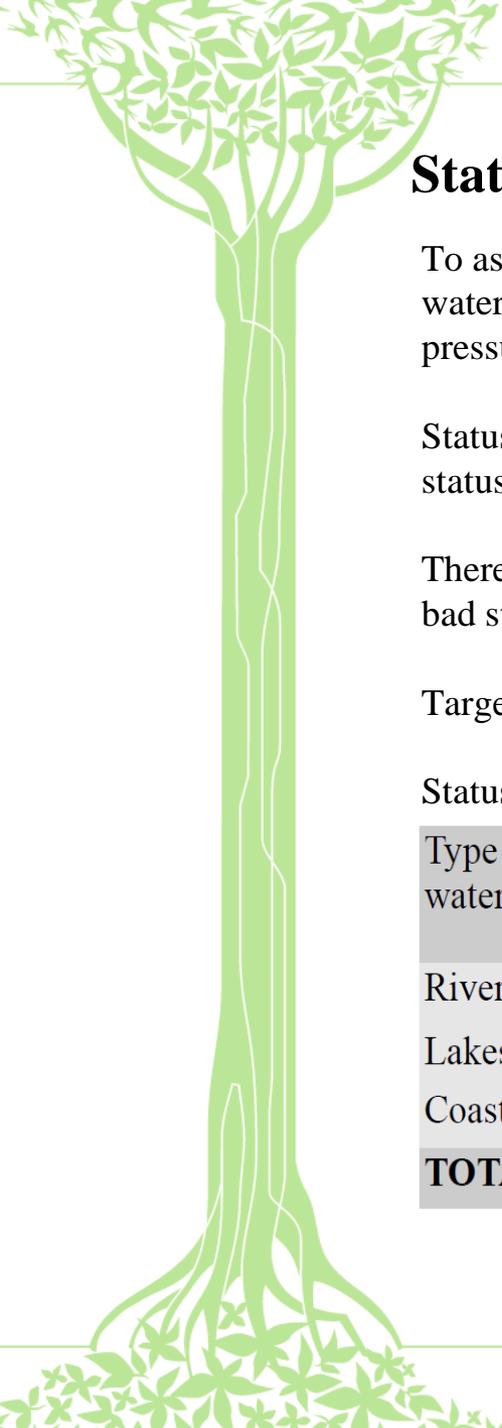


**Astana Water Action in Estonia:  
Improvement of hydro-morphological situation  
and ecological status of the surface waters**

**Harry Liiv  
Ministry of the Environment  
Republic of Estonia**

MINISTRY OF THE ENVIRONMENT



## Status of surface waters in Estonia

To assess the status of surface waters they are divided into 750 waterbodies, in each waterbody uniform natural type, ecosystem and pressure factors are assumed

Status of surface waters is assessed based on ecological and chemical status

There is a 5 level assessment scale: high, good, moderate, poor and bad status

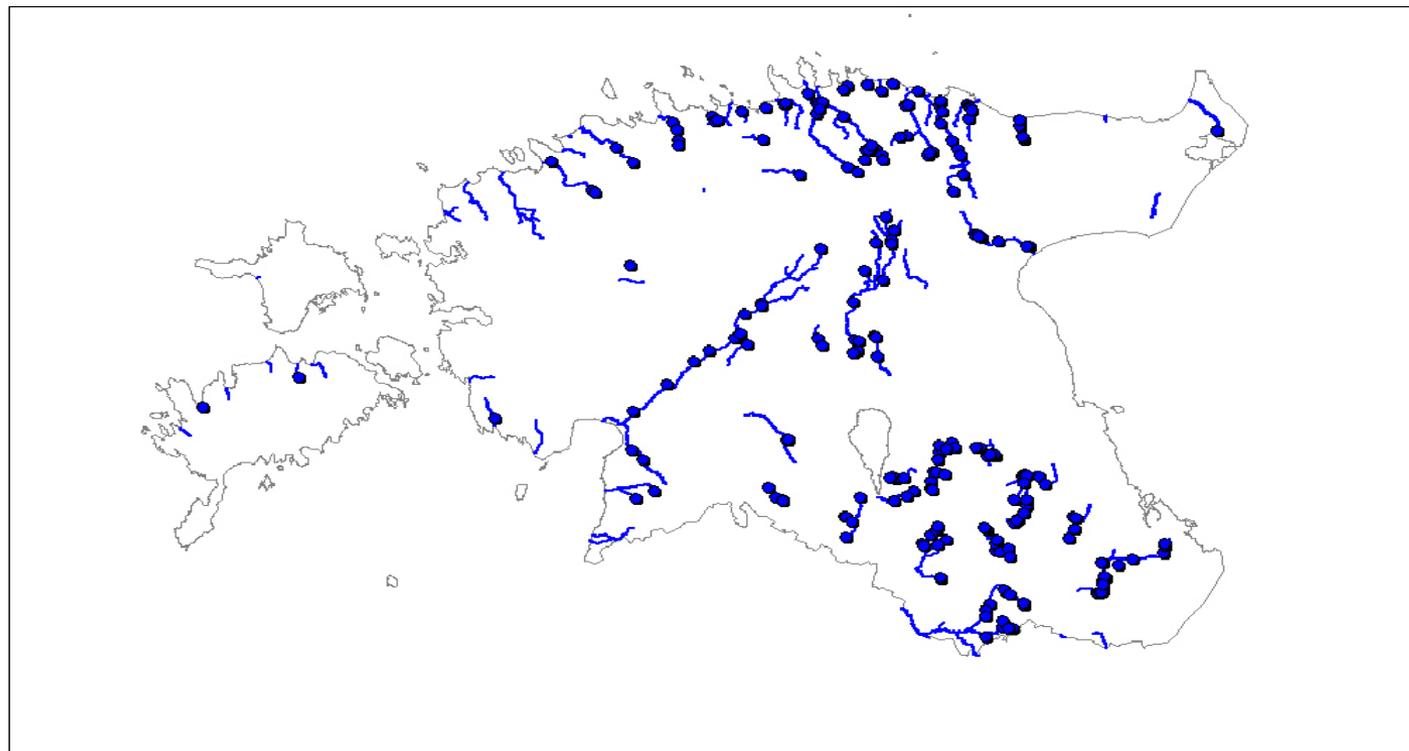
Target: by 2015 (2021) at least good status of all waterbodies

Status of waterbodies according to last assessment:

Type of waterbody	Number of waterbodies	Number of waterbodies in high or good status	Percent of waterbodies in high or good status
Rivers	639	475	74%
Lakes	95	60	63%
Coastal waters	16	5	31%
<b>TOTAL</b>	<b>750</b>	<b>540</b>	<b>72%</b>

## Dams on salmonid rivers in Estonia

- 112 salmonid rivers
- 140 dams on salmonid rivers (incl 17 hydroenergy purposes), that fragment watercourses and hinder fish migration
- Problems mainly in northern and southern part of Estonia





## Investment measure „Improvement of the status of watercourses“

Investments for:

Reconstruction or construction of fish passes to existing dams

Restoration or construction of spawning grounds

Reconstruction of culverts to encourage fish migration

Eradication of dam ruins

Restoring the former riverbeds

Design mosaic of shore stand

### Financed projects

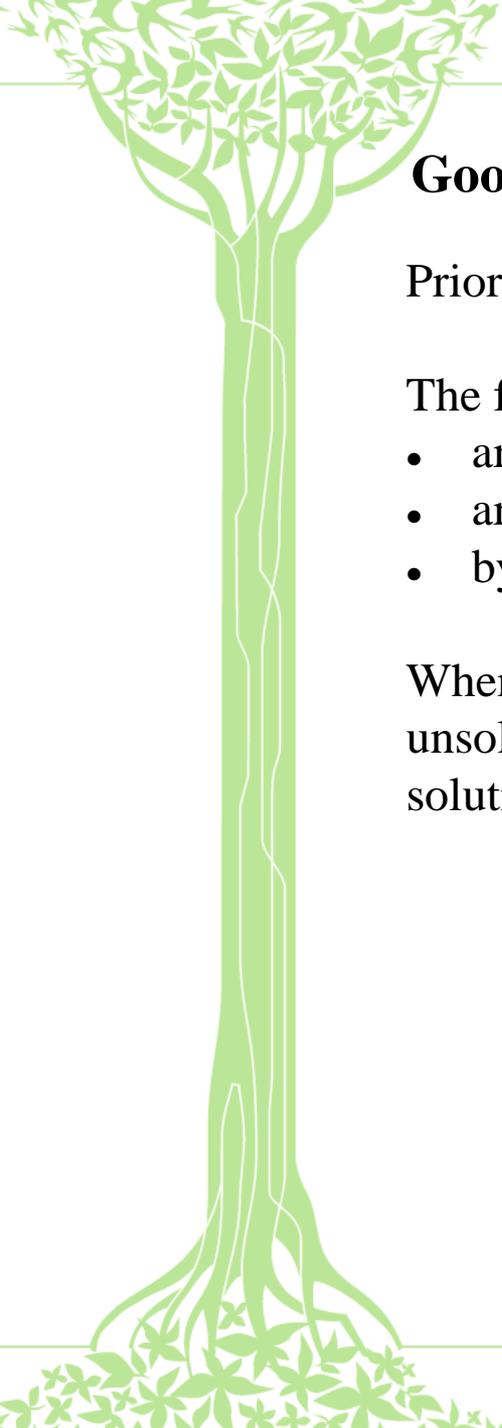
	Number of projects	Investment (million EUR)
I open round	3	2,1
II open round	6	3,3
III open round	9	2,1
IV open round	8	1,6
<b>TOTAL</b>	<b>26</b>	<b>9,1</b>

### Projects implemented by Estonian Environmental Agency

	26	7,5
<b>TOTAL (open rounds + EEA projects)</b>	<b>52</b>	<b>16,6</b>

### Planned projects

V open round	26 project proposals	11,2
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## Good practices

Priority is given to salmonid rivers

The following natural fish passes are preferred:

- artificial riffles
- artificial cascades
- bypass fish passes

When construction of natural fish passes is impossible (due to unsolved land use questions, heritage requirements etc) then the solutions can be chamber fish passes or fish lifts

## **Bypass fish pass on river Loobu**



## Fish pass on Vastse-Roosa dam on river Vaidava



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## Bypass fish pass on effluent of lake Kälajärvi



## **New fish pass and reconstructed culvert between lake Veskijärvi and lake Külajärvi**



## Design of dam into riffle on river Kunda

