Assessing Fisheries Impacts from Oil spills – Butinge case

Antanas Kontautas
Klaipėda university

Reduction of oil spills impact on Baltic sea environment and development of response operations, Palanga, Lithuania, Decembert 2-3, 2010.

- Human activities and conflicts in Lithuanian seashore (short overview)
- Coastal fishery characteristics
- Basis for compensations
- Conclusions

Human activities in Lithuanian seashore

Present activities:

- harbour and shipping activities,
- commercial fishery and angling,
- recreational and leisure activities,
- other activities.

Future activities:

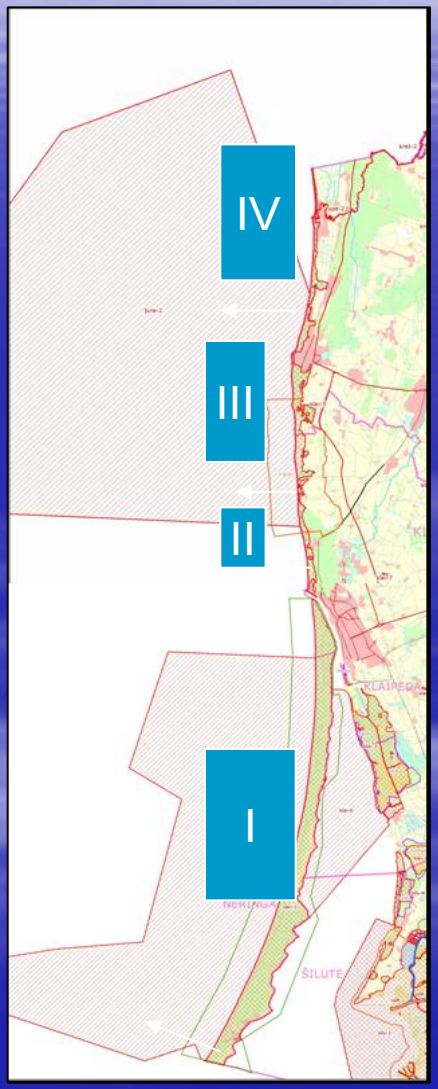
- the use of renewable energy
- the use of mineral marine resources
- rapid development of urbanization

Conflicts

- Harbor / recreation
- Shipping / recreation
- Harbor / fishery
- Recreation / fishery
- Nature conservation / fishery
- Coastal erosion / recreation
- Recreation / nature conservation
- Oil spills/all other activities

Fishery regions in Lithuanian coast

- I - fishing areas 1-15 (210 km^2)
- II - fishing areas 16 – 19 (60 km^2)
- III - fishing areas 20 – 23 (110 km^2)
- IV - fishing areas 24 – 29 (200 km^2)



Impact to fishery

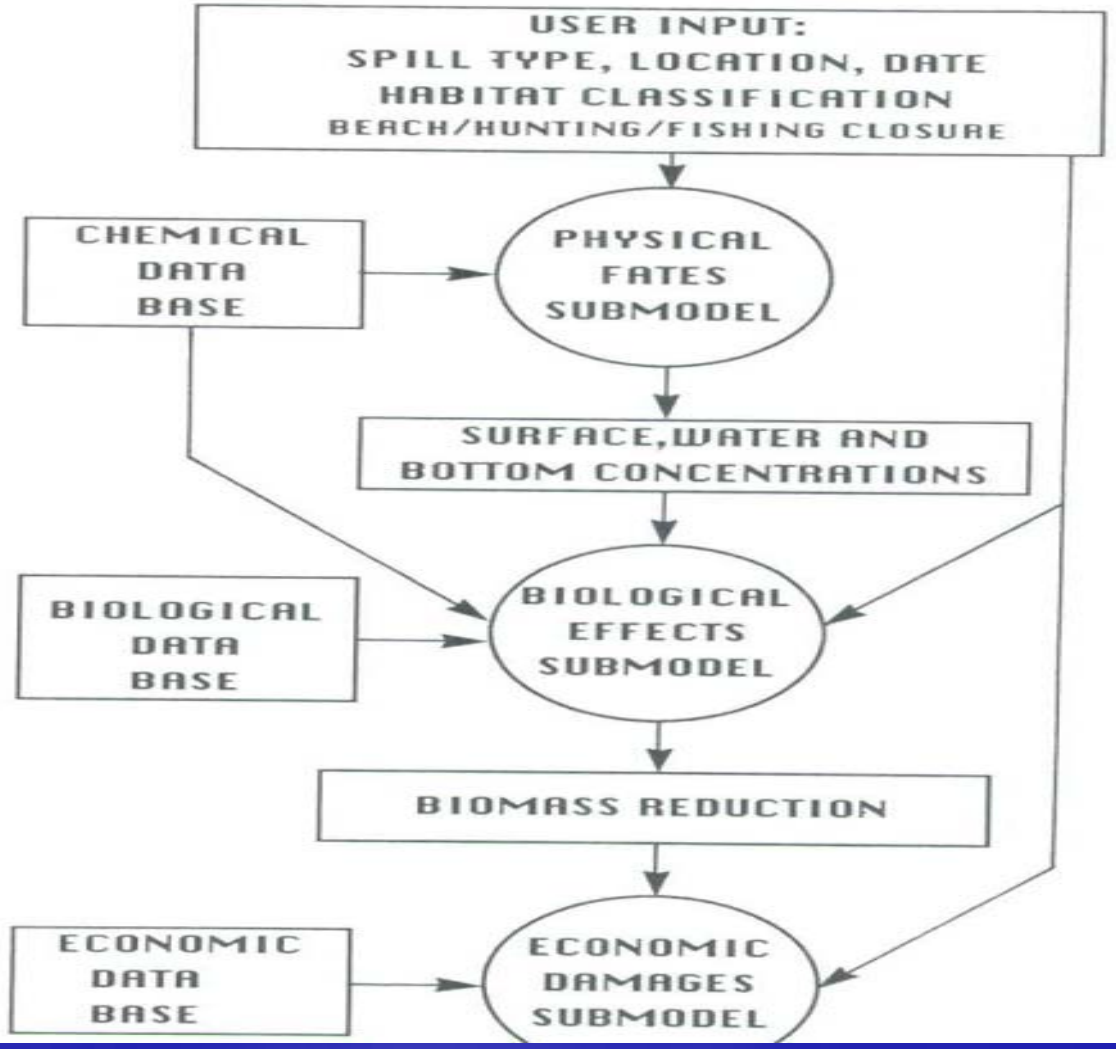
- Direct impact to natural resources (including fish resources) - the polluter pay compensation for the damage to state budget (penalty)

- Indirect impact to fish resources (fish leaves usual areas or additional restrictions for fishery) – the polluter pay to fisherman or fishermen association (compensation)
- Indirect impact to other stakeholders (recreational sector, municipalities, harbors, sailors) - compensation

Compensation

- Only way to do that – compensate the losses of possible incomes
- Question is – how?????

Overwiev of logic of Natural Resource Damage Assessment Model for Coastal and Marine Environments by A. Grigalunas, J. J. Opaluch, D. French, and M. Reed (1988)



Economic Damages from Spills of Diesel Fuel in the Virginian Province for Various Quantities Spilled During the Summer Season (Expressed in 1986 Dollars)

Quantity Spilled		Damages in Estuarine Environments	Damages in Marine Environments
Metric Tons	Barrels		
5	36.75	$ 2,491.	$ 329.
10	73.50	$ 4,742.	$ 944.
50	367.50	$ 24,373.	$ 8,263.
100	735.00	$ 47,050.	$ 14,300.
150	1,102.50	$ 69,297.	$ 28,033.
250	1,837.50	$114,007.	$ 51,285.
500	3,675.00	$210,400.	$134,635.
750	5,512.50	$310,972.	$211,375
1,000	7,350.00	$426,668.	$312,377.

Oil spills

- 500 - 1000 accidents or deliberate oil spills/year in Baltic sea
- 65 tons of oil and oil products during 7 years period in Lithuanian cost.

The characteristics of coastal fishery

- The intensity of fishery in each region (monthly)
- CPUE by species, gear, month in each region
- The price by species of fish in landing places

Basis for compensations

- In coastal fishery – the daily incomes for one 30 m gillnet
- In sea fishery - the daily incomes for one 75 m gillnet and/or hourly incomes fore one trawling hour

The calculation of compensation

- $$K = \frac{l * d * L_{v30}}{30}$$

- *K*= compensation in litas;
- *l* – the gillnets line, but no more as 2500 m
- *d* – the number of days, when fishing was stopped;
- L_{30} -the daily incomes average for one 30 m gillnet in litas (by month)

Possibilities for applying

- **International Oil Pollution Compensation Fund 1992,** arba **IOPC Fund, legitimated by 1992 Civil Liability Convention (CLC 1992) and 1992 Fund Convention (91 member state)**
- **Financial Instrument for Fisheries Guidance, FIFG. EU**
- **State budget**
- **Polluter (oil drilling or oil transportation companies, tankers owners)**


Thanks you for your listening

Could be compensated by IOPCF:

- The expenses for the cleaning
- The loss of property and aset
- The economical losses
- The environment restoration works