Croatia

Ministry of Environmental Protection, Physical Planning and Construction

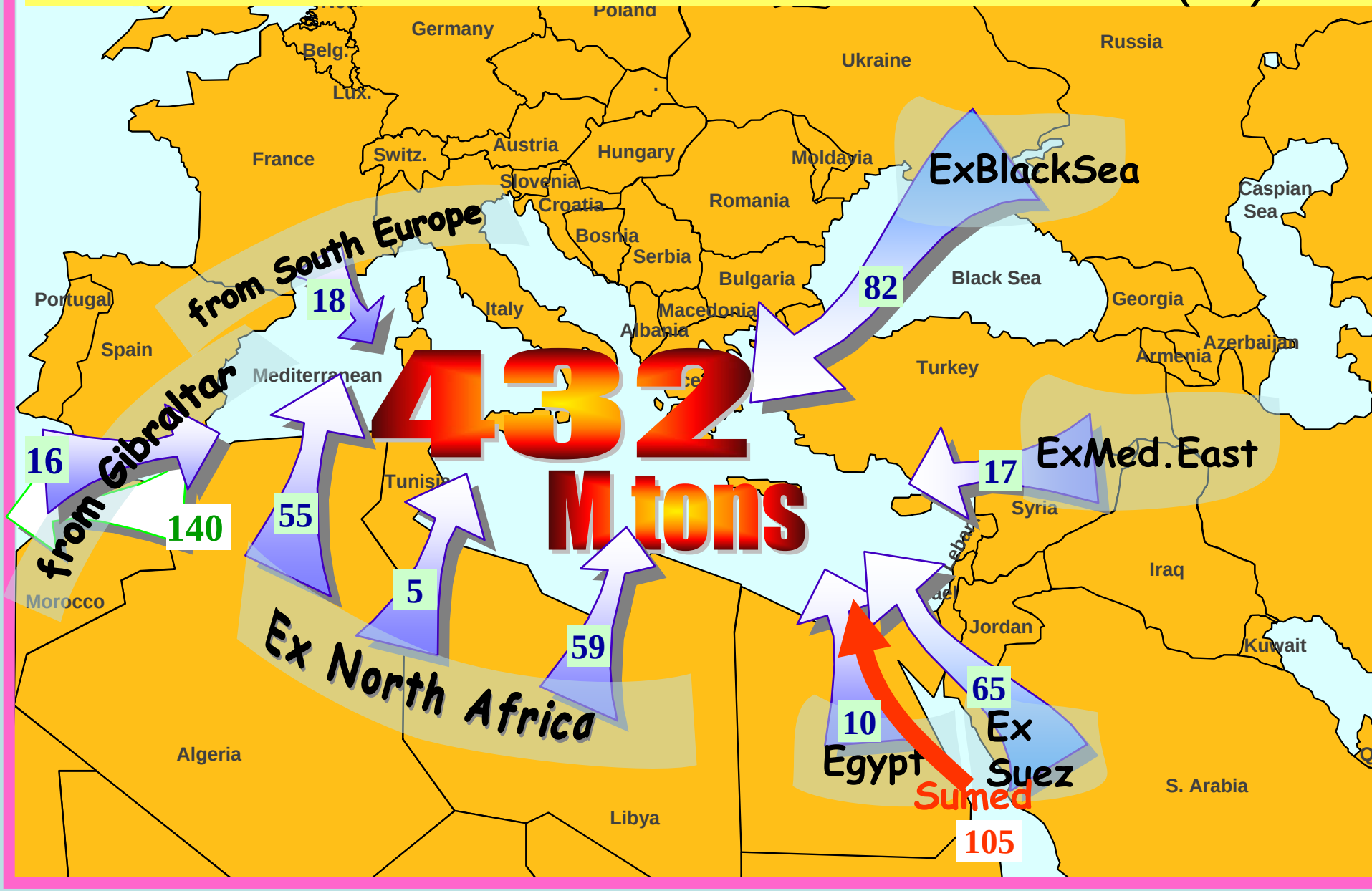
Nenad Mikulić, Ph.D.

Environmental Impact Assessment Departement Head

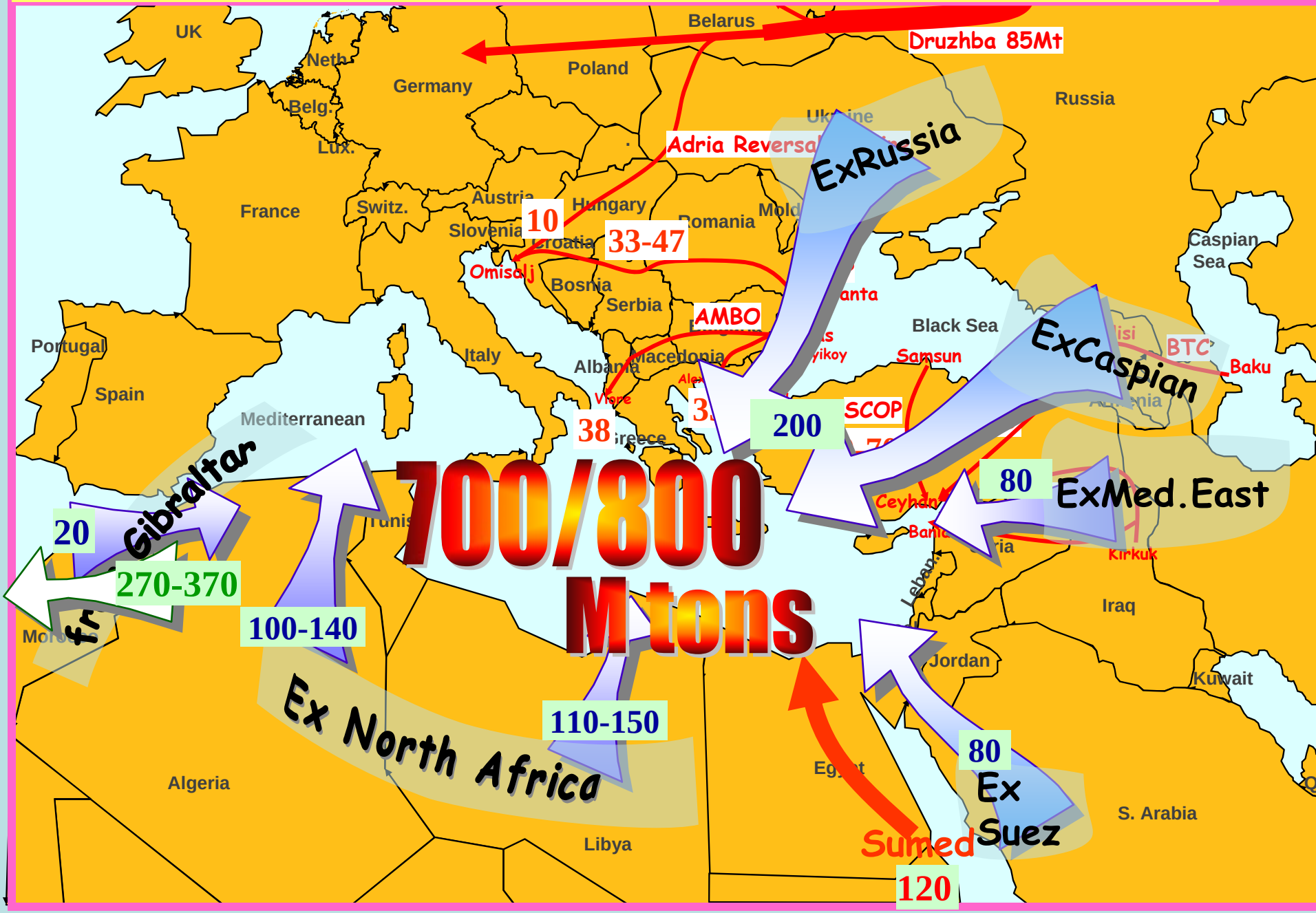
Slide Sources

- University of Ljubljana, Faculty of Maritime Studies and Transportation, Slovenia
- Italian Ministry of Environment & Territory,i ICRAM – Central Institute for Marine Research
- Observatoire Méditerranéen de l’Energie
- JANAF, d.o.o, Zagreb, Croatia

2003 : OIL MOVEMENTS in the MEDITERRANEAN (Mt)



2020 : OIL MOVEMENTS in the MEDITERRANEAN (Mt)



Oil flows balance in Mediterranean Sea

2003

140 Mt ← **Circulated 432 Mt**

Med countries Oil demand = 430 Mt

292 Mt by Med Sea &

138 Mt on-shore supply

2020

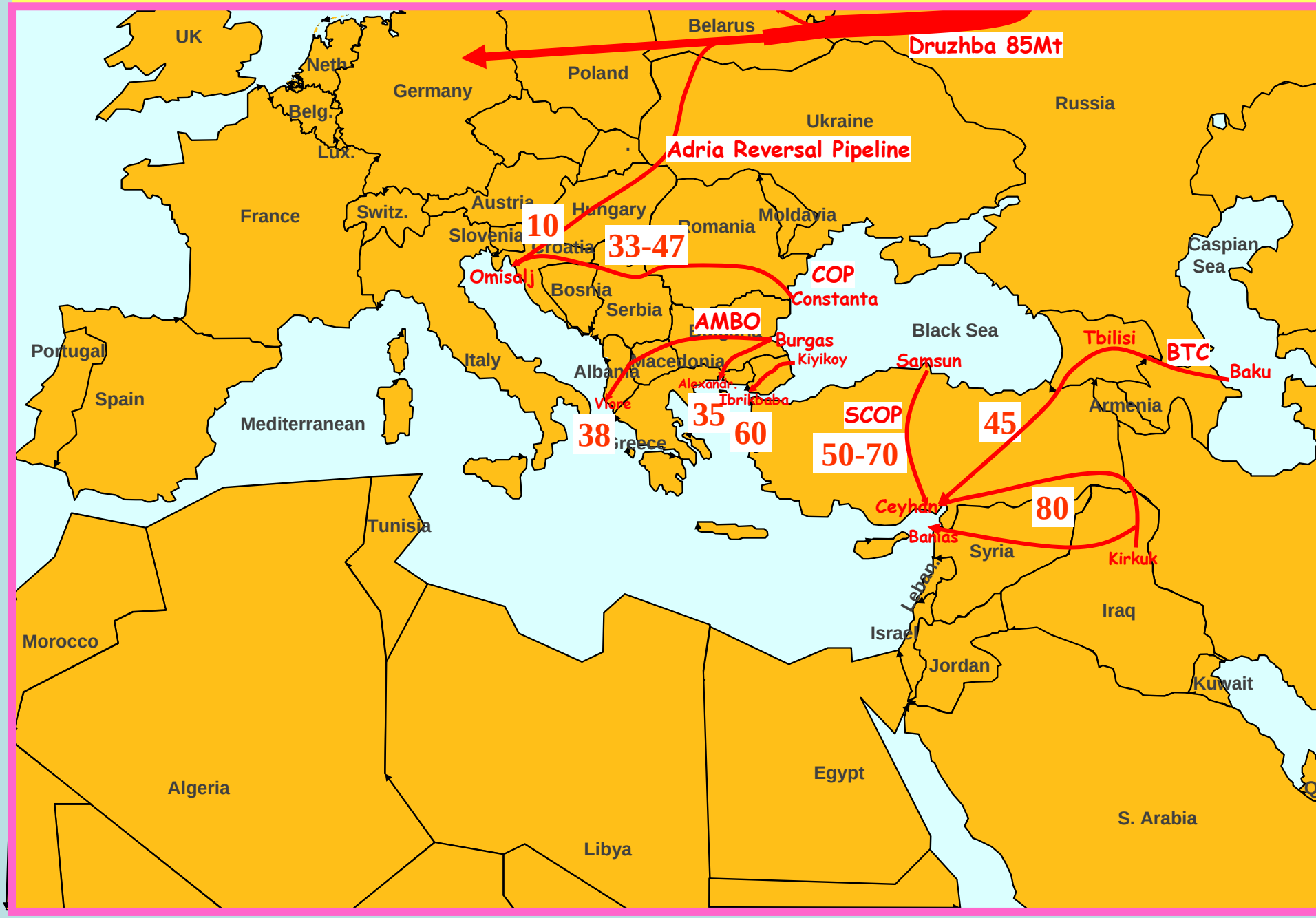
270-370 Mt ← **Circulated 700-800 Mt**

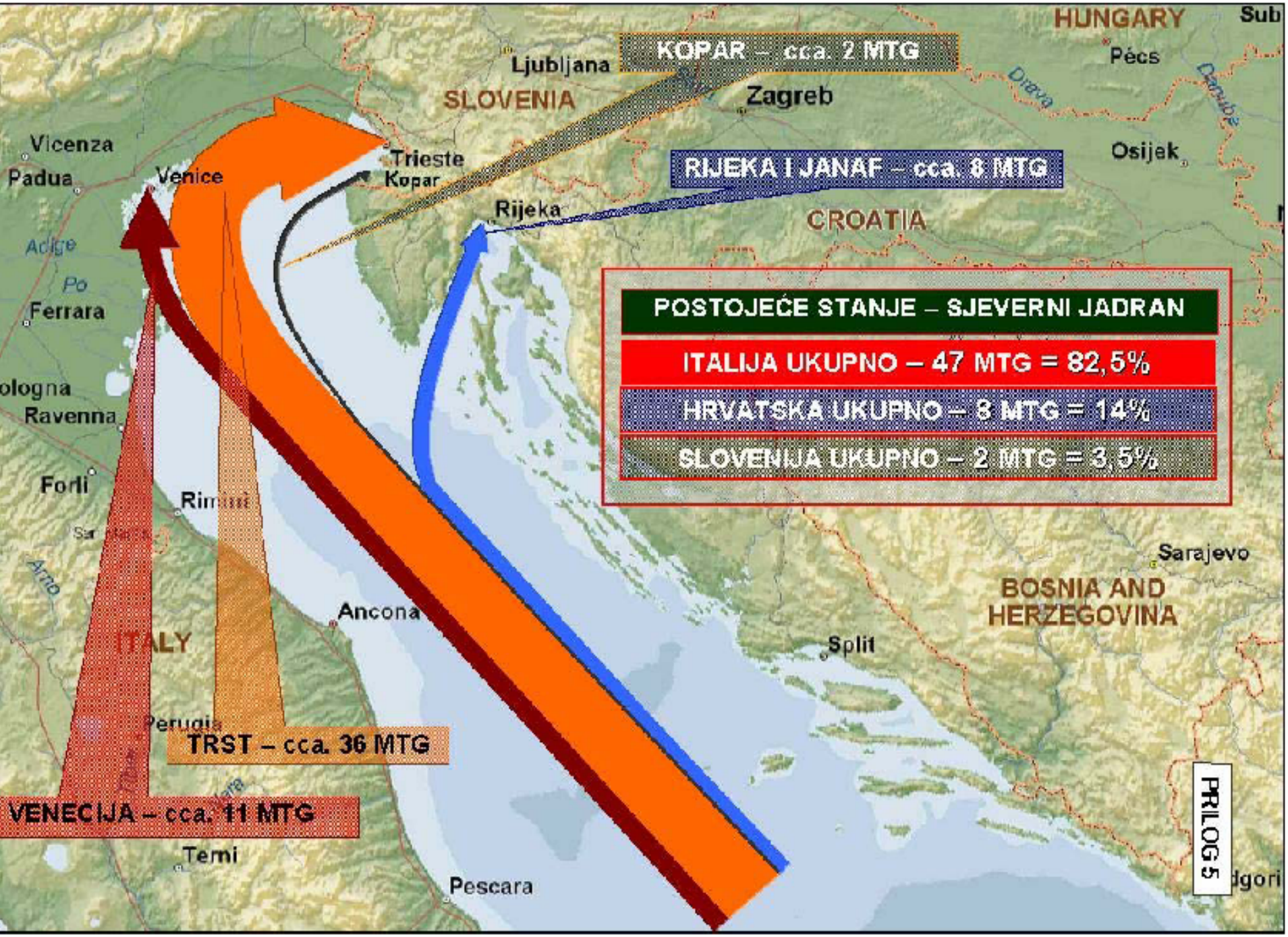
Med countries Oil demand = 570 Mt

410 Mt by Med Sea &

160 Mt on-shore supply

2020 : OIL PIPELINE CAPACITIES in the MEDITERRANEAN (Mt)




KOPAR – cca. 2 MTG
RIJEKA I JANAF – cca. 8 MTG
TRST – cca. 36 MTG
VENECIJA – cca. 11 MTG
POSTOJEĆE STANJE – SJEVERNI JADRAN
ITALIJA UKUPNO – 47 MTG = 82,5%
HRVATSKA UKUPNO – 8 MTG = 14%
SLOVENIJA UKUPNO – 2 MTG = 3,5%
HUNGARY
SLOVENIA
CROATIA
ITALY
BOSNIA AND HERZEGOVINA
Ljubljana
Zagreb
Pécs
Osijek
Trieste
Kopar
Rijeka
Venice
Vicenza
Padua
Ferrara
Ravenna
Forlì
Rimini
Ancona
Perugia
Terni
Pescara
Split
Sarajevo
Adige
Po
Arno
Drava
Danube
PRILOG 5

Adriatic pipeline “JANAF”

- 2004. Import of 8 Mt/y
- 1990. Import of 11 Mt/y
- Designed for 34 Mt/y
- Constructed for 20 Mt/y

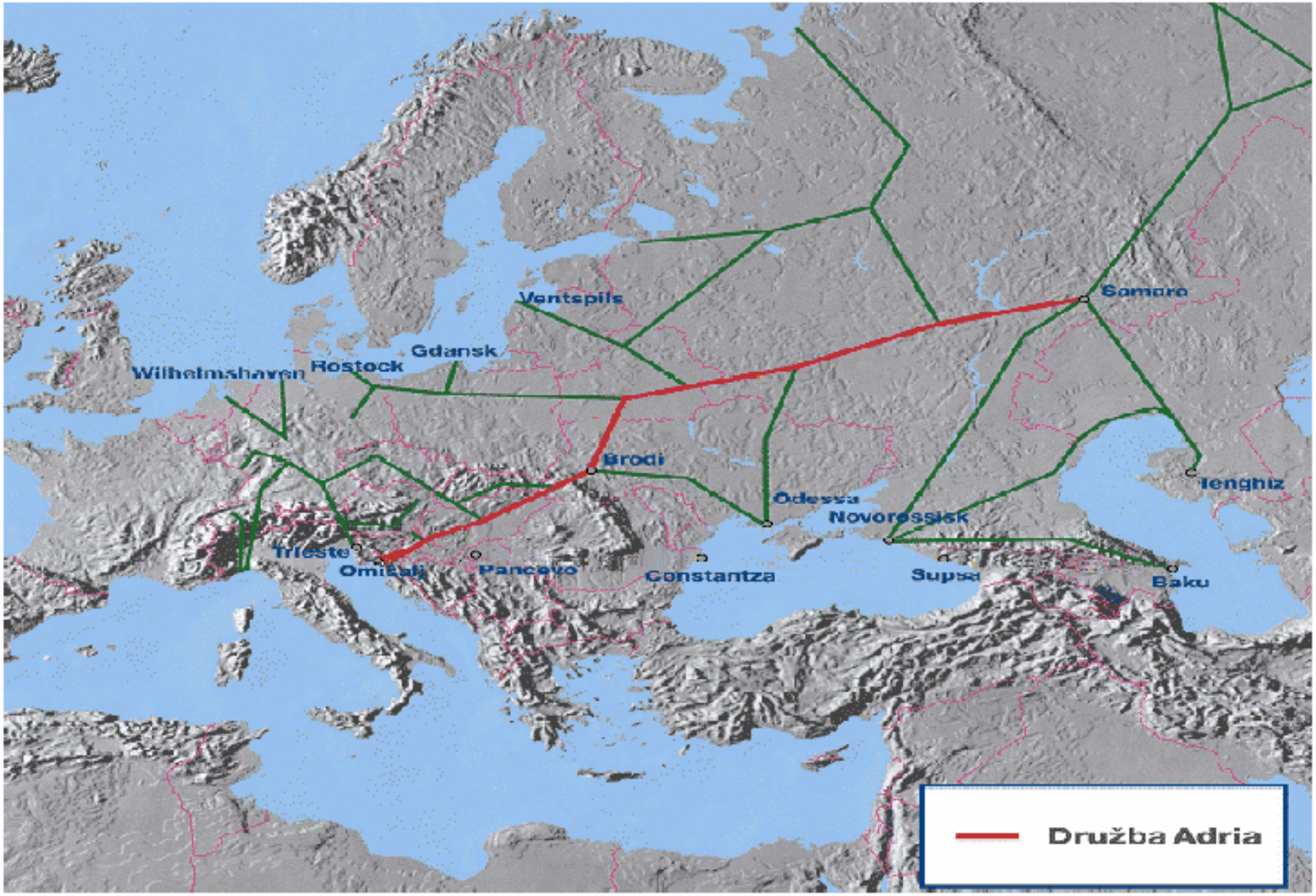
Project “Druzba Adria”

Export of

- I Phase - 5 Mt/y of oil
- II Phase – 10 Mt/y
- III Phase – 15 Mt/y

I Phase in total (Import + Export) 11 Mt/y

ENVIRONMENTAL IMPACT ASSESSMENT is underway

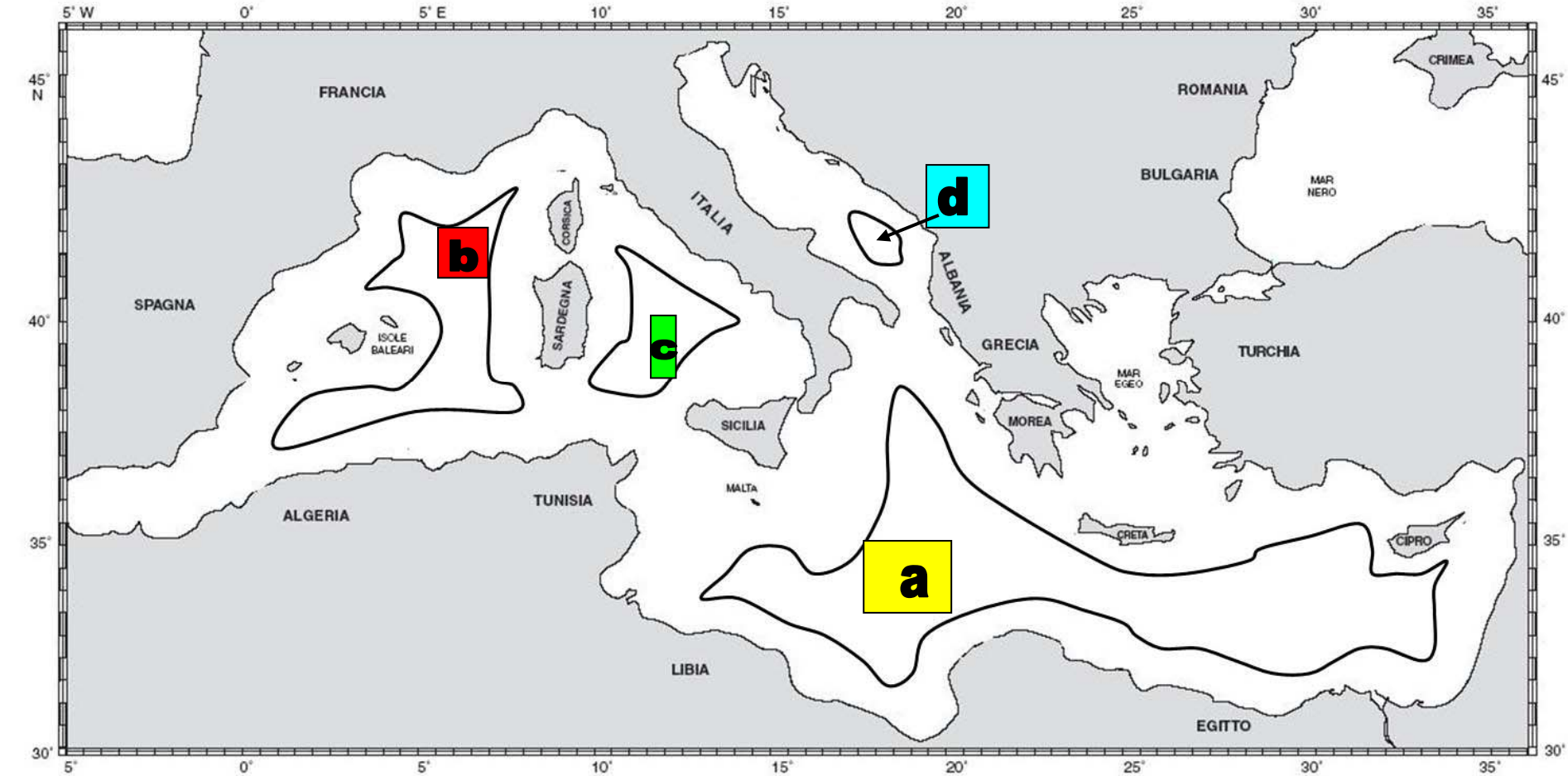

Ventspils
Samara
Gdansk
Rostock
Wilhelmshaven
Brodi
Tengiz
Odessa
Novorossisk
Trieste
Omišalj
Pancevo
Constantza
Supsa
Baku
Družba Adria

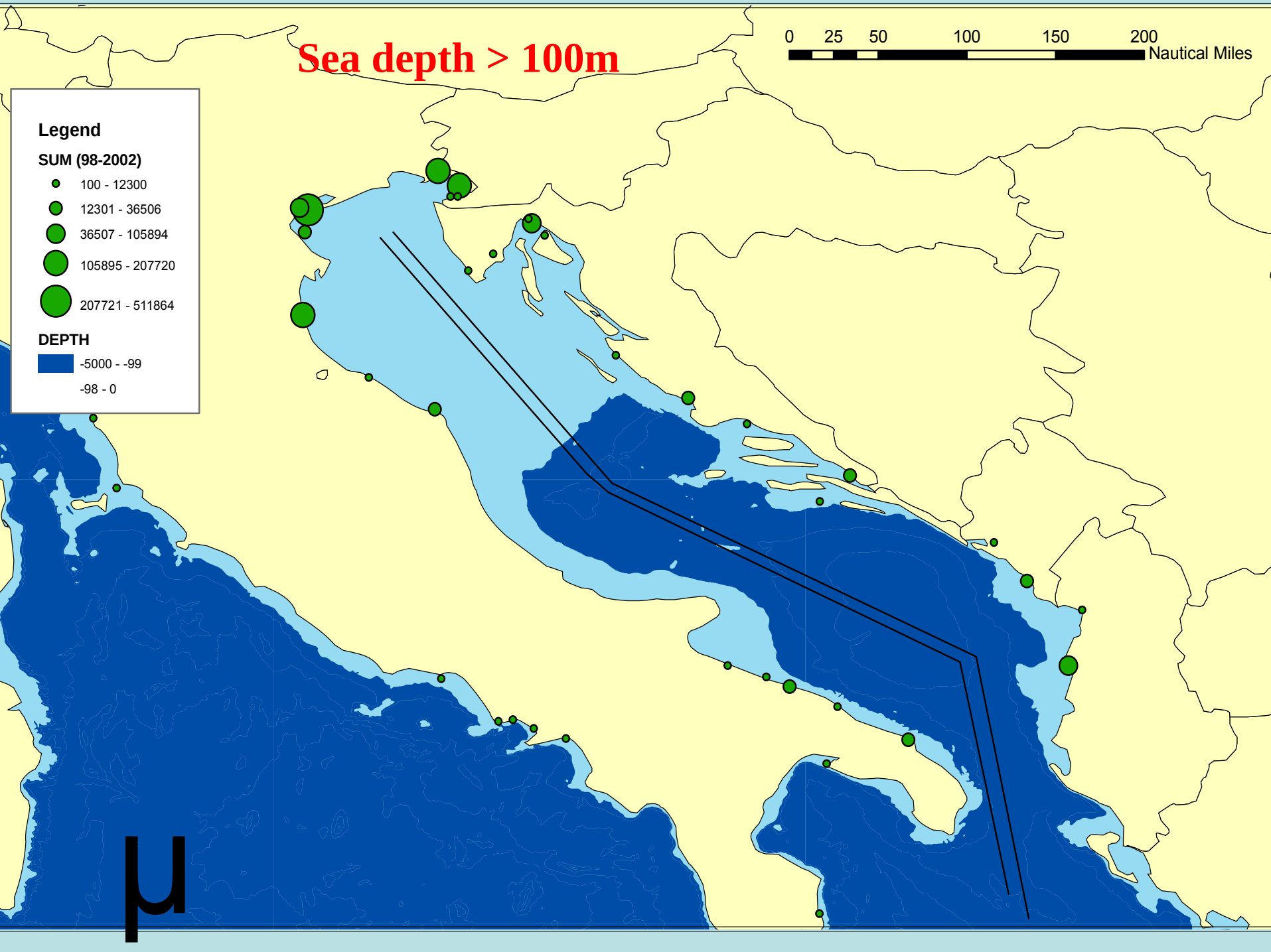
PRILOG 3

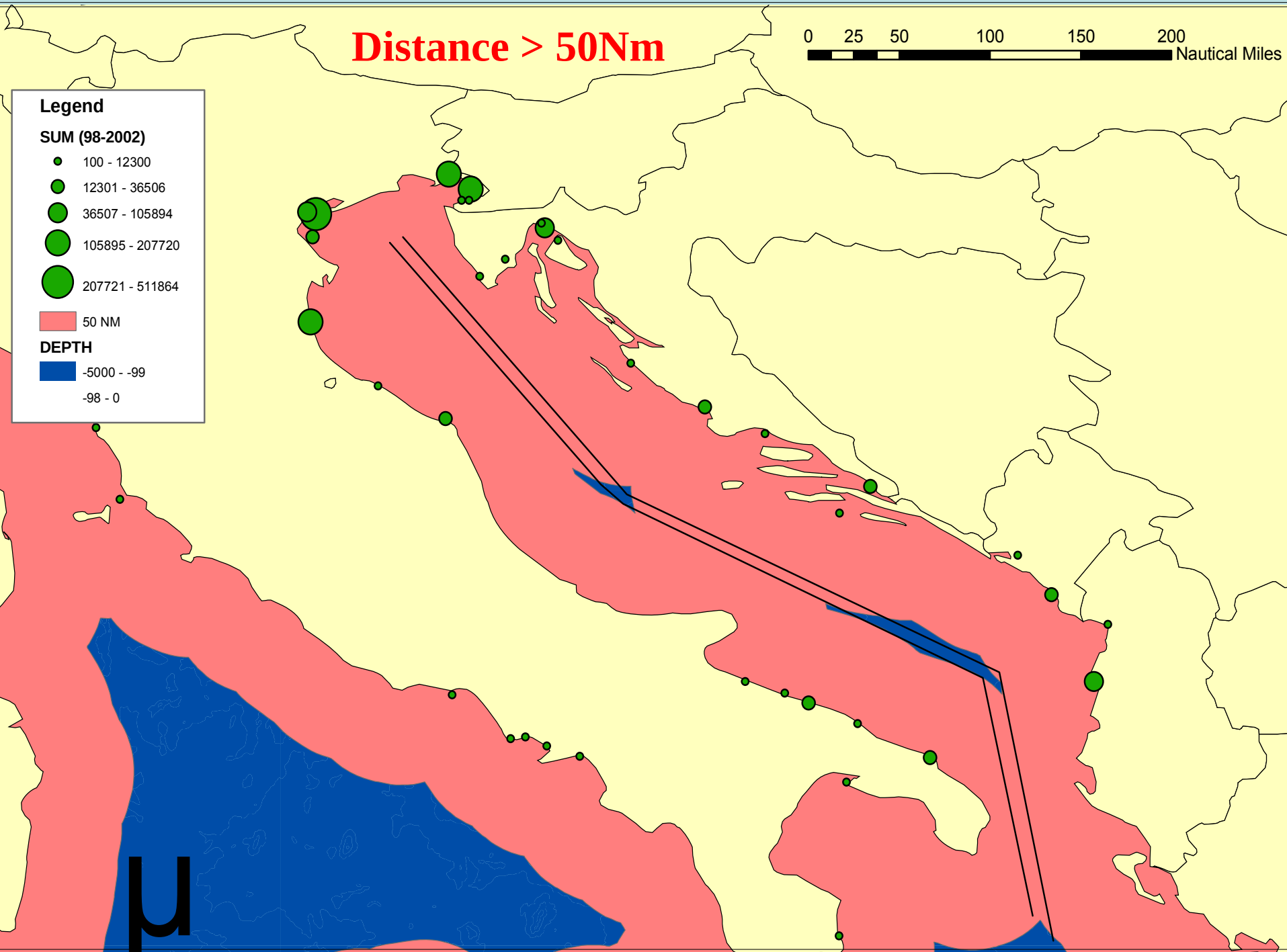
Problems

- Ballast waters
- Increased risk of oil spill

Only four areas in Mediterranean Sea meet the requirements set in regulation B-4.1.2 200Nm+200m or 50NM+200m




Sea depth > 100m
0 25 50 100 150 200
Nautical Miles
Legend
SUM (98-2002)
100 - 12300
12301 - 36506
36507 - 105894
105895 - 207720
207721 - 511864
DEPTH
-5000 - -99
-98 - 0
μ

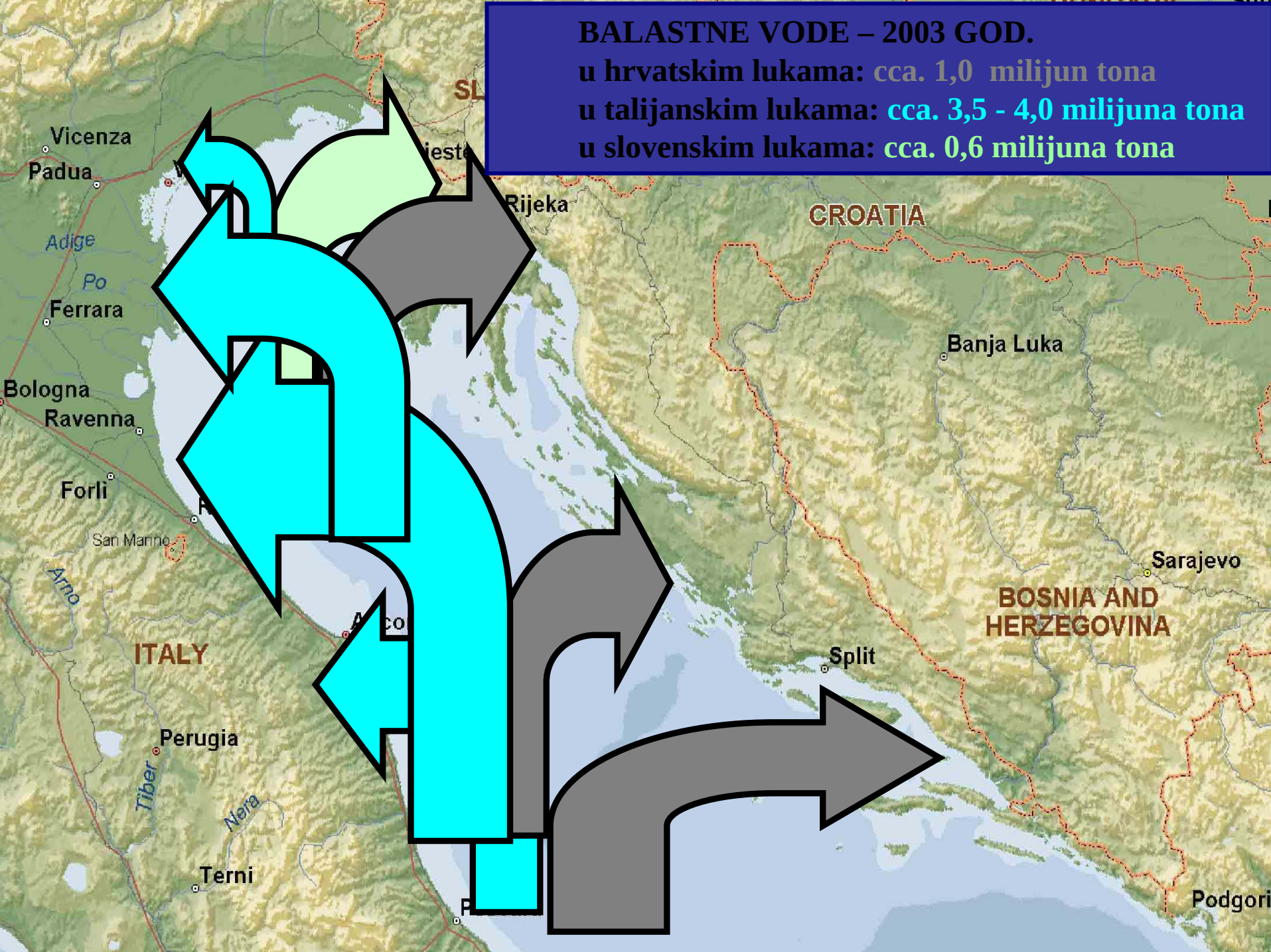

Distance > 50Nm
0 25 50 100 150 200
Nautical Miles
Legend
SUM (98-2002)
100 - 12300
12301 - 36506
36507 - 105894
105895 - 207720
207721 - 511864
50 NM
DEPTH
-5000 - -99
-98 - 0

BALASTNE VODE – 2003 GOD.

u hrvatskim lukama: cca. 1,0 milijun tona

u talijanskim lukama: cca. 3,5 - 4,0 milijuna tona

u slovenskim lukama: cca. 0,6 milijuna tona



Adriatic and ballast waters

- Adriatic sea can not accommodate the IMO provisions on the ballast water exchange:

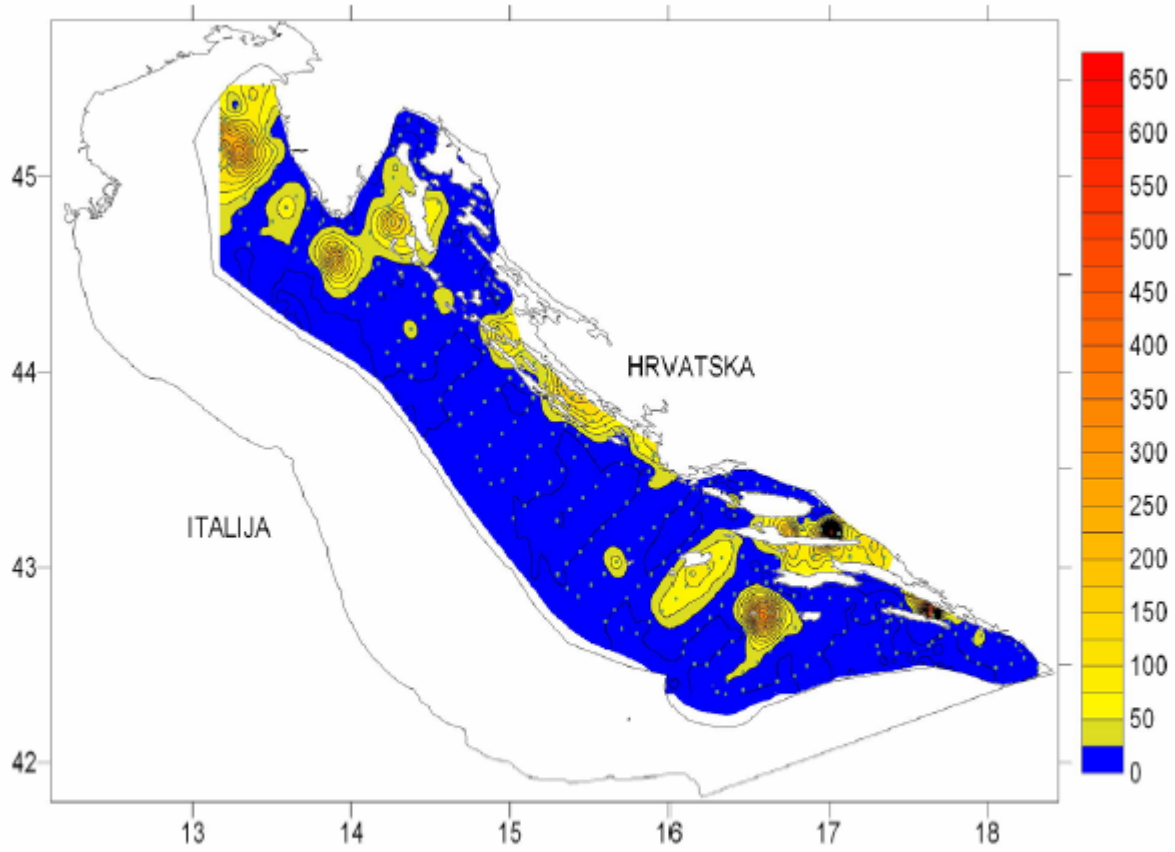
1. 200 Nm + 200 m
2. 50 Nm + 200 m

Croatia and ballast waters

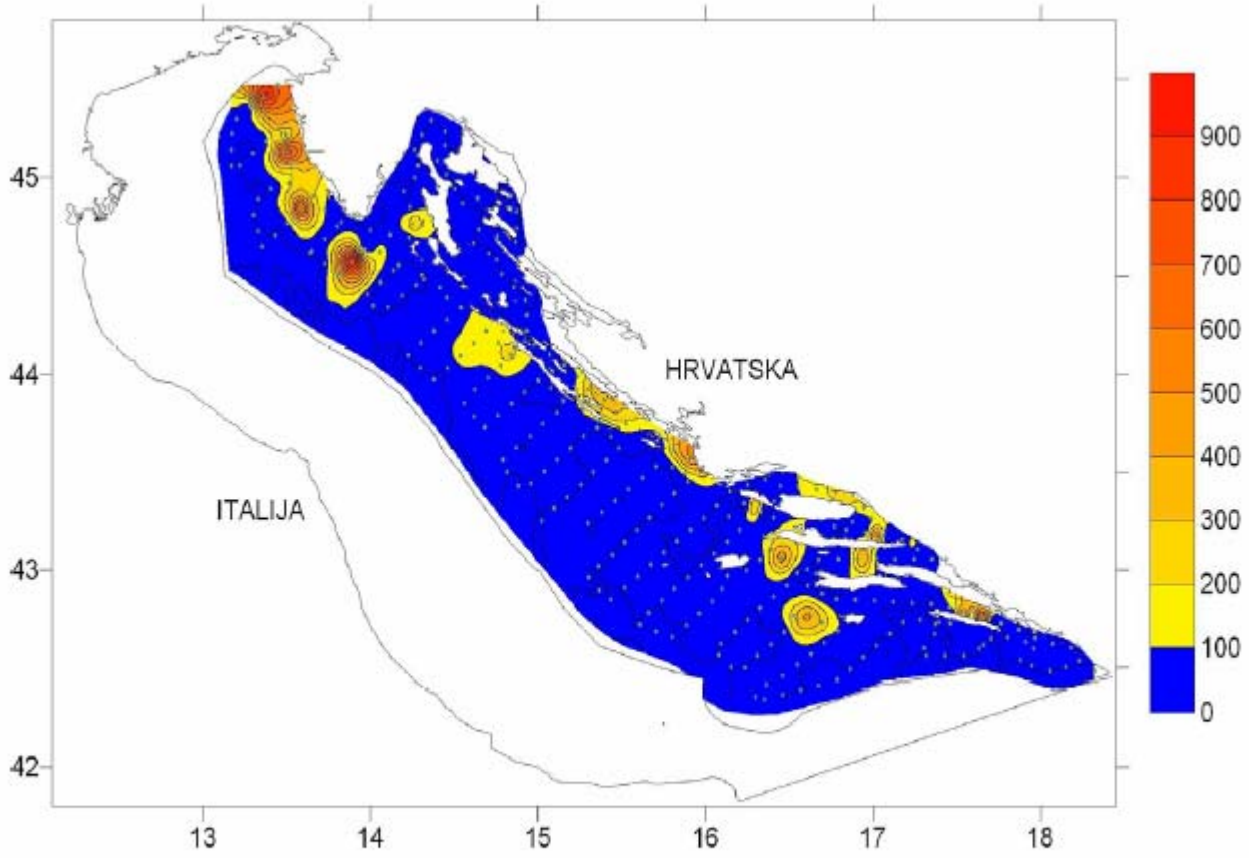
- Not committed in its ecological and fishery zone to have any exchange of the ballast waters

Spreading of

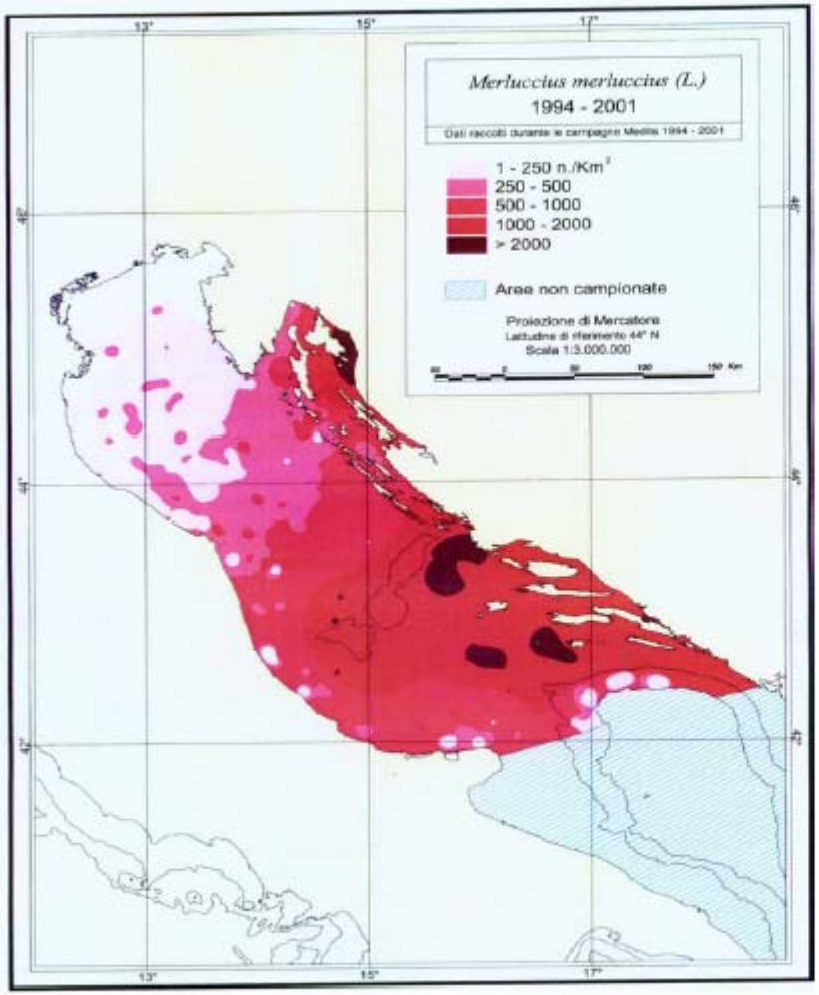
- Anchovy
- Pilchard
- Hake
- Surmullet
- Scampi
- Mariculture



Rasprostranjenost inćuna

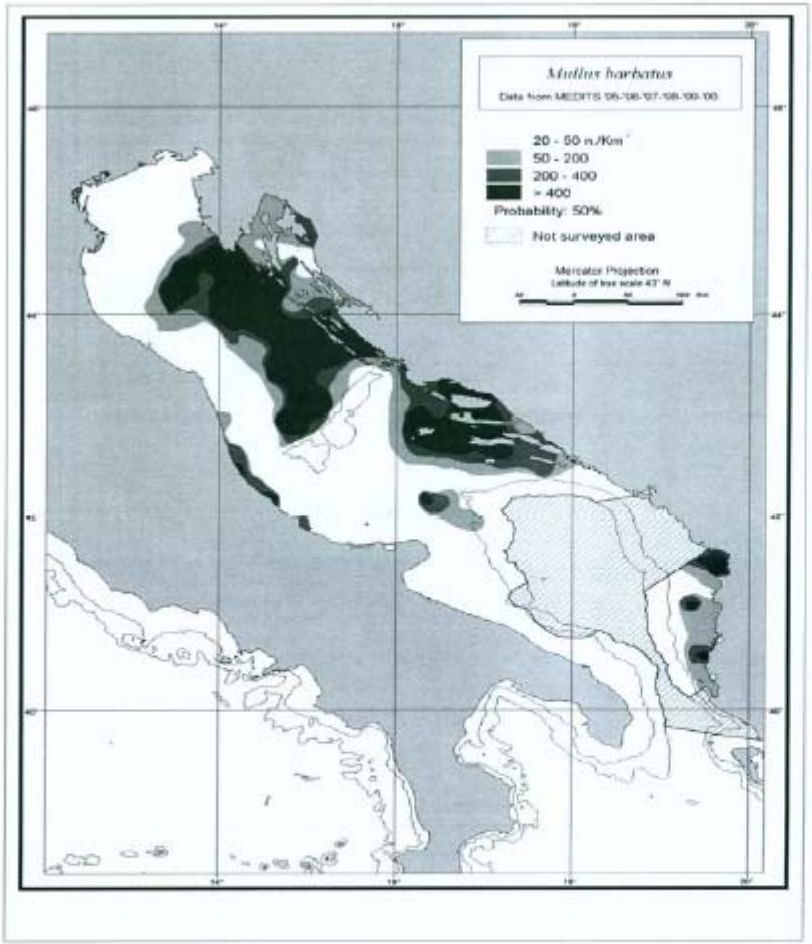


Rasprostranjenost srdele



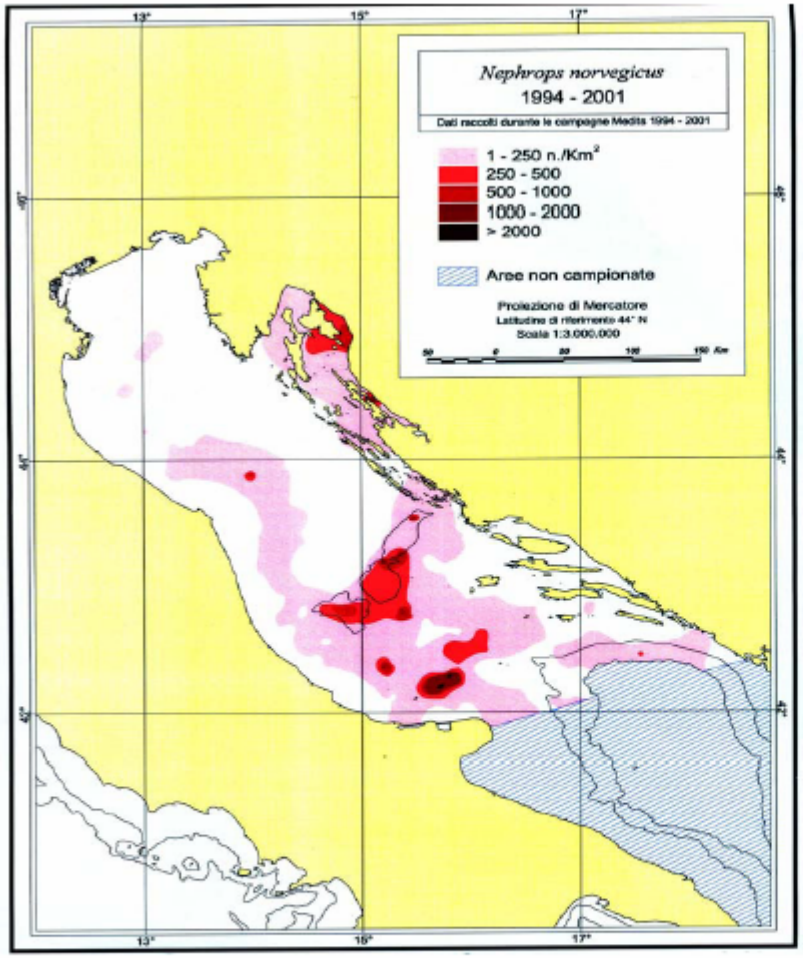
Rasprostranjenost populacije oslića u Jadranskom moru

prema podacima prikupljenim tijekom programa MEDITS 1994-2001. godine



Rasprostranjenost populacije trlje blatarice u Jadranskom moru

prema podacima prikupljenim tijekom programa MEDITS 1996-2000. godine.



Rasprostranjenost populacije škampa u Jadranskom moru

prema podacima prikupljenim tijekom programa MEDITS 1994-2001. godine

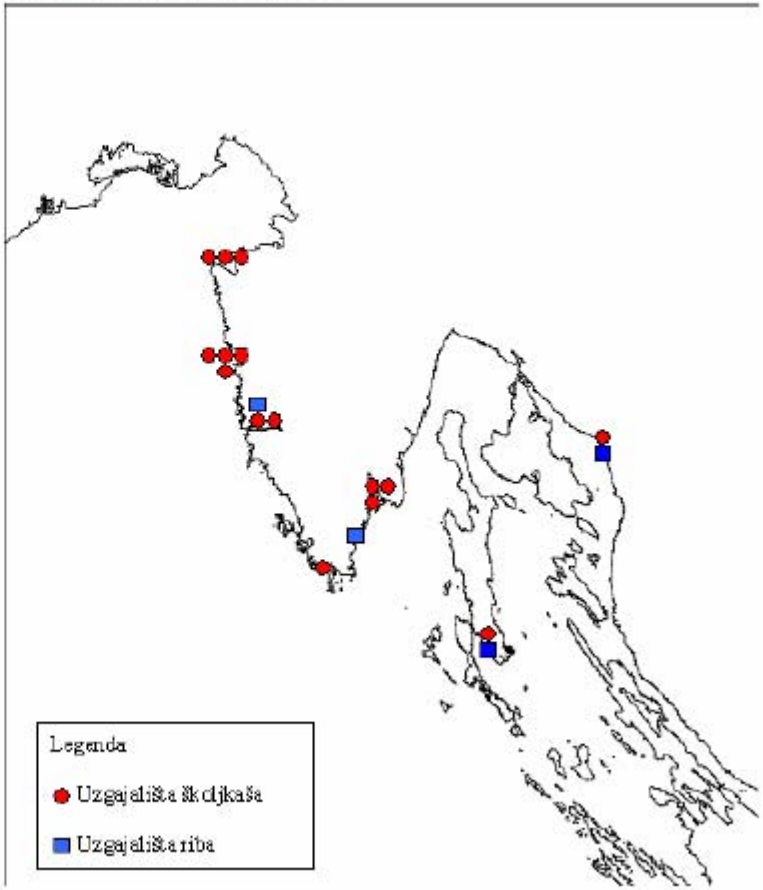
MARIKULTURNA PROIZVODNJA

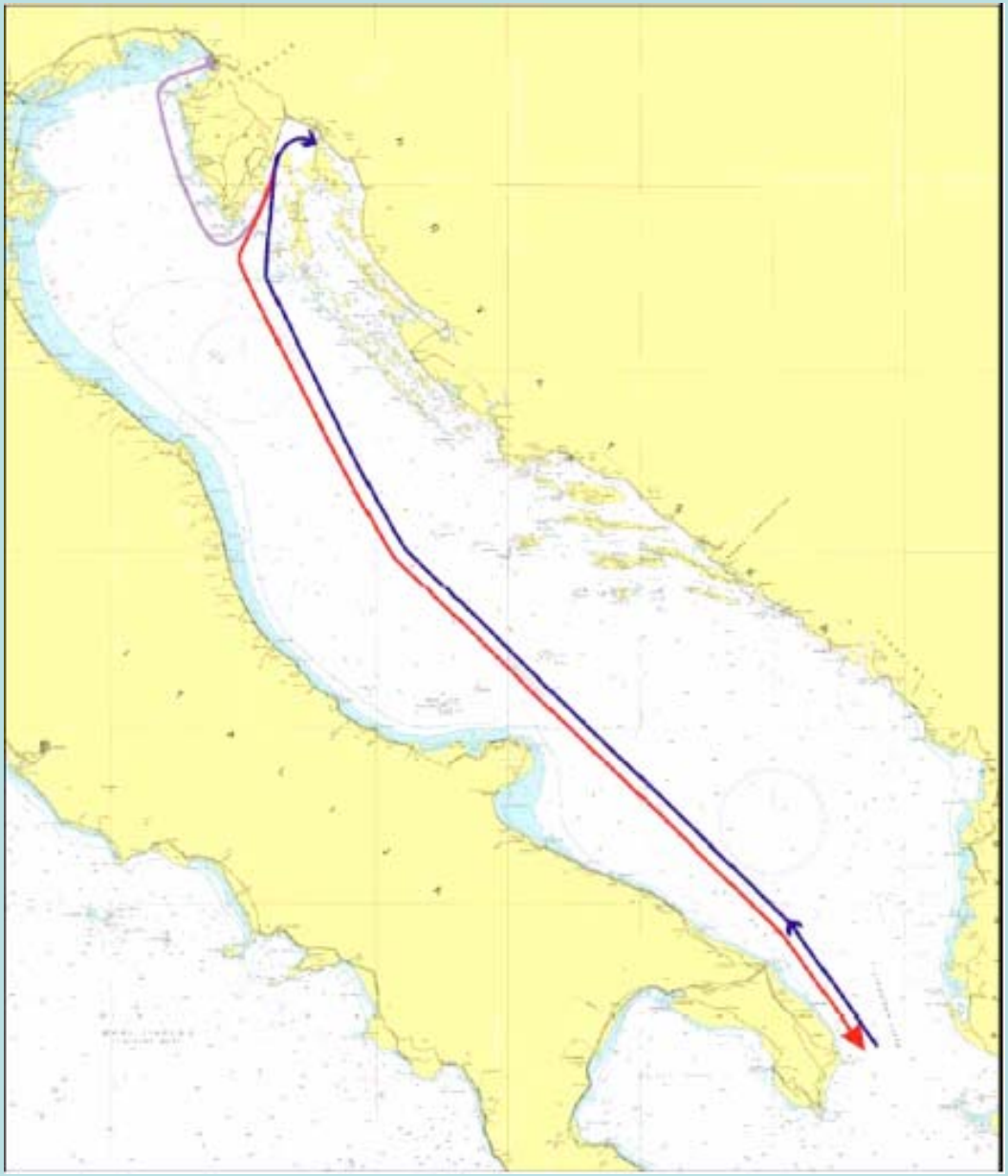
UKUPNA GODIŠNJA PROIZVODNJA:

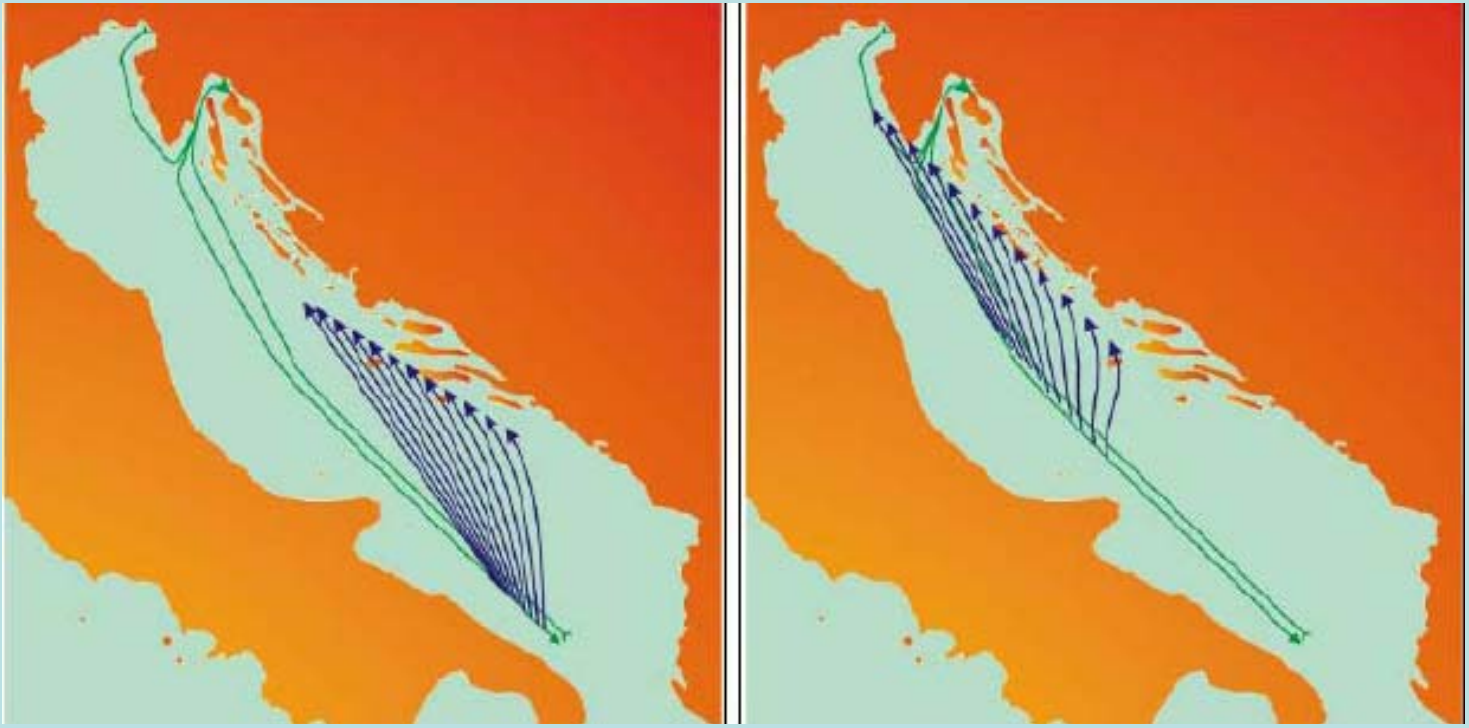
535 TONA RIBE KONZUMNE VELIČINE

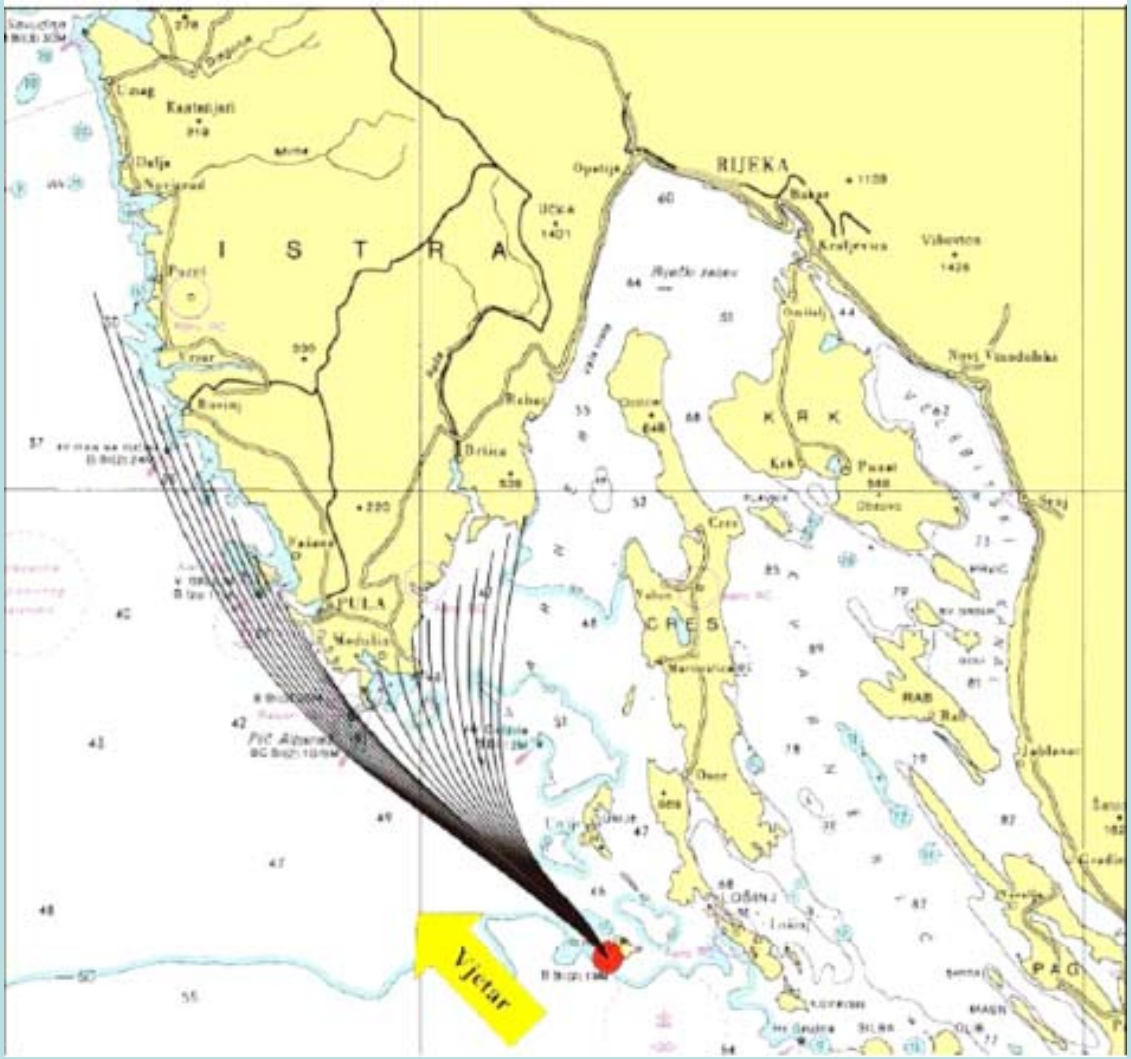
414 TONA ŠKOLJKAŠA

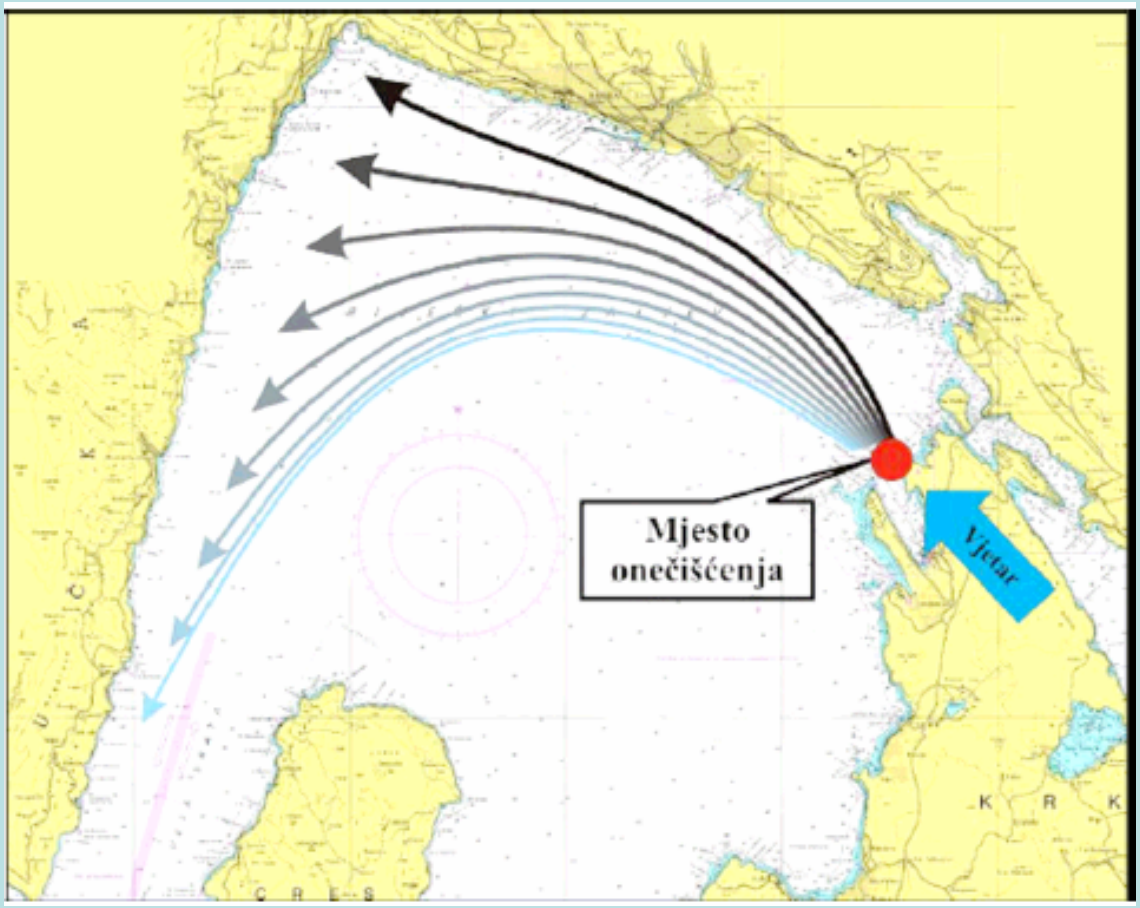
U postupku je izdavanje koncesija na još 14 lokacija



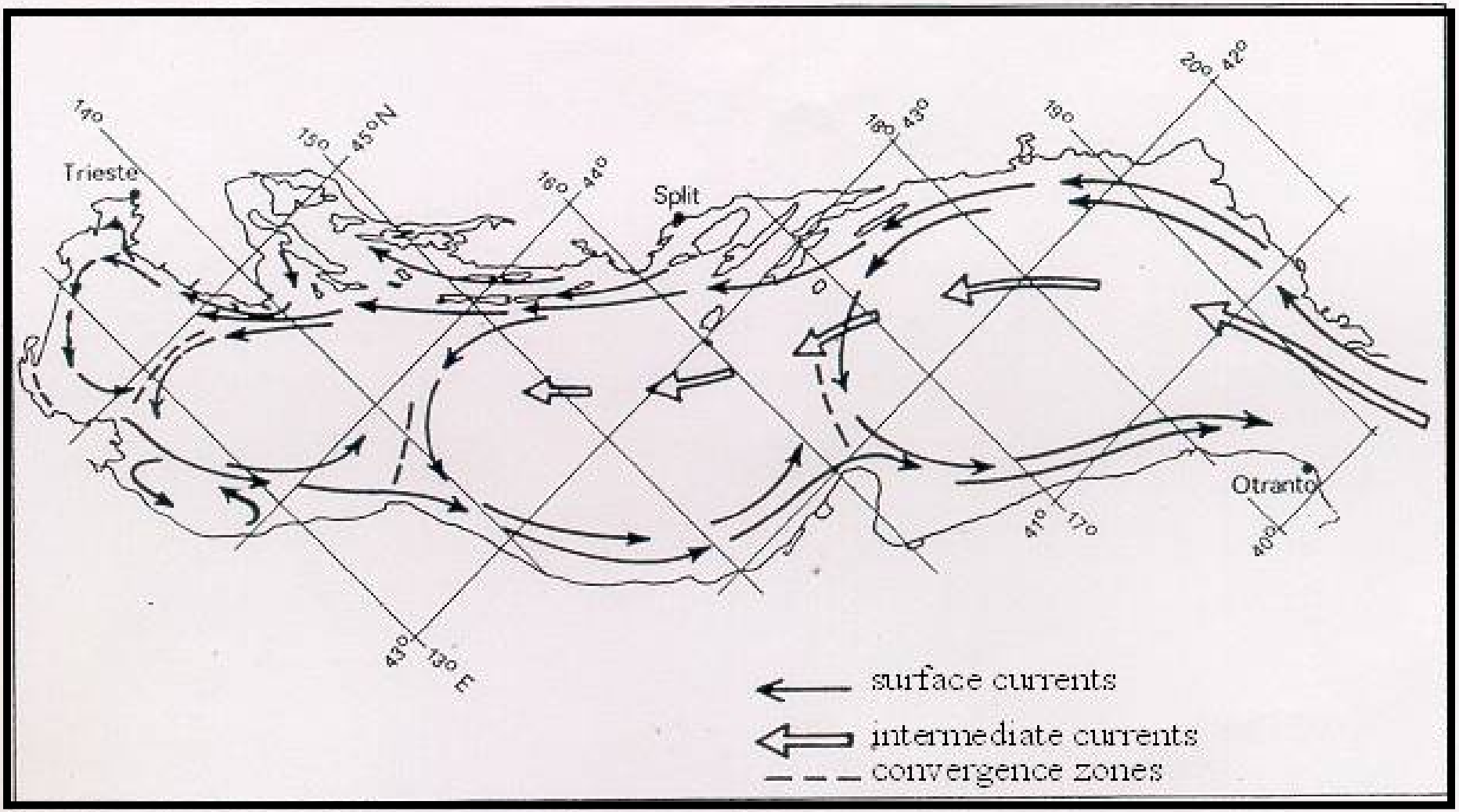





I S T R A
RIJEKA
PULA
K R K
CRES
RAB
PAG
Vjetar


Mjesto onečišćenja
Vjetar
K R K
C R E S

Currents


Trieste
Split
Otranto
140
150
45°N
160
44°
180
43°
190
200
42°
410
170
40°
43°
130 E
surface currents
intermediate currents
convergence zones

Way forward

- IMO – Convention on ballast waters
- UNEP/MAP
- Trilateral cooperation Italia-Slovenia-Croatia
- Adriatic-Ionian initiative (all Adriatic countries)
- NATO/EAPAC?