

# Gathering and processing of human activities data in SEAmBOTH

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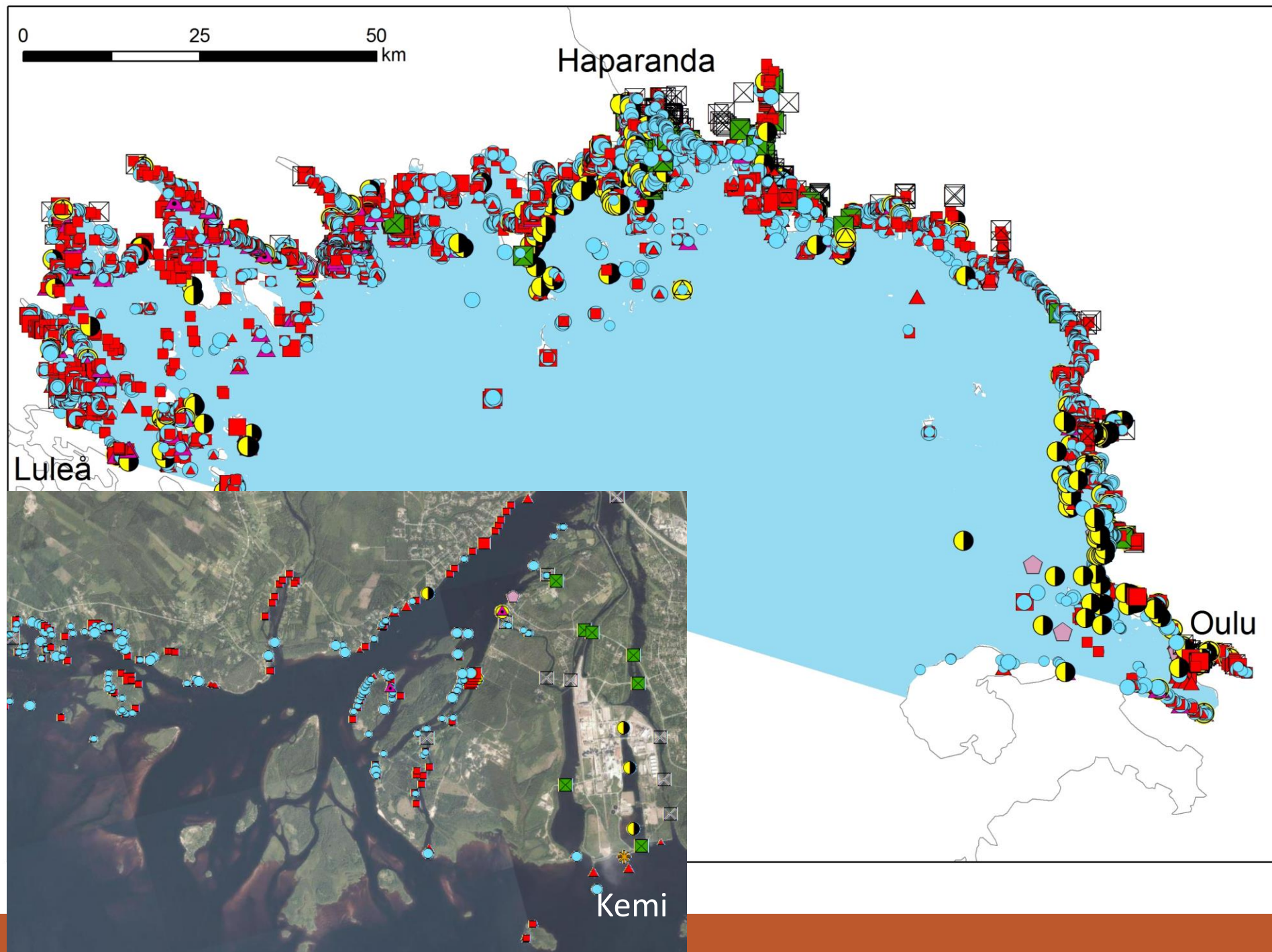
**Interreg**  
**Nord**  
European Regional Development Fund



# Data sets and source

Human activity	Source
Bridges	HELCOM
Coastal defence and flood protection	Aerial photographs
Deposition of dredged material	HELCOM
Dredging	HELCOM, aerial photographs, Finnish Transport Infrastructure Agency (FTIA)
Finfish mariculture	Vahti (Compliance monitoring system/ Ympäristösuojelun tietojärjestelmä)
Harbours	Aerial photographs
Jetties (brygga/ laituri)	FTIA, Swedish National Land Survey
Land claim (excluding harbours, oil terminals)	Aerial photographs, Swedish National Land Survey
Marinas and leisure harbours	Aerial photographs
Recreational boating and sports	FTIA, Swedish maritime administration, aerial photographs
Shipping density	European Marine Observation and Data Network (EMODnet)
Wind farms (operational)	HELCOM
Anchorage sites	EMODnet
Fishing effort (all gear types)	HELCOM

- Dredging, small
- Dredging, big
- Dredging, MEGA
- Jetty, small
- Jetty, big
- Breakwater, small
- Breakwater, big
- Leisure harbour
- Harbour
- Bridge, free standing
- Silta, on landclaim
- Fresh water outlet
- Jetty on breakwater
- Coastal building
- Other



# Data types

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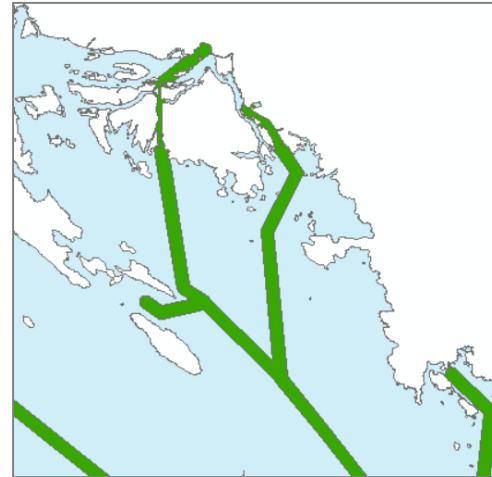
Data is typically either in table format (Excel), point, line, polygon or raster (pixels/image) format:



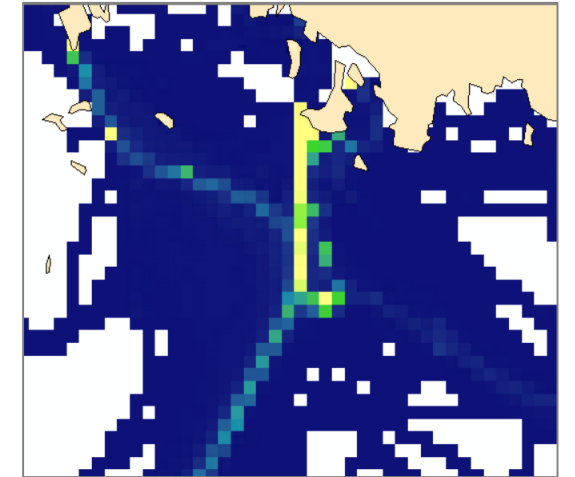
Point



Line

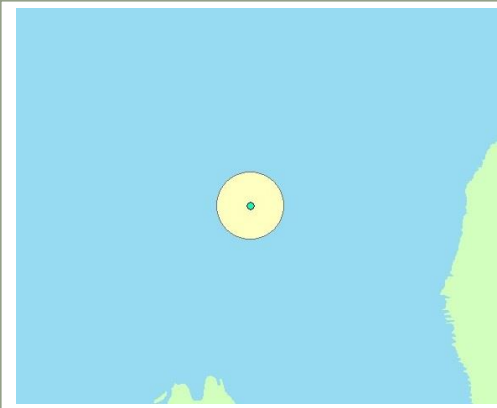


Polygon



Raster

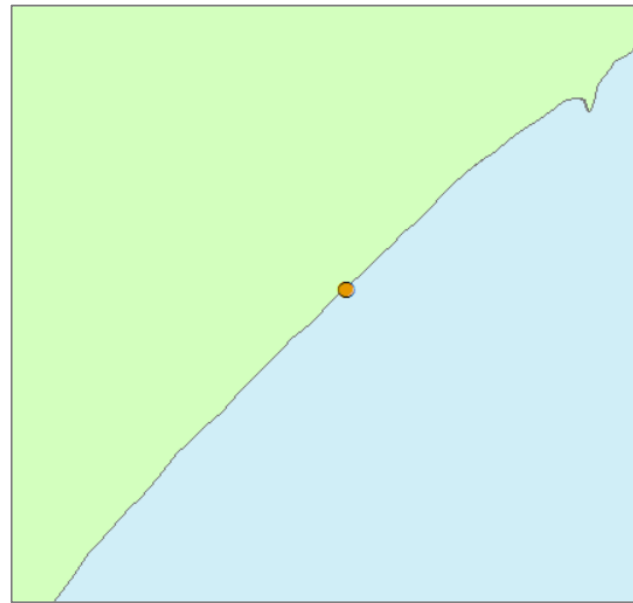
For the final analysis, all data sets were converted to raster format.



A point with a buffer created around it.  
The buffer can be used to estimate the  
area of effect.

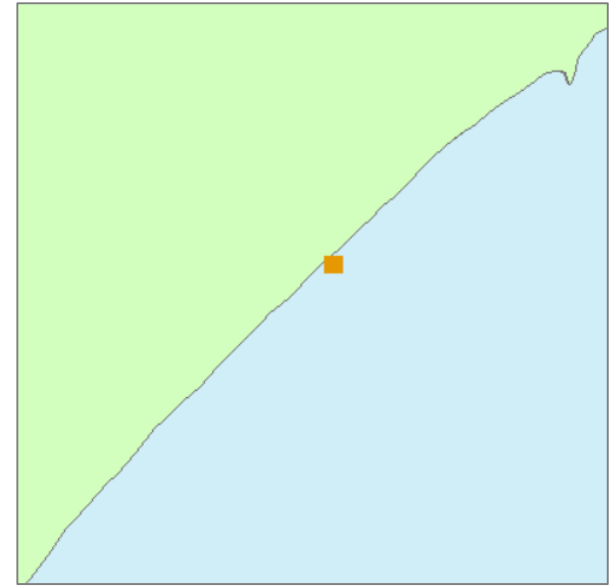
**Loss** = causes permanent  
or long lasting  
loss/destruction of  
ecosystem components  
(underneath structures  
for example)

**Disturbance** = causes  
damage to or  
disadvantage for  
ecosystem components;  
is temporary (sediment  
resuspension from  
propellers for example)

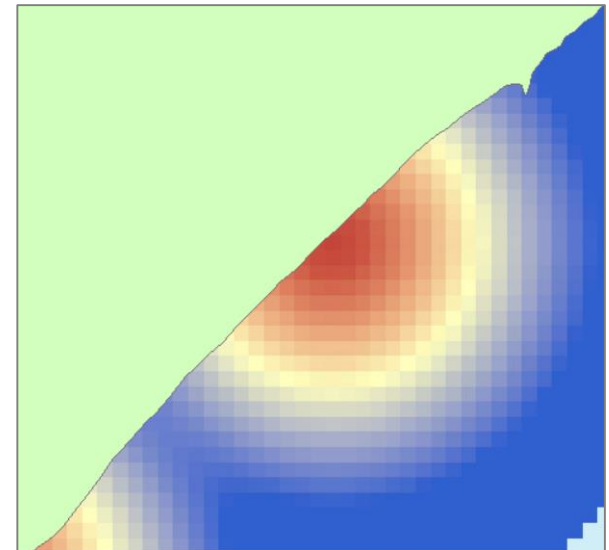


Unprocessed

Loss



Disturbance



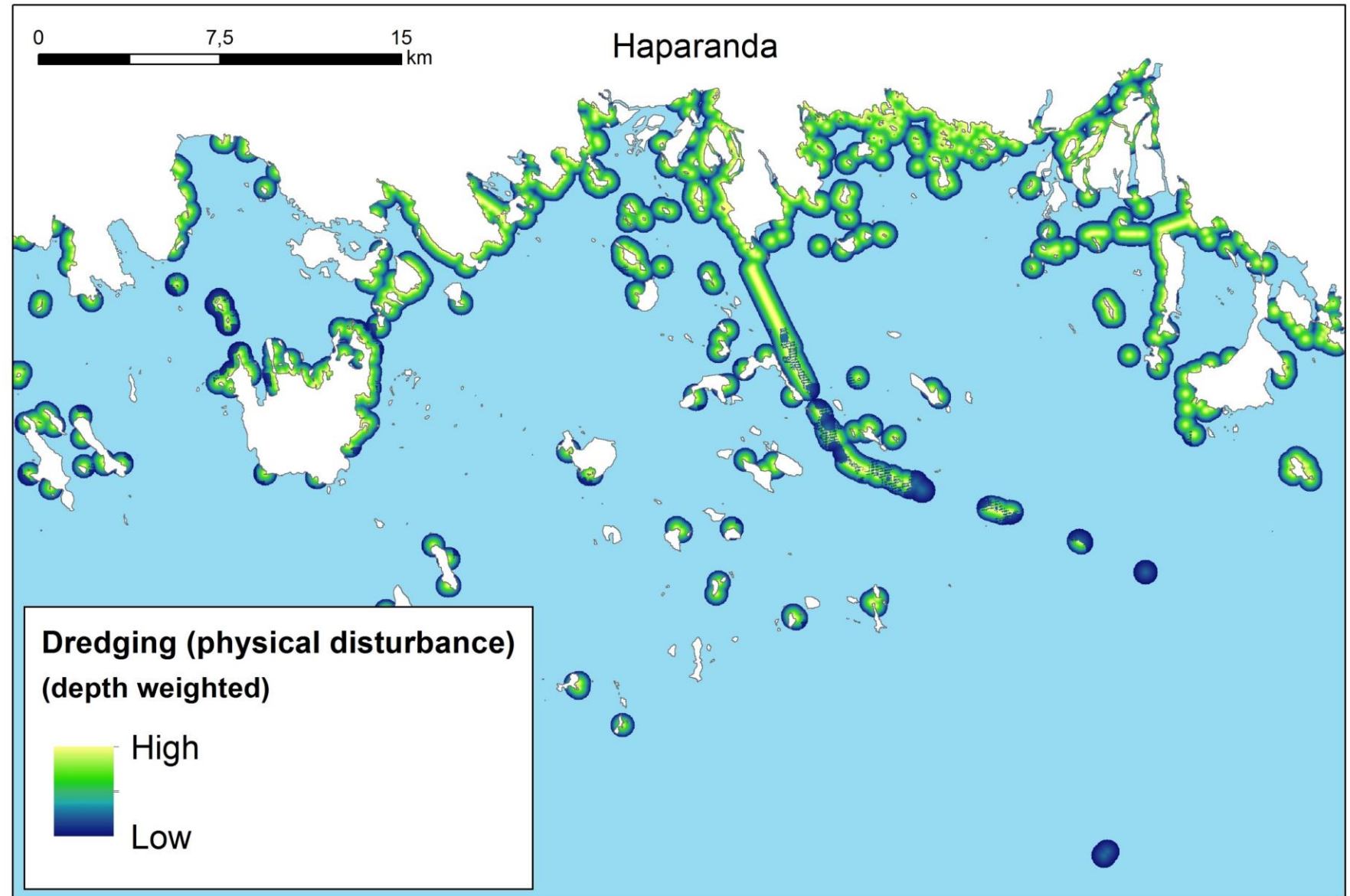


# Dredging: physical disturbance

Depth weighted:

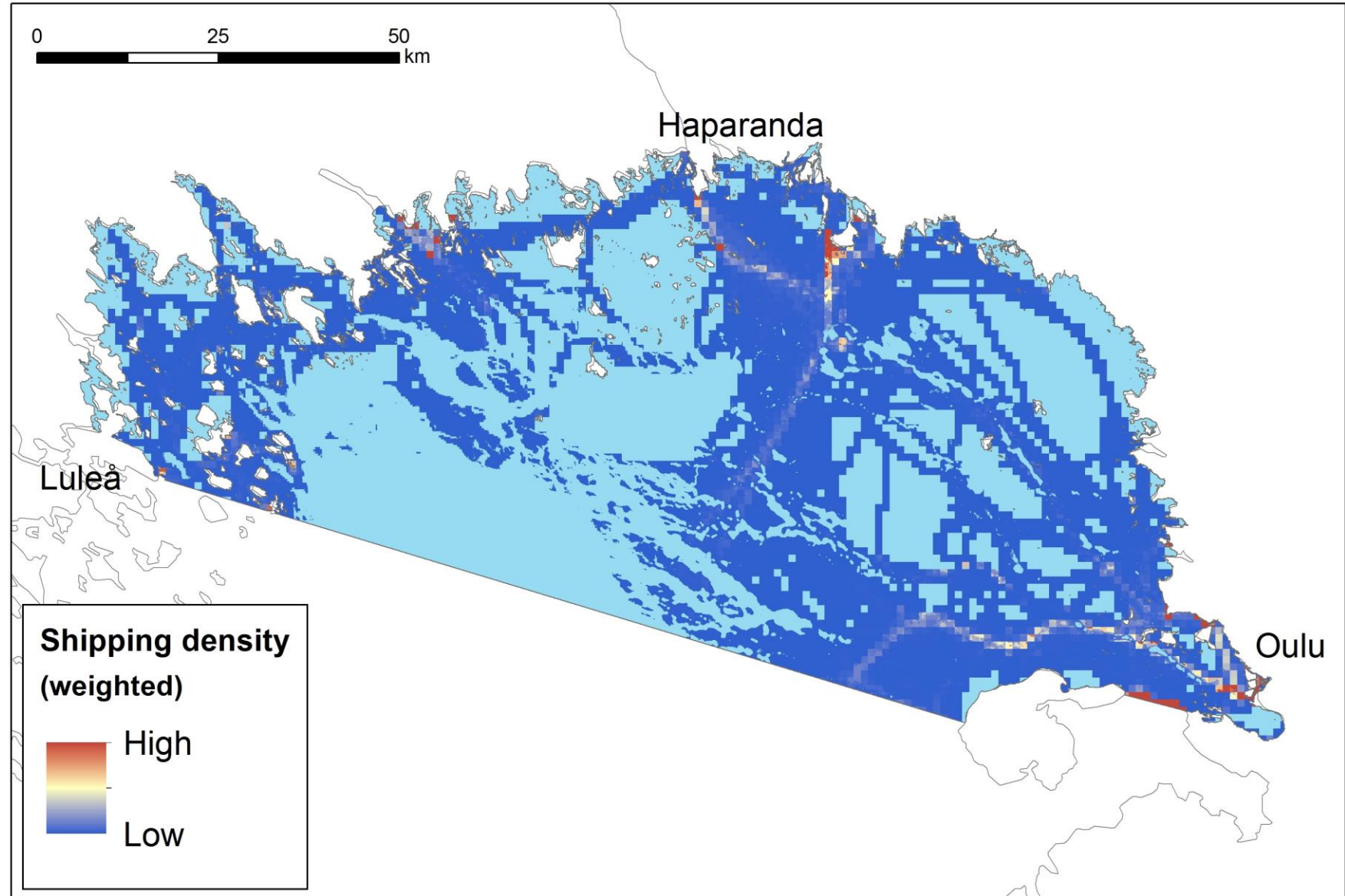
0 – 10 meters = 100% effect

>10 meters = 25% effect



# Shipping density (based on AIS)

Depth weighted:  
0 – 10m = 100% effect  
>10 – 15m = 50%  
>15 – 20m = 25%  
>20 – 25m = 10%  
>25m = 0%



# Affected areas (disturbance and/ or loss)

- Areas affected by human activities by at least a small degree.
- 61% of the SEAmBOTH area is in some way affected by activities that affect the marine ecosystem.

