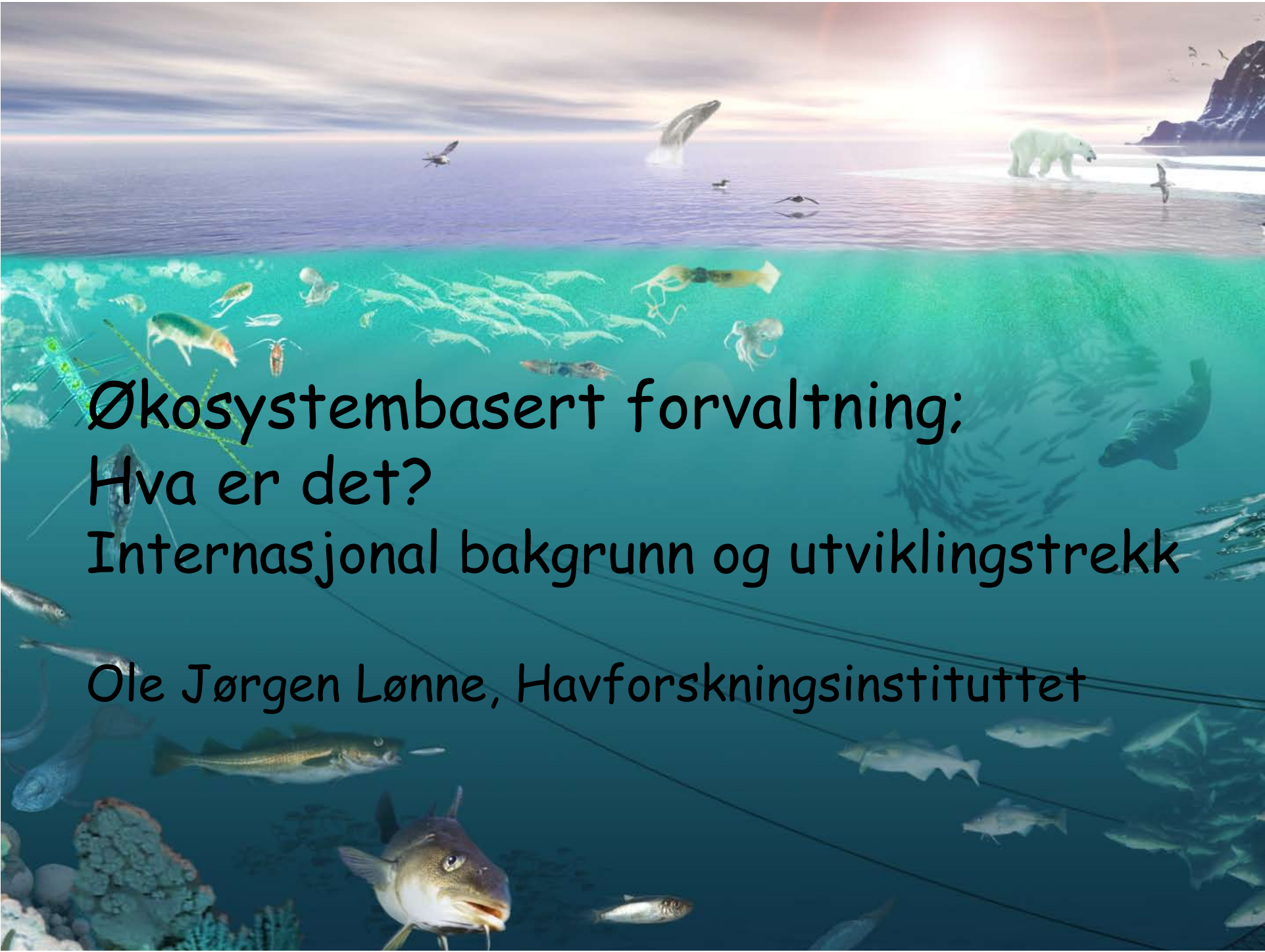




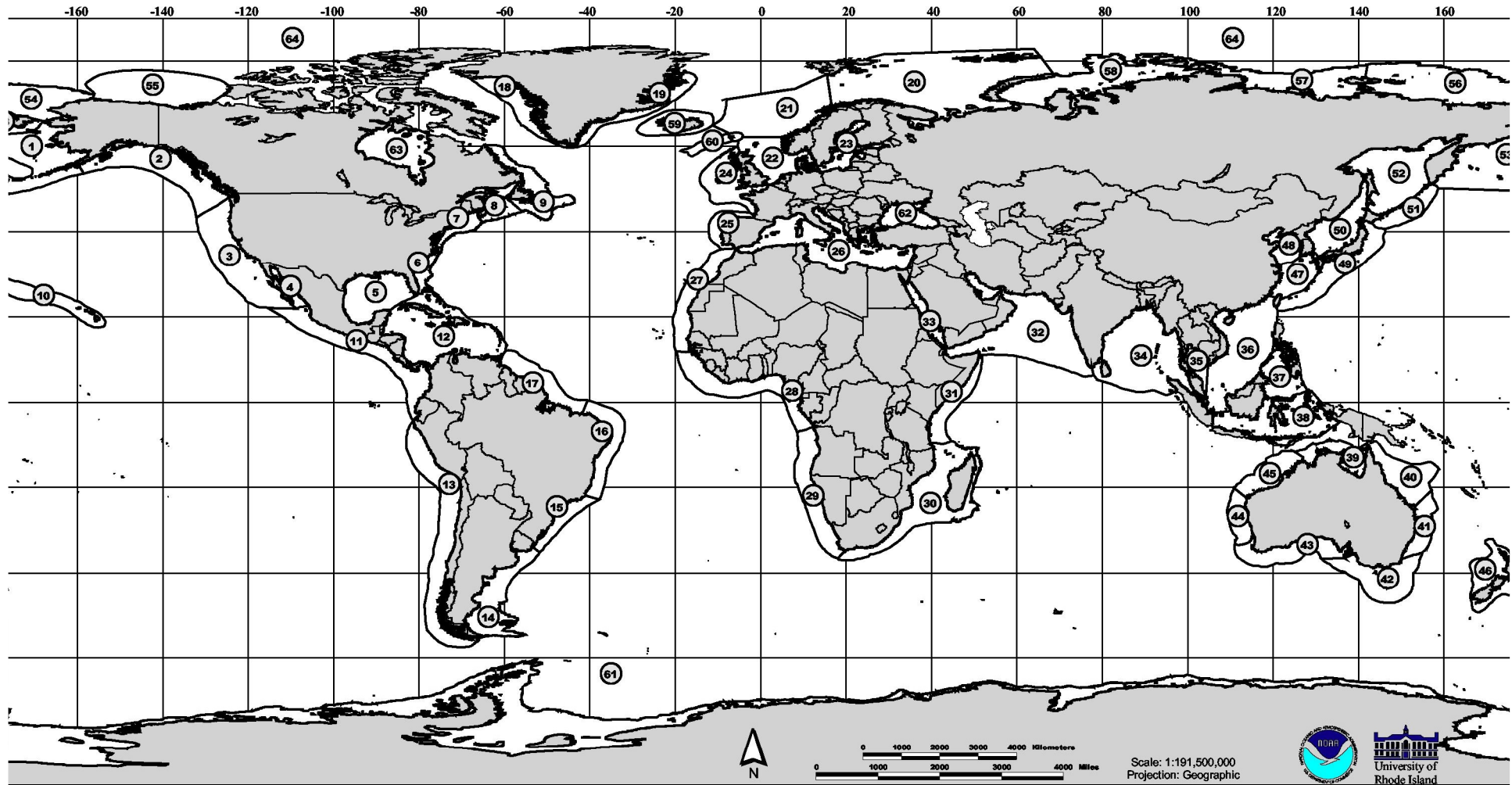
Økosystembasert forvaltning;

Hva er det?

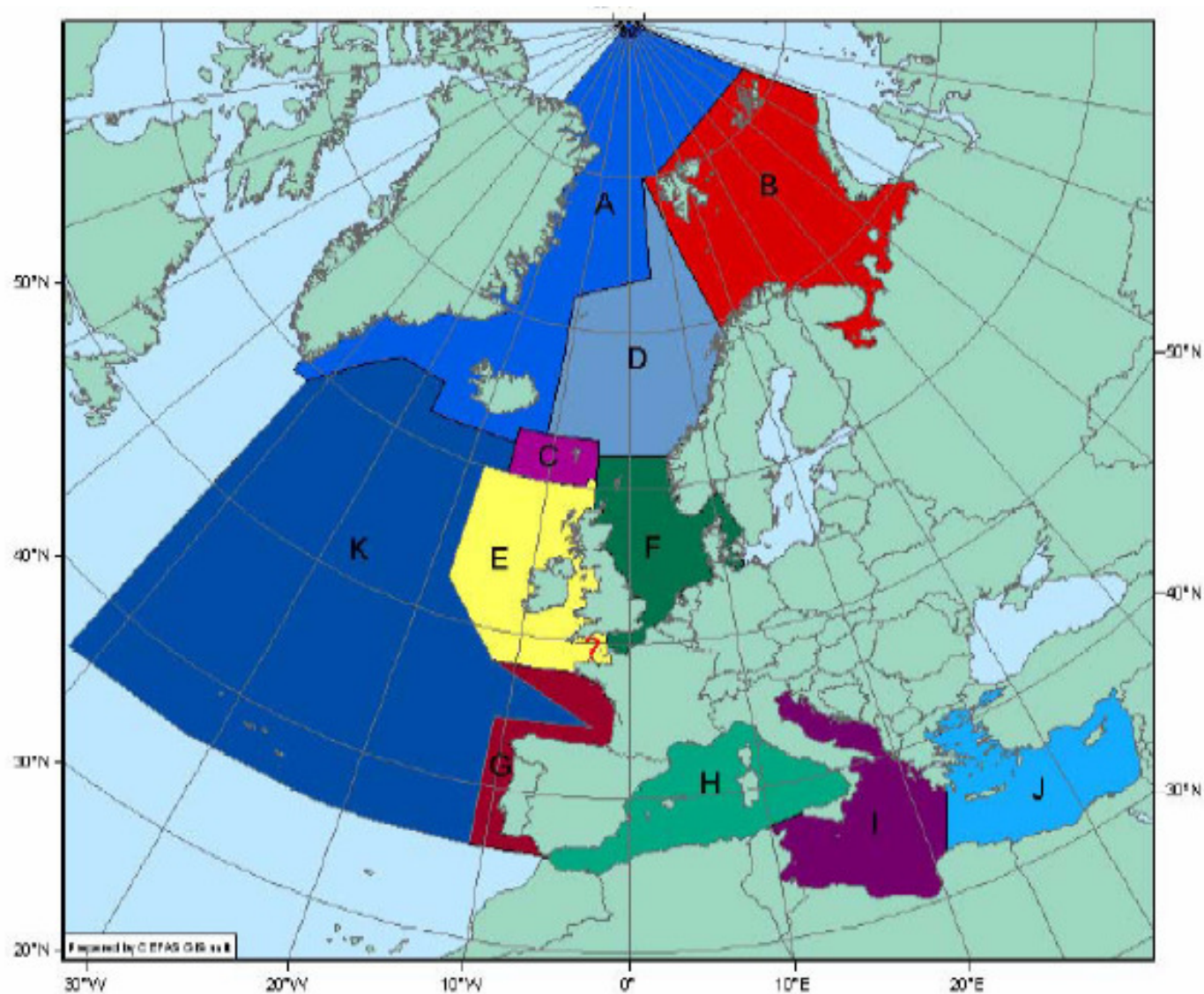
Internasjonal bakgrunn og utviklingstrekk

Ole Jørgen Lønne, Havforskningsinstituttet

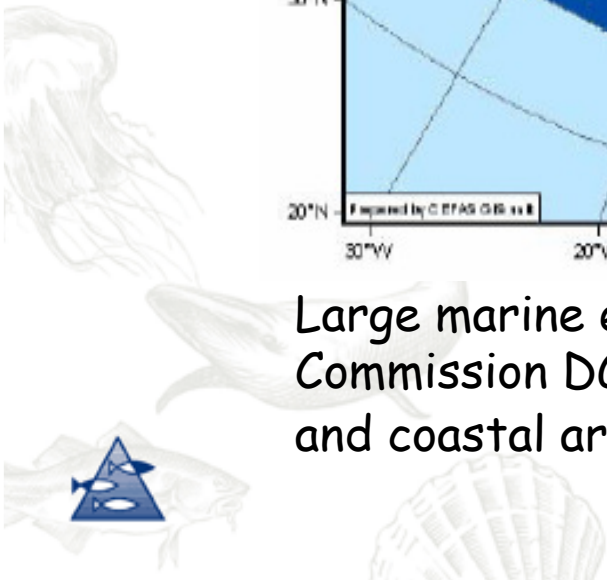
Large Marine Ecosystems of the World



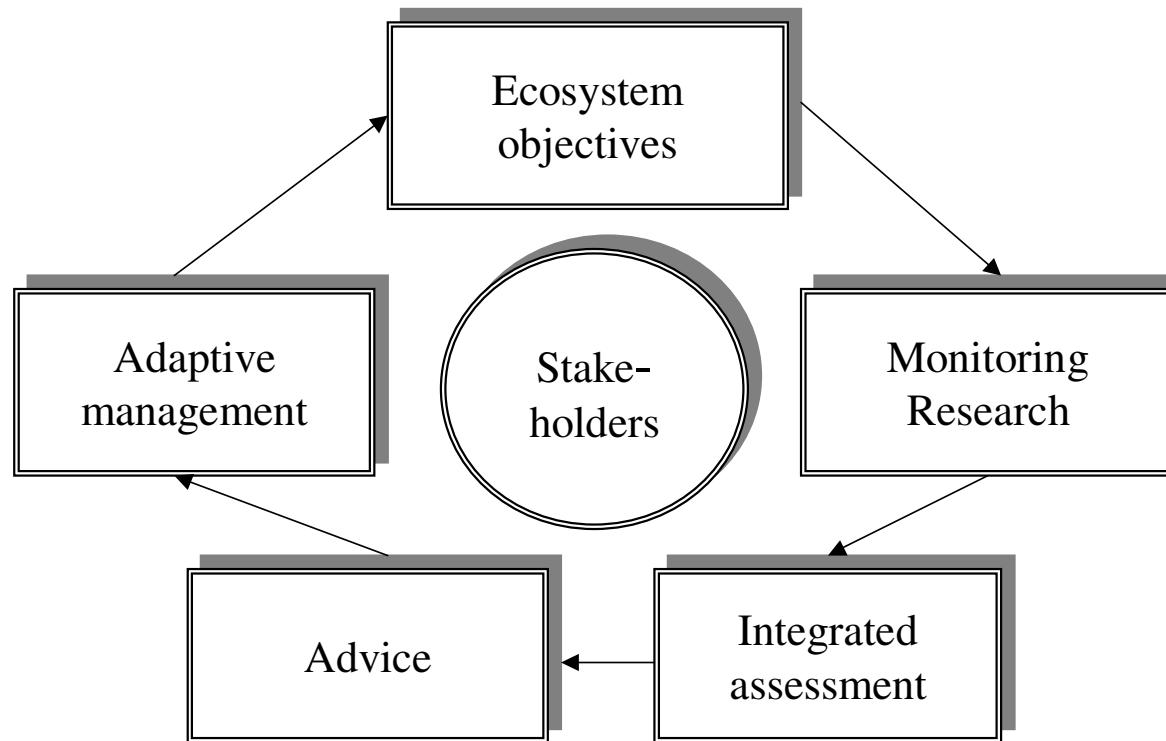
- | | | | | |
|-------------------------------------|--------------------------|----------------------------|----------------------------|-----------------------|
| 1. East Bering Sea | 14. Patagonian Shelf | 27. Canary Current | 40. Northeast Australia | 53. West Bering Sea |
| 2. Gulf of Alaska | 15. South Brazil Shelf | 28. Guinea Current | 41. East-Central Australia | 54. Chukchi Sea |
| 3. California Current | 16. East Brazil Shelf | 29. Benguela Current | 42. Southeast Australia | 55. Beaufort Sea |
| 4. Gulf of California | 17. North Brazil Shelf | 30. Agulhas Current | 43. Southwest Australia | 56. East Siberian Sea |
| 5. Gulf of Mexico | 18. West Greenland Shelf | 31. Somali Coastal Current | 44. West-Central Australia | 57. Laptev Sea |
| 6. Southeast U.S. Continental Shelf | 19. East Greenland Shelf | 32. Arabian Sea | 45. Northwest Australia | 58. Kara Sea |
| 7. Northeast U.S. Continental Shelf | 20. Barents Sea | 33. Red Sea | 46. New Zealand Shelf | 59. Iceland Shelf |
| 8. Scotian Shelf | 21. Norwegian Sea | 34. Bay of Bengal | 47. East China Sea | 60. Faroe Plateau |
| 9. Newfoundland-Labrador Shelf | 22. North Sea | 35. Gulf of Thailand | 48. Yellow Sea | 61. Antarctic |
| 10. Insular Pacific-Hawaiian | 23. Baltic Sea | 36. South China Sea | 49. Kuroshio Current | 62. Black Sea |
| 11. Pacific Central-American | 24. Celtic-Biscay Shelf | 37. Sulu-Celebes Sea | 50. Sea of Japan | 63. Hudson Bay |
| 12. Caribbean Sea | 25. Iberian Coastal | 38. Indonesian Sea | 51. Oyashio Current | 64. Arctic Ocean |
| 13. Humboldt Current | 26. Mediterranean | 39. North Australia | 52. Sea of Okhotsk | |



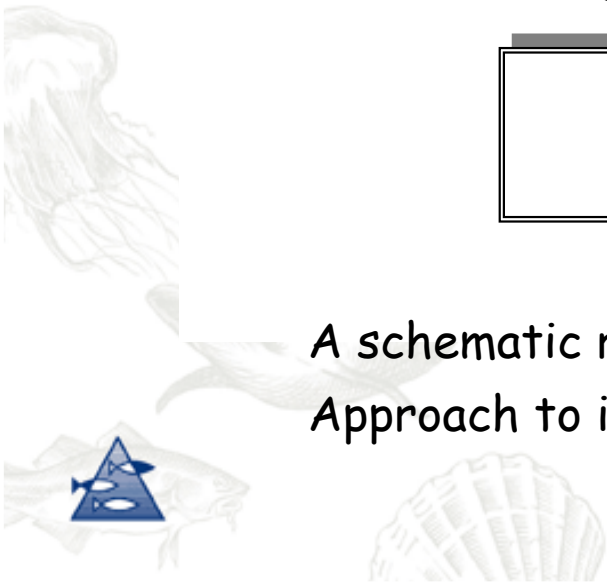
Large marine ecosystems: Advice from ICES to the European Commission DG Environment on the division of the European seas and coastal areas into regions.



Framework for an ECOSYSTEM APPROACH to Ocean Management



A schematic representation of the main elements of anecosystem Approach to integrated management of marine ecosystems.



Types of objectives

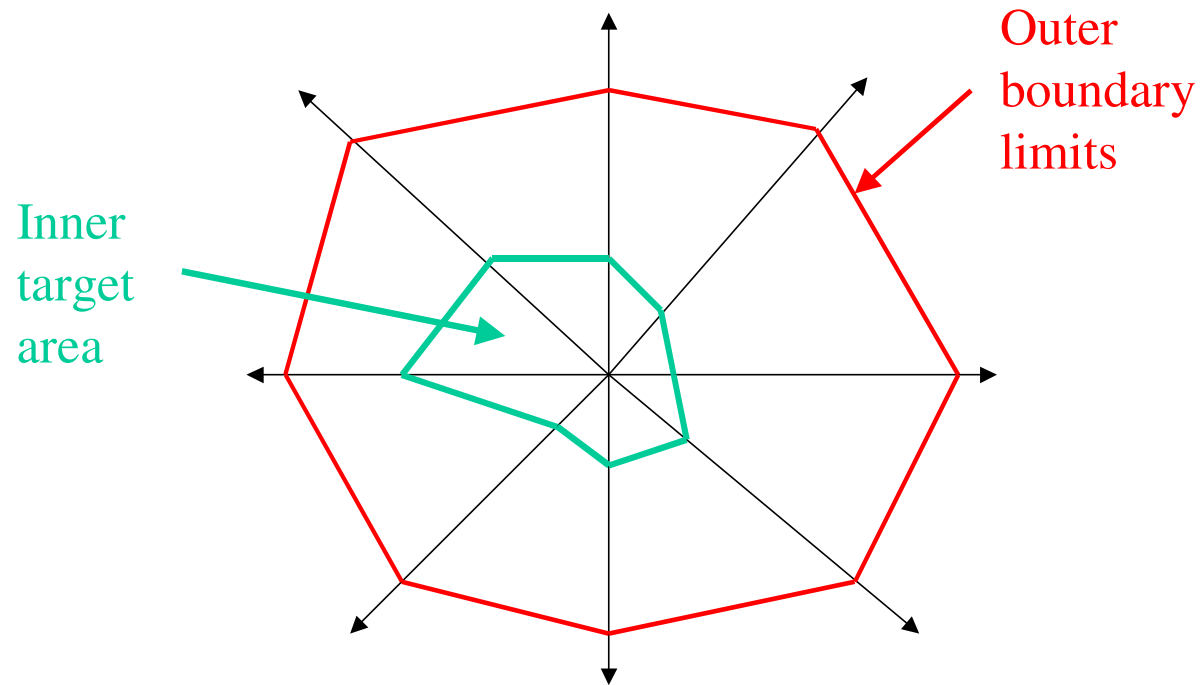


Illustration of two different types of Ecological Quality Objectives (EcoQOs).



The ecosystem approach:

"Integrated management of human activities based on knowledge of ecosystem dynamics to achieve sustainable use of ecosystem goods and services, and maintenance of ecosystem Integrity."

(ICES 2000)

A more technical definition of the ecosystem approach:

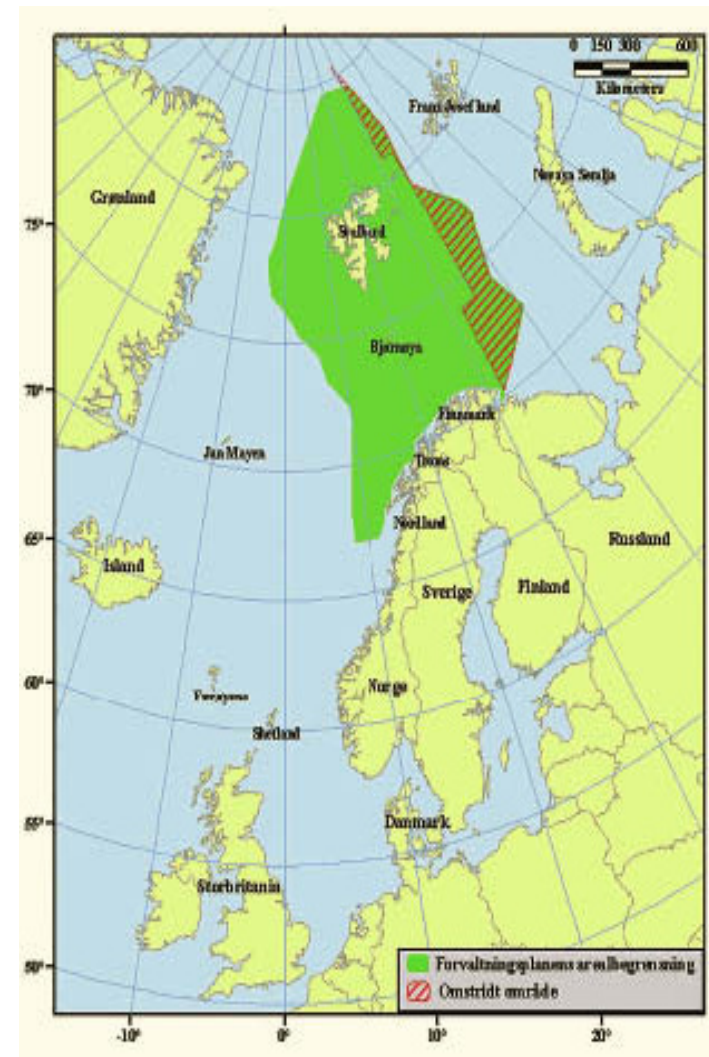
"The comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity."

(www.ospar.org, and EU Marine Strategy Directive)



St.meld. nr. 8 (2005–2006)

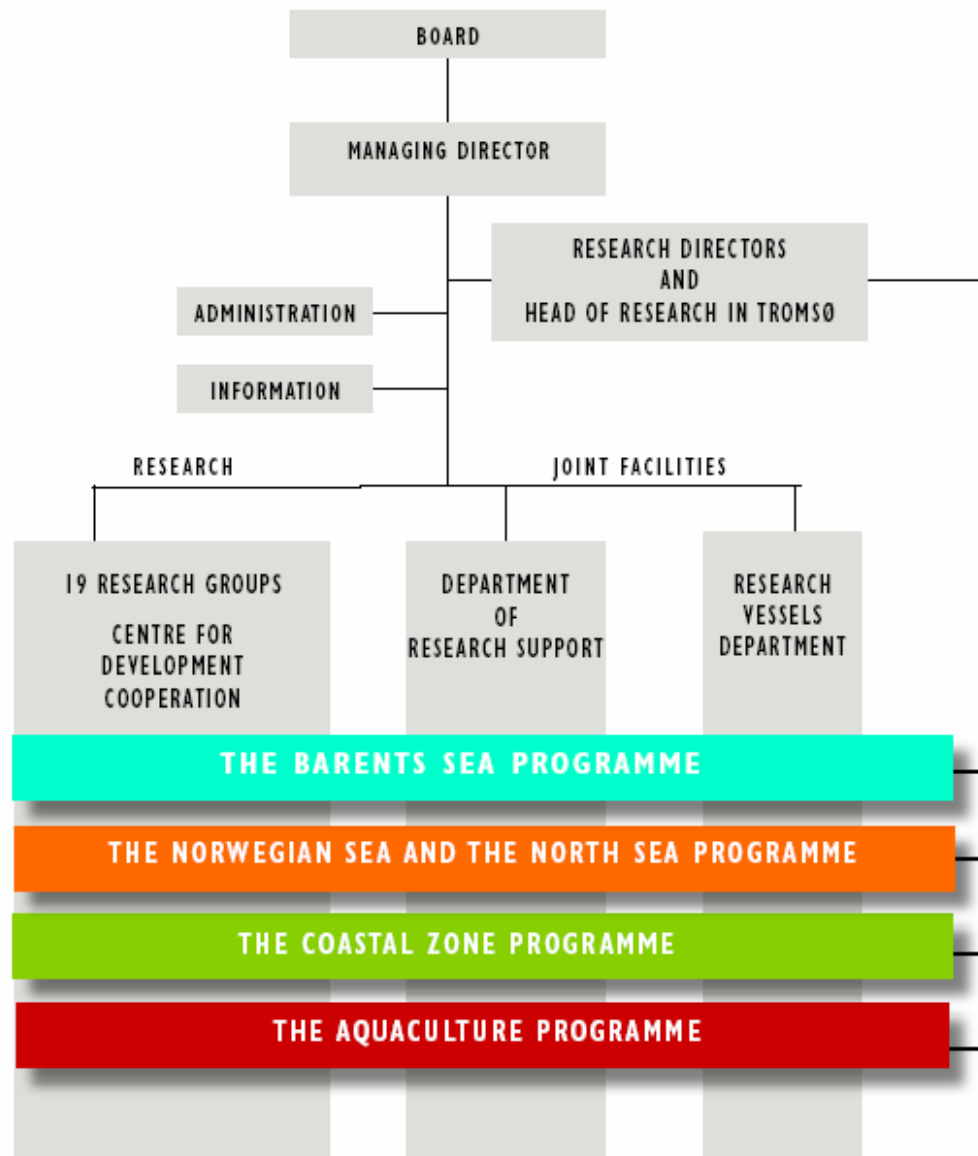
Helhetlig forvaltning
av det marine
miljø i Barentshavet
og havområdene
utenfor Lofoten
(forvaltningsplan)



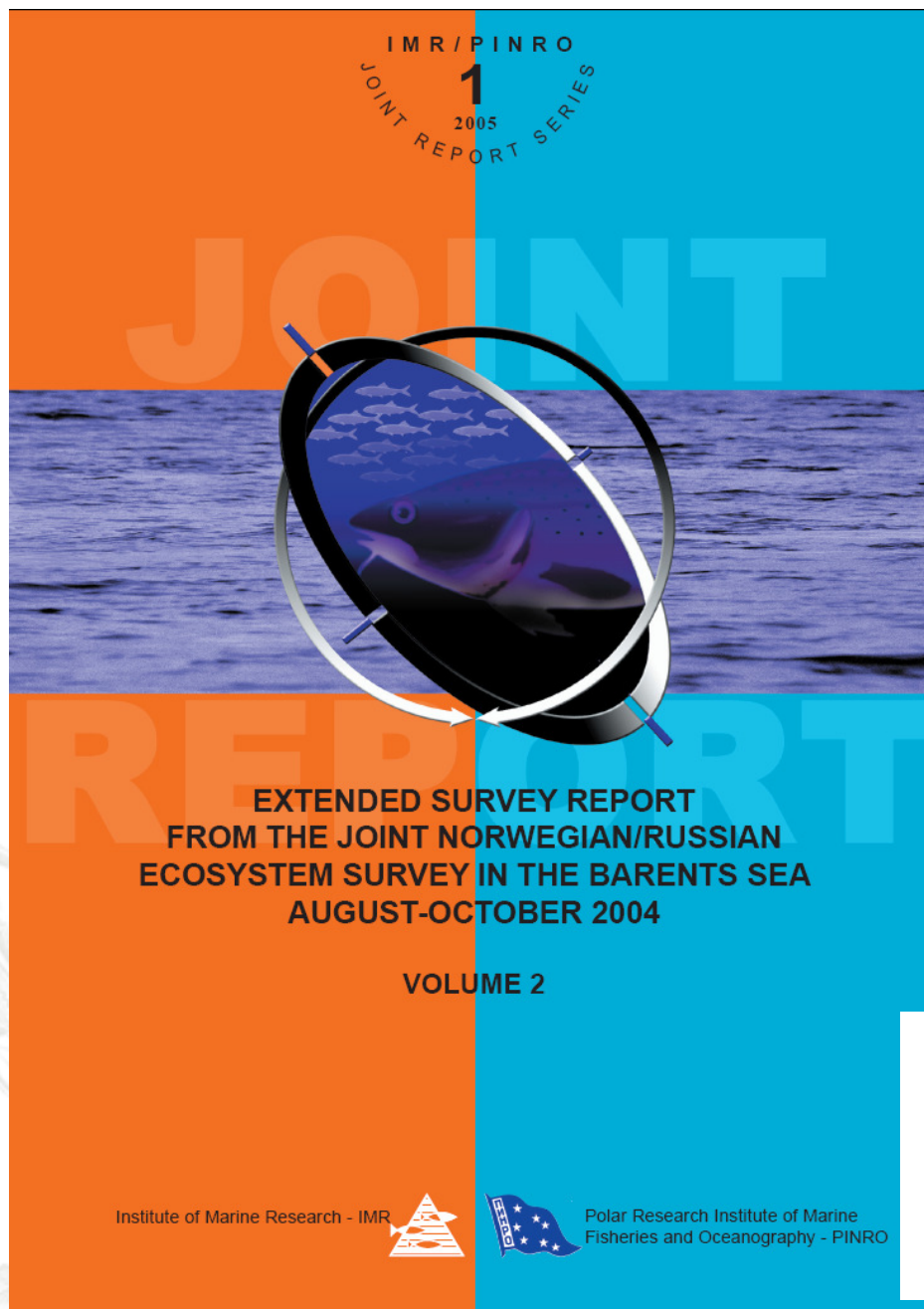
Towards an ecosystem approach for the Barents Sea

- Elements commonly related to ecosystem health
 - Pollution
 - Fishing industry is dependant upon a clean Barents Sea to sell the fish products
 - Biodiversity
 - Ecological impacts of fishery on the ecosystem
- Joint Nor/Rus investigations have started in this field (ecosystem survey)





The present organisational chart of the Institute of Marine Research (IMR).



Norsk Russisk samarbeid

Vessel	Institute	Cruise leader	Date	
"Johan Hjørt"	IMR	S. Aanes	01.08	– 12.08
		A. Dommasnes	13.08	– 20.08
		P. Fossum	20.08	– 09.09
		H. Gjøsæter	10.09	– 04.10
"Jan-Mayen"	IMR	M. Aschan	04.08	– 12.08
		K. Sunnanå	12.08	– 22.08
		T. de Lange Wenneck	10.09	– 01.10
		D. Prozorkevich	06.08	– 02.10
"Smolensk"	PINRO	I. Dolgolenko	07.08	– 02.10
"F. Nansen"	PINRO			

Polarkonferansen 2006,
Tromsø 16 mai 2006



HAVFORSKNINGSINSTITUTTET
INSTITUTE OF MARINE RESEARCH



Polarkonferansen 2006,
Tromsø 16 mai 2006

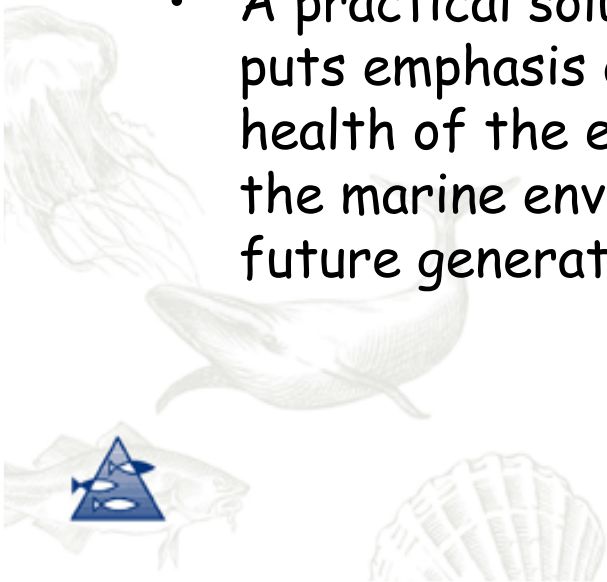
Takk for oppmerksomheten



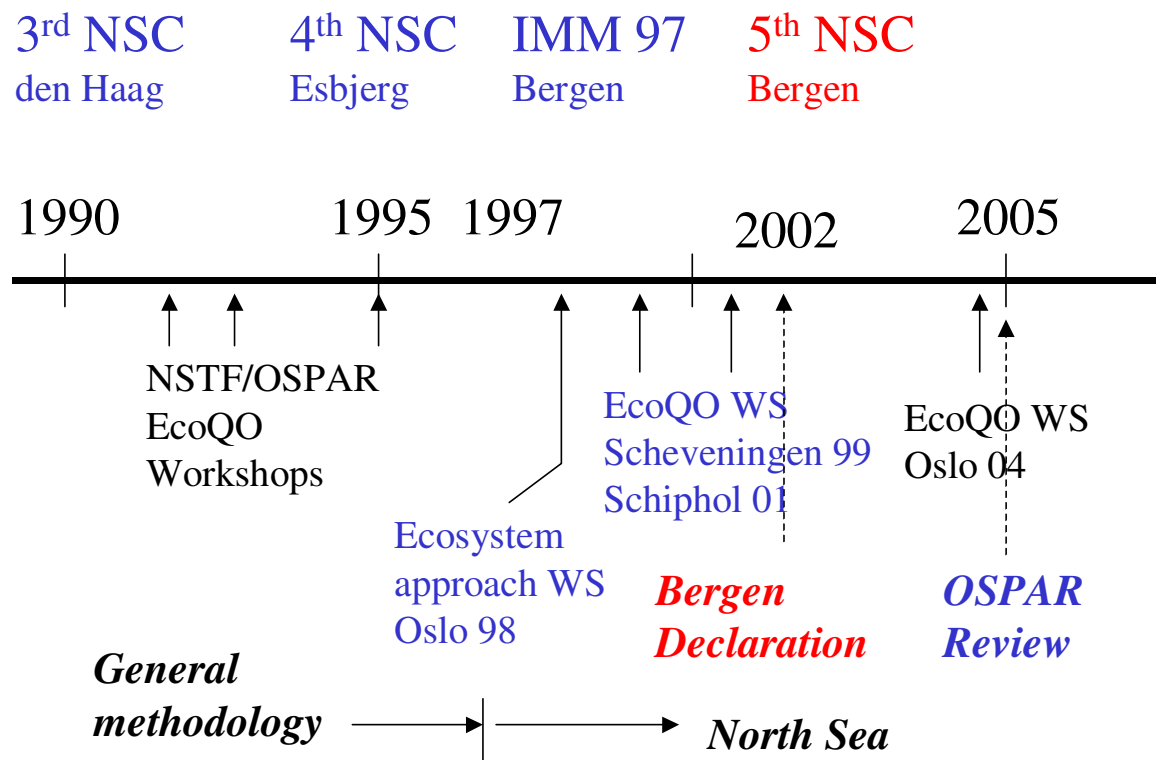
HAVFORSKNINGSINSTITUTTET
INSTITUTE OF MARINE RESEARCH

Development of ecosystem approach for the Barents Sea

- Aim shifted from next years quota to long term harvest and stock development
- At present no single way to implement the "ecosystem approach"
- A practical solution may be that the ecosystem approach puts emphasis on a management regime that maintains the health of the ecosystem alongside appropriate human use of the marine environment, for the benefit of current and future generations



History



Milestones in the development of Ecological Quality Objectives (EcoQOs) and the Ecosystem approach for the North Sea.



Ecosystem based advice for fisheries management, main themes:

1. Advice for "healthy" oceans as a sound basis for marine life and seafood production
2. Improved scientific management advice by incorporating ecosystem information in fish stock assessments and forecasts
3. Reduced ecosystem effects of fishing by advice on improved fish capture methods

