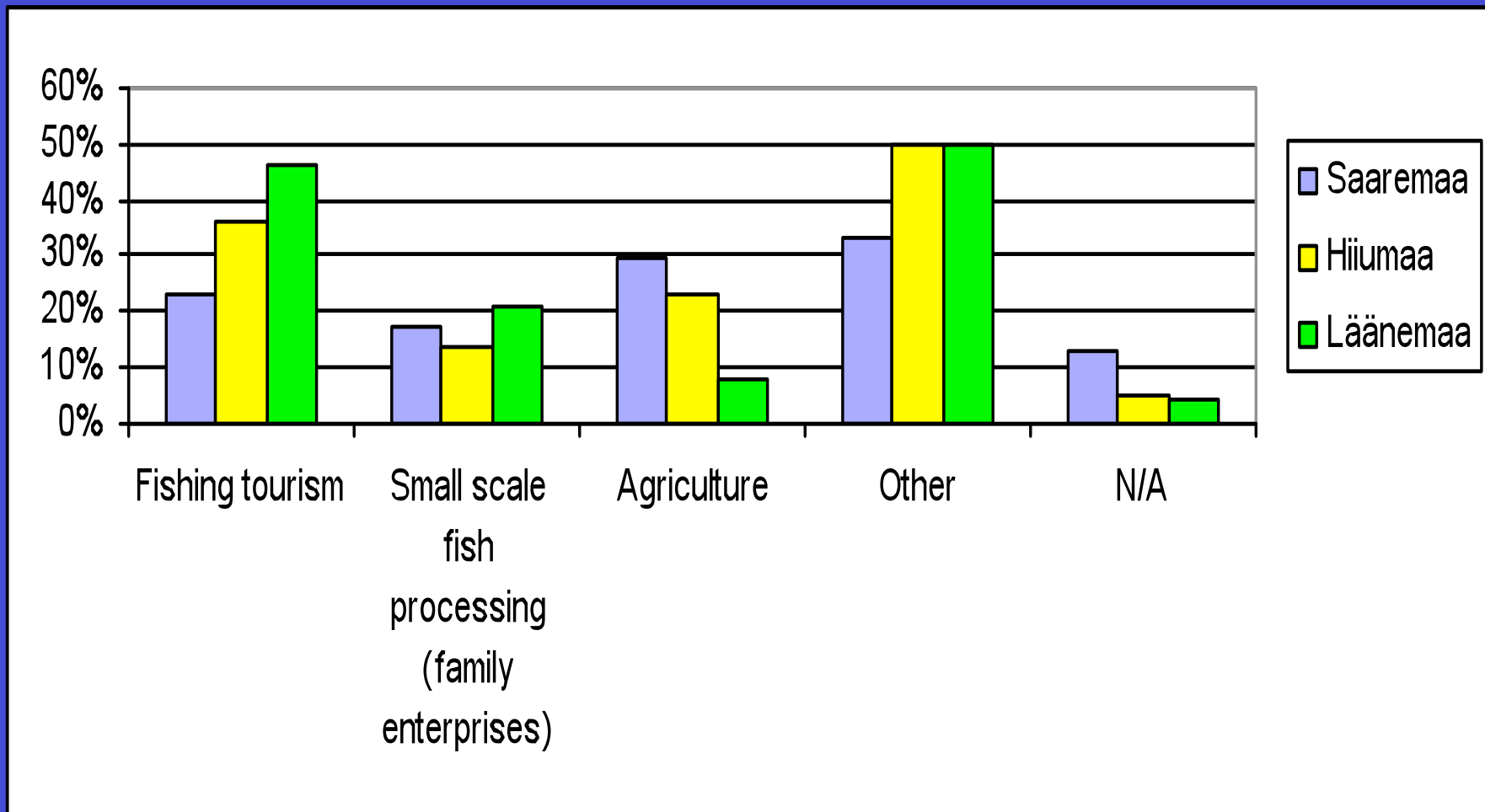
50-75 % admit the grim prospective...

Future plans of interviewees



... yet in all regions over 70% hope to continue as professional fisher...

Assumed sources of additional income in future



- Fishing (fish farm) tourism
- Other jobs

A few concluding remarks (1)

- Fishing without other supplementary sources of income would **not be** enough to support the sustainable development of coastal communities.

A few concluding remarks(2)

- Fishing (fish farming) tourism and small-scale fish processing in local fishing harbors should be considered as additional income sources for coastal inhabitants.
- Other traditional activities such as agriculture and forestry should be continued or recommenced to safeguard the survival of unique coastal landscapes, villages and the *Natura 2000* sites within the region.

A few concluding remarks(3)

- The external financial support (e.g. from European Fisheries Fund) would be vital in order to maintain sustainable development of the coastal fishery in the area.

Thank you!

