

Renewable Energy and Ecological Sustainability: NGO View

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Topics

- RE100 and NGOs
- **Task 1** Review the state priorities in, and investment policy to the energy sector.
- **Task 2** Ecological Sustainability as a prerequisite – four principles for renewables deployment.
- **Task 3** Four proactive measures for larger scale wind energy deployment.

RENEWABLE ENERGY/ESTONIA 100%

- Environmental NGOs participated in compiling the strategic plan *100% Renewable Estonia (RE100)*.
- RE100 is a roadmap looking far beyond EU-s renewable energy target in electricity and heat production.
- The full implementation of the RE100 is difficult and even unnecessary in details, but the the roadmap works well as an instrument to influence important political decisions.

RENEWABLE ENERGY/ESTONIA 100%

- RE100 shows that Estonia can meet a large share, and potentially all, of its power needs from its own natural renewable resources.
- Using these is a prerequisite for fighting climate change, will improve energy security and will have positive long-term effects on economy.
- Three tasks for substituting energy from fossile sources with renewables in ecologically sustainable way are presented.

Task 1

- Review the state priorities in, and investment policy to the energy sector
- The most important and urgent decision needed is to quit further large investments to the oil shale power plants.
- The construction of a second section of new oil-shale power plant will cost approx. 470 million euros. Decision has to be made to use this foreseen investment to develop renewables.

Task 1

Keywords for substituting burning fossile fuels:

- energy saving measures,
- ecologically and socially sustainable wind energy,
- small and medium scale distributed production,
- biomass for heat and power,
- cross-border interconnected and smart grids.

Task 2

Four principles for renewables deployment in harmony with nature, as expressed by BirdLife International and acknowledged by BirdLife Estonia and other NGOs has to be followed:

- renewables must be low carbon,
- a strategic approach to deployment is needed,
- harm to (birds and) biodiversity must be avoided, and
- most important sites for wildlife must be protected.

Ecological risk assessment

TABLE 1

Ecological risks associated with technologies needed to meet Europe's renewable energy targets

LOW RISK	MEDIUM RISK	HIGH RISK
Energy savings measures eg, domestic insulation	Solar PV arrays	Liquid biofuels
Vehicles using renewable electricity	Concentrated solar power	Tidal range power
Heat pumps	Onshore wind power	New hydropower
Rooftop solar thermal and PV panels	Offshore wind power	
	Tidal stream power	
	Wave power	
	Biomass for heat and power	

BirdLife Europe (2011) Meeting Europe's Renewable Energy Targets in Harmony with Nature (eds. Scrase I. and Gove B.). The RSPB, Sandy, UK.

Wind energy deployment



Photo by Veljo Volke

Task 3

In larger scale deployment of wind energy as the renewable with highest potential in Estonia, political decision and certain proactive measures are needed as follows:

- inventories of nature values of offshore areas (incl EEZ) are needed;
- a strategic approach to deployment is needed, strategic spatial planning of territorial sea has the highest priority (started in Pärnu and Hiiu counties),

Sea Ducks are declining rapidly

Results from the most recent surveys of wintering sea ducks in the Baltic Sea are published in a new report²

	Estimated total number 1992–1993	Estimated total number 2007–2009	Change in %
Long-tailed duck	4,272,000	1,480,000	-65.4
Common Eider	1,048,000	515,000	-50.9
Velvet Scoter	933,000	415,000	-55.5
Common Scoter	783,000	410,000	-47.6
Steller's Eider	6850	2300	-66.4

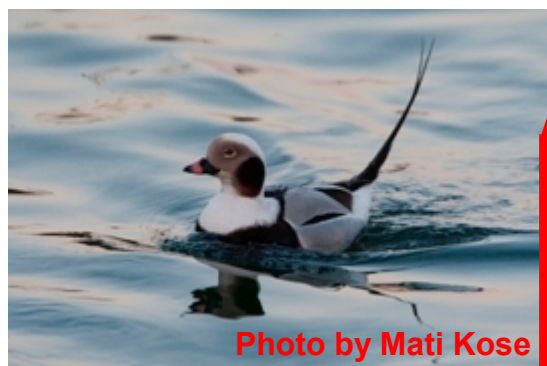


Photo by Mati Kose

Long-tailed Duck

Endangered
Vulnerable
 Near Threatened
Least Concern

Red List Status change

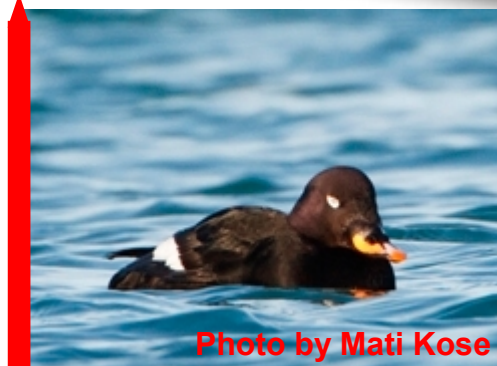


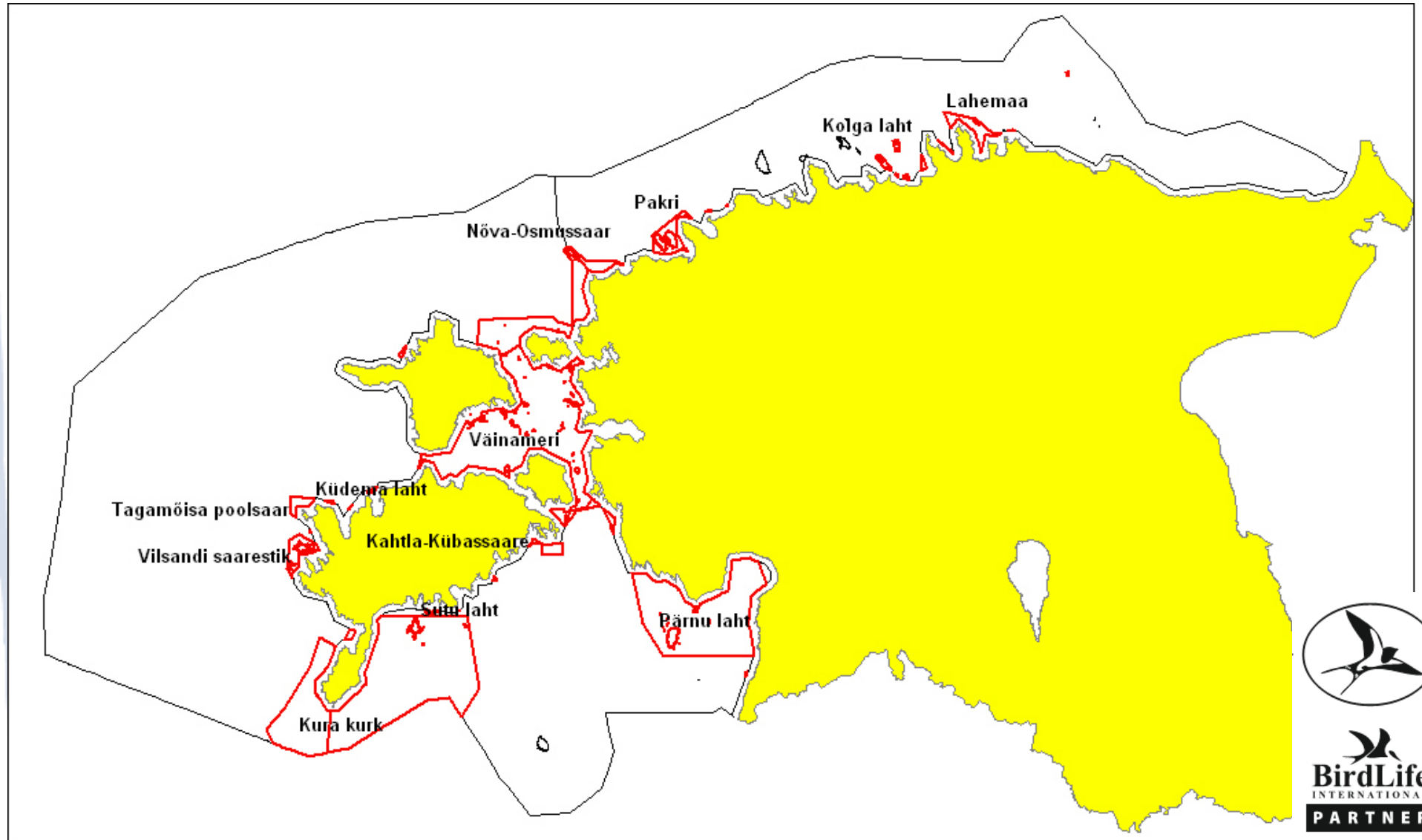
Photo by Mati Kose

Velvet Scoter



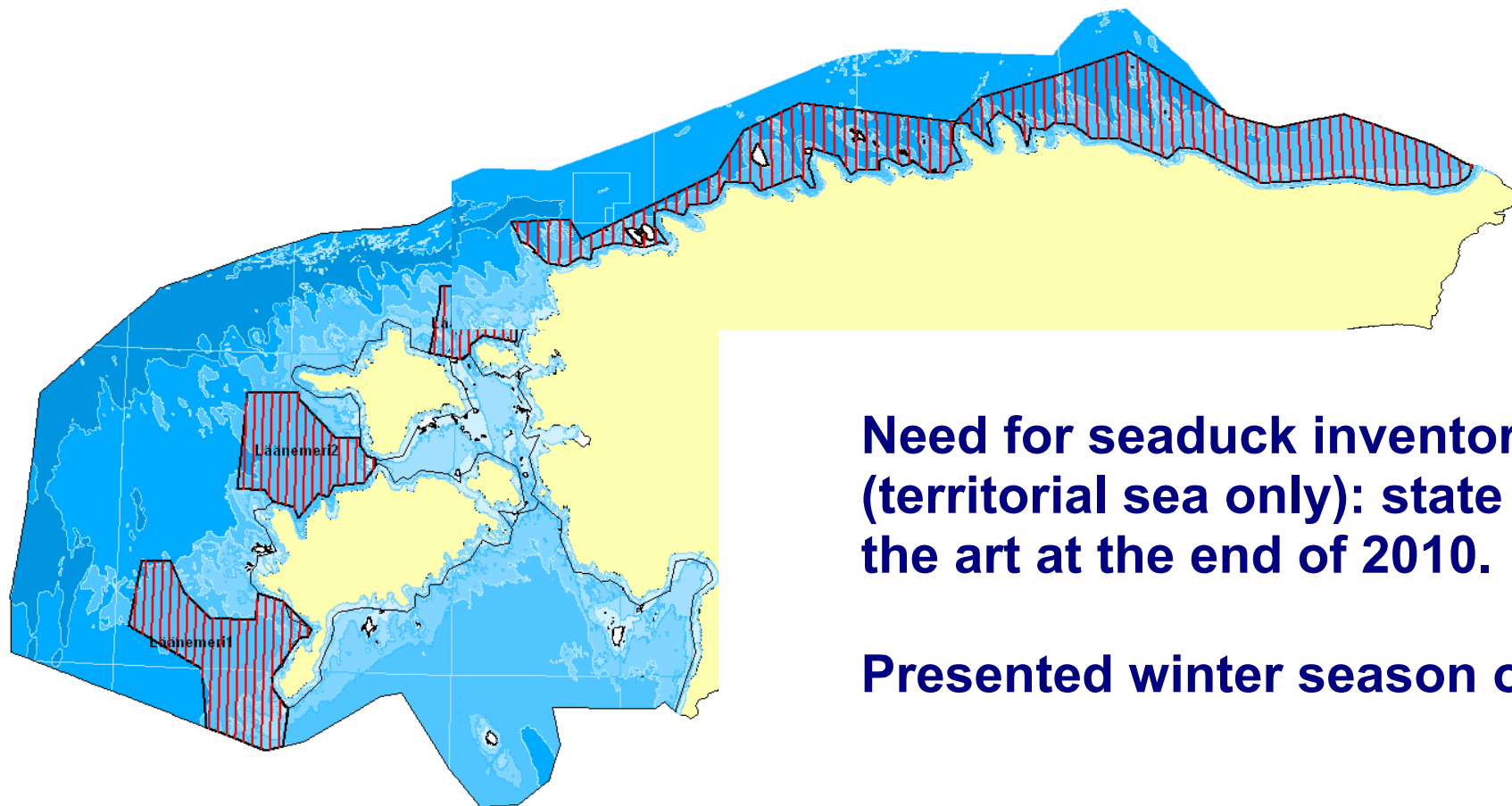
BirdLife
 INTERNATIONAL
 PARTNER

Important Bird Areas network of marine sites is insufficient



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PARTNER

Large marine areas are not covered with studies



**Need for seaduck inventories
(territorial sea only): state of
the art at the end of 2010.**

Presented winter season only



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Task 3

- onshore wind energy planning on county level is still needed in three counties: Ida-Virumaa, Lääne-Virumaa and Harjumaa;
- (local) community benefits (CB) has to be secured with governmental regulation; up to now CBs are agreed between developer and communities on voluntary bases and CBs do not overweight disadvantages caused by wind energy developments.

Summary

- Estonian environmental NGOs strongly support move to a renewables-based energy system in Estonia.
- It is inevitable to make the twin imperatives of renewables deployment and nature conservation compatible and mutually reinforcing.

Thank you!



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